EUROPEAN ECONOMY
BANKS, REGULATION, AND THE REAL SECTOR

BANK RESOLUTION AND THE MUTUALISATION OF RISK

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Bank Resolution and the Mutualisation of Risk

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.

This issue of European Economy discusses the foremost challenges ahead on bank resolution actions and its repercussion on the overall financial system. The cornerstone of the European regulatory framework – The Banking Recovery and Resolution Directive – substitutes 'bail-out' for 'bail-in' as resolution mechanism and enables national regulators to resolve branches of banks based in other counties. This issue takes stock of the recent institutional and academic debate on the best measures of resolution regimes to restore financial stability and minimize the risk of contagion amongst banks.

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From the Editorial Desk

Bail-in, up to a point

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

The balancing act between making shareholders and creditors liable for failing banks and avoiding banks' runs and the spreading of systemic crises is a very difficult one. It is a tough trade-off between fairness (investors and creditors, not tax payers, should pay if they make wrong choices) and avoiding the disruption of vital economic functions. The regulatory framework on banks' resolution has struggled to solve this balancing act for decades, and even more so since the outburst of the financial crisis.

When the crisis burst, it took almost everyone quite by surprise. Then, survival was the only possible option: taxpayers paid. The fiscal cost of the recapitalisation and asset relief of 22 large European banks and 13 large US banks amounted to € 298 bn and USD 205 bn respectively, and the cash injections to UK banks were up to £ 133bn (Shoenmaker,2016 and Cunliffe in this issue).

Since then, the obsessive focus of the regulatory framework has been to restore fairness, and make investors careful and liable as much as possible, as thoroughly analysed by Cunliffe in this issue.

The responses to revert the implicit principle of the resolution season during the crisis, that banks were generating private profits but social losses, were essentially two. The first one was designing a clear framework on how to deal with ailing banks. Resolution authorities and rules have been set up since, especially for large banks. The Orderly Liquidation Authority (OLA) in

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

the US, the Bank Recovery and Resolution Directive (BRRD), provide now the regulatory framework for orderly resolution, and the FDIC in the US, the Single Resolution Mechanism (SRM) in the Euro area and national resolution authorities in non-Euro EU countries oversee and manage the implementation of such rules (see the Institutions section in this issue)[2].

The second response was making sure that losses and costs of adjustments in banks' crises were borne by private investors and creditors (potentially all holders of junior liabilities) rather than by tax payers. The principle of bail-in, as opposed to bail-out, was introduced: resolution of banks has to be carried out by bailing-in (i.e., by imposing losses on) private investors. To reduce uncertainty and to make sure that resolutions based on private funds were not disruptive, large buffers were imposed on banks.

Besides for the prudential capital buffers, eligible liabilities for loss absorption and the hierarchy of such liabilities are being identified. In particular, the Total Loss Absorption Capital (TLAC) and the Minimum Requirements of own funds and Eligible Liabilities (MREL), introduced respectively by the Financial Stability Board and by the European Commission, define such requirements (Laboureix and Decroocq in this issue discuss the functioning of the MREL in the Euro area and Cunliffe in the UK) . On top of this, resolution funds have been set up, financed by banking contributions. Namely, in the Euro area, a Single Resolution Fund (SRF) is being funded, envisaging a ten year building up process of mutualisation among member countries (funds initially national).

In the issue 1/2015 of European economy, we analysed the impact of such capital requirements on lending and growth, especially for large banks. In this issue we want to examine whether and how this new resolution architecture and especially the principle of bail-in are effective in preventing disruptive bank failures and systemic runs.

Our bottom line is that this reform of resolution mechanisms is a necessary and required step to reduce moral hazard in banking and the risk of systemic instability. We fully share the principle of investors and creditors financed resolution to

2. The BRRD as well as the Capital Requirements Regulation (CRR), the Capital Requirement Directive (CRD) and the Single Resolution Mechanism Regulation (SRMR) are being partially amended by a new Proposal of Directive of the European Parliament and of the Council, issued as we write this editorial (European Commission, 2016a and 2106b).

support critical banking functions. Undergoing efforts to identify adequate buffers of bail-in-able liabilities and their hierarchy, are important steps forward to increase the resilience of the banking system and to reduce uncertainty regarding the implicit risk of banks liabilities, as discussed by Laboureix and Decroocq and by Cunliffe in this issue.

Also, the fact that within the Banking Union a Single Resolution Mechanism - SRM (including a Single Resolution Board – SRB – and a Single Resolution Fund – SRF) is now in place, is an essential and inevitable step to deal with the cross border nature of systemic and also idiosyncratic events in the area (Laboureix and Decroocq and Nieto in this issue discusses some aspects of the SRM's architecture).

However, the principle of bail-in, although powerful and potentially fair, requires a series of warranting conditions for its effective functioning. Especially in the European Union, the present framework is still incomplete and its design has considerable limitations. In particular, there are no explicit provisions for a mutualised fiscal backstop to private interventions. Private liability buffers and resolution funds may not be sufficient under systemic distress. At the same time, the extent of the required private intervention before public funds can in fact be activated, and the extremely restrictive provisions for the emergency use of public funds before this limit is reached in a potentially systemic crisis, make the boundaries between private bail-in and public bail-out apparently clear, but in fact not fully credible and hard to identify.

These restrictive provisions tie considerably the hands of policy makers and put implicitly an excessive weight on the shoulders of private investors. This, as extensively discussed by Avgouleas and Goodhart and by Hadjiemmanuil in this issue, may, under circumstances of severe stress, magnify the fragility of the system rather than enhancing its resilience. It may amplify the potential systemic impact of minor idiosyncratic events.

This is especially critical in the implementation phase of the resolution mechanism, when the hierarchy of financial instruments is not yet clearly defined, it is not consistent across jurisdictions, as we further discuss below, and when, therefore, markets cannot figure out what is the effective implicit risk of the financial instruments they hold. As argued by Cunliffe in this issue and Enria (2016), the definition of senior unsecured debt that can be used as MREL must be clear and well known in advance to be an effective ex-ante

deterrent for excessive risk taking and allow an ex-post fair allocation of realized losses. This and the obvious uncertainties and asymmetries in information haunting banks' resolutions, may hamper the implementation of an effective and smooth bail-in process.

Moreover, for the Euro area and the Banking Union, a fully effective resolution framework does require important steps forward in the mutualisation of banking risks. This, beyond what the present path for the single resolution fund envisages, as discussed by Nieto in this issue. *A clearly identifiable fiscal backstop to the resolution fund is a necessary but still missing ingredient of the resolution architecture, as well as the approval and the implementation of of a European Deposit Insurance scheme (EDIS).*

Avgouleas and Goodhart in this issue contribute an important proposal to constitute a euro Asset Management Company (AMC), for a possible mutualised solution to the problem of non performing loans (NPLs). These are at the hart of the still persistent fragilities of banks' balance sheets in the periphery and in the core of the Eurozone.

The presence of large and systemic pan-European banks further complicates the job currently attributed to bail- in. As we will further discuss below, we believe several issues concerning cross-border banking are still incompletely addressed in the European architecture. The optimal design of resolution plans (so called Living Wills) is a very complex exercise which requires building experience, and strong cooperation between the SRB and national resolution authorities. Especially so when resolution plans are based on the "multiple point of entry" (MPE) approach rather than the probably better "single point of entry" (SPE) – which, however, is currently difficult to apply systematically given the current structure of large banking groups in Europe. The limited mutualisation and size of the resolution fund and the inconsistencies in national insolvency regimes are even more blatant when addressing the cross-border dimension of large groups.

An effective implementation of the bail-in principle, requires identifying clearly its credible limits. Which in turns implies defining transparent and again credible triggers for activating mutualised fiscal backstops and interventions with public funds when bank runs and systemic crisis are likely. A fully safe banking system will always require the backing of taxpayer money. Pretending that taxpayer money shall never be used is not the most effective way of making its use least likely.

Fairness by itself can strengthen, but not fully restore safety. An effective bail-in regime works well only when the option of bail-out is not ruled out and when it is clear under what circumstances it may be credibly activated.

In what follows we look first at functioning of the bail in mechanism as in place now. Subsequently we explore the interface between the use of private and public funds in resolution. The third section discusses the cross border dimension of the resolution framework and finally we conclude.

1. An effective bail-in mechanism

An effective bail-in mechanism must be capable of adequately controlling two complementary types of risks: that the default of one or few financial intermediaries might engender a systemic financial crisis, as it partly happened in 2008; and that managing financial crisis might cause severe if not insurmountable stresses to public finances.

The advantage of this approach is that it creates an incentive compatible structure that moves the costs of bankruptcy to those same financial intermediaries that, through their excessive risk taking and imprudent managements, are often the very cause of their own defaults. In other words, it creates the right incentives for banks to internalize the costs of their bankruptcy, forcing them to care not only about their balance sheet and profits in the development of their business models, but also of the potential recovery options and the feasibility of resolution (see Cunliffe in this issue and Enria, 2016).

A bail-in system can be a significant improvement with respect to the pre-crisis situation. According to a simulation conducted by Benczur et al. (2015), in Europe the costs of a crisis similar to the one of 2007-2008 could drop from 3.4% of aggregate EU GDP to just 0.5%. Indeed, the idea that it is possible to move the costs of bankruptcies from Governments to banks is not fully correct, because ultimately, all costs are to be born by individuals, be they bank managers, bank creditors or bank borrowers, as argued by Avgouleas and Goodhart (2105). But making the costs to be absorbed by a narrower group of people, more involved in banks' decisions, internalizes the default costs and therefore reduces banks' excessive risk taking and increasing the resilience of the entire financial system.

In Europe, bail-in activities are organized within the Single Resolution Mechanism (SRM), a EU authority that started its operations in January 2015. Mimicking the structure of the Eurosystem, the SRM is formed by a central body, the Single Resolution Board (SRB), and the National Resolution Authorities of the participating Member States of the Banking Union (NRAs). The policy objective of the SRM is to allow an orderly resolution of failing banks, hampering the occurrence of a systemic financial crisis with a limited impact on the real economy and at no costs for the public finances. As in the case of the Single Supervisory Mechanism (SSM), the SRM's remit is limited to significant banks and cross-border groups. As of 1 June 2016, the SRB covers 129 banking groups, including the 8 G-SIIs established in the Banking Union and 15 other cross-border banking groups. The responsibility of the resolution of smaller, less systemic banks is left to local authorities.

Although the mandate of the SRM is to prepare resolution plans, its activities are far from limited to the management of bankruptcies and crises. In fact, to be able to effectively manage resolutions ex-post, the SRM needs to set the stage ex-ante, requiring a number of provisions that have a crucial impact on the day-to-day activities of banks. Two key aspects need to be touched: the financial structure of banks, and their internal organization and governance.

As already mentioned above, the SRM is responsible for setting the adequate level of Minimum Required Eligible Liabilities (MREL) for each bank under its control. Indeed, *the bail-in of a bankrupt bank is only possible to the extent that it has a sufficient amount of liabilities to absorb the losses it has incurred. SRM needs to fix two crucial aspects of each bank's MREL: its size and its composition.*

Both aspects need to be tailored to the specific characteristics of each bank: its activities, its riskiness, its internal organization. This is because the impact of the potential default of a bank on the financial system and on the real economy is very different if it is a small financial boutique with few interbank connections and mainly corporate clients than if it is a large conglomerate, with large interbank and payment operations and offering a full range of integrated services to both corporate and retail clients. In the case of default, the first bank can be liquidated with nearly no systemic effect on the financial system and limited impact on the real economy. On the contrary, a distressed large and interconnected bank needs most likely to be resolved allowing at the very least the continuation of its essential operations.

But of course, size is not the only aspect to be considered and a full evaluation of the adequacy of a bank's MREL can only be made in conjunction with its overall resolution plan, i.e., the projected set of actions to be taken in the case of excessive losses in some of its activities. Clearly, forcing banks to internalize their default costs is a very sensitive task that, with the potential of modifying significantly what the industry perceives as a given level playing field.

EBA (2015) has proposed six main criteria for determining the MREL under Directive 2014/59/EU. *In what follows we discuss each of these six criteria and show how the actual design of the system is still unable to fully meet them.*

According to *the first, MREL should be set at such a level to assure that losses are absorbed, that is a rather straightforward requirement.*

The *second criterion requires in addition that MREL is set a such a level that banks are resolvable.* This introduces a difference between banks that can be liquidated and banks that need to be kept open to contain systemic risk or any other significant impact on the real economy. For these banks, recapitalization must be provisioned at such a level to assure that the continuing entity respects the total capital ratio requirement and any additional requirement which is applicable. As thoroughly discussed by Cunliffe in this issue, it follows that for smaller and less systemic banks the required MREL must be just sufficient to cover realized losses, while for larger financial intermediaries, it must also allow for the recapitalization that is required if the bank must be kept open. The Bank of England, for example, has decided to set MREL at about twice the overall capital requirements.

Taking decisions on these issues clearly requires cooperation between the SRM and the SSM, that is responsible for both pillar 1 and pillar 2 regulatory capital requirements. But the perspective of SRMis different from that of SSM, because SRM focuses not only on loss absorption but also on resolvability, when necessary. According to EBA (2015), "differences in judgment between the competent and resolution authority may be appropriate, but should be clearly reasoned". In this sense, SRB and NRAs must not act as additional "shadow" supervisors (a risk that from reading the SRB 2016 working program cannot be fully excluded).

The third criterion requires that MREL is sufficient even if the resolution plan envisages that certain classes of liabilities are excluded from contributing to loss absorption or recapitalization. This may happen because in a bail-in, some liabilities

are not eligible or the resolution authorities exclude them, according to Article 44 of the BRRD.

This is indeed a crucial aspect. As argued by Avgouleas and Goodhart (2015), bank creditors can be classified into three broad groups: banking creditors (such as retail and wholesale depositors that need bank payment and custody services); investment business creditors (such as swap and trading counterparties); and financial creditors (including bondholders and other long-term unsecured finance providers).

In the case of default, forcing losses on different groups of creditors can have very different effects on the financial system and the real economy. This leads to the crucial aspect in setting the MREL of deciding the eligibility of different types of liabilities, the subordination structure in case of bail-in, and the exclusions from bail-in-ability. Article 44(2) and (3) of the BRRD, for example, provides for exclusions to bail-in where such exclusions will ensure the continuity of critical functions. Eligibility, exclusion and subordination are closely related aspects, because items that cannot be bailed-in in a resolution clearly reduce the size of the funds available to cover the realized losses, impacting on the actual size of MREL. *Yet, clear principles defining eligibility exclusions and subordination are still ill defined, even though the new proposal of amendments to the BRRD (European Commission 2016a and 2016b) defines clearer pattern of implementation in this respect.*

Box 1 – Eligibility and subordination: an example

Consider a large G-SII with the following structure: assets of 1,000; risk weighted assets (RWA) of 500; equity of 75 (that amount to a CET1 of 15%); senior debt of 50; large corporate transaction deposits, which rank *pari passu* with senior debt, of 75; preferred retail deposits of 800. Assume that, in addition to minimum total capital requirement of 8.0% of RWAs, the bank faces a capital conservation buffer requirement of 2.5% of RWAs, a buffer requirement of 2.5%, and a pillar 2 capital requirement of 2%. Overall capital requirements are therefore 15% of RWAs, i.e. 75, and they are fulfilled by CET1. Total MREL, including CET1, senior debt and corporate transaction deposits, amounts to 20% of total liabilities. Assume now that the bank faces a loss of exactly 75, but the it cannot be liquidated because this would risk causing a systemic crisis. CET1 absorbs the full loss, and the resolution authority ▷

can require a bail-in of senior debt and large corporate transaction deposits for a total of 69,375. The bank can therefore survive, with a capital that amounts to the required 15% of RWAs, and an MREL of about 13.9% of total liabilities. Assuming that the economic value of the equity after resolution is 80% of book value and that bail-in is imposed to the two categories – that by assumption rank *pari passu* – in proportion of their liabilities, the economic loss for senior debt holders would be 22,2 and for corporate transaction deposits holders 33,3.

Assume now that the resolution authority judged that corporate transaction deposits cannot be bailed-in because this would again risk causing a systemic event. Bail-in could be imposed to senior debt holders only, for a total of 50. MREL would be in this case 15,625% of total liabilities. This would cause two problems. First, if large corporate transaction deposits and senior debt legally rank *pari passu*, holders of senior bonds could start ex-post a legal action because they would face a higher loss than under a standard bankruptcy procedure, i.e. the no-creditors-worse-off (NCWO) clause would be breached. The result of the entire resolution process would therefore be uncertain, and as such not credible. Second, MREL would be insufficient to guarantee the prosecution of the bank's activities, because CET1 capital after the conversion would amount to 50, or about 10.8% of RWA, in front of a requirement of 15%. In this case, anticipating the need for excluding large corporate deposits from MREL, the resolution authority should require the bank to take two steps: 1) raise the amount of senior debt to 69,375; 2) require that senior debt is subordinated with respect to large transaction deposits, so as to guarantee that the NCWO clause is respected. This would have the effect of raising ex-ante MREL to about 14,5% of total liabilities.

As it is clear from the example presented in Box 1, different pictures, and therefore different ex-ante MREL requirements, emerge depending on different bank characteristics, including their resolvability. In particular, as argued by Cunliffe in this issue, the definition of senior unsecured debt that can be used as MREL in many jurisdictions is "very wide and heterogeneous. It includes the claims of uninsured depositors, corporates, interbank liability holders, derivatives counterparties (in respect of any uncollateralised portion of their claim), trade creditors, and holders of other bank liabilities such as pensions and tax", and often these claims all rank pari passu with those of senior unsecured bondholders. On the contrary, *for the MREL to work effectively as a deterrent for excessive risk taking and a fair and anticipated criterion for allocating realized losses, it is necessary to "single out unambiguously and in advance a typical type of creditor who can absorb loss if the bank fails".*

Consequently, a high degree of uniformity, especially within the banking union, would be welcome.

At the moment, according to EBA's simulations, and as shown in the Figure section, the average MREL ratio of European banks is rather heterogeneous also by bank size. It is on average 13% of total liabilities and own funds (TLOF) or 34% of RWAs, but it records slightly lower values than average for G-SIIs, slightly higher for O-SIIs and a significantly higher level for all other non-systemic banks. Quite the opposite of what one would like it to be. Excluding Deposits not eligible for DGS coverage > 1 year, the average MREL ratio falls by around 2%, to 11% of TLOF. In terms of the of type instruments, for G-SIIs, on average, unsecured debt and uncovered term deposits form a smaller proportion of their balance sheet than for O-SIIs and, especially, other banks, possibly because G-SII balance sheets are likely to include significant derivative portfolios.

Obviously, *the identification of different sets of liabilities as eligible points to the additional problem of making each category of bank creditors fully aware of the risks that they incur in case of default.* As strongly argued by Enria (2016), "a clear hierarchy between different liabilities can significantly improve the quality of loss absorbing capacity, as every investor would know, in advance, the waterfall in case of a crisis – i.e., the sequence in which liabilities would be called in to absorb losses.". This should not imply a complete ban on the sale of convertible MREL eligible instruments to retail customers, since they have in any case the right to purchase equity, and rightly so. But it is essential that retail investors are made fully aware of the risks that they assume, and that deputed authorities control that this is made possible by the underwriting and selling procedures that are commonly adopted.

The fourth criterion set out by EBA (2015) relates to the role of the Deposit Guarantee Scheme (DGS). EBA (2015) suggests that "resolution authorities have the option to reduce the MREL to take into account of the estimated contribution from the deposit guarantee scheme (DGS)", within the limits set by Article 109 of the BRRD.[3] *The creation of a European Deposit Insurance Scheme (EDIS) along the lines proposed by the EU Commission would certainly*

3. These require that the contribution of the DGS be the lesser of: a) the amount of losses covered depositors would have borne in insolvency (in line with the NCWO principle); or b) 50% (or a higher percentage set by any Member State) of the target level of the deposit guarantee fund.

strengthen the whole resolution architecture, providing an additional mutualized backstop. However, EDIS remains at the stage of proposal and in fact the German Council of Economic Experts (2015) has recently expressed a very critical view on its implementation.

The fifth criterion requires to take into account the size, business model, funding model and risk profile of the institution, as already mentioned above. This again asks for a close coordination of SRM with supervisory authorities, especially in relation to the Supervisory Review and Evaluation Process (SREP) that has the precise objective of assessing the sustainability of bank specific business models. In this respect, *coordination between the different authorities involved in resolution decisions, and a strong guiding power of the SRB on NRAs, seem to be of foremost importance, to avoid potential leniency or excessive severity of domestic authorities, with the effect of altering the level playing filed across European countries.*

Finally, *the sixth criterion requires resolution authorities to take into account the potential adverse effects on financial stability of the failure of the institution.* Indeed, this seems to be a crucial aspect in the overall philosophy of the reform of financial system regulation. Although the six criteria do not necessarily rank in order of importance, it cannot go unseen that any bank resolution plan need to be assessed on the basis of the impact that a default would have on the financial system and on the real economy. *A strengthening of the analysis on the systemic impact of the default of single financial intermediaries in strong relation with the aim and purposes of the SRM is necessary, if possible going beyond the simple distinction between normal banks, O-SII and G-SII.*

2. The boundary: A bit of both

Cunliffe and Laboureix and Decroocq in this issue have favourable views on the effectiveness of the bail-in mechanism, even if potential shortcomings are clearly identified, as discussed in the previous section. In their view, the system, once fully implemented (the UK started earlier than the rest of the EU), will provide and adequate shield to prevent systemic crises and to avoid the use of fiscal resources. In contrast, other contributions to this volume raise explicit concerns that the scope of the bail-in principle has been pushed too far, especially in Europe (Nieto; Avgouleas and Goodhart; Hadjiemmanuil).

The first concern relates to the absence of a fiscal back-stop to the single resolution fund. The amount of resources that can be set aside in resolution funds or collected from the private sector in case of need are small compared to the potential need during a systemic crisis. As argued above, capital injections in large banks during the crisis have been in the order of the hundreds of billion. According to Cunliffe in this issue, if guarantees and non cash support to banks are added to the cash injections to UK banks, the bill for taxpayers for the UK only amounts to £1,162bn. Enria (2016) reports that overall, during the five year period from the commencement of the crisis, the European Commission authorised national governments, as exception to State aid rules, to extend €4 trillion in guarantees for bank liabilities, over €800 billion in recapitalisation and €600 billion in asset relief measures.

An order of magnitude even not comparable to the Singe Resolution Fund. Its predicted size, when the 10years implementation phase will finally be accomplished, will be roughly 55 bn, or 1% of covered deposits in member countries, certainly not enough to face a large systemic crisis. Even though individual member countries have entered into an intergovernmental Loan Facility Agreement (LFA) to anticipate such funds in case of need while the fund is being built up, no further fiscal backstop is envisaged after this transition period.

Independently of the resolution board, the ESM can refinance banks that are unable to meet their capital requirements, either indirectly through member states (indirect recapitalization instrument) or directly for systemically important banks (direct recapitalization instrument, up to € 60 bn). But this direct instrument can only be used exceptionally, when the indirect channel is not advisable. Also there is not a full mutualisation of the exposure, as it also requires burden sharing by the relevant national government (see Hadjiemmanuil in this issue).

Things are very different in the US. The FDIC, which manages resolution and insurance deposit funds and is the authority responsible for banks' recovery and resolution, can borrow from the Treasury up to 1 tn dollar. Under the special insolvency regime for G-SIIs, the Orderly Liquidation Authority (OLA), the Dodd-Frank act has further extended this facility by another 500 bn dollars in 2010. More generally, the FDIC is backed "by the full faith and credit of the United States government". The banking industry is required to

pay back these loans, but during a very extended period of time (see Nieto in this issue).

Ex-ante funding of the SRF with public funds of the size needed for effective resolution of G-SII would probably be not reasonable, which leaves the option of allowing SRB to borrow either from the market, as currently contemplated, or, more credibly from public entities. To address the limited size of the fund two proposals have been considered. One (initially suggested by IMF 2016) contemplates a credit line from ESM (on a permanent basis and not just for the transitory period as it is currently). Another directly sees the ECB as the ultimate lender for this process (with the prohibition of taking losses), backed by the SRF (Gordon and Ringe, 2015). This latter option seems to us preferable because a single decision maker would be involved, the ECB, with unlimited liquidity. The alternative approach based on the ESM seems more problematic because with the current contribution to ESM, where its resources are no longer sufficient and need to be replenished an implicit 'full faith and credit of governments' would then require further fiscal resources

The second concern for the European fabric is that the use of public funds is de facto restricted to post-disaster events and their preventive use is very limited, costly and restricted to exceptional circumstances. As agued by Hadjiemmanuil in this issue, in the BRRD's scheme "there is an almost necessary link between the need for state aid and financial collapse". The "no bail-out objective" of the resolution framework, aims at preserving public interest in vital banking activity and avoiding liquidation, but on private sources of funding. Although, in principle, a bank may receive public financial assistance without being insolvent or even illiquid in the form of precautionary recapitalization (Art. 32 (4) of the BRRD), in fact conditions are extremely restrictive and unlikely to be applied. In all other cases public funds could only be used following the bailing in of private liabilities. Things have been made even more difficult by restrictions on state aid in the European Union, which had been relaxed at the outset of the crisis, but which are again extremely severe at present.

This is emerging as an especially critical issue in the management of non-performing loans (NPLs), which still account for a large share of banks' assets, not only in the periphery of the Euro zone, and hinder lending growth. Avgouleas and Goodhart in this issue propose an ingenious mechanism to

take this burden away from European banks by mutualising the management of NPLs in a partly publicly supported Asset Management Company.

Hadjiemmanuil in this issue refers explicitly to the experience of Italy in 2016, and argues that a pre-resolution action plan involving the management of impaired assets and recapitalization, partially with public funds, would be especially effective and less costly than a resolution procedure. It would be difficult in his view to activate a fully private recapitalisation, also considering that a large share of the subordinated debt of banks is held by retail investors. But given restrictions on state aid rules and in the BRRD this route is a dead end.

Non-fiscal backstops financed by the banking system, hastily set up under the encouragement of the government as an alternative solution, have limited fire power. The private Atlante fund, or other voluntary resolution funds, will never be large enough to reign in a fully systemic event, even though they are certainly a useful short term solution to a face a few idiosyncratic events. Also, these private funds are based on the principle that strong banks support the weak ones, possibly increasing the fragility of the overall system. For controversial that it might be, the Italian case shows that also fairly limited and circumscribed events may, especially in this transition phase, trigger negative events stressing the fire power of private resources to the limit.

Consequently, this combination of restrictions in the preventive use of public funds to beef up capital in troubled banks in pre-resolution, the lack of fiscal back stops and the uncertainty concerning distressed assets and capital needs typically affecting troubled institutions, make the event of bank runs likely even when large buffers of bail-in-able liabilities are in place.

Two issues, however emerge from this discussion of the boundary between bail-in and bail-out. *The first one is that the bail-in framework, to be effective, requires a very clear and transparent ex-ante information on the risky implications of different categories of liability.* This point emerges very clearly in Cunliffe's paper in this issue and is extensively discussed in the previous section. The difficult implementation of private based solutions for fairly minor distressed banks in Italy is to an extent related to the uncertainty surrounding the initial implementation of the new resolution framework. Investors when the new regime triggered in, were not clearly aware of the implicit risk of banks debt instruments. A large amount of subordinated debt instruments had been sold to frequently unaware and ill informed retail customers. As argued above,

once the new system will be fully in place and running, it will be clear ex ante to creditor and investors what risks they face and the condition under which their credit could be bailed in.

The second one is that in the European Union the possibility of instating effective fiscal back stops will depend on the cross-border implementation of the single resolution framework, and in particularly on whether resolution will be based on a Single Point of Entry (SPE) or a Multiple Point of Entry (MPE) principle. The next section of this editorial takes up this issue.

3. Cross border and mutualisation

The event of distress of a European G-SII would involve daunting issues. *Although the two pillars of the Banking Union can be considered a tremendous improvement in the European environment, several shortcomings are still to be addressed, in particular for large cross-border European banks.* Tackling these issues will be a slippery and steep slope that, however, needs to be climbed. *The risk is that by not covering these last steps, the resolution of a large cross-border European bank may be a fatal blow for the European institutions themselves, especially in these turbulent political times.*

We believe that the key message here is contemplating possible adverse scenarios in advance and preparing the environment to address complicate events. In resolution events of the recent crisis, such as Lehman Brothers, Fortis, Dexia, and the Icelandic banks, good-faith agreements like Memorandum of Understanding were systematically disregarded by national authorities who instead operated on national interests. Indeed, one must always keep in mind that given any resolution mechanism, "losses on loans do not disappear and are rather simply transferred" (Dermine, 2016). *This means that national authorities will always have a tendency ex-post to move costs and losses on to other countries. To avoid this outcome again, the stages of the "game" between national and European authorities in the event of resolution of a G-SII must be completely spelled out with the associated issues and remaining obstacles.*

In the event of resolution of a G-SII, or some of its part, it would be normally insufficient to adopt simple tools such as the Sale-of-business or Asset-separation currently contemplated in the BRRD, and the much more

complex Bridge-bank and Bail-in would instead typically be necessary. However, the cross-border nature of a G-SII would involve some issues that we believe are still incompletely addressed in the European architecture. We examine them in turns.

Resolution plans. Transitional Resolution Plans of the (142) banks under the SRB's remit (i.e. those supervised by the ECB and list of additional cross-border banks) were drafted in 2015 and are currently updated and completed in the course of 2016. Resolution plans (or Living wills) force banks and authorities to deeply investigate the organization of a banking groups in details and, if properly prepared, to make contingency plans for times of stress developing alternative and realistic scenarios. For this reason, they are one of the building blocks of post-crisis resolution approach and, in our opinion, the one the best tackle specific issue of cross-border banks. In fact, complexity and interdependencies are common ingredients of large cross-border banks and resolution plans may allow to highlight these elements and to develop resolution scenarios and practical solutions for swift interventions.

Resolution plans for G-SII*s must be credible, which requires ex-post incentive compatibility on the side of all involved authorities and the bank itself.* If this is not the case, these plans cannot help avoiding disorderly and thus costly resolutions and, ultimately, the use of taxpayer's money. *We think that in the current complex legal multi-country environment it is hard to think of legally binding resolution plans that involve several national authorities. It is thus paramount to ensure that these plans contemplate ex-post incentive compatible actions for national authorities.* It would be vain to think that authorities would not tend to protect domestic interests in the event of large cross-border bank resolution. Resolution plans should critically anticipate contingencies and reasonable reactions of all involved parties.

In this respect, these plans will prove effective if, among other elements, (i) they will contemplate pre-planned burden sharing agreements between countries in which the G-SII operates, in case of need of fiscal money, (ii) they disentangle ex-ante the likely inconsistencies generated by many and different national legal regimes with jurisdiction on the cross-border bank, and (iii) when needed, the SRB and national authorities should impose some ex ante restructuring of banks' activities and businesses, to streamline and disentangle otherwise ex-post inextricable organizations (see Cunliffe this Issue).

Single vs. multiple point of entry. When resolving a cross-border bank with the bail-in tool, two approaches have been identified, the "single point of entry" (SPE) and the "multiple point of entry" (MPE). With the SPE, adopted in the US and UK, the parent holding company of a cross-border group has preliminarily issued loss absorbing capital (equity and bailinable debt) that is then used as loss absorbing capacity for needs of and across all the subsidiaries and jurisdictions in which the bank operates. This is not the case for MPE, where instead loss absorbing capital is held at each separate entity of the banking group and it is not shared among them. The different structures of SPE and MPE naturally reflect into different approaches of resolving a cross-border bank. In case of need, with MPE national authorities perform separate resolutions, although coordinated by the home authority. With SPE instead the resolution powers are normally attributed to a single resolution authority.

SPE is certainly more suitable for banks that are structured and managed centrally (at least for key services) with a clear hierarchical organization and where key funding is centralized and then transferred to subsidiaries (this is the typical structure of large US banks that are now subject to SPE according to Title II of the Dodd-Frank Act, see Gordon and Ringe, 2015). *MPE is instead more appropriate for banking groups with subsidiaries that are independently operated and funded* (Shoenmaker, 2016)

There is general consensus in the economic literature (e.g. Bolton and Oehmke, 2016; Faia and Weder di Mauro, 2016) *that absent organizational costs for the banks and credibility issues of authorities, SPE performs better than MPE.* In fact, when a banking group is centrally and hierarchically organized, relying on a single resolution entity may simplify the complexity of the cross-border dimension (thus speeding up the process) and may as well allow for continuing activity of operating subsidiaries. Moreover, shared liability implicit in the SPE approach also allows to rely on a lower amount of (more expensive) loss-absorbing capital than MPE. In these ideal conditions a SPE approach may indeed mimic a supranational authority in charge of all bank's subsidiaries. However, for these benefits to realize the group must be properly setup as previously discussed and, if this is not the case, one should accurately consider the possibly huge costs of restructuring and reorganizing a banking group.

Second, ex-post ring-fencing is still a potential issue even with SPE especially when cross-border transfers activated by resolution turn to be large

and not incentive compatible, as Bolton and Oehmke (2016) have shown. This issue of time-inconsistency is clearly affecting also any cooperative agreement among national authorities under MPE, but at least in this case it would not materialize as a surprise and could be anticipated and pragmatically dealt in resolution plans (for example with internal TLAC or MREL applied to material sub-groups of the possibly several resolution entities of a G-SII).

Mutualization and size of the resolution fund. The Intergovernmental Agreement of BRRD establishes that the SRF is compartmentalized according to national contributions and employment of the fund for the needs of resolving a cross-border bank will be limited by country to those contributions, at least in a first step. *Although this approach is meant in principle to limit moral hazard between countries, it has problematic consequences which are not addressed by the additional provisions contemplated for cases of insufficient funding of national compartment with cross-border banks (see Nieto this issue), provisions that involve sequential steps and are in contrast to prompt actions.*

What is even more worrying, as argued above, is the size of the fund which is estimated at €55 billion very probably too small even for a single resolution of a European G-SII and this may make the entire SRM architecture not credible. In the previous section we discuss this issue at length.

Avgouleas and Goodhart, in this issue, investigate the problem of NPLs. To avoid the risk of pushing European banks with high NPL levels into bail-in, they propose the establishment of euro area Asset Management Company for NPLs that would enjoy an ESM guarantee. This is an important dimension of mutualisation which could rely on significant economies of scale taking destabilizing NPLs out of banks' balance sheet. Incomplete mutualisation and limited size of the resolution fund also imply that if losses remain upon resolving a European G-SII, they will be shared across countries of activity. To avoid messy interactions and ring fencing, Goodhart and Schoenmaker (2009) claim that ex-ante binding burden sharing agreements between governments is needed, especially in the case of SPE which may become non credible when a home country would have the complete burden to carry all the losses (Schoenmaker, 2016).

The missing European Deposit Guarantee Scheme. This journal in several issues has put forward the importance to complete the Banking Union with the third pillar, a European Deposit Guarantee Scheme. The EDGS has been neglected for political reasons and the risk of moral hazard, but it is a missing

ingredient which would make cross-border banking more problematic than it could otherwise be. The current fragmentation built on national DGS (for example on bankruptcy and deposit insurance, on timing of actions, and priority of legal claims) is certainly a factor of deep weakness that prevents confidence and increases the risk of bank runs in Europe (Nieto this Issue).

An EDGS would address the fragmentation of the current situation based on national DGS which, in isolation, would not be large enough to face a local systemic crisis or a disorderly resolution of a European G-SII. It would reduce the cost of insuring deposits due to risk diversification and would ultimately level the playing field, a necessary ingredient especially when cross-border banking plays a major role. We also think that prospectively the risk of moral hazard on the part of national authorities is now significantly limited by the presence of both the SSM and SRM.

The "Five presidents' report" in 2015 re-established the importance of the EDGS and lay down a path to a European scheme with progressive mutualisation (a first 3-years phase in which the EDGS would re-insure national DGS, followed by a co-insurance period, with a final phase with full insurance of national DGS). The private burden-sharing uniquely contemplated for the EDGS may again make it not fully credible also when considered at its final completion phase (in 2024). Credibility of such fund would require in fact a fiscal backstop which however may conflict with the diabolical loop of some of the sovereign debts (see European Economy, 2016, Issue n. 4), unless it is based on solid mutualisation.

The proposal of the Commission attributes to the SRB the administration of the European deposit guarantee fund. We think is a sensible organization justified by a number of theoretical and practical issues, mainly related to the different structure of incentives of a single authority as opposed to two separate authorities, and the sequential timing of the decisions that must be taken in a bank resolution. For example, a resolution authority which is not responsible of the deposit fund a well might try to "gamble for resurrection", taking very risky actions that could potentially end up leaving very limited residual assets, making intervention of the deposit fund much more expensive. On the contrary a single authority guarantees that the risks taken in a resolution are fully internalized, more likely leading to ex-ante optimal and swift decisions.

We instead think that the proposed architecture that contemplates two separate funds in the long run is dominated by a scheme where forces are joined. A single resolution and deposit insurance fund can achieve economies of scale and scope and can therefore have smaller size than the sum of two separate funds. The existence of a resolution procedure per se reduces the probability that deposit insurance intervention is eventually required. A single authority managing a unique fund would reduce this probability even further, as a fund with deeper pockets would face fewer constraints in implementing the most effective recovery or resolution strategy, thereby increasing the probability of success of the action undertaken. It has been claimed that segregating the two funds is necessary to avoid conflict of interest. However, these conflicts are much less of an issue when a single authority is in place and can be dealt by appropriate design of the engagement rules.

Legal conundrum. Although the BRRD introduced a dramatic and positive discontinuity in harmonization of resolution regimes in Europe, still the proof of resilience of the new European architecture to the resolution of a pan-European bank is to be given. Legal recognition of resolution acts of other jurisdictions was certainly a necessary and well deserved step. However, the functioning of the current system managed by the SRB will have to face possible interventions of national judicial authorities aiming at protecting, for example, groups of weak citizens. *An area of risk in this dimension is that of hierarchy between different liabilities, as national bankruptcy laws significantly differ as for hierarchy of creditors. With this respect, more harmonization would have been needed and will be necessary for a more resilient SRM that deals with cross-border banks.*

More broadly, significant differences in national insolvency laws limit the very same development of unified European capital market (as identified in the Commission's Action Plan on Building a Capital Markets Union, 2015) and of an efficient risk management by banks and by resolution authorities. Similarly, national insolvency regimes should be harmonized with a convergence towards best practices.

Reputation spillovers. The BRRD contemplates another significant difference and novelty with respect to other major resolution regimes. Contrary to environment in which the FDIC operates, the SRB can decide to initiate an open-bank bail-in process where intervention and recapitalization take place with no bankruptcy, or a closed-bank bail-in where the bank is resolved as

bankrupt gone concern, which is the unique possibility in the US. If on the one hand these two options may grant more flexibility to adapt intervention to different situations, on the other hand it can be seen as another source of uncertainty, which is itself the less desirable ingredient when a bank falls into a resolution process. It is also not clear how an open-bank bail-in will affect the reputation of cross-border banking group and how depositors and short term creditors of different countries will react to it.

Especially in an environment with MPE and with an attempt to pursue an open-bank intervention on a European G-SII, one can foresee risky cross-country spillovers. Foreign subsidiaries may be vulnerable to restricted operability of the parent bank, in particular if they rely on liquidity and guarantees of the parent bank. Even if this is not the case, bad reputation tends to flow quickly especially when uncertainty prevails, with consequent drainage of deposits, and short term credit.

Coordination between the SRB and National Resolution Authorities. The construction of the SRM is far from complete, and several issues are still the object of analysis and debate. One potentially very critical aspect is the organizational setting of the SRM. As already mentioned above, the SRM is organized along the model of a "college" or "network" of national resolution authorities. As reminded by Gordon and Ringe (2015), constitutional objections have been raised in Germany to the initial proposal by the EU Commission to set a powerful Single Resolution Authority, and other Member States contended that such an authority required a revision of the EU Treaties. The system that eventually emerged replicates "the old-style European approach of establishing "colleges" of national bodies on the European level (...) due to their reluctance to relinquish their sovereignty" (Gordon and Ringe, 2015).

Two clear examples of this lack of centralization can be given. First, the initial proposal to introduce common subordination requirements at the EU level was not accepted, and Member States are now left the choice to introduce different subordination requirements. This has the negative effect of reducing clarity for investors and introduce potential regulatory arbitrage opportunities for cross-border banks. In light of this, it is a good step forward that the new proposal of Directive being issued by the European Commission (2016a and 2016b) as we write, envisages a future process of harmonization in national subordination requirements.

Second, when a bank within the SRB's remit meets the conditions for resolution, an 'extended' Executive Session of the SRB is set in which the SRB and relevant NRA(s) are represented, with the task of adopting a resolution scheme that the relevant NRA(s) will have the duty to implement.

But the process is far from straightforward and the decision rights are not clearly allocated. As described in SRB (2015), once the SRB has adopted a resolution scheme, it sends the scheme to the European Commission and the scheme may only enter into force if no objection is expressed by the European Commission or the Council of the European Union within a period of 24 hours. Then two alternative routes open: 1) the European Commission objects to certain aspects of the scheme, possibly including the use of the Single Resolution Fund, these aspects are modified and the scheme is approved and enters into force; 2) the European Commission objects to the scheme arguing that there is no public interest and the bank is wounded up in an orderly manner in accordance with the applicable national law.

In practice, if no agreement is found at the level of the European Commission within 24 hours from the proposal, the default outcome is not to empower the decision of the SRM, but to remit it to national authorities. As stressed by Balassone et al. (2016), "the implementation of the banking union has so far privileged risk reduction over risk sharing". Once again, it has not been possible to achieve sufficient consensus on a shift of sovereignty to European authorities even in a sector where the importance of internalizing the impact of individual choices has proven of foremost importance.

4. Conclusions

Summing up, the balancing act between making shareholders and creditors liable for failing banks and avoiding banks' runs and the spreading of systemic crises is a very difficult one. Several important steps forward have been made as consequence the crisis. The implementation of resolution frameworks and of the bail in principle is potentially an important step forward to reduce the possible systemic impact of financial disruptions and also to shield fiscal resources. This volume discusses and examine the key ingredients of this new resolution architecture.

However, *the balancing act is not yet complete, especially in the European Banking Union.* We provide an ample account of the major shortcomings of the present framework. *In our view, the most risky ingredient is an excessive act of faith in the ability of the bail-in mechanism, based only on private resources, to actually reign in complex systemic crisis.* This mechanism introduces considerable buffers in eligible liabilities and capital requirements strengthening the resilience of banks' balance sheets and it introduces privately funded mutualised resolution funds. It will be especially effective once the framework is fully operative and once transition issues have clearly been addressed. However, tying the hands of policy makers, by excessively restricting their use of public funds and failing to set up adequate mutualised fiscal back stops, instils fragility in an otherwise worthy and well thought architecture. *Pretending that taxpayer money shall never be used is not the most effective way of making its use least likely.*

A second concern refers to the architecture of the resolution framework, that at present is still affected by several legal and procedural issues, again especially in the Euro area. In this editorial and in the journal we take stock of the major procedural and legal issues still hindering the framework. Some of these issues are addressed by the proposal of revision of the resolution architecture by the European Commission, a document being released as we write this editorial (European Commission 2016a and 2016b). The jury is still out on the effectiveness of these proposals.

Finally, there are especially serious issues concerning the cross border dimension of the overall framework within and outside the European Union. It is not clear today how large G-SIIs could be effectively resolved within the present framework. An improvement in the global design of the architecture, effectively recognising the global dimension of several banking activities is once more an absolute necessity.

We hope you will enjoy reading this new issue of European Economy.

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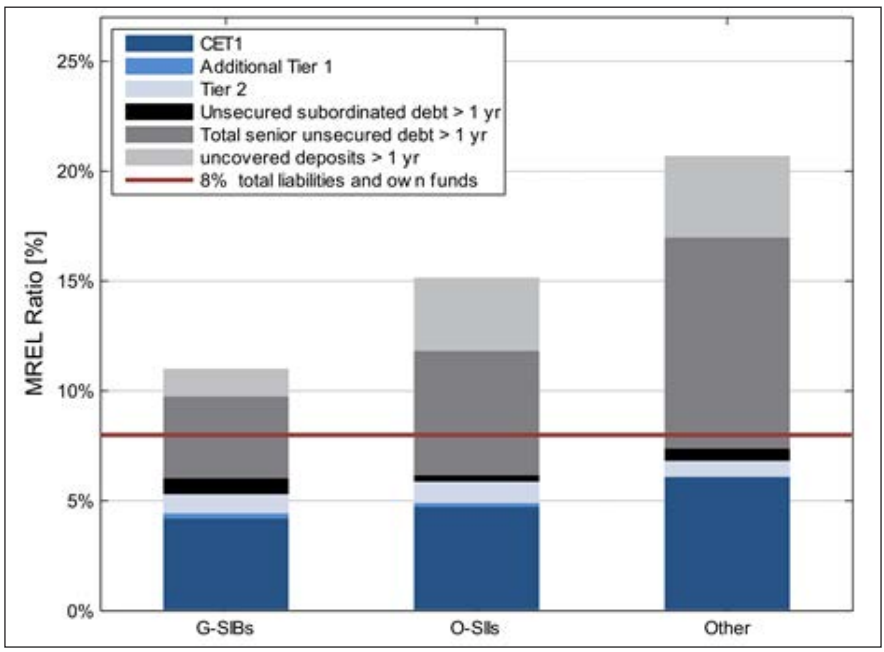
Numbers

by José Manuel Mansilla-Fernández[4]

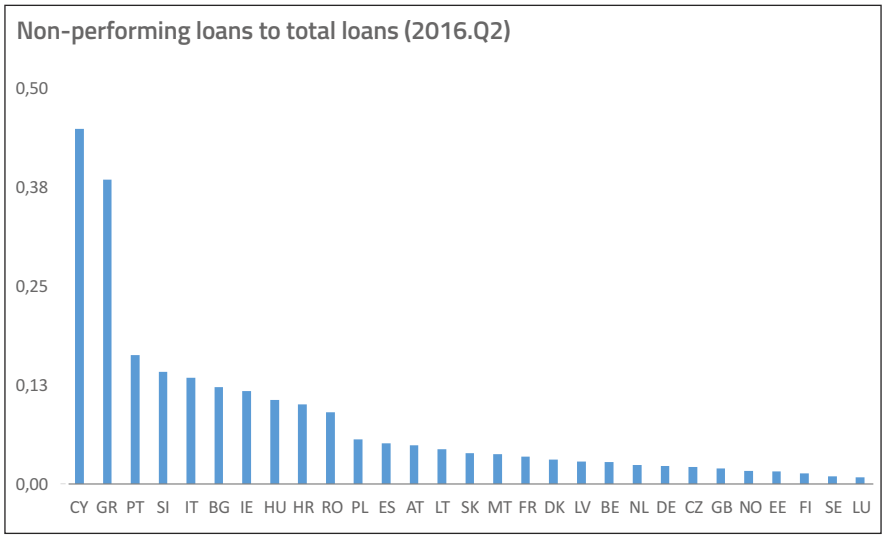
Figure 1: MREL is lower for more systemically important banks



Source: EBA QIS data (June 2015). MREL by category for different bank classes.

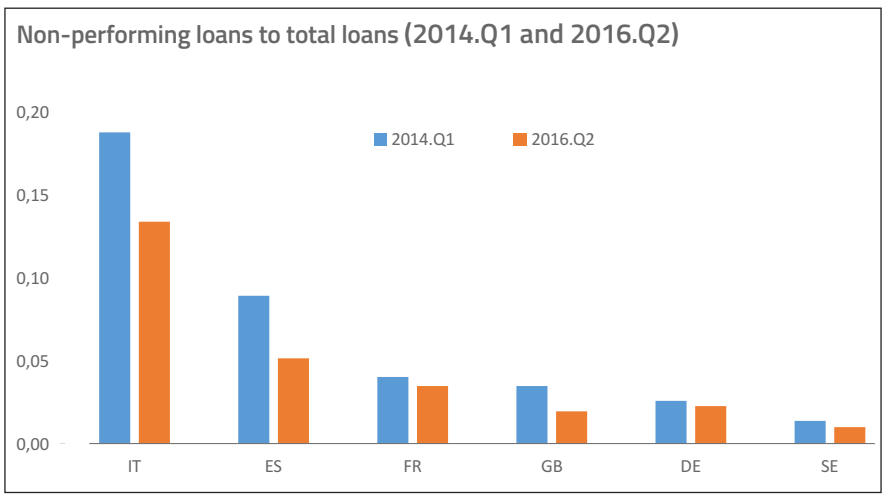
4. University of Milan

Figure 2: Three groups of countries emerge within Europe according to the incidence of non-performing loans to total loans



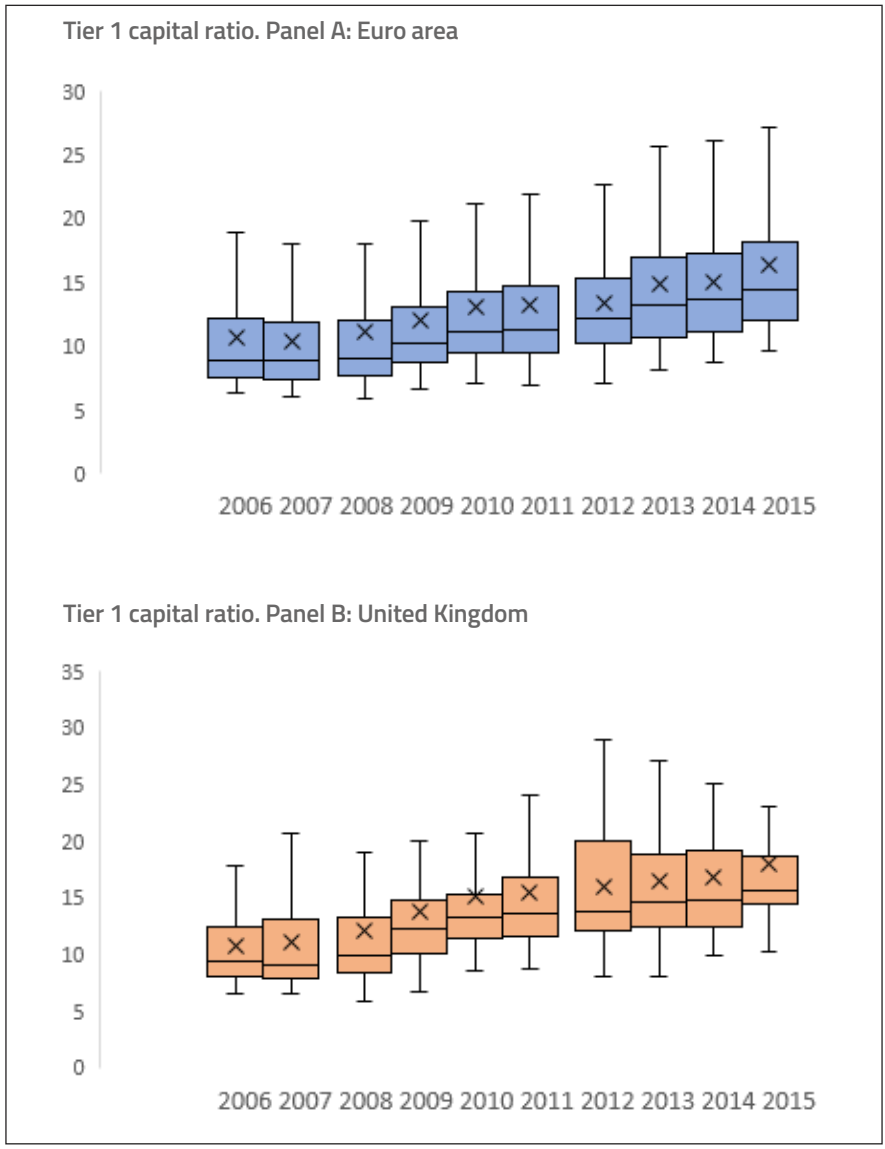
Source: Own elaboration on EBA Risk Dashboard. The ratio measures the share of non-performing loans over total gross loans and advances in June 2016.

Figure 3: The incidence of non-performing loans is different also among the largest EU countries, but it is decreasing everywhere



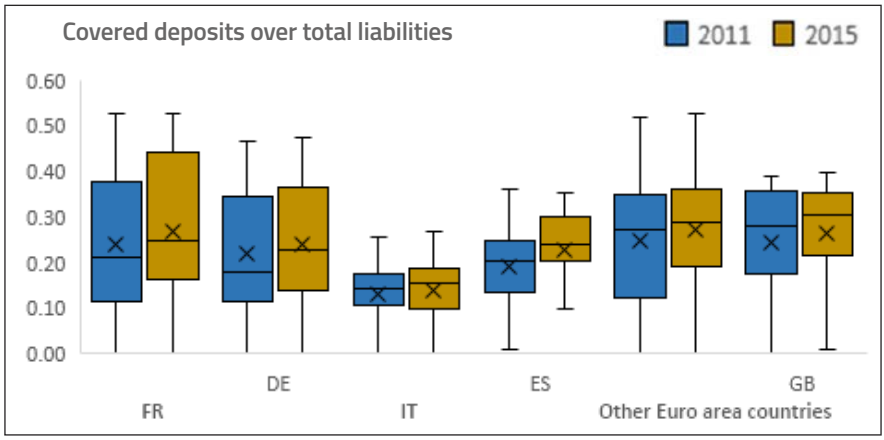
Source: Own elaboration on EBA Risk Dashboard. The ratio measures the share of non-performing loans over total gross loans and advances in March 2015 and June 2016.

Figure 4: Banks' Tier1 capital ratio increased in the Euro area and in UK; within country dispersion increased steadily in the Euro area but not in the UK.



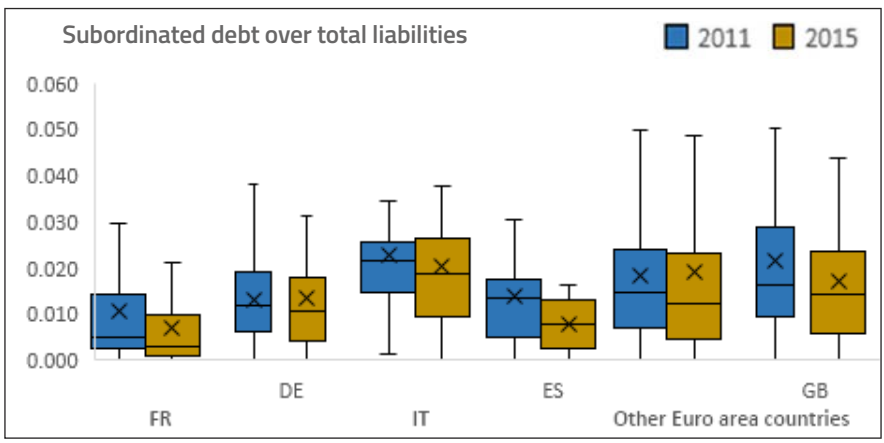
Source: Own elaboration on Bankscope (November 2016) data. Tier 1 capital ratio is presented as reported by the bank. Data are expressed as a percentage of risk-weighted assets. The whiskers represent the maximum and the minimum value of the distribution. The box is divided into two parts by the median, i.e. the 50 percent of the distribution. The upper (lower) box represents the 25 percent of the sample greater (lower) than the median, i.e. the upper (lower) quartile. The mean of the distribution is represented by ×.

Figure 5: The ratio of covered deposits over total liabilities is very heterogeneous across Europe, and its level and within country dispersion broadly increased between 2011 and 2015.



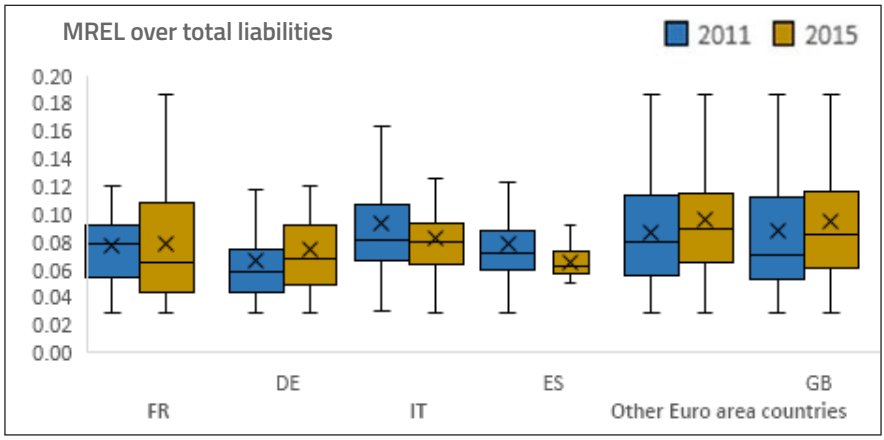
Source: Own elaboration on Bankscope (November 2016) data. Covered deposits are estimated for each country according to the level of coverage released by the European Commission's JCR Report. The sample is composed by banks from France (FR), Germany (DE), Spain (ES), the other Euro area countries, and the United Kingdom (GB). The whiskers represent the maximum and the minimum value of the distribution. The box is divided into two parts by the median, i.e. the 50 percent of the distribution. The upper (lower) box represents the 25 percent of the sample greater (lower) than the median, i.e. the upper (lower) quartile. The mean of the distribution is represented by ×.

Figure 6: The ratio of subordinated debt over total liabilities is very heterogeneous across Europe.



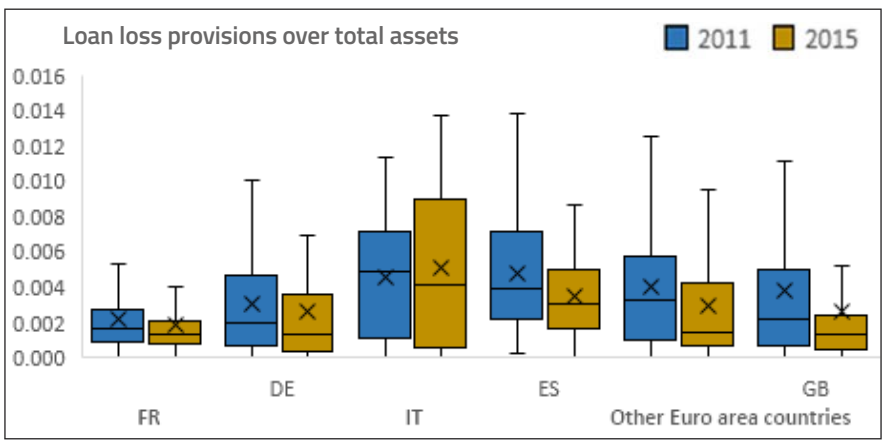
Source: Own elaboration on Bankscope (November 2016) data. The sample is composed by banks from France (FR), Germany (DE), Spain (ES), the other Euro area countries, and the United Kingdom (GB). The whiskers represent the maximum and the minimum value of the distribution. The box is divided into two parts by the median, i.e. the 50 percent of the distribution. The upper (lower) box represents the 25 percent of the sample greater (lower) than the median, i.e. the upper (lower) quartile. The mean of the distribution is represented by ×.

Figure 7: The levels and changes in the ratio of MREL over total liabilities are very heterogeneous across Europe.



Source: Own elaboration on Bankscope (November 2016) data. MREL is calculated according to the EBA Interim Report (2016) as regulatory capital plus total unsecured subordinated debt maturing in more than one year over total assets. The sample is composed by banks from France (FR), Germany (DE), Spain (ES), the other Euro area countries, and the United Kingdom (GB). The whiskers represent the maximum and the minimum value of the distribution. The box is divided into two parts by the median, i.e. the 50 percent of the distribution. The upper (lower) box represents the 25 percent of the sample greater (lower) than the median, i.e. the upper (lower) quartile. The mean of the distribution is represented by ×.

Figure 8: The ratio of loan loss provisions over total assets and its within country dispersion are very heterogeneous across Europe



Source: Own elaboration on Bankscope (November 2016) data. The sample is composed by banks from France (FR), Germany (DE), Spain (ES), the other Euro area countries, and the United Kingdom (GB). The whiskers represent the maximum and the minimum value of the distribution. The box is divided into two parts by the median, i.e. the 50 percent of the distribution. The upper (lower) box represents the 25 percent of the sample greater (lower) than the median, i.e. the upper (lower) quartile. The mean of the distribution is represented by ×

Institutions

by José Manuel Mansilla-Fernández

The institutional framework for banking resolution in Europe

The institutional framework in Europe is based on the Single Rulebook which removes any national biases – harmonization – or supervisory forbearance. The new regulation introduces the 'bail-in' principle which puts some resolution costs on creditors of the stressed bank. Consequently, 'bail-out' is replaced as resolution mechanism.

The Directive 2014/59/EU - Banking Recovery and Resolution Directive (BRRD) - transposes the Financial Stability Board (FSB) Key Attributes into EU law (FSB, 2014). The BRRD entered into force on the 1st January 2016[5] and put in place a set of common tools and powers to the national regulators which would enable them to avert the failure of a bank and, if necessary, resolve branches of banks based in other countries and circumstances. (FSB, 2016a).[6] The package of measures is aimed at reducing the probability the G-SIIs may fail. The FSB indeed proposed a new international standard for resolution regimes to address possible differences amongst jurisdiction and allow them to promptly intervene without disrupting in the overall financial system.

The European resolution framework is advancing to implement a bank-specific requirement for own funds and eligible liabilities (MREL) that will be

5. The deadline for the transposition of the BRRD into national law was set at 31 December 2014. By the end of 2015 the Czech Republic, Luxembourg, Poland, and Sweden had not fully transposed the rules into national law. Consequently, the case was referred by the European Commission to the Court of Justice.
6. The BRRD requires each member state to designate a national resolution authority, and practically the whole member states had done so as of 30 September 2015.

applicable to all banks. The European Union is working to transpose the FRB's total loss-absorbing capacity (TLAC) standards into EU directives in manner consistent with MREL, which shares the same regulatory features with TLAC (FSB, 2016a). The proposal of the Commission of 23 November 2016 implements the TLAC standards issued by FSB in November 2015 (after the approval of BRRD) and integrates the TLAC requirement with the MREL rules avoiding redundancy. Among other novelties, the proposal contemplates harmonization of MREL across countries, as it is the case for TLAC, but only for G-SIIs as it was expected. The proposal also harmonizes creditors' hierarchy keeping the existing class of senior debt and reacting a new asset class of non-preferred senior debt bailnable after other capital instruments, but before other senior liabilities. Institutions remain free to issue debt in both classes while only the non-preferred senior class will be eligible for the minimum TLAC requirement.

The BRRD also requires each bank to draw up a **resolution plan**, or Living Wills, along with supervisory authorities, with the purpose of using it in the event of bank's failure. The resolution plan shall include, where applicable, an analysis on how and when the bank may apply for central banks facilities and identify those assets which would be expected to be used as collateral (Avgouleas et al., 2013). Furthermore, institutions should put in place **recovery plans** for critical resources to enable them to return to ordinary business procedures in a reasonable timeframe (EBA, 2016).

The **Single Resolution Mechanism** (SRM) was established by the Regulation (EU) 806/2014. The SRM envisages the centralized European-decision making and financing mechanism for resolution. The **Single Resolution Board** (SRB) is its executive board. The SRM is a coordinated system in which the SRB and the European Central Bank (ECB) work as the single resolution authority. The resolution process is organized as follows. Firstly, the European Central Bank (ECB) determines whether the bank is "failing or likely to fail" (EBA, 2015). Then, the SRB determines the resolution scheme, i.e. resolution tool the bank should be liquidated or resolved in combination with national resolution authorities and the Living Wills (Huertas, 2016)[7], which may be validated by the ECB in the following 24 hours.

7. Article 32 of BRRD.

Finally, the resolution scheme enters into force if no objection has been expressed by the Council or the European Commission (FSB, 2016b).

The **Single Resolution Fund** (SRF) is an essential part of the SRM which harmonizes resolution of the European financial institutions within its 19 Member States. The SRF will be built between 2016 and 2023 and shall reach the 1% of covered deposits, estimated at roughly 55 billion euros. To estimate *ex-ante* contributions of the banks to the Fund, the SRB applies the methodology set out in the Commission Delegated Regulation (EU) 2015/63 and the Council Implementing Regulation (EU) 2015/81. Accordingly, the SRB takes into consideration the size and the risk of each financial institution to estimate its 'risk factor adjustment'; otherwise, a lump-sum treatment is applied to small or low-risk banks (SRB, 2016). Table 1 displays the annual contributions of banks computed based on Euro area level estimations (SRM level) and national level (BRRD level) estimations (Hadjiemmanuil, 2015).

Table 1: Available funds for initial steps in bank resolution (in percentage)

	2016	2017	2018	2019	2020	2021	2022	2023
SRM	40	60	67	73	80	87	93	100
BRRD	60	40	33	23	20	13	7	

Source: SRB (2016).

The Five Presidents' Report (EC, 2015a) indicated as a priority to set up a credible common backstop to the SRF during the transition period. The SRM will serve as a transitional backstop until the fund has reached its full target size. However, the current version of the SRF is allowed to borrow from external markets, but not to have the backing from the Member States. This limitation has been criticized for lack of credibility of enough financial backstop. The combination of a well-endowed resolution fund and ECB liquidity may fulfil the credibility for resolution mechanism, shielding the ECB for potential losses. Finally, under the current ESM Treaty, the SRF is unable to provide funds to non-Eurozone countries which opted to join the Banking Union (Gordon and Ringe, 2015).

The current **Deposit Guarantee Scheme** (DGS) is regulated by the Directive (EU) 2014/49/EU. The Directive allows for coverage of deposits up

to EUR 100,000. However, this feature allows compensations in excess of this amount in case of qualifying deposits.[8] Importantly, the SRB and the European Commission are involved in designing the European Deposit Insurance Scheme (EDIS) to complete the Banking Union. The political discussion on the EDIS is conditional on bank risk reduction measures prior to achieving the full mutualisation of deposit insurance. Preconditioning EDIS on them would result in a delay for the third pillar. However, if the Council decides granting a veto power to individual member States, i.e. via Intergovernmental Agreements, the EDIS might be further delayed.[9] The scheme should include a series of strong safeguards against 'moral hazard' and inappropriate use, in order to give incentives to national schemes to manage their potential risks in a prudent way. In particular, a national scheme should only be able to access EDIS if it fully complies with relevant Union law (Gross and Schenmaker, 2014). As for EDIS funding, the initial target level of the Fund will be progressively reached until 20% of four ninth of the minimum target levels of the DGS of the whole Member states. Banks' ex-ante contributions to EDIS would be calculated based on covered deposits, adjusted to take into account the risk attributes of each bank, to meet a target level of 0.8% of covered deposits of all banks in the SSM by 2024. Table 2 displays the funding path of EDIS and participating national DGS (EC, 2015b).

Table 2: Funding path of EDIS (in percentage)

	2017	2018	2019	2020	2021	2022	2023	2024
EDIS	20	20	20	36	52	68	84	100
DGS (% OF COVERED DEPOSITS)	0.14	0.21	0.28	0.28	0.26	0.20	0.11	0

Source: EC (2015b).

8. Deposits resulting from real estate transactions relating to private residential properties; deposits that serves social purposes, and deposits that serve purposes laid down in national law (compensation for criminal injuries or wrongful conviction.)
9. The Intergovernmental Agreement was signed by representatives of all Member States, except Sweden and the United Kingdom.

Challenges for bank resolution in the United States

Title II of the Dodd-Frank Act introduces the Orderly Liquidation Authority (OLA) as a new resolution mechanism for G-SIIs. The central challenge posted by the Title II is to adapt the Federal Deposit Insurance Company (FDIC) receivership to carry out the liquidation and wind-up from small and medium sized banks to G-SIIs. A central element of quickly FDIC resolution is the Purchase and Assumption (P&A), by which a healthy bank purchases assets and assumes liabilities of the troubled bank. Then, the Resolution Trust Company - a special and temporary government entity - proposes the branch breakup to improve upon P&A transactions. (Capponi et al., 2016).

The US legislation is still uncertain as to whether a G-SII will be resolved under OLA or Chapter 11 bankruptcy procedure (11US Code), potentially increased by banks' resolution plans. In fact, the US legislation takes on three challenges for the near future. Firstly, OLA is seen by US regulators as a backstop which would be activated if the organizational complexity of G-SIIs makes difficult to invoke Chapter 11. Secondly, the exemption of qualified financial contracts (QFC) from the automatic stay under Chapter 11 - but under OLA the resolution authority may impose a stay - introduces uncertainty when the derivative and repo counterparties are free to cancel their contracts with the bank. Finally, a carefully designed liquidity provision facility that can be tapped during resolution is another key issue in case TLAC at the holding level could not be ensured. Under OLA, such liquidity may be provided through the orderly liquidation fund.

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A Bird Eye (Re)view of Key Readings

by José Manuel Mansilla-Fernández

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 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 banks' resolution, financial stability, and credit recovery

The recent global crisis, the most severe since the great depression, has been characterized by the large number of distressed and failed banks (Acharya 2013, Brunnermeier, 2009). The crisis has shown the importance of having a robust and consistent mechanism to allow for the resolution of failed banks (Laeven and Valencia, 2010). The resolution of a financial institution is defined as the restructuring of the institution in order to ensure the continuity of its essential functions, preserve financial stability, and restore partly or fully the viability of that institution (Gordon and Ringe, 2015).

Systemic regulatory policies lead to collective moral hazard problem. This issue usually arises when banks have access to cheap capital, incentivizing them to increase their borrowing and reduce their liquidity. Consequently, interventions may have repercussions on the overall financial sector since some banks play safely, but others start to gamble (Fahri and Tirole, 2012).

The standard argument is that regulatory actions help distressed banks recover and restore charter values, thus disciplining bank's behaviour (Berger et al., 2016; Hakenes and Schnabel, 2010). Before the sovereign debt crisis, 'bail-out' approach was the more frequently regulatory intervention at the bank level used by governments to restore financial stability (Acharya et al., 2014).[10] Claessens et al. (2011) summarize the range of bail-out measures at each stage of the crisis: (i) blanket guarantee and liquidity provisions during the containment stage of the crisis, (ii) capital injections in the next stage, (iii) debt-restructuring mechanism such as asset management companies or 'bad' banks in the final stage.

The literature is still divided about the repercussions of government interventions on banks' risk-taking behaviour. Dam and Koetter (2012) show that regulatory interventions may discipline banks' behaviour since the regulatory authority is allowed to impose restrictions on banks' operations, thus resulting in more careful monitoring of the bank. Government interventions in support of distressed banks may exacerbate moral hazard problems associated with contagion (Górnika and Zoikam, 2016). The latter effect dominates when the probability of contagion is high, then the rents that the government leave to rescued banks become irrelevant (Dell'Ariccia and Ratnovski, 2013). Similarly, Hryckiewicz (2014) find that among bail-out measures, nationalization, and assets management companies contributes most to the risk increasing. However, she also finds that, under an appropriate combination of policies, governments may mitigate the consequences of the above-mentioned effects.[11] Contrarily, Berger et al. (2016) find that capital injections are effective for small and large banks without increasing risk, whereas Black and Hazelwood (2013) find that TARP induced more risk in large banks than in the smallest ones. Philippon and Schnabl (2013) show that nationalization is a more effective measure than capital injections. However, recent results demonstrate that government capitalization of individual banks foster risk perception since capital injections reveals partly unknown problems (Cabrera et al., 2016).[12]

10. Acharya et al. (2014) show that bail-out programmes triggered the rise of sovereign credit risk in 2008. The authors document that changes in sovereign CDS explain changes in bank CDS after the implementation of the bail-out programmes in the Eurozone countries (see issue 2016.1 of this journal).
11. Similar arguments are found in Honohan (2016) after the crisis in Ireland.
12. See Huertas (2015) for a further revision.

These arguments share the finding that distorted incentives may alter credit allocation and damage real economy performance. This raises the question that which resolution policies are more effective in promoting financial intermediation. Laeven and Valencia (2013) suggest that certain bail-out policies like recapitalizations, can alleviate credit supply frictions. Accommodating policies, particularly not well-executed, may not accelerate credit supply and economic recovery, but instead increase both the cost of banking crises and the risk of moral hazard in the long term (Giannetti and Simonov, 2013; Honohan and Klingebiel, 2013). Korte (2015) shows that a relatively stronger implementation of bank resolution rules promotes credit supply by benefiting high quality firms (*quality channel*), and reallocating credit to firms that need it more (*quantity channel*). Prohibiting government interventions may increase financial instability from an *ex ante* point of view, but ex post governments may apply targeted bail-outs to systemically banks (Bianchi, 2016). Finally, Van Bekkum (2016) shows for the recent bail-out in Ireland that the benefits exceeded the cost for taxpayers.

On 'bail-in' and deposit insurance: New challenges for the European Banking Union

The financial safety net comes into action in case of bank distress and contains arrangements that limit the probability of bank failure and the cost associated with the resolution process (Benczur et al., 2016; Cariboni et al., 2016). In this regard, banks are required to hold minimum level of eligible liabilities for own funds, based on the institution size, risk and business model, to mitigate the possibly of depositors' bail-in (Avgouleas and Goodhart, 2015; Avgouleas et al., 2013; Conlon and Cotter, 2014; Hadjiemmanuil, 2015).[13]

The main difficulty to undertake an efficient 'bail-in' mechanism is the danger of contagion from a single institution, due to holding other financial institutions' outstanding debt of the failed one. An incorrect design of bail-in

13. The concept of 'bail-in' was pioneered by Calello and Ervin (2010) whom proposed that the holders of firm's bonds would have their investments in the company written down and converted into shares. This would be an alternative to 'bail-out' approach or a disorderly insolvency procedure and would provide the necessary capital that firm was required to hold.

mechanism may have the impact of shifting risk to other parts of the financial sector (Flanery, 2005). A statutory bail-in mechanism differs from contractual contingent capital instruments with write-offs or conversion features such as convertible bonds or CoCos. Both instruments involve creditor-financed recapitalization, CoCos are *private financial contracts* with principal and schedule coupon payments that can be automatically converted into equity or written down when a predetermined trigger event occurs (classified as *going-concern*), whereas 'bail-in' is a *statutory power* which enables resolution authority to eliminate or dilute shareholders and to convert any contractual contingent capital instruments that have not already been converted (classified as *gone-concern*) when the bank is not viable (Zhou et al., 2012). Flanery (2014) shows that CoCos afford shareholders the benefits of leverage when assets return remains high, providing downside protection to bondholders without burdening shareholders with high capital levels. Then, CoCos might create an incentive for the prompt recapitalization of banks after significant losses of capital and, through a correct design, a solution could be provided for the "too-big-too-fail" problem (Calomiris and Herring, 2013). In fact, recent advances are growing towards the construction of a dual trigger mechanism for CoCos in periods of high aggregated systemic risk (McDonald, 2013). Accordingly, regulators could consider the social benefits of reduced risk of systemic financial crises against the costs of redistribution of value from equity holders to bond holders, thereby exacerbating the debt overhang problem and increasing idiosyncratic risk taking incentives (Allen and Tang, 2016).

Empirical results on the consequences of bank liability insurance is unusually uniform in its conclusions: bank liability insurance increases bank risk, although it is justified as a means of reducing liquidity risk (Calomiris and Jaremski, 2016).[14] Some studies predicted that deposit insurance may generate moral hazard behaviour depending on the condition of insured banks, particularly in years leading up the recent crisis (Anginer et al., 2014). Calomiris and Chen (2016) find that the greater the generosity of the instruments and the coverage of deposit insurance, the higher bank's asset risk and leverage, owing to deposit insurance allows banks to raise their default risk. Gropp et al. (2014) find that formerly-insured German savings banks cut

14. See Calomiris and Jaremski (2016) for a broad literature review on deposit insurance.

off lending from the riskiest borrowers when removed from deposit insurance. The economic argument for deposit insurance begins with the recognition of the costs. Government insurance removes the motivation of depositor to withdraw funds, and avoid the magnification of recessionary shocks produced by market discipline (Acharya and Thakor, 2016). However, more efforts in the implementation of the banking union are required, in particular fiscal tools for macroeconomic stabilization. Balassone et al. (2016) propose that these reforms should be accompanied by some increase in risk sharing, by improving the lending capacity of the ESM to provide timely and predictable financing.

On jurisdictional coordination: Multiple Point of Entry and Single Point of Entry

In Europe, each European Member State took an uncoordinated approach to solve the banking crisis by re-capitalizing and nationalizing a range of domestic banks (Dübel, 2013). Consequently, this approach contributed to contagion among European banks as investors had a wee knowledge about the resolution mechanism to be adopted in each country, potentially resulting in a 'flight-to-safety' (De Bruyckere et al., 2013) The adoption of a single regulatory regime and centralized supervision in the EU regarding G-SIIs -which are 'too-big-to-fail'- is imperative to achieve a coherent single regulation (Singh, 2016).

Among policymakers, there is a lively debate about two specific resolution models. Under Multiple Point of Entry (MPOE) resolution, each national regulator performs a separate resolution, drawing on loss-absorbing capital that is held separately by national holding companies in each jurisdiction. In contrast, under Single Point of Entry (SPOE) resolution, a global bank is recapitalized by writing off debt or equity issued by a single global holding company that owns multiple subsidiaries in multiple jurisdictions (Bolton and Oehmke, 2016). Despite this debate, literature is developing a formal economic analysis of the trade-off between MPOE and SPOE based on cooperation of jurisdictions. Faia and Weder di Mauro (2016) find that resolution authorities choose the optimal fraction of bail-inable instruments depending on the extend of cooperation among jurisdictions. Regarding SPOE, the volume of bail-inable bonds under a non-cooperative regime is larger than under a

cooperative regime. Under the non-cooperative regime regulatory authorities are unable to internalize the cross-country spillovers of their actions. Loses to bondholders under MPOE are the same than under cooperative-SPOE when banks are fully exposed in foreign liabilities. In this line, Bolton and Oehmke (2016) find that SPOE is *a priori* more efficient than MPOE since it permits cross-jurisdictional transfers. As a result, SPOE can be implemented with lower loss-absorbing capital than MPOE, allowing banks to provide more socially valuable services. However, if regulatory authorities prefer ring-fence assets *ex post* to cooperation, then MPOE is preferable. The more decentralized the G-SIIs' activities, the grater the relative advantage of MPOE resolution.

These results have been built on research dealing with regulation and supervision of multinational banks. Dell'Ariccia and Marquez (2006) show that supranational regulations is more likely to emerge in homogeneous jurisdictions. Calzolari and Lóránth (2011) and Calzolari et al. (2016) show that regulatory authorities may take different decisions about multinational banks depending on whether banks adopt a branch or subsidiary structure. Supranational supervision encourages multinational banks to expands abroad using branches instead of subsidiaries, and in turn, banks chose representation form depending on anticipated supervisory actions. Paradoxically, the introduction of a common deposit insurance scheme does not change the previous result. Additionally, Hardy and Nieto (2011) show that strengthening coordinated prudential regulation and supervision may reduce the need of deposit guarantees, and help induce countries to limit protection to creditors and other bank creditors. Beck and Wagner (2016) advocates that currency unions should use an integrated approach to design their regulatory architecture by moving from a supervisory and regulatory coordination to a supranational body.

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Articles

Ending Too-Big-to-Fail: How Best to Deal with Failed Large Banks

by Jon Cunliffe[1]

Abstract

Since the crisis a vast amount of work has gone into ensuring that major cross-border banks are no longer too big to fail. This paper summarises that work, describing progress made in developing resolution regimes and resolvable bank structures in the major banking jurisdictions, in providing incentives to those jurisdictions to cooperate in resolving failed banks and in requiring banks to have enough loss absorbing capacity to ensure that the answer to the question of "who pays?" when a major bank fails is no longer the taxpayer. The paper illustrates these issues by reference to the UK's recently-published proposals on loss-absorbing capacity, which seek to link the quantum and quality of loss-absorbing capacity to the preferred resolution strategy for each bank. And the paper also emphasises that, notwithstanding the UK's pending withdrawal from the EU, the UK will continue to cooperate with partners in the EU and elsewhere to ensure that global standards on bank resolution are respected and to promote robust arrangements to deal with the failure of large cross-border banks.

1. Introduction

When a bank fails, the money has gone. But someone – be it the taxpayer, the bank's shareholders, its depositors, other creditors – has to bear the losses.

1. Bank of England.

In the financial crisis the banks could not be allowed to fail so the taxpayers had to step in. The taxpayer was on the hook in the UK, to the tune of an estimated £1,162bn.[2]

Eight years on, public anger has unsurprisingly persisted at the outcomes for bank creditors and in some cases even shareholders – they got the upside when times were good and banks profitable but suffered no downside when times were bad and banks failing. The general taxpayer, by contrast, received no upside only the downside. Bank profits were privatised whereas bank losses were socialised.

Finding the right answer to the question of "who pays?" is particularly difficult in a global and internationally integrated financial system where large banks operate cross-border. The crisis also revealed that large cross-border banks were global in life and national in death.[3] In dealing with them, authorities understandably sought to maintain financial stability in their own jurisdictions. But they adopted uncoordinated approaches, using public funds and hence imposing the losses on their own taxpayers.

This paper looks at what has been done since the crisis to provide a different – and better – answer to the "who pays" question.[4]

2. The question of who pays can be seen throughout history

A perusal of the first detailed European records, relating to banking in Barcelona in the early 14th century, indicates that the answer then to the "who pays?" question was the bankers themselves – in spades. In 1300, the Catalonian authorities decreed that bankers who went bankrupt would be publicly denounced by town criers and forced to live on bread and water until they repaid their creditors. A further decree in 1321 stipulated that any banker who did not repay his creditors within a year could be summarily beheaded

2. This was estimated by the National Audit Office to be the peak support provided by the UK Government to UK banks. It includes both a direct cash injection of £133bn and total guarantees and other non-cash support of £1,029bn. The net direct cost to the UK taxpayer will depend on the proceeds received from the sale of the remaining Government stakes in RBS and LBG and the assets of those parts of failed banks still in public ownership (such as Northern Rock and Bradford and Bingley).
3. This aphorism was first coined by Mervyn King. See, for example, King (2010).
4. Many of the themes in this paper were first developed in Cunliffe (2016).

in front of his bank, a sentence actually carried out on one such unfortunate in 1360.[5] This early approach certainly provided robust incentives to bankers to avoid failure in the first place but also to deal effectively with the fallout if failure nevertheless occurred.

More recently, the shareholders have been in the frame, albeit not quite to the extent of the bankers in 14th century Spain. In early Victorian Britain, for example, shareholders in failed banks faced unlimited liability. This was designed to protect depositors and other creditors, but was deemed by many to be unfair. When the City of Glasgow bank failed in 1878, a relief fund was established to help the shareholders, raising the equivalent of £35mn in today's money.[6] It is perhaps less likely that support for such an approach would be forthcoming today.

Later in the 19th century, a degree of limited liability was introduced into UK banking. This was based on the UK's corporate insolvency law, where the liability of shareholders had been limited to their investment since the Limited Liability Act of 1855.[7] It shifted more of the costs of a bank's failure onto its creditors, including depositors.

But US bank failures in the early 20th century demonstrated the risks of exposing depositors to losses. Bank runs became commonplace, destabilising the whole banking system as even strong banks suffered at the first hint of trouble. This eventually led to the establishment of deposit insurance and the creation of the FDIC in 1933.[8] A specific FDIC-administered bank resolution regime was introduced separate from the corporate insolvency law.

At that point the answer in the US to the "who pays?" question was, first, the shareholders, then unsecured creditors and uninsured depositors, then the surviving banks – who funded the deposit insurance that protected insured depositors.[9] And it was recognised that, for a number of reasons, banks were fundamentally different from companies and so needed to be dealt with separately in the event of their failure.

5. Details in this paragraph are taken from Usher (1943).
6. See Button et al. (2015).
7. The concept of limited liability can be traced back to the 15th century in England and to the Roman Empire in continental Europe.
8. The FDIC was established under the Banking Act of 1933, also known as the Glass-Steagall Act.
9. This order changed slightly in 1993, when national depositor preference (NDP) was introduced in the US. Under NDP, all US depositors, including uninsured depositors, were elevated in the creditor hierarchy in insolvency to rank ahead of other senior unsecured creditors.

First, the banks' business of maturity transformation means that, unlike companies, they are vulnerable to losses of confidence, which can lead to runs, contagion and wider systemic consequences. Second, as banks have developed they have become the main providers of money in modern economies – 96% of money in the UK is in the form of claims issued by banks. Bank depositors are consequently unlike creditors of companies – they are much more numerous, not professional investors and their claims on banks, as money, have a major role in the wider functioning of the financial system and real economy. And third, related to that, banks – again unlike companies – supply "critical economic functions", like the provision of credit and payment services, which if summarily stopped or disrupted could have adverse effects on the financial system or real economy more broadly.

Perhaps surprisingly, it still took the UK another 50 years to introduce deposit insurance and over 75 years to adopt a separate bank resolution regime. This may reflect the UK's lack of major banking crises, compared with the US and many other countries perhaps due to the ability of the Bank of England to use suasion to persuade the rest of the sector to support banks in trouble. Idiosyncratic bank failures were dealt with under the general insolvency law – Barings, for example, was placed into administration in 1995. On the very rare occasions where several banks were threatened simultaneously, the authorities induced the banking industry to provide support (the best example being the "Lifeboat" of 1973[10]). It was not until after the Northern Rock failure in 2007 – the first run on a British bank for around 150 years – that the UK introduced a separate bank resolution regime.[11]

But the liberalisation of banking that took place in the late 20th century was producing larger, more complex, more interconnected and more global banks. It became increasingly unclear whether national deposit insurance and bank resolution regimes could deal with the failures of such banks. Following the taxpayer bail-out of Continental Illinois in 1984, which cost over $1bn, the then Comptroller of the Currency coined the phrase "too-big-to-fail" to describe the largest 11 banks in the US.

10. The "Lifeboat" was a committee of the Bank of England, chaired by the Deputy Governor and consisting of the English and Scottish clearing banks, which first met on 28 December 1973.
11. The "special resolution regime" was the centrepiece of the Banking Act of 2009.

The markets concluded that the answer to the "who pays?" question for the largest and most complex banks was the taxpayer. And the markets were right – in the financial crisis most failed large banks were bailed out. Lehman was the exception, but its disorderly insolvency proved that even the oldest and most advanced bank resolution regime was unable to handle the failure of a very large financial institution.[12]

The bail-outs were necessary at the time. The risks of contagion, loss of confidence in the system and disruption to essential banking services were simply too great. But the costs had grown since Continental Illinois. The UK Government had to inject 13 times more money into RBS than had been used to bail out Continental Illinois.[13]

3. Is too big to fail inevitable?

The post-crisis period has seen a vast amount of work to develop better ways to deal with a failed bank and a better answer than 'the taxpayer' to the question "who pays?".

Some have argued that the effort has been misplaced. They have asserted that, if large cross-border banks really are too big to fail, the solution is to make them less large and cross-border – in other words, break them up. They can then be resolved more easily with less disruption to financial stability and the economy. Such banks would be national both in life and in death.

This, however, seems a second-best solution. As the Independent Commission on Banking (ICB) under Sir John Vickers noted, breaking up the large banks would risk reducing the diversification benefits they provide.[14] It would be likely to hinder international trade and investment and impede global finance. That is because it would undermine the way large cross-border banks support global trade and investment through exploiting economies of

12. This was essentially because the FDIC's regime covered only insured deposit-taking entities within large groups, but not other group financial companies, such as holding companies and investment bank affiliates. The adoption of the Dodd-Frank Act in 2010 changed this.

13. The FDIC injected $2.5bn as equity and subordinated debt into Continental Illinois (around $5bn at 2009 prices). This compares with at least $66.7bn (contingent) capital injections into RBS (using 2009 exchange rates).

14. See Independent Commission on Banking (2011).

scale and scope and through use of their existing customer knowledge. By allowing information to flow freely across borders and products, this enables such banks to offer a wide range of customer services to multinational clients at lower cost to both customers and banks.

A better solution is to ensure that such banks can be global both in life and in death. Ensuring such banks are resilient in life is the objective of the greatly strengthened capital standards put in place for the largest and most systemic cross-border banks under Basel III. Ensuring that they do not fall back on the national taxpayer in death requires such banks to be "resolvable" on a cross-border basis. The good news is that there has been very substantial progress towards this goal. The Financial Stability Board (FSB) has led this work internationally, stipulating core features of resolvability.[15] First, it must be possible to deal with the bank's failure in a manner that avoids severe systemic disruption and adequately mitigates the risks to global financial stability. Second, world-wide customers of the failed bank must have continued access to its critical economic functions. And third, the costs of the resolution must be imposed on the senior management, shareholders and unsecured creditors of the failed bank and not on public funds and taxpayers.

3.1 Resolution tools and powers

This requires that authorities have the necessary tools and powers to manage the resolution of all banks, no matter how large. Progress here has been significant since the crisis. In October 2011, the FSB's Key Attributes (KAs), the resolution global standard, was endorsed by the G20 Leaders. Among the resolution tools and powers deemed necessary were "bail-in", allowing shareholders and creditor claims to be written down and converted to equity; the ability to transfer part or all of a failed bank's business to a healthy bank (or temporary bridge bank pending sale to third parties); the ability to sack senior management culpable for the bank's failure; and the right to impose a stay on the immediate close-out and termination rights of counterparties of a failed bank.

Since 2011, an encouraging number of countries have acquired such powers by introducing or amending resolution regimes broadly in line with

15. See FSB (2014).

the KAs, most notably nearly all of the eleven home jurisdictions of the 30 or so global systemically important banks (G-SIBs). One important milestone was reached with the adoption of the EU Bank Recovery and Resolution Directive (BRRD) in 2014, which has introduced harmonised bank resolution regimes along the lines of the KAs throughout the EU. All this has given many countries a capability to deal effectively with failed banks that was entirely lacking eight years ago.

3.2 Resolvable bank structures

The powers to resolve a bank are not enough. It must be possible to apply those powers to implement an agreed resolution strategy in an orderly manner. This requires identification of any barriers to resolvability and action to remove those barriers. Some barriers may be generic, applicable across a range of firms. These may need to be addressed through the agreement of new international standards by the FSB and then implemented by national authorities.[16] Other barriers may be firm-specific. Their removal may require changes and simplifications to banks' structures. It is encouraging that more countries are now able to require firms to make changes to their legal and operational structures if that is necessary to ensure their resolvability. In the UK, moreover, implementation of the recommendations of the International Commission on Banking will simplify bank structures by separating retail commercial and wholesale investment banking businesses, thereby contributing to more resolvable banking groups.

3.3 Loss absorbency

But ultimately at the heart of changing the answer to the "who pays?" question is the need to ensure that banks are financed in a way that supports resolution: that there are creditors who can bear losses. An important milestone was reached on this front when the G20 Leaders endorsed the FSB's

16. Examples would include contractual provisions to secure cross-border application of stays on termination rights; rules to ensure operational continuity in resolution and continued access of firms in resolution to payment and settlement facilities as long as the firm performs on its obligations in those facilities; and provisions to ensure adequate funding in resolution.

standard for total loss-absorbing capacity (or TLAC) in November 2015. This requires G-SIBs to issue sufficient equity and debt that can absorb losses and recapitalise a failed G-SIB in the event of failure in a manner that ensures it is fully resolvable. In the EU, this concept is known as MREL – the minimum requirement for own funds and eligible liabilities. In the crisis, it proved impossible to bail in a bank's creditors as their claims were entangled with other liabilities that were crucial to the bank's continued operations. Resolution requires that in future such creditors can be bailed in without forcing the closure of the bank.

TLAC and resolution tools such as bail-in provide an answer to the "who pays" question. TLAC includes equity as well as debt so clearly the shareholders stand first in line to pay losses. Then come the holders of non-CET1 capital instruments, such as AT1 and T2 instruments. Other junior debt holders stand next in line, then senior unsecured liability holders, followed by preferred depositors (such as in the EU households and SMEs in respect of their deposits above the deposit insurance limit). Last in line are the insured depositors – whose losses are fully covered by deposit insurance funded by the rest of the banking industry – and secured creditors.

A problem may arise, however, in the senior unsecured creditor layer. In many jurisdictions, this layer is very wide and heterogeneous, including the claims of uninsured depositors, corporates, interbank liability holders, derivatives counterparties (in respect of any uncollateralised portion of their claim), trade creditors, and holders of other bank liabilities such as pensions and tax. Often, these claims all rank *pari passu* with those of senior unsecured bondholders. As noted above, one lesson of the crisis was that it can be very difficult to bail in some of these claims without causing contagion or undermining the continued provision of critical economic functions.

That is why we need to single out unambiguously and in advance a typical type of creditor who can absorb loss if the bank fails. That is what the TLAC standard sets out to do. Of course, pre-positioning such creditors will have a cost, but that is the counterpart of the hidden subsidy given to large banks by an implicit taxpayer guarantee. Eliminating the subsidy also eliminates the unfair competitive advantage of large banks over smaller banks and encourages a more dynamic banking sector in which entry and exit is easier.

The BRRD requires resolution authorities to set MREL for each EU bank

rather than just the G-SIBs. It is therefore important for countries to set out clearly how they intend to implement the MREL.

Following consultation, the Bank of England published its final policy on MREL in November 2016[17]. The Bank's policy goes further than that so far published by most other authorities – which merely set out a generalised objective for the quantum of TLAC or MREL – by allowing that quantum to vary depending on the preferred resolution strategy.

The Bank's policy distinguishes three broad resolution approaches: bail-in to keep the bank open; partial transfer; and liquidation. It notes that bail-in will generally be required for the largest and most complex banks. That is because there is unlikely to be a buyer big enough or strong enough to acquire such a bank. And it is unlikely to be feasible to split up its business between its good and bad parts quickly, preparatory to seeking a buyer purely for the good part. But the Bank indicates that a partial transfer could be possible for smaller and medium-sized banks, if they supply critical functions in sufficient size. If they do not, liquidation would be the preferred strategy.

The policy requires most MREL resources to support a bail-in to keep the bank open, because that aims to recapitalise the entire balance sheet of the failed bank in the initial phase of the resolution, prior to a subsequent restructuring of the bank to address the causes of its failure. The Bank requires in this case a "doubling up" approach, setting MREL broadly at twice minimum capital requirements (including any firm-specific add-on). This is based on the presumption that all capital will turn out to have been lost following the resolution valuation of the failed bank.[18] And the Bank also stipulates that these resources must be subordinated to senior operating liabilities given that it may be difficult to bail in all those liabilities while still achieving continuity of critical functions. Subordination reduces the extent to which a bail-in will need to extend to the senior creditor layer and then depart from *pari passu* treatment, with consequent legal risks.

In a partial transfer, by contrast, lower MREL resources will be required because only that part of the balance sheet to be transferred will need to be

17. See Bank of England (2016)

18. This assumption is enshrined in the EBA's RTS on MREL, based on the fact that the crisis demonstrated that the resolution valuation is likely to crystallise further losses that may not have been recognised in the run-up to resolution.

recapitalised. And subordination will not be necessary if all preferred deposits are included in the transfer and only uninsured deposits ranking equally with senior unsecured debt are left behind with the rump of the failed bank. These "left-behind" liabilities will not be needed to ensure continuity of critical functions and so can be treated on a *pari passu* basis when winding down the rump. If liquidation is the resolution strategy, by contrast, no recapitalisation takes place so no MREL resources above minimum capital requirements are needed.

Sufficient loss-absorbing capacity is clearly central to changing the answer to the "who pays?" question from taxpayers to shareholders and creditors. But two other things are also needed. First, everyone must be aware of the change and know where they stand in the creditor hierarchy if a bank fails. This will ensure that bank debt is accurately priced as creditors have incentives to monitor and control bank risk-taking. That was lacking in the too-big-to-fail world, which encouraged excessive risk-taking on the part of large banks. So the FSB standard requires full disclosure of TLAC on a legal entity basis. And second, it would not make sense to change the answer from taxpayers to creditors if those creditors were largely banks which could themselves fail when bailed in. To mitigate this potential "contagion" effect, the FSB standard suggests a "deductions" approach to holdings of TLAC, rather like that which applies in the Basel III capital regime to holdings of one bank's capital by other banks. Both these aspects are being developed by the Basel Committee on Banking Supervision (BCBS), which following consultation has recently issued a final standard on the deductions regime[19] and will shortly do the same on disclosure.

4. Resolution of a cross-border bank can only succeed with international cooperation

The hardest challenge in ending too big to fail is dealing with the failure of systemically important banks that operate in a number of jurisdictions. The crisis proved beyond doubt that we did not have the international machinery

19. See BCBS (2016)

to handle this. The most important element in resolving an international bank is that it is global in death as well as in life.

A number of reforms to promote cross-border resolution are in train. One is all about ensuring that resolution powers, such as bail-in and stays on termination rights, are effective across key jurisdictions. Another seeks to ensure that key contractual arrangements with a firm are "resolution-proof", ie continue to be applicable as long as a firm in resolution performs on its obligations under those contracts. But the key ultimately is international co-operation.

Since 2008, "crisis management groups" (CMGs) have been established for each G-SIB. These consist of the authorities of the home and key host jurisdictions in which the G-SIB has major operations. The UK, as an important home and host jurisdiction, serves on more of these CMGs than any other country – 4 as home authority and 14 as host.[20] The CMGs have now reached agreement on preferred resolution strategies for virtually all the G-SIBs. For most of them, the strategy involves application of the bail-in tool at a "single point of entry" (SPE). This would generally be the parent or holding company of the group and would serve to recapitalise either this entity or a successor entity to which the critical operations of the failed parent have been transferred.

But the recapitalisation merely restores solvency to the group to allow the bank to continue operating while it is resolved – it does not address the underlying causes of the firm's failure. So the bail-in must be followed by a longer-term restructuring of the group designed to restore its viability, for example by preserving the group's critical economic functions and winding down non-critical operations. Once a bank has been stabilised in resolution, sale of all or part of its operations become a more possible option. A group that emerges from this process should be smaller and less complex than the one that failed, with new senior management and a new less risky business plan – resolution is not resurrection.

The agreement of SPE bail-in in the CMGs as the preferred resolution strategy for most G-SIBs is a major achievement. It recognises that most large and complex cross-border banks are structured and managed in a

20. Similar groups for smaller cross-border EU banks – known as "resolution colleges" – are also being established following adoption of the BRRD.

centralised and inter-dependent manner – major affiliates are dependent on other group entities for key services and facilities and closely interconnected with them. And it greatly reduces the complexities in cross-border resolution by focusing the action on a single "resolution entity" and ensuring that the major operating subsidiaries of this entity remain open for business throughout the resolution.

A few G-SIBs, however, operate in key jurisdictions through largely separately managed and financed subsidiaries. The CMGs for these banks have agreed resolution strategies based on a "multiple point of entry" (MPE) approach, in which the key separate parts of the group would each be resolved in a resolution coordinated by the home authority. This is a more complex procedure but it draws on aspects of the SPE approach, generally on a regional rather than global basis.

These agreed resolution strategies are also being underpinned by firm-specific co-operation agreements (CoAgs) negotiated in the CMGs. These set out the coordination and information-sharing necessary between the CMG members to implement the preferred resolution strategy. By securing ex ante commitment to that strategy, the CoAgs seek to address the "time-inconsistency" problem of resolution – the risk that, when a big cross-border bank fails, the home and host authorities will not in the event implement a co-operative resolution but each seek to save "their" parts of the bank. To avoid this, national authorities need to have the right incentives to cooperate in a crisis and stick to their ex ante agreements.

One such incentive is provided through so-called "internal TLAC", or internal MREL in the case of EU member states. Within G-SIB groups, TLAC has to be issued externally to the market by the "resolution entities", ie the entities to which resolution tools will be applied in implementing the agreed resolution strategy. However this leaves the loss absorbing debt or equity in the jurisdiction of the home supervisor creating an incentive for a host supervisor at times of stress to seek to 'ringfence' local loss absorbency. The solution to this problem in the TLAC standard is for major operating subsidiaries of such resolution entities in host jurisdictions to issue internal TLAC, ie equity and debt instruments to the resolution entities, so that losses at these subsidiaries may be passed up to the resolution entities without the operating subsidiaries needing to enter resolution.

The triggering of this internal TLAC will require the agreement of both home and host authorities. They have incentives to cooperate and reach agreement because the inter-dependence of most global banks means that cooperation is in the interests of both home and host. If the home refuses to cooperate, hosts are likely to seize local assets of the group for the benefit of local depositors and creditors, which will reduce the estate available to the home authorities in a separate home proceeding. And if the host refuses to cooperate, essential facilities and services provided by affiliates in the home country to the host subsidiary may be interrupted, undermining the provision of critical economic functions in the host.

So it is in the interests of both home and host authorities to allow internal TLAC to be triggered when a major host subsidiary fails, pushing up losses to the relevant resolution entity. That will ensure that the home authority will be able to coordinate the implementation of a resolution that has access to all the world-wide assets of the group and will maximise the chances of retaining value through the major operating parts of the bank remaining in business. Both home and hosts will be aware that failure to cooperate will be likely to destroy value through encouraging competing grab-races for assets. The trust and understanding built up in the CMGs will be fatally undermined if they do not adhere to the pre-agreed resolution strategy, because that will in turn make any future cooperation in a subsequent failure much less likely. There is now too much at stake for authorities not to cooperate in dealing with the failure of a major cross-border bank.

5. These reforms are reducing market perceptions that banks are still too big to fail

Since 2011, rating agencies have almost eliminated their "government support" uplifts for large banks, which peaked at on average three notches following the crisis. Market indicators, such as CDS spreads on bonds relative to equities or spreads on holding company debt relative to operating company debt, convey the same message – bail-in resolution strategies for cross-border banks are gaining credibility.

Some are concerned that this implies increased funding costs for banks, making them less able to lend to the real economy. But funding costs depend

not only on banks' loss-given-default (LGD) but also, and even more so, on their probability-of-default (PD). The resolution reforms are likely to lower PD by eliminating the incentives that perceptions of government bail-outs provided to banks to take excessive risks and by incentivising banks' creditors to exert discipline on banks' activities.[21] The FSB's impact assessment study on TLAC found that the average reduction in PD for the G-SIBs could be as much as one-third. When combined with the effect of TLAC in reducing the impact of crises, it concluded that the benefits of TLAC far outweighed the costs.[22] And those costs will be further limited by the fact that authorities around the world are implementing the reforms in a gradual and proportionate manner.

6. Brexit will not lead to any major dismantling of the UK's resolution regime.

In the more than seven years since the UK's own special resolution regime (SRR) was introduced, the UK can claim to have been something of a market leader on bank resolution. It has passed no fewer than four further major pieces of legislation that have expanded the scope and toolkit of the SRR and introduced other changes to align the UK framework closely with the global standard represented by the KAs. The last of these implemented the BRRD into UK law.

What effect will Brexit have on the UK's approach to resolution? We do not as yet know what the outcome of the forthcoming negotiations will mean for the UK's relationship with the EU. The Bank will remain committed to the implementation of robust prudential standards in the UK financial system, irrespective of the particular form of the UK's future relationship with the EU. This will require a level of resilience to be maintained that is at least as great as that currently planned, which itself exceeded that required by international baseline standards. The UK's approach to resolution follows international standards, was developed before the EU legislation and fits within the EU

21. The economics literature provides considerable evidence of this – see, for example, Afonso et al (2014). The effect reflects much stronger incentives on creditors whose claims are within the scope of bail-in and other resolution tools to monitor, and if necessary constrain, the risks banks are taking.
22. See FSB (2015).

framework. It is highly unlikely that Brexit will lead to any major changes in the UK's approach to bank resolution, either domestically or globally.

And globally, Brexit will not change the international resolution standards that have been agreed in recent years at G20 level, such as the KAs and TLAC. Both the UK and the EU will continue to wish to adhere to these standards. Banks will remain global and the UK is likely to remain a key home and host jurisdiction for cross-border banks. So the UK will need to continue to seek to foster cooperation and trust with international partners, including those in the EU, to ensure well-understood robust arrangements are in place to govern how to deal with the failure of large and complex banks. The UK will also continue to work with partners in the EU, other jurisdictions, and at global and FSB levels to refine our preferred resolution strategies for each global bank, to identify barriers to the implementation of those strategies and to ensure that action is taken appropriately to remove those barriers.

7. Conclusion

In the last crisis, the answer to the question of "who pays?" when a large bank fails was the taxpayer. Reflecting the ensuing understandable public anger at this outcome, policy makers have undertaken a huge amount of work post-crisis to change this answer. Many jurisdictions have adopted special resolution regimes which give them powers to deal with failed banks that were not available in the crisis. Authorities in the main jurisdictions have reached agreement on how those powers would be used to resolve each major bank in future, in a manner that imposes the costs on the shareholders and unsecured creditors of the bank. Following the publication of the FSB's TLAC standard, those jurisdictions are now making proposals to ensure sufficient loss-absorbing capacity is available at each bank to achieve that outcome. And authorities are identifying barriers to the implementation of the preferred resolution strategies and moving on to consider how best those barriers may be removed.

The biggest challenge is how best to ensure international cooperation in dealing with the failure of large cross-border banks. Here too impressive progress has been made since the crisis. Crisis management groups for each G-SIB have been established, resolution strategies based on SPE or MPE

negotiated, and cooperation agreements are now being agreed to ensure the necessary coordination takes place to implement these strategies in the event of failure. And incentives to cooperate have been hard-wired into the system to address the time-inconsistency problem of resolution. There is much greater awareness that it is in the interests of both home and host authorities to cooperate to effect an orderly resolution rather than engage in grab-races for assets that merely succeed in destroying value.

Brexit is unlikely to change the UK's approach to resolution. Regardless of its future relationship with the EU, the UK will seek to continue to cooperate with partners in the EU and in other jurisdictions to ensure that global standards on resolution are respected and to promote robust arrangements that govern how to deal with the failure of large and complex banks.

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An Anatomy of Bank Bail-ins
Why the Eurozone Needs a Fiscal Backstop for the Banking Sector

by Emilios Avgouleas and Charles Goodhart[23]

Abstract

Bail-ins could prove an effective way to replace the unpopular bail-outs. In the EU the doom-loop between bank and sovereign indebtedness left governments with a major conundrum. Thus, the EU resolution regime requires the prior participation of bank creditors in meeting the costs of bank recapitalisation before any form of public contribution is made. But, there is a danger of over-reliance on bail-ins. Bail-in regimes will not remove the need for public injection of funds, unless the risk is idiosyncratic. This suggestion raises concerns for banks in the periphery of the euro-area, which present very high levels of non-performing assets, crippling credit growth and economic recovery. To avoid pushing Eurozone banks with high NPL levels into bail-in centred recapitalisations, we have considered the benefits from and legal obstacles to the possible establishment of a euro-wide fund for NPLs that would enjoy an ESM guarantee. Long-term (capped) profit-loss sharing arrangements could bring the operation of the fund as close to a commercial operation as possible. Cleaning up bank balance sheets from NPLs would free up capital for new lending boosting economic recovery in the periphery of the Eurozone.

23. Professor (Chair) of International Banking Law and Finance, University of Edinburgh; Norman Sosnow Professor of Banking and Finance (Emeritus, LSE).

1. Introduction

Bank bail-outs are a source of moral hazard and they undermine market discipline. Bail-outs can also have a destabilizing impact on public finances and sovereign debt. These concerns led to reforms meant to internalize the costs of bank failures of which the foremost is the implementation of bank creditor bail-in regimes. The bail-in approach constitutes a radical rethinking of who bears the ultimate costs of the operation of the financial system and especially of fractional reserve banking. Essentially, it replaces the public subsidy with a private penalty or with private insurance forcing banks to internalize the cost of the risks they assume (Avgouleas and Goodhart, 2014, 2015). This penalty is meant to force creditors to intensify bank monitoring, thereby helping to restore market discipline and become more alert about the levels of leverage a bank carries (Avgouleas, 2014). Creditor reaction to prospective bail-ins may raise *ex ante* the cost of bank funding and limit excessive leverage. Since shareholders have every incentive to build leverage to maximize their return on equity (Admati et al., 2013; Avgouleas and Cullen, 2015). So, the treat of creditor bail-in should, in principle, eliminate the 'too-big-to-fail' subsidy that bigger banks enjoy and the important governance costs that are associated with excessive leverage (Admati et al., 2012; Avgouleas and Cullen, 2014).

In the European Union (EU), the doom-loop between bank instability and sovereign indebtedness left governments with a major conundrum. But instead of using the European Stability Mechanism (ESM),[24] as part of a euro-TARP-like arrangement to offer a limited fiscal backstop to the European Banking Union (EBU), euro area governments thought it suitable to rely on bail-ins of bank liabilities. The EU resolution regime comprising the EU Bank Recovery and Resolution Directive (BRRD)[25] and the ESM statute,[26] requires, in the absence of private funds, the prior participation of bank creditors in meeting the costs of bank recapitalisations before any form of public contribution is made.

24. Intergovernmental Treaty Establishing the European Stability Mechanism, 2 February 2012, T/ESM 2012/en 2.
25. Directive 2014/59/EU establishing a framework for the recovery and resolution of credit institutions and investment firms OJ L 2014 173/190 [hereinafter BRRD].
26. 'European Stability Mechanism By-Laws', 8 October 2012.

What complicates such intentions is that non-performing bank assets in the eurozone, mainly comprising Non-Performing Loans (NPLs), have increased by more than three-fold to €928 billion as of end-September 2015 from €292 billion as of end-December 2007 (ESM, 2015, p. 42). European banks carry this large stock of NPLs on their balance sheets – the single largest legacy of the past crisis. NPLs are not distributed evenly across the euro area, with banks in crisis-hit periphery countries holding more than two thirds of the total for the euro area as a whole. In Portugal, for example, about 30% of small- and medium-sized enterprises currently have at least one loan that is not performing (ESM, 2015, p. 42). The proportion of bank capital that NPLs absorb rose to 8.1% of all bank lending as of end-September 2015 from 1.6% as of end-2007. At the beginning of the financial crisis, NPLs absorbed roughly the same proportion of banks' capital in both groups of countries (1.6%). By end-September 2015, however, this ratio had climbed to 14% in the peripheral countries versus a more limited 4% in the core countries (ESM, 2015, p. 42).

A large number of older and more recent research studies and reports by international organisations suggest that the level of NPLs in the banking sector can be important for credit extension and growth.[27] Weak bank balance sheets can act as a drag on economic activity, especially in economies that rely mainly on bank financing like Eurozone's. Relevant studies find that higher NPLs tend to reduce the credit-to-GDP ratio and GDP growth, while increasing unemployment. A recent IMF study by Aiyar et al. (2015a) has shown that this is also consistent with data from EZ banks over the last five years.

Aiyar *et al.* (2015b) have found that high NPL ratios tie up bank capital that could otherwise be used to increase lending, reduce bank profitability, and raise funding costs – thereby dampening credit supply.[28] Reducing NPLs expeditiously is therefore crucial to support credit growth. For this reason, ESM's view that sole reliance on GDP growth will not lead to a sufficiently fast decline of NPLs carries extra weight.[29] An IMF report on NPLs has noted that

27. The literature on financial dependence and growth is well-established Rajan and Zingales (1998), Kashyap et al. (1994). Several recent studies have looked specifically at the feedback effects from NPLs to macroeconomic performance and have reached similar conclusions. E.g., Klein (2013), Nkusu (2011), and Espinoza and Prasad (2010). K. Bergthaler, Y Liu, D Monaghan (2015).
28. Aiyar et al. (2015b), figure 2.
29. ESM, "Annual Report – 2015", pp. 42-43.

lasting recovery following a financial crisis requires bringing down NPLs. But, while the IMF has made the ratio of NPLs key to its measurements of financial sector strength,[30] it has not explained what is an acceptable level of NPLs, implying that the optimal ratio is as low as possible. The rationale, as may be gauged by said IMF report is that NPLs on banks' balance sheets create uncertainty and weigh on their ability to resume lending, and thereby influence aggregate demand and investment.[31]

The most likely source of such uncertainty extends to doubts about the bank's solvency itself,[32] because the bank involved has not written down the true value of the NPL assets, and the market assumes that the accounting value of the capital that banks show on their books is overstated. Another important factor is that NPLs reduce bank profitability, and thus, however well a bank seems to be capitalised, a bank with very low profitability is always assumed to be only a few steps away from trouble.[33]

The large stock of NPLs is an important cause of anaemic economic activity in the Eurozone not just because of reduced lending and overhang but also due to a persistent impression of bank fragility. Another issue is that unresolved NPLs suppress the economic activity of overextended borrowers[34] and trap resources in unproductive uses. So resolving impaired loans is tantamount to tackling the debt overhang stimulating demand for new loans for viable firms, while promoting the winding-down of unviable firms.[35] Finally, cleaning up the bank lending channel would enhance the transmission of monetary policy to the real economy.

The European Central Bank (ECB) has recently consulted on obstacles to NPL restructuring and supervisory and business tools to tackle NPLs, which clearly shows a strong intention to do so on a going concern bank basis (ECB, 2016). But what the ECB has put to consultation is more a framework for dealing with

30. The IMF employs a "nonperforming loans net of provisions to capital" ratio as an indication of the extent to which losses can be absorbed before the sector becomes technically insolvent. IMF (2015, Ch. 6, para 6.15).

31. ESM, "Annual Report – 2015", p. 4. 2016

32. In fact, if a separate set of variables to what EBA uses for its stress tests is employed, the impression of vulnerability is even stronger. See Acharya et al. (2016).

33. Indicatively, Acharya et al. (2016) note that "[s]ince the start of the Banking Union in Nov. 2014, European banks lost nearly half their market capitalization".

34. E.g., 80% of NPLs in Italy are loans to corporates (Jassaud and Kang, 2015, p. 6).

35. Ibid. p. 17; Aiyar et al. (2015b, p. 17).

new NPLs and tackling a manageable load of distressed assets through prudential and other measures and less a radical cleaning up of legacy loans. So disincentives to write off NPLs persist, due, inter alia, to low earlier provisioning,[36] and recapitalization and bail-in concerns are ever present given also low market capitalisations for Eurozone banks that discourage private investment.

One possible way of overcoming the problem of legacy loans would be the establishment of euro area Asset Management Company for NPLs. Addressing the NPL issue implies allocating losses within the system, e.g., banks customers, the banks, investors, or the states. However, concentration of NPL management in an AMC can create economies of scale. Also a euro-AMC could undertake to amortize loss over a longer period while freeing up bank balance sheets. This method is arguably superior to other asset protection schemes that leave NPLs on-balance sheet.

There are, however, many issues to consider before one could confidently advocate such an institutional reform. Some of these are the legal obstacles (e.g., enforcement of collateral, business liquidation) and tax dis-incentives encountered in many EU jurisdictions (e.g., Italy)[37] and the intricacies of domestic justice systems, which are widely blamed for the persistence of high NPL ratios in the Eurozone.[38] Yet many jurisdictions have made serious progress to remove legal obstacles and have streamlined their insolvency laws (e.g., Italy, Cyprus, Greece).[39] So further harmonization of national bankruptcy laws may not be as important as it would have been a few years ago. Moreover, even if complete harmonization was possible remedying problems relating to judicial process and culture would certainly be a long-term exercise. But tackling bank legacy assets in the periphery of the Eurozone cannot wait much longer for the aforementioned economic reasons.

Another key obstacle a euro-AMC would face would be the form of any public support it could enjoy to avoid a breach of the prohibition of article 125 of the Treaty for the Functioning of the European Union (TFEU). We suggest that a possible euro-AMC should utilize private arrangements for the

36. For disincentives facing bank managers to write off NPLs in Italy see Jassaud and Kang (2015, p. 11).
37. Ibid. p. 13.
38. Aiyar et al. (2015b).
39. E.g., at the end of 2015 Greece passed law 4354/2015 (the "NPL Law") aiming at facilitating the sale of NPL portfolios to non-bank companies.

transfer of NPLs to the AMC with losses amortized over a long-time and accompanied by (capped) profit-loss arrangements to cover any losses the AMC might suffer. As regards any residual final losses eurozone authorities might wish to consider the possibility of granting the AMC an ESM guarantee. Arguably, the closer to market terms the conditions governing the operation of a euro-AMC the more likely that such an arrangement could pass,[40] or entirely avoid state aid restrictions.[41] Moreover, if the transfer of NPLs to the AMC becomes subject to implementation of a new business plan by selling banks for authorities to sanction the transactions and/or a structural conditionality to dispose of business lines and assets at commercial value to the market, then cleaning up of NPLs may also serve as an effective remedy to facilitate new entries to an over-concentrated sector.[42]

The possibility of constructing a euro-AMC to relieve banks in eurozone's periphery from the burden that NPLs currently pose is also supported by the fact that the current EU resolution regime is unhelpful in fostering early resolution of distressed loan portfolios. In general, bail-ins have their own and largely underestimated risks. Overconfidence about the virtuous impact of bail-in regimes was in part the result of the regulatory and intellectual enthusiasm bail-ins have generated as an alternative to the discredited bailouts. Also due to the fact that in the Cypus incident the deep haircut was partly absorbed by non-EU creditors.

But perceptions have changed since the mini-crash of European banking stocks in January and February 2016, and even more so due to the question marks hanging around banks beyond the Euro zone periphery. These concerns have brought into sharp focus the feasibility of imposition of losses on general bank creditors when there is a looming threat of a systemic crisis. They have also revealed the behavioural implications of the threat of generalized bail-ins.

40. See EU Commission, Press Release, "State aid: Commission gives final approval to existing guarantee ceiling for German HSH Nordbank", 3 May 2016. The rationale of earlier Commission decisions on the supply of an asset protection guarantee to Nordbank by its majority shareholders, the Lander of Hamburg and Schleswig Holstein, centered on the fact that the guarantee was offered on commercial terms. The latest decision requires drastic asset disposals. While the decision refers to state aid offered before the implementation of the BRRD and it is probably not the right precedent, the commercial terms language may not be ignored.

41. The key element of national AMC schemes to avoid state aid investigations and BRRD restrictions in the post-BRRD era has been asset disposal at commercial value (e.g., Hungary). See Mesnard et al. (2016, p. 7).

42. Following a wave of consolidation levels of concentration within the eurozone banking system have gone up by four points since 2008. In countries worst hit by the crisis concentration levels range from over 55 % (Spain) to nearly 100 % (Greece). See Garrido (2016), figure 2.

2. Unpacking the Bail-in process

A. Are Creditor Bail-ins a Superior Loss Absorption Mechanism?

(i) Who Should Bear the Losses?

The scale of losses flowing from bank failures is initially independent of the identity of those upon whom the burden of meeting that loss falls. But, such losses can also entail critical externalities. These have traditionally justified the use of public bail-outs to avoid the systemic threat that the failure of any bank beyond a certain size carries with it. As mentioned earlier, the bail-in process is based on the penalty principle, namely, that the costs of bank failures are shifted to where they best belong: bank shareholders and creditors. But the idea that the penalty for failure can be shifted onto an institution is incorrect. Ultimately all penalties, and similarly benefits, have to be absorbed by individuals, not inanimate institutions. When it is said that the bank will pay the penalty of failure, this essentially means that the penalty is paid, in the guise of worsened terms, by bank managers, bank staff, bank creditors, or the borrowers. The real question is which group of individuals will be asked to absorb the cost.

(ii) Contagion risk

A desideratum for a revenue raising mechanism is that the taxed cannot easily flee. It is difficult to avoid taxation, except by migration, which has many severe transitional costs. In contrast, it is easy to avoid being hit with the costs of creditor bail-in; you just withdraw or sell your claim. Consequently, triggering the bail-in process is likely to generate a capital flight and a sharp rise in funding costs, whenever the need for large-scale recapitalizations becomes apparent. Creditors who sense in advance the possibility of a bail-in, or creditors of institutions with similar asset or regional characteristics will have a strong incentive to withdraw deposits, sell debt, or hedge their positions through the short-selling of equity or the purchase of credit protection at an ever-higher premium disrupting the relevant markets. Such actions could be damaging and disruptive, both to a single institution and potentially to wider market confidence.

It is, of course, true that equity holders and bond holders cannot run in the same way that depositors can, but financial counterparties can easily do so

and will do so if they do not immediately see a hefty capital cushion in the bailed-in bank. If such counterparties flee then equity and bond holders would certainly follow and in their attempt to do so they would drive asset values sharply down. This would make the option of raising new money, or rolling over existing maturing bonds, unattractive or virtually impossible. In such circumstances, bank credit extension would stop, amplifying the downturn, lowering asset values and putting the solvency of other banks at risk.

Excluding depositors of all brands from bail-in might reduce the danger of contagion but would not remove it. In the absence of a fiscal backstop for other parts of the financial system, if bail-in is triggered before measures have been taken to buttress the rest of the financial system, a creditor flight from other banks will be certain, spreading the tremors throughout the financial system, even if those banks retain sufficient amounts of CoCos and other specially designed bail-in able debt whose only purpose is to absorb bank losses.

(iii) Valuations

Triggering the bail-in process will prove unsuccessful if bank losses are not properly identified in some finite form. The determination of bank losses including unrealized future losses must be accurately determined in order to avoid successive rounds of bail-in losses accruing to bank creditors. This might in fact prove a challenging task. For example, bank losses in the recent crisis have consistently been underestimated.

Asset valuation is an inexact science and market cyclicality makes this task even harder.[43] In the uncertain conditions of generalized asset value declines, the new (incoming) accountants, employed by the resolution agency, are likely to take a bad scenario (or even a worst case one) as their base case for identifying losses, to be borne by the bailed-in creditors, partly also to minimize the afore-mentioned danger of underestimation leading to further calls on creditors. Previously the accountants of the failing bank itself will have been encouraged (by management) to take a more positive view of its (going concern) value. Thus, the transition to bail-in is likely to lead to a huge discontinuity, a massive drop, in published accounting valuations.

43. E.g., Bank failures during boom conditions, for example resulting from fraud, such as Barings, are easier to handle with less danger of contagion.

For the resolved bank, itself a dimmer view of the value of bank assets will result in a much deeper write-off or conversion haircut and ensuing creditor losses than the valuation assumptions used by the previous set of auditors would have necessitated. This could put into question amongst the general public the existing valuations of other banks, and lead, possibly rapidly, to a contagious crisis. Moreover, as nobody really knows what creditors would have received in insolvency the no creditor worse off principle could mean nothing in practice.

Exclusive reliance on creditor bail-in to recapitalize banks could even result in several rounds of creditor bail-ins even post-resolution. This was the case with creditor bail-in at the Portuguese Novo Banco, which was the resulting good bank, from the resolution of the failed Espirito Santo bank.[44] But successive bail-in rounds are a recipe to scare investors when market funding will be needed the most to restore the resolved bank or its successors to full financial health. bank destroying market confidence in the resulting good bank post-resolution.

(iv) Post-bail-in funding

Market confidence in the bailed-in institution would have to be quickly restored in order to preserve franchise value and repay official liquidity support (Sommer, 2014). This is mostly dependent on how fast the capital structure of the requisite bank (or the new bank in the event of a 'closed' bank process) is rebuilt. If the institution has entered into a death spiral with customers, creditors and depositors fast disappearing, reversing the trend would doubtlessly prove a task of daunting proportions.

In fact, the implementers of the bail-in mechanism seem to have underestimated the dynamics of a bank run ex post, even where creditors face no potential losses in the aftermath of a bailout or a rescue by the resolution fund, due, presumably, to reputation risks as well as the (irrational) fear of future risks (Carlson and Rose, 2016). This dynamic is of course much greater in the case of banks where creditors have already experienced large losses due to the triggering of bail-in and where experience with subsequent bail-ins after the initial haircut is rife (Arnold and Hale, 2016; Whittall, 2016).

44. E.g., the senior creditors of Novo Bank had to suffer a further bail-in round inspite the steep haircut applied to junior creditors of the failed bank. See Arnold and Hale (2016) and Whittall (2016).

B. Behavioural and other ex ante impact of bail-ins on timely intervention and speed of resolution

Speed of resolution/recapitalization (albeit at the expense of flexibility) is one of the reasons for the popularity of bail-ins among regulators (Sommer, 2014). The issue of when to trigger the bail-in process, taking also into account the requirements of early intervention regimes (for example, Title III BRRD), is a matter of cardinal importance. Identification of the right time and conditions to trigger the bail-in tool in a process that converts either specially designed or general bail-inable debt will be one of the most important decisions of any bank supervisor. If the supervisors trigger bail-in early, then the full measure of losses may not have been fully revealed, risking further rounds of bail-in. But if the supervisor determines to use the bail-in tool at a later stage, when the full scale of losses to be imposed on creditors is revealed, they risk a flight of general bank creditors.

One of the biggest challenges facing modern resolution regimes is giving regulators and, to some extent, the troubled institution's management the right incentives to act early especially when it comes to tackling problematic assets, mainly NPLs. However, experience so far has shown that in a scenario where the banks of a given financial system face a high rate of NPLs, regulators act faster where there is a possibility of a state backed AMC (Arner et al., 2016). In contrast, where tackling a large number of NPLs on a systematic basis raises the possibility of creditor bail-ins, regulators show signs of forbearance. Namely, the behavioural impact of uncertain outcomes associated with the application of bail-in regimes seems to be the exact opposite of what was intended by the new resolution regime: earlier intervention. Naturally, the more delayed the onset of resolution, the more essential it will be to put more emphasis on an earlier recovery phase, which may be delayed if bank management does not face the right incentives (Goodhart and Segoviano, 2015).

3. Building a Eurozone AMC

As said earlier, a possible solution to the nearly intractable problem of NPLs in the periphery of the eurozone could be the establishment of a euro-AMC. The BRRD does not entirely rule out the possibility of injection of public

funds to a distressed bank, subject to the very strict conditions of articles 37(10), 56, 58 BRRD, and as a last resort. Inevitably, such injection of public funds would indeed amount to a form of state assistance.[45] It is, thus, unclear, whether a euro-AMC operating on the basis of a public guarantee would benefit from the exemption.[46]

On the other hand, AMC transactions with going concern banks could bypass the BRRD requirements altogether. NPLs could be transferred to the AMC by banks that have neither entered the resolution or pre-resolution stage. Sales of NPLs to a euro-AMC would free up capital for new lending, relieving, to some extent, eurozone's debt overhang, chiefly observed in Greece and Italy. But another obstacle would remain: the EU state-aid rules under article 107 TFEU.[47]

EU state aid rules have been applied to the EU banking sector with various degrees of flexibility. A euro-AMC could buy at a specified range of haircuts bank NPLs that have not already been tackled by country AMCs e.g. outside of Ireland or Spain. The haircut would not exceed by much any provisions and write offs the bank has already charged to minimize bank losses. Overall the objective of the AMC would be to buy the asset at a price that wouldn't trigger a requirement for immediate capital injections.[48] Any losses incurred by the AMC if the asset is subsequently sold below acquisition price could be amortized and covered through (capped) long-term profit-loss arrangements with the selling bank.

The impact on bank capital of relevant losses would be amortized and absorbed in conjunction with other measures currently adopted to boost EU bank capital, including the adoption of IFRS 9.[49] Moreover, (capped) long-term profit loss arrangements would, first, encourage banks to pursue strategic defaulters. The higher the recovery rate the lower the possibility of future loss. Secondly such arrangements open the possibility of banks sharing in any profit derived from higher recovery values.

45. Art 2(1)(28), BRRD.
46. For forms of ex ante burden sharing Goodhart and Schoenmaker (2009).
47. Rec 57, Rec 41, BRRD.
48. See also Mesnard et al.(2016, p. 6).
49. EBA Press Release, "EBA provides its views on the implementation of IFRS 9 and its impact on banks across the EU", 10 Nov. 2016.

A key difference between national AMCs working this way and a possible euro-AMC would be that residual investor losses on liquidation beyond a pre-determined level could be covered by an ESM guarantee. Without said guarantee it would be impossible to attract in sufficient quantities of private investment for a euro-AMC. Admittedly, any direct fiscal transfers from member states to a euro-AMC would fall foul of Art. 125 of the TFEU. But would the same be the case if the scheme only enjoyed an ESM guarantee?

While the legal questions may not be answered with certainty from the outset, arguably, if structured properly, the fiscal transfer element in the building up of the euro-AMC would be much less pronounced, notwithstanding the need to change the ESM statute in to render such a guarantee. First, while the AMC could operate for as long as its shareholders desire and at a minimum until all (capped) profit and loss agreements are settled, there is no reason for the ESM guarantee to last for so long. The AMC and the ESM could review both the necessity of the guarantee and its terms on an annual, bi-annual, or five-year basis, making it clear that the guarantee would be withdrawn as soon as the AMC shows profitability ratios against overall assets that exceed a pre-agreed threshold. Namely, the guarantee would be mostly utilized to inspire confidence to private investors for the first few years of the AMC's operation, but, in practice, it may never be used. Secondly, the ESM itself is more or less a sovereign fund whose direct state funding of 80 billion Euro paid up capital is less than 16% of all funding available, with the rest of its lending merely guaranteed by members' budgets. If the ESM guarantee was to be offered on commercial terms[50] - enabling thus the AMC to exclusively attract private investment, any charge of fiscal burden sharing would seem much less convincing, at least, until the guarantee materialized, if ever. This would especially be the case if selling banks had (capped) long-term profit-loss agreements with the AMC. Again such burden sharing and attendant financial engineering has been successfully employed in a variety of NPL transfer schemes during the Asian crisis of late 1990s,[51] and more recently by the US TARP, which was wound down with a profit of 15 billion USD.[52]

50. For the costs of ESM lending to its members see ESM 2015 Annual Report (p.51)
51. Arner et al. (2016).
52. Jonathan Weisman, "U.S. Declares Bank and Auto Bailouts Over, and Profitable" *NYTimes* 19 Dec. 2014

However, philosophical problems relating to moral hazard and Too-Big-To-Fail would remain. Thus, we suggest that institutions selling NPLs to the AMC- other distressed financial instruments ought to be excluded from the scheme - could be subject to a structural conditionality similar to that undertaken by the UK government in the context of the RBS rescue.[53] Such conditionality would tackle fears of reinforcing big banks and the TBTF subsidy. It could also be a sufficient measure to conform with the EU state aid framework and open up Eurozone banking markets to new contestants/entrants.

Another argument in favour of a euro-AMC is that it could give a considerable boost to Eurozone's fragmented market for NPLs that is also quite illiquid. Given the yield appetite of institutional investors in today's debt markets, a euro-AMC could act as a catalyst for the Eurozone market for distressed banking debts. Given ability to safely disseminate due diligence reports through FinTech platforms, which can hold vast amounts of data, the presence of a big player could attract considerable private investor interest. A final benefit is that a euro-AMC could, indirectly, relieve current pressure placed on the ECB in the context of sometimes controversial bank bond purchase programmes.

4. Conclusion

The desire to find an effective way to replace the public subsidy for TBTF banks and the unpopular bail-out process is entirely understandable. But, there is a danger of over-reliance on bail-ins when the risk is not idiosyncratic. Namely, the bail-in process could be used successfully to recapitalize domestic SIFIs, but only if the institution has failed due to its own actions and omissions (e.g., fraud). On the other hand, where the banks of a country or a region face a systemic problem, e.g., they carry a high number of bad assets, bail-ins can trigger a bank funder panic both ex ante and ex post. As the history of financial crises has made clear, imposing haircuts on general bank creditors during a systemic event is a sure way to accelerate the panic. In fact, contagion: a flight of creditors from other institutions may be uncontainable. Achieving the goal

53. EU Commission Press release, "State aid: Commission approves amendments to restructuring plan of Royal Bank of Scotland", 9 April 2014.

of making private institutions responsible for their actions would be the best policy in an ideal world where financial 'polluters' would be held responsible for their actions. But, in practice, it might prove an unattainable goal.

To clean up bank balance sheets without pushing Eurozone banks into bail-centred recapitalisations, necessitated by the present dearth of investor interest in their equity, we have considered the possibility of a euro-AMC. While such a vehicle could act as a catalyst for attracting new private entrants and boosting liquidity in the euro-market for distressed bank debt, it would certainly face important legal obstacles. Yet long-term profit-loss sharing arrangements could bring the operation of a euro-AMC as close to a commercial standing as possible. A viable euro-AMC would require some form of a fiscal backstop. This could possibly be offered in the form of an ESM guarantee. Cleaning up bank balance sheets from NPLs would free up capital for new lending which would boost economic recovery in the periphery of the Eurozone. Historical experience has shown that similar experiments have been largely successful, chiefly in Asia and more recently in the USA.

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Limits on State-Funded Bailouts in the EU Bank Resolution Regime

by Christos Hadjiemmanuil[54]

Abstract

In the post-crisis environment, the new European policy orthodoxy insists on avoiding state-funded bailouts of banks in distress under all but the most exacting circumstances. This is reflected in the two distinct but interrelated sets of norms governing bank resolution actions: The Commission's norms on state aids in the banking sector as reflected in the Banking Communication of July 2013; and the new special resolution regime for credit institutions and investment firms adopted in May 2014 in the form of the Bank Recovery and Resolution Directive. The paper discusses the anti-bailout objective of the two frameworks, the way in which this is reflected in their operative provisions, and the degree to which the latter result in a truly binding regime, or admit exceptions and variations. It is shown that the overall effect of the provisions is to render outright bailouts almost impossible. Even when an intervention is permitted, this may take place only in prescribed forms and at a late stage within the resolution system's financing cascade, which insists on substantial bail-in of ailing banks' private claimholders, amounting to at least 8% of total liabilities, as a prior condition. The only exception is precautionary recapitalization; but this applies only to solvent institutions and cannot cover past losses. It may be wondered, however, whether a policy of strict insistence on bail-in in all cases of undercapitalization is wise. The problem has recently

54. University of Piraeus and London School of Economics. Advisor to the Governor, Bank of Greece.

come to a head due to the troubles of the Italian banking system, with its huge pile of bad assets and numerous weak banks. The Italian banking system has a sufficient volume of bail-inable junior debt, thus making bail-in technically feasible. But at what cost?

1. From bailouts to bail-in: resolution without public financing as a key policy objective

In the aftermath of the Lehman Brothers debacle and the ensuing sudden freezing of interbank markets, the initial European response consisted in massive and across-the-board programmes of financial assistance to the banking systems of the Member States, in the form of blanket state guarantees, capital injections and, in many instances, the nationalizations of failing banks. The state support came with certain conditions, but these were not particularly stringent. Indeed, the European Commission's DG Competition, in its role of final arbiter under the Treaty's state-aid framework (TFEU, Arts. 107-109), gave its seal of approval to pre-notified national measures with flexibility and in record time.

It did not take long, however, for the grave fiscal implications of the bailout packages to be felt. During the crisis, euro area governments utilized all the aforementioned forms of assistance. In the period 2008-14, total gross fiscal support to the financial sector amounted to 8% of the region's GDP. By end 2014, amounts equivalent to 3.3% of GDP had been recovered; on the other hand, guarantees amounting to 2.7% of GDP remained outstanding and further potential losses could arise from impaired assets transferred from the banks to state-controlled asset management vehicles. All in all, the support resulted in a deterioration of the region's overall budget balance of 1.8% of GDP and an increase of public debt by 4.8% of GDP. Critically, the scale and fiscal impact of the support diverged greatly across Member States (ECB, 2015a).

Containing the exposure thus became a pressing policy priority. Combined with public indignation at the enormous size of the assistance offered to banks at a time of general economic hardship, this precipitated a global policy shift towards the principle that no banks should be considered "too big to fail" ("TBTF") and that, more generally, the costs of failure should be primarily

borne by banks' own stakeholders (shareholders and creditors), with state financing becoming available only sparingly and as a complement to such burden-sharing by the stakeholders. The principle is reflected in the FSB principles for the resolution of global systemically important banks (FSB, 2014), as well in recent national legislation, both in the US and in European jurisdictions, setting up special legal frameworks for bank resolution.

Many aspects of the new resolution regimes draw their inspiration from earlier American bank insolvency law and practice. This, however, is not a case of simple legal transplantation or policy transfer. The scale of the recent troubles has led to a reprioritization of the objectives of bank crisis management, with fundamental implications for the overall policy approach and technical tools of resolution. Before the crisis, discussions of bank resolution and/or insolvency law revolved around certain special characteristics of banking institutions, which render the general system of insolvency proceedings inappropriate for the handling of bank failures, thus calling for a differentiated system of norms and techniques. The adoption of a special resolution regime for banks had been proposed by international standard-setters largely on this basis (BCBS, 2002; IMF and World Bank, 2009). In contrast, the recently adopted resolution laws are not merely intended to provide the legal preconditions for the orderly and expeditious implementation of bank resolution decisions, but further seek to determine their substantive content and final outcomes, by erecting legal barriers to the traditional tendency towards state-funded bailouts and the TBTF argument typically used to justify them.

Beyond their potentially ruinous fiscal consequences, bailouts create expectations regarding future state responses to financial troubles. Through this channel, the subsidization of bank stakeholders' risk-taking by means of the externalization and absorption by the taxpaying public of the costs of insolvency exerts a very powerful distortive effect on *ex ante* incentives, entrenching moral hazard. This constitutes a major source of imbalances, risk and fragility in the banking system.

To relegate bailouts to history, the new approach to resolution entails the imposition of very strict limits to the financing of rescue operations with public funds and emphasizes the novel concept of "bail-in" (Hadjiemmanuil, 2015). This involves the absorption of past losses and/or the costs of

recapitalization of weak banks by their own stakeholders, namely, their shareholders and creditors (junior creditors and subordinated bondholders and, potentially, senior bondholders and large depositors too, but not their smaller depositors). The move from bailouts to bail-in is supposed to mark a drastic departure from past practice, leading to the elimination of TBTF and the formation of a safe and stable financial sector (Huertas, 2014).

In the European context, two additional factors provide reasons to banish state-based bailouts. The first is the EU's constitutive concern for competitive equality between business undertakings, and hence between the economies of the Member States, in the internal market, as reflected in the provisions of the TFEU on state aids, referred to above (TFEU, Arts. 107-109). These create a strong presumption against state aids in any sector, including banking (Commission Decision 95/547/EC, *Crédit Lyonnais*, OJ 1995 L 308/92). The second, which applies with particular force to the economies of the euro area, is the need to break the bank-sovereign "diabolic loop", whereby the troubles of a national banking system can cause a fiscal crisis, and *vice versa*. More precisely, an attempt to support ailing banking systems with ample fiscal resources undermines the debt sustainability of fiscally weak Member States. This can precipitate or abet fiscal crises. At the same time, it raises doubts about the continuing availability of fiscal support for domestic banks. As a result, the latter's access to cross-border wholesale funding is hampered, thus further increasing their funding needs and reliance on the state. Ireland and Spain provide conspicuous examples; but the mechanism has been in operation in all countries affected by the euro crisis (see also Navaretti, Calzolari and Pozzolo, 2016).

As a result, while at the height of the crisis the European institutions took a rather permissive stance on the issue of state support for banks, subsequently the European position became remarkably prohibitive. The current approach is incorporated in two distinct but interrelated sets of norms: on the one hand, the Commission's norms on state aids in the banking sector as finally crystallized in the relevant communication of July 2013 (European Commission, 2013, or "Banking Communication"), which, compared to its initial policies of 2008-09, reflects a considerable hardening of the policy stance; and on the other hand, the new special resolution regime for credit institutions and investment firms proposed in 2012 and finally adopted in May

2014 in the form of the Bank Recovery and Resolution Directive (Directive 2014/59/EU, 2014 OJ L173/190, or "BRRD"). While the two regimes are adopted under different legal bases (TFEU, Art. 107 and TFEU, Art. 114, respectively) and have different legal force ("soft law" as against fully binding legal norms), they operate *in tandem* to erect barriers to further state-funded bailouts. In both cases, the European norms permit the provision of governmental assistance to ailing banks only in exceptional circumstances. They also insist on the principle of extensive burden-sharing by (certain) stakeholders (or bail-in) as a prerequisite (see Micossi, Bruzzone and Cassella, 2016).

The new legal situation raises for national decision-makers important new questions: How are the objectives of the two regimes reflected in their operative provisions? How effective and/or conclusive are the resulting constraints on national decision-making? In particular, what room do they leave for exceptions and variations? From another perspective, as the new approach has not yet proven itself in practice, one may ask, whether the overall policy is truly sound, and what, if any, are the alternatives. In the following paragraphs, an attempt will be made to sketch initial answers.

2. Forms of public financial assistance to ailing banks

A state may provide financial assistance to ailing banks in a number of ways. The response will depend on whether the problem is perceived to lie in the banks' temporary illiquidity, due to their inability to hold on to their deposit base and/or refinance themselves in the interbank markets, or a more fundamental issue of actual or impending insolvency, as a result of operating losses and/or the deterioration of their asset portfolios. While the two aspects are closely interlinked and the situation will often be ambiguous, the authorities' interpretation will determine the form of the intervention.

In the former case, assistance will not necessarily take the form of a direct governmental intervention or rely on fiscal resources, because the central bank provides a ready alternative. Indeed, beyond its general refinancing interventions, which are classified as monetary operations and seek to accommodate the liquidity needs of the banking system as a whole, the central bank may also provide lending of last resort to banks on an individual basis.

Both forms of central bank intervention have been very much in evidence in the euro area in recent years. The ECB has pushed back the limits of its monetary toolbox by launching a variety of novel programmes supporting the banking sector with refinancing of enormous proportions and for unusually long periods, while several national central banks have been allowed to extend further assistance to their domestic banks under the rubric of "emergency liquidity assistance" ("ELA") (see Gortsos, 2015). Especially in the early phases of the crisis (2008–09), the governments of Member States have also engaged in direct interventions in support of the liquidity of their domestic banking systems, including through the provision of state guarantees to central banks for their refinancing exposures, the direct extension to banks of loans or temporary financing through special instruments, and the provision of guarantees of banks' new liabilities.

Where a bank is deemed to be undercapitalized or insolvent, the ECB or the national central banks will not provide fresh capital. A government, however, may be willing to restore the bank's capital position with fiscal resources. This can be achieved through the injection of fresh capital (recapitalization), including in the context of the bank's full nationalization. Alternatively, the government may improve the bank's capital position (and simultaneously its liquidity) by purchasing its impaired assets at above-market prices or by providing guarantees over existing or, more likely, new assets. Tax privileges (such as deferred tax credits and deferred tax assets) may also be used to absorb or offset losses on assets and thus restore banks' capital position, albeit not immediately. Finally, governments may provide inducements and sweeteners for "private" solutions, whereby non-state investors either purchase or recapitalize the ailing banks or buy portfolios of problem assets.

In all cases, the extension by national governments of financial support to ailing banks raises the question of compatibility with the Treaty norms on state aids. The same consideration applies when liquidity or capital support is provided by an emanation of the state, including its central bank, by state-owned banks or other enterprises, and even by institutions that, while being financed by the private sector, are under the state's effective control. This consideration can bring within the scope of the provisions on state aids interventions by deposit insurance schemes and resolution funds, which raise their resources by levying contributions on banking institutions.

3. Public financial assistance to banks under the European state-aid framework

To be found compatible with the Treaty, state-aid measures which distort or threaten to distort competition must fall within one of the exceptions of TFEU, Art. 107(2)-(3). With regard to banks and banking systems, the potentially applicable exception will be that of Art. 107(3)(b), whereby state aid may be considered to be compatible with the internal market if it is necessary in order "to remedy a serious disturbance in the economy of a Member State". Any national measure purporting to extend state support to individual enterprises or whole sectors on this ground will have to be notified to the Commission and approved by the latter. As already mentioned, since the beginning of the global financial crisis, the Commission has approved a great many national programmes for the support of individual banks and/or national banking systems. It has also set out its policy stance in a series of seven communications, which establish general criteria for the approval of state aids to the financial sector during the crisis. The Commission's framework was explicitly designed as a temporary response to the crisis. Nonetheless, it continues to apply in revised form, on the ground that, even though the crisis has abated, "[t]he stress in financial markets and the risk of wider negative spill-over effects persist" and state interventions may still be needed to stabilize the banking sector (European Commission, 2013, para. 4 and 6).

The Commission is thus willing to approve national support measures for reasons of financial stability. It should be noted, however, that the Commission's understanding of the demands of financial stability cut both ways. On the one hand, financial stability as an overarching objective may justify a distressed bank's or banking system's access to state aid. On the other hand, the exact same objective requires that the state aid take place only at a late stage in a very strict financing cascade, be limited to the minimum necessary and be preceded by an appropriate contribution to the restructuring costs by the bank and its stakeholders out of their own resources (para. 8 and 15-20).

In the initial phases of the crisis, the Commission required no more than a minimum degree of burden-sharing (that is, the absorption of past losses with available capital and the payment of an adequate remuneration to the state for its financing). In contrast, it did not demand any contribution by the banks'

creditors, due to a fear that this might precipitate runs and further destabilize the financial system. Now, however, the framework insists on full burden-sharing prior to the extension of any kind of restructuring aid (para. 16-19).

In situations where the problem is one of solvency and the state aid is aimed at covering an identified capital shortfall through recapitalizations or impaired asset measures (para. 28-55), the Commission demands, firstly, the utilization by the banks concerned of any feasible capital raising measures that might enable them to recover their viability or reduce to a minimum the necessary external support. Relevant capital raising measures include rights issues, voluntary conversions of subordinated debt instruments into equity, liability management exercises, sales of assets and portfolios, securitization of non-core portfolios, and employee earnings restrictions (para. 35-39). The Commission requires, secondly, burden-sharing by the shareholders, hybrid capital holders and subordinated creditors of the banks concerned, who must contribute to the maximum extent possible to reducing the capital shortfall by way of the write-down or conversion into equity of their respective claims, in reverse order of priority (para. 40-46). The Commission does not insist on a contribution from senior debtholders (such as senior bondholders and depositors); but following the coming into mandatory effect of the BRRD's provisions on bail-in at the beginning of 2016, senior debtholders, including uninsured depositors, may now be brought within the burden-sharing cascade by virtue of these provisions (BRRD, Art. 43). It should be noted that any contribution by a deposit guarantee scheme to the costs of bank restructuring may also constitute state aid, on the basis that, while the scheme is funded with funds collected from the private sector, the use of the funds is imputable to the state (European Commission, 2013, para. 63). This will be a common occurrence in resolution proceedings pursuant to the BRRD, where the relevant deposit guarantee scheme will often be required to contribute to the financing of resolution as a least-cost alternative to the making of direct payments to covered depositors. The same consideration applies to interventions by a resolution fund (para. 64).

The Commission is also adamant that Member States must notify and seek its approval for financial measures such as guarantees on liabilities and liquidity support measures in support of solvent but illiquid banks (para. 56-61). With regard to this category of state aids, however, the Commission's requirements

do not focus on burden-sharing, but on the need to avoid open-ended interventions, which may generate undue fiscal risks and distortions of competition. In particular, any guarantees may only be granted for new issues of senior debt, thus excluding subordinated instruments; the debt instruments must be of short or medium duration; the state must receive adequate remuneration of its liquidity support, thus providing a disincentive for the banks' continuing reliance on it; if the total liquidity support that a bank receives from the state exceeds 5% of its total liabilities or the sum of € 500 million, a restructuring plan must be submitted to the Commission; and if any bank causes the state guarantees to be called upon, a restructuring or wind-down plan must be submitted to the Commission (para. 59). Significantly, the banking sector's refinancing by means of a central bank's "ordinary" monetary operations, such as open market operations and standing facilities, is exempt from state aid controls. In contrast, the provision of ELA or any other form of individualized refinancing will fall within the concept of state aid, unless (a) it is given to a temporarily illiquid but solvent institution, (b) is fully secured by collateral, (c) is subject to a penal rate of interest, and (d) is extended at the national central bank's discretion and is not backed up by a guarantee of the state (para. 62).

The Banking Communication has been challenged before the ECJ, but without success (Case C-526/14, *Kotnik*, judgment of 19 July 2016). The court found that the Treaty does not preclude burden-sharing by shareholders and holders of subordinated rights as a condition for the Commission's approval of state aid to ailing banks. It further rejected the argument that burden-sharing violates the protection of legitimate expectations or the right of property, at least as long as the measures for converting hybrid capital and subordinate debt or writing down their principal do not exceed what is necessary to overcome the capital short-fall of the banks concerned. On the other hand, the court emphasised the non-binding legal nature of the communication. This is an instrument setting out the criteria used by the Commission when exercising its discretion under the Treaty provisions on state aids. Their publication sets a limit on the Commission's discretion, which may not to depart from them without good justification, but does not impose independent obligations on the Member States. The latter retain the right to notify to the Commission state aid programmes incompatible with the Banking Communication, which the Commission is under a duty to examine,

also taking into account any exceptional circumstances invoked by the Member States (*Kotnik*, para. 39-45).

The ECJ's judgment points to the inherently malleable nature of the Commission's framework. Even if the Banking Communication were a binding legal instrument, however, the situation would not be much different, since it contains numerous provisos, which could be used in appropriate cases to justify the provision of state assistance without extensive burden-sharing, potentially in forms equivalent to old-style bailouts. In particular, the Commission declares its readiness to take account of the macroeconomic environment, the specificities of the banks and Member State concerned, the presence of system-wide weaknesses in the domestic financial sector, the contribution of the sovereign crisis in the banks' troubles, the feasibility of proposed burden-sharing measures, etc. (Banking Communication, para. 9-11). More directly, the Commission leaves open the possibility of an exception to the requirements of burden-sharing, including in the case of banks that fail to meet the minimum regulatory capital requirements, "where implementing such measures would endanger financial stability or lead to disproportionate results" (para. 45).

It is thus clear that the Banking Communication, for all its robust language and strong preference for burden-sharing through bail-in over state funding, is framed in terms sufficiently flexible for enabling the approval of almost every conceivable solution by way of "exception". What must be doubted, however, is the actual willingness of the Commission to soften its stance. At present, all indications suggest that, even in the face of a simmering crisis with potentially highly detrimental consequences, such as that affecting the Italian banking sector, the Commission remains unperturbed and unwilling to budge. With the final entry into full effect of the BRRD's provisions on burden-sharing on 1 January 2016, the Commission has found additional reasons for doing so.

4. The no-bailout objective in the resolution framework of the BRRD

The no-bailout objective is unambiguously set out as a tenet of European law both in the preamble and in the operative part of the BRRD, alongside the objectives of orderly and cost-effective resolution, the continuation of critical functions of failed banks, the preservation of systemic stability and the

avoidance of contagion, and the protection of depositors and clients' assets (BRRD, rec. (1), (5) and (45) and Art. 31(2)). The system is specifically intended "to obviate the need for bailouts using taxpayers' money to the greatest extent possible" (BRRD, rec. (1)).

At a rhetorical level, at least, the BRRD insists that, to avoid moral hazard, any ailing institution should be preferably restored to soundness with private resources at a pre-resolution stage; otherwise, it should exit the market and be placed in liquidation (rec. (45)-(46)). On this theory, resolution as a quasi-insolvency process aimed at the restructuring of the bank with external assistance is permissible only as an "exception", justified by the fact that liquidation under normal insolvency proceedings may in certain, but definitely not all, cases threaten financial stability, disrupt the provision of financial services to the real economy, and impede the protection of depositors. These considerations of public interest may justify the continuation of all or part of the bank's activities within the framework of resolution (rec. (45)). Even then, however, the resolution should be based on private sources of financing and avoid in all, but the most dramatic, circumstances access to the public purse. In practice, of course, a finding that resolution is necessary may turn out to be the rule rather than the exception (see Hadjiemmanuil, 2014); and the operative provisions of the BRRD, despite the forbidding language, contain ample room for discretion and *ad hoc* interpretations for such a development to be possible. Nonetheless, there can be no doubt that the directive's norms are specifically designed to discourage direct access to state-funded bailouts, relying instead on bail-in, followed by external financing raised through levies on the banking industry, in the form of the pre-funded deposit guarantee schemes operating pursuant to the Deposit Guarantee Schemes Directive (Directive 2014/49/EU, OJ 2014 L173/149) and the BRRD's own "financing arrangements" or resolution funds (BRRD, Arts. 99-107).

To attain its mixed objectives, the BRRD specifies a common administrative and procedural model for bank-failure-related decision-making for all Member States, common triggers and conditions for the activation of resolution actions, and a set of general restructuring techniques, or "resolution tools" (BRRD, Art. 37). The resolution tools are designed to enable the failed bank's survival and restoration to solvency under new ownership or, at least, the avoidance of piecemeal liquidation of the existing legal entity and the continuation of whole

or part of its business activities through the transferal of portfolios of assets and liabilities to a successor legal entity. Three distinct tools serve this purpose: the sale of business tool (BRRD, Art. 38-39), the bridge institution tool (BRRD, Art. 40-41), and the asset separation tool (BRRD, Art. 42).

Evidently, the continuation of a failed bank's operations and, if the bank is kept alive as a legal entity, the successful completion of its restructuring will typically depend on filling a funding gap. New financing may be needed either to provide the liquidity which is indispensable for operational continuity rests and/or to bring the bank back to acceptable levels of capitalization. The BRRD contains very detailed provisions on resolution financing, in an attempt to define a prescriptive financing cascade, consistent with its no-bailout policy (see Hadjiemmanuil, 2016). To maintain an ailing bank as a going concern, it will be necessary to absorb past losses and recapitalize the institution to the point where it meets the continuing requirements for authorization. In a nutshell, if new willing investors are not forthcoming, the BRRD seeks to achieve this result initially through the mandatory write down of the bank's regulatory capital instruments or, when these are in debt or hybrid forms, their conversion into equity (Arts. 59-62). This may happen either at the pre-resolution stage or in the context of resolution (Art. 59(1)). Within resolution, beyond the aforementioned write down of regulatory capital instruments, the bank's restructuring is financed by converting into capital or writing down the claims of non-exempted ("eligible") liability holders by way of bail-in. This simultaneously reduces liabilities and increases the bank's capital resources, thus pushing it back to solvency. Bail-in may be implemented in a structured manner as the fourth and final resolution tool (Arts. 43-55). The expectation is that the bail-in tool will be used as a matter of course when the funding gap cannot be covered by writing down the capital instruments. Bail-in may be complemented by a contribution by the relevant deposit guarantee scheme. The latter's participation to such open-bank resolution financing will, however, be limited to the amounts that it would be required to pay out to covered depositors, if the bank undergoing resolution had been would up under normal insolvency proceedings (Art. 109). If the contributions of private parties are not enough, the appropriate national resolution fund or, for the Member States of the Banking Union, the SRM's Single Resolution Fund, can contribute to the financing of resolution. This, however, will only be possible after a contribution of no less than 8% of total

liabilities, including own funds, has been made by stakeholders by way of bail-in. In addition, the resolution funds' intervention is limited to medium term-financing; and it cannot exceed 5% of total liabilities (BRRD, Arts. 44(4)-(6), (8); and Regulation No 806/2014, OJ 2014 L225/1, Art. 27(6)-(7)).

Recapitalization with public funds (whether national or pan-European) may be considered only if, after all the aforementioned sources of resolution financing have been exhausted (either because they were depleted, or because the limits on their contribution were reached), a bank remains undercapitalized, but its continuation as a going concern appears imperative for reasons of systemic stability (BRRD, Arts. 37(10)(a)). While the resolution authorities have discretion to select the most appropriate method of resolution and to apply any of the resolution tools set out, the BRRD does not afford discretion as to the application of the burden-sharing cascade. This is also true of resolution actions under the Banking Union's SRM. Accordingly, assuming that the legal prescriptions will be applied faithfully, including at times of actual crisis or alleged distress, the cascade shifts the bulk of the burden from the taxpayer to the banks themselves, along with their investors and creditors.

5. Need for state support under the BRRD

A bank may be the recipient of financial assistance from the state without being insolvent or even illiquid. In the BRRD's scheme, however, there is an almost necessary link between the *need* for state aid and financial collapse. For this reason, the need for state support is turned into a trigger for a bank's placement in resolution or even liquidation.

Under the BRRD, an institution may be placed in resolution if its supervisor (or the relevant resolution authority) determines that it is "failing or likely to fail" (BRRD, Art. 32(1)-(2); EBA, 2015). Whether this is the case, is established by reference to four alternative triggers. Alongside the two classic tests of insolvency (namely, balance-sheet insolvency and inability to repay debts and other liabilities as they fall due), the triggers include: a breach of regulatory requirements sufficiently serious to justify the withdrawal of the bank's authorisation; and the bank's need for "extraordinary public financial support" (BRRD, Art. 32(4)). This description, however, is used in the BRRD to encompass

any state aid given to banks for the purpose of preserving or restoring their viability, liquidity or solvency, as well as equivalent forms of financial support extended by public bodies operating at the supranational level, such as the euro area's Single Resolution Fund and the ESM (Art. 2(1), point (28)).

If the supervisor has determined, based on any of the four triggers, that a bank is failing or likely to fail, the bank will be placed in resolution, provided that two further conditions are satisfied: that there is no reasonable prospect that it will be restored to health with private sector measures or supervisory actions, such as early intervention measures or the write down or conversion of capital instruments; and that use of the resolution tools is "necessary in the public interest" (Art. 31(1)). Interestingly, in this context the public interest is equated with the achievement of one or more of the objectives of the BRRD's resolution regime (Art. 32(5)), which, in turn, specifically include the protection of public funds "by minimising reliance on extraordinary public financial support" (Art. 31(2)). A failing or likely to fail bank that does not meet these further conditions, must be wound up under normal insolvency proceedings.

The BRRD contains three exceptions to the rule that the need for extraordinary public financial support establishes that the bank is failing or likely to fail. Specifically, resolution will not be triggered if, in order to remedy serious disturbance in the national economy and preserve financial stability, the state provides support in one of the following forms:

(a) guarantees to back liquidity facilities provided by the central bank;
(b) guarantees of newly issued liabilities; and
(c) injections of own funds or purchases of capital instruments at prices and on terms that do not confer an advantage upon the credit institution (so-called "precautionary recapitalization").

To fall within the exception, in all three cases the support must meet certain conditions (Art. 32(4), second para.):

- The support must be confined to solvent institutions.
- It must be of a precautionary and temporary nature.
- It must be proportionate to the consequences of the economic disturbance providing its justification; and, last but not least,
- It must not be used to offset losses that the recipient banks have already incurred or are likely to incur in the near future.

Two further conditions apply in the case of precautionary recapitalization:

- The support must be extended at prices and on terms that do not confer an advantage upon the institution (Art. 32(4)(d)(iii)).
- The support must be limited to injections necessary to address capital shortfalls identified based on supranational or national stress tests, asset quality reviews or equivalent exercises conducted by the ECB, the EBA or national authorities (BRRD, Art. 32(4), third para.; EBA, 2014).

Especially with regard to precautionary recapitalization, these conditions are highly restrictive and limit very considerably the applicability and usefulness of the exception.

6. Government financial stabilization tools

The BRRD allows a Member State to contribute to the recapitalization of a bank which has been placed in resolution, but this may only occur in specific ways and subject to strict conditions under the rubric of "government financial stabilization tools" ("GFSTs") (BRRD, Arts. 37(10) and 56-58). The concept includes two more specific forms of recapitalization, namely: the "public equity support tool" (Art. 57), which involves injections of capital by the state in exchange for equity and other instruments included in the calculation of own funds pursuant to the Capital Requirements Regulation (Regulation No 575/2013, OJ 2013 L176/1); and the "temporary public ownership tool", which amounts to full nationalization of the bank (BRRD, Art. 58).

GFSTs form part of the resolution process as an alternative financing source for the implementation of the resolution tools selected, at least in theory, by the resolution authority (Arts. 37(10) and 56(1)). Moreover, they are only applicable when the resolution seeks to preserve the bank as a going concern. They are, accordingly, incompatible with the transfer of the bank's operations to a new entity, since this would lead to the old entity's dissolution (but not with the transfer of the bank's ownership to a new owner, including a bridge bank, which preserves the old legal entity). A government retains full discretion on whether to participate in resolution by way of a GFST, because a Member State may not be forced to finance resolution with fiscal resources (rec. (76)). Furthermore, the implementation of the GFST takes place in the

hands of the government itself (most probably through its Ministry of Finance), albeit in close cooperation with the resolution authority (Art. 56(1)).

The national government's discretion, however, only goes in the direction of refusing assistance. In contrast, a government eager to bail out an ailing bank may find it impossible or unappealing to rely on the BRRD's provisions on GFSTs for this purpose, due to the strict and inflexible conditions.

GFSTs have been included in the resolution framework in order to address the "very extraordinary situation of a systemic crisis" (Art. 37(10)). But even in this context of severe and widespread distress, they are only available as a "last resort" – that is, in principle when other resolution solutions, including bail-in, have been "assessed and exploited to the maximum extent practicable whilst maintaining financial stability" (rec. (8) and Arts. 37(10) and 56(3)). This determination, however, is not left to the competent ministry or government alone, but also involves the resolution authority and, possibly, the competent supervisory authority and the central bank too (Art. 56(3)-(4)). This is particularly important in the case of Member States participating in the euro area's Banking Union, whose "significant" credit institutions are supervised by the ECB and resolved under the control of the SRB, thus bringing within the picture supranational decision-makers.

In addition, utilization of the GFSTs is only permissible after a bank's own stakeholders have contributed in the absorption of losses and the recapitalisation effort through the write-down or conversion of capital instruments and bail-inable liabilities to an amount equaling at least 8% of the total liabilities, including own funds (Art. 37(10)(a)). In this sense, a government cannot use GFSTs as a substitute for bail-in, but only as a complement to it.

Last but not least, the resort to GFTSs is subject to the Commission's prior approval under the state aid framework (Art. 37(10)(b)). In this context, in addition to other parameters, the Commission will assess independently both whether the proposed intervention complies with the condition of prior burden-sharing of 8% and the existence of a situation of systemic crisis (rec. (57)). This decreases significantly the likelihood that the intervention will be allowed to take place, as well as the discretion of the national government as to its form and content.

7. Range of options regarding the provision of public support under the BRRD

Leaving aside the contributions made by resolution funds to the financing of resolution in the context of bail-in, the overall structure of the provisions opens up the following alternatives with regard to the permissible types of public financial support to banks in a state of distress and the conditions for their provision:

- A central bank may extend liquidity support on an individualized basis by way of ELA or in a functionally equivalent form. Unless the conditions for exemption set out in the Banking Communication (para. 62) are met, this would fall within the concept of state aid and, consequently, within the definition of extraordinary public financial support in the BRRD (Art. 2(1)(28). However, the assumption is that this type of assistance is permissible in principle, and may not trigger resolution. Indeed, the BRRD includes a separate definition of ELA, in a manner that could provide an argument to the effect that the concept does not overlap with that of extraordinary public financial support, but sits alongside it (Art. 2(1)(29). Moreover, the preamble mentions that resort to ELA does not demonstrate *per se* that a bank is, or will be in the near future, unable to pay its liabilities as they fall due (rec. (41)); and one assumes that, since the provision of state guarantees in support of ELA is exempt, the same applies to the ELA itself.
- A government may also provide liquidity support. For the recipient banks not to come within the definition of "failing or likely to fail", however, this would have to take one of the two forms mentioned explicitly in the BRRD (guarantees to central banks and guarantees of new liabilities) and meet the conditions mentioned above (Art 32(4)(d)(i)-(ii)). This form of assistance counts as extraordinary public financial support, and will accordingly trigger a requirement to write down or convert capital instruments to any necessary extent (Art. 59(3)(e)). In practice, this will not be a serious problem, since the recipient banks are supposed to be solvent and there is no capital gap to be filled.
- Conceivably, governmental liquidity support and/or support relating to the banks' credit provision or impaired assets may also be extended in situations where the banks are undercapitalized. In this case, even though

the institutions may retain positive net worth, there will fall within the definition of "failing or likely to fail". As long, however, as their viability appears likely to be restored with private measures or through supervisory actions within a reasonable timeframe, the other conditions for resolution will not be met (Art. 32(1)(b)). In this case, too, the support will trigger the requirement to write down or convert capital instruments.

- The government may seek to inject capital in an undercapitalized bank without thereby triggering the resolution process. This would appear possible only by way of precautionary recapitalization pursuant to the exception mentioned above (Art. 32(4)(d)(iii)). In any other case, the bank would be failing or likely to fail and self-evidently unable to correct the situation with private sector measures or recovery actions (otherwise, it would not have tried to gain access to public funding), thus requiring resolution, if not liquidation. As already noted, the conditions for recapitalization under this heading are very restrictive. Where, however, the conditions are satisfied, the bank can be recapitalized with public funds without first resorting to write down or conversion of existing capital instruments (Art. 59(3)(e)).
- The government may seek to contribute to the recapitalization of a failed bank within the resolution process. As we have seen, the BRRD specifically provides for this possibility (Arts. 37(10) and 56-58). Once more, however, the conditions are tough and may render this possibility irrelevant or unappealing in the eyes of the national government.
- In the Banking Union, it is also possible for the ESM to extend supranational public assistance directly to systemically important banks that are unable to meet their capital requirements, by activating its "direct recapitalization instrument ("DRI"), which can utilize resources of up to €60 billion. The DRI may be used if the relevant national government is incapable to undertake the recapitalization of domestic systemic banks at its own account and risk without thereby significantly endangering its fiscal sustainability (ESM, 2014). The instrument is not available for precautionary recapitalizations, but only for resolution-related ones; it can be used only in the very special case where the provision by the ESM of a loan to the government to enable the implementation of GFSTs at the national level ("indirect recapitalization

instrument") (ESM Treaty, Art. 15) is not advisable; and even then, it requires burden-sharing by the national government. Under present circumstances, resort to the DRI would appear to be highly unlikely, due to its very specific conditions as well as the need for unanimous approval at the level of the ESM's Board of Governors.

It should be noted that, whether they take place within or outside the resolution process, all these forms of state aid require notification and approval from the Commission (Arts. 32(4), second para., and 34(3)).

It can be easily seen that the overall effect of the provisions is to render outright bailouts, without extensive private burden-sharing, almost impossible. Even when an intervention is permitted, this may take place only as a GFST at a late stage within the resolution system's financing cascade, after substantial bail-in of banks' private claimholders, amounting to at least 8% of total liabilities. Moreover, the forms of permissible interventions are limited to specified types of capital injections. In this manner, the BRRD effectively relegates public support to a supporting role within the resolution framework's financing cascade and sets exceptionally strict limits to pre-resolution interventions.

The only exception to burden-sharing is precautionary recapitalization. Even in this case, the Commission's approval could, conceivably, be contingent on capital raising measures, including voluntary, or even mandatory, write down or conversion of capital instruments and bail-in of junior liabilities, as required by the general policies set out in the Banking Communication. Admittedly, the exception of para. 45 of that instrument, whereby burden-sharing could be excluded if it would "endanger financial stability or lead to disproportionate results", could be used to avoid this result. Some authors consider that a flexible interpretation of the provisions, always in the light of TFEU, Art. 107(3)(b), which allows state aids when necessary to remedy a serious disturbance in a Member State's economy, could justify extensive precautionary recapitalization of weak banks without bail-in if in a particular Member State the banking system is extensively undercapitalized and the private sources of capital cannot remedy the situation (Micossi, Bruzzone and Cassella, 2016). Nonetheless, while the BRRD links specifically the option of precautionary recapitalization to the presence of economy-wide disturbances and systemic problems, its specific terms make it largely inappropriate for the most vulnerable banks. The exacting conditions for precautionary recapitalization (requirement of solvency, provision of the support

at competitive market prices, inability to use the support to offset losses, dependence on the existence and outcome of a stress test or similar exercise, often specified at the supranational level) suggest that it cannot be used for the restoration of banks that are already weakened by losses or carry substantial amounts of NPLs. It is precisely these banks, however, that are likely to initiate contagion. In this sense, precautionary recapitalization cannot be credibly relied upon for the repair of a distressed national banking system as a whole, but only for the creation of a second line of defence in favour of stronger banks in the system. This may contain the troubles, but not prevent them altogether.

The BRRD contains numerous ambiguous provisions, which confer very substantial discretion on the supervisory and resolution authorities with regard to determining the point of "failure", as well as to the allocation of resolution costs. Indeed, the supervisory and macroprudential authorities have considerable room for varying the capital requirements of credit institutions. The time allowed to a weak bank to return to full solvency is also discretionary. The same applies to the requirements and timeframe for repairs to portfolios and the management of NPLs. The triggers for resolution depend on supervisory judgements. Within resolution, there is wide room for the resolution authorities, always subject to the Commission's approval, to allow discretionary exemptions from bail-in or partial bail-in, thus pushing the resolution costs further down the BRRD's financing cascade (Art. 43(3)-(12)). All these discretionary judgements –which in the Banking Union typically involve supranational decision-makers– may serve to alleviate the pressure on national banking systems; but they may also aggravate it! The one area, where the room for discretion is very limited, is precisely that of public support.

8. Economic and political limits of the no-bailout policy

It may be wondered, whether a policy of strict insistence on bail-in in all cases where a bank's weakness is due to accumulated losses, is wise. Resolution, as distinct from liquidation, is supposed to be justified on grounds of systemic stability. In contrast, in conditions of economic distress and system-wide banking weakness bail-in as the preferred and essentially mandatory resolution tool can aggravate the situation (De Grauwe, 2013; Persaud, 2014).

The bail-in tool is designed to achieve the restructuring of individual insolvent banks, thus preventing the knock-on effects of outright collapse, without resorting to the taxpayer. The direct transmission of losses, however, is not the sole form of contagion, nor the most important one. Contagion may also occur through market reactions to a particular incident and the way in which this was handled by the authorities. In a weak environment and in a context of widespread distress, bail-in with regard to one bank may lead other banks' claimholders to reappraise their position, precipitating an across-the-board flight to quality. This will increase the cost of refinancing, potentially to prohibitive levels, precisely at the point when the banking sector as a whole is striving to raise additional funds through the issuance of capital or debt instruments. The existence of tight regulatory deadlines for related improvements will make things worse.

The problem has recently come to a head due to the troubles of the Italian banking system, with its huge pile of bad assets and numerous weak banks. The Italian banking system has a sufficient volume of bail-inable junior debt, thus making bail-in technically feasible. But at what cost? Given the circumstances, the alternative of a public rescue intervention can be credibly supported both on economic and political grounds, since the European project can hardly afford another major crisis or the disaffection of one more country.

Many remain unconcerned. In a recent public intervention, a group of prominent European economists maintain that, with regard to the euro area's financial sector, the fundamental architecture to ensure resiliency is already in place, thanks to Banking Union's centralization of regulation and supervision and the bail-in-based SRM (Resiliency Authors, 2016). In their view, the present priority is "to make sure that the rules in place can be enforced. Italy provides two cases in point. First, non-performing loans have steadily increased and are carried on the books at prices substantially above market prices. Second, the Italian government has proven very reluctant to apply the bail-in rules. The credibility of the rules is at stake. Either they have to be applied, or credibly modified." Even though the question of a "credible modification" of existing resolution norms is left open, there is little doubt that here the emphasis is placed on strict enforcement of the bail-in principle. This would, in fact, appear to be the preponderant view amongst academics and policy-makers, with the exception of those living in the Member States most directly affected by banking troubles.

A critical assumption behind the dominant view is that bail-in, not only eliminates moral hazard, but also ensures equality of treatment across the Union. If, however, the practical effects of bail-in are not truly symmetrical, its automatic application, without regard to the specific circumstances, would appear to be unreasonable and disproportionate. A common approach applied to fundamentally different situations and at the back of very dissimilar prior paths, is likely to increase divergences and inequalities across countries. The bail-in norms of the BRRD have come in force at a moment when the monetary and banking landscape of the EU, and the euro area in particular, is deeply fragmented, as a result of the sovereign debt crisis. Certain economies are hampered with acute macroeconomic problems and increased costs of credit, which fuel the generation of NPLs and curtail the domestic banks profitability and access to new funds. In other economies, like Germany, the banking system has been restored to health with ample public assistance in the immediate preceding period (Binder, 2016); and even now, large segments of the sector (namely, the public savings banks and the cooperative banks) can rely on IPS-style arrangements to avoid resolution. Moreover, the lack of a credible and neutral single fiscal backstop at the supranational level means that the financial risks faced by investors are not the same in all cases. The Commission's intransigence in the Italian case can further widen the wedge between the national banking systems' financing conditions. This, despite the fact that the establishment of a common backstop and equal monetary and financial conditions constituted the Banking Union's *raison d'être* in the first place.

A strict insistence on bail-in may be counterproductive even on the resolution framework's own terms. Cleansing banking systems from the huge pile of legacy NPLs is an urgent priority, since it is a prerequisite for the normalization of the credit intermediation function, especially in the problem economies of the euro area's periphery. The question is, whether the domestic banking systems can be relied upon under all conceivable conditions to absorb losses and simultaneously restore their capital ratios to currently prescribed levels without public funding. In the case of Italy, divesting up front and at current prices the stock of NPLs and passing the full cost of losses to banks' primarily domestic stakeholders could bring the banking sector to ruin and cause irreparable damage to the economy. Such a policy would push large swaths of the banking system into simultaneous resolution. However, the

estimated capital shortfall may be exaggerated. To start with, the fact that NPLs appear in banks' balance sheets at above current market prices (say, 30 to 35% as against 20%) may not be a function of misrepresentation of the portfolios' true run-off value, but on the fact that secondary markets for distressed debt remain incomplete and there is limited experience with relevant transactions. Moreover, expected recovery rates depend on the available mechanisms of judicial debt enforcement. In this regard, it should be taken into account that the more expeditious and creditor-friendly procedural rules recently introduced in countries with an abysmal record with regard to the judicial enforcement of claims, such as Italy or Greece, have not yet be given the time to work. More generally, the pricing of NPLs critically depends on the state of the economy, the rate of supply of NPLs to the secondary market and the international appetite for assets in the relevant economies (which is, in turn, affected by the possibility of a banking crisis). An uncompromising "liquidationist" approach is almost certain to have negative repercussions on all these fronts, potentially fueling a debt-deflation spiral, especially in economies within the euro area, which are deprived of country-specific monetary policy tools.

In these circumstances, a pre-resolution action plan, involving the management of impaired assets and recapitalization of weak banks with state aid but without extensive burden-sharing, may constitute the most credible and reasonable response. Such an approach should be accompanied by an appropriate programme, with clear objectives, milestones and responsibilities, for the restructuring and modernization of the Italian banking sector within a reasonable timeframe. This could be achieved in the form of Commission-mandated conditions for the programme's approval. An approach of this type could yield much better results than resolution – especially since the latter is likely to increase the surviving banks' cost of funding, but also to require significant public funding, either in the form of GFTSs or, in the peculiar Italian case, where large part of the banks' subordinated debt is held by domestic non-professional individuals, by way of compensation payments to the latter. In this case, then, resolution and its financing cascade may be both suboptimal as a means of delivering systemic stability and unable to fully protect taxpayers.

Admittedly, this may not be legally simple. While the Commission has the discretion to depart from the general policies of the Banking Communication, the BRRD presents a more significant hurdle. As we have seen, precautionary

recapitalization is unavailable to cover past or expected losses, cannot be applied to undercapitalized banks (which should be the first to receive restructuring assistance) and may only take the form of an injection of own funds or purchase of capital instruments at realistic asset prices, but not that of NPL-related transactions, especially if these include an element of subsidization. The separation and absorption of bad or doubtful assets is envisaged exclusively within the resolution framework.

To avoid these strictures and alleviate the problem, the Italian government has encouraged the formation of Atlante, a private-sector backstop fund without fiscal support, which has already been put in use to bail out two small banks and to purchase portfolios of NPLs. This type of intervention does not amount to state aid, nor does it trigger resolution. However, the sums involved are not sufficient to meet the needs of a large bank, much less of the whole banking system. If, however, the state had participated in its financing (either directly or even through a state-owned bank or commercial entity), this would cease to be a private venture, with the consequence that its interventions would trigger resolution and burden-sharing (unless, of course, the distressed assets were purchased at no more than their market value). Accordingly, this approach can provide partial relief, but not a comprehensive and lasting solution to the wider problem. At the end of the day, in the face of the present predicament, the best option remains a judicious application of the provisions on bail-in and state aids that would allow the implementation of a balanced plan of state-supported recapitalization and impaired asset measures, with minimal burden-sharing, but with meaningful restructuring commitments on Italy's part.

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Enhancing the Capacity to Apply a Bail-in Through the MREL Setting

by Dominique Laboureix and Vincent Decroocq[55]

Abstract

In the aftermath of the financial crisis, the European Union designed a new legislative and institutional framework to manage banking crises. This new framework is an answer to the situation where the banks could have been perceived as "too big to fail". It aims to make a bank failure possible without any public bail-out while preserving the critical functions for the economy. To meet this objective, the legislation notably provides the European resolution authorities for a new tool which should be used in most of the resolution schemes in the future: the bail-in.

The principle of the bail-in is to use the banks liabilities to absorb the losses once the equity is exhausted and to recapitalize the banks through the conversion of liabilities into equity. However, if the principle of the bail-in is straightforward, its implementation in practice raises challenges. This is the reason why the resolution authorities will have to analyse through the resolution planning how the bail-in tool could be applied in order to anticipate as much as possible any possible hurdle to implement it in practice. In that regard the setting of a Minimum Requirement of own funds and Eligible Liabilities (MREL) to bail-in is a priority for the resolution authorities in the

55. Dominique Laboureix is voting Member of the Single Resolution Board and director of resolution planning and decisions. Vincent Decroocq is a Senior Resolution Expert to the Single Resolution Board. The views expressed in this paper are those of the authors and do not necessarily represent the views of the Single Resolution Board.

EU in the coming months. However, if the MREL will enhance the banks loss absorbing capacities, it is not in itself the unique answer to crisis times as it is part of the resolution planning and can require time to be properly implemented.

The 2008-2011 financial turmoil highlighted the limitations of the regulatory framework to handle a bank failure without public money. In most of the cases, the size of the banks, the financial situation of the markets and the necessity to react quickly forced the public authorities to inject huge amounts of public money in their banking system[56]. There was no real alternative to public bail-outs given the consequences and the impact of a bank failure on the economy and the complexity to make a bank disappearing in a short timeframe. At the peak of the crisis, most of the banks could be considered as "too big to fail", which clearly raised a moral hazard issue.

Rescuing ailing banks with public money shifted the burden of the failures and of the losses to the taxpayers. The injection of public money in banks put a strong pressure on the national budgets and shifted the crisis from the banks to the States. In several European countries the financial crisis triggered tensions on the sovereign bond markets and more specifically, challenged the coherence and the robustness of the Euro Area. It stressed the need to set a new institutional and legislative framework to answer to banks crises by cutting the link between the banks and the States.

In 2011, the FSB set out the first key principles to handle bank failure[57] and set the basis of a new framework to resolve financial institutions in an orderly manner without taxpayer's exposure to losses while maintaining continuity of their vital economic functions. This initiative paved the way for the development of a European framework on bank crisis management. Two pieces of legislation were designed by the European institutions to incorporate the international principles in European law but also to build a single mechanism to manage the banks failure at the level of the Banking Union:

56. In its 2012 annual report on Competition policy, the European Commission highlighted that approximately EUR 1.6 trillion were transferred to banks between October 2008 and the end of 2011, without taking into account the amount pledged by EU governments. http://ec.europa.eu/competition/publications/annual_report/2012/part1_en.pdf

57. Key attributes of Effective Resolution Regimes for Financial Institutions, FSB, October 2011, http://www.fsb.org/wp-content/uploads/r_111104cc.pdf?page_moved=1

- In April 2014, the Bank Recovery and Resolution Directive[58] (BRRD) set at the European Union level the new legislative framework to handle a bank crisis either in going concern (recovery action) or in gone concern (resolution action).
- In July 2014, the Single Resolution Mechanism Regulation[59] (SRMR) set up the new institutional framework for resolution action at the Banking Union level. The Single Resolution Mechanism is the second pillar of the Banking Union completing the Single Supervision Mechanism.

The mandate of the SRM is not limited to acting in case of a bank failure. Its first objective is to anticipate possible difficulties to handle a bank failure and to restore the viability of the bank after a resolution action to maintain the critical functions. The SRM is primarily focused on preventive and preparatory measures through drawing up resolution plans. The resolution planning aims to design action plans where the costs of resolution – when resolution is preferred to a normal insolvency procedure – would be shouldered by the banks owners and creditors rather than taxpayers. In order to meet this objective, the cornerstone of the resolution plan is, in most of the cases, the bail-in tool.

The BRRD introduced the bail-in in the European legislation and gave new power to the resolution authorities to enforce this tool in case of bank failure. This new tool allows to absorb the losses beyond the own funds through the write-down of certain liabilities. Once the losses are absorbed, the bank's capital could be reconstituted by the conversion of all or part of the remaining eligible liabilities into equity[60]. Once the bail-in decision is implemented, the bank should have a sufficient amount of capital to comply with the prudential requirements and to restore the confidence of the market.

However, the bail-in of certain liabilities raises practical and legal challenges. The discrepancies between the treatment of certain claims in resolution and in insolvency proceeding could trigger legal actions. Some instruments could be difficult to bail-in, for instance the derivatives or certain

58. Directive 2014/59/EU of the European Parliament and the Council of the 15 April 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.
59. Regulation n° 806/2014 of the European parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund (SRMR).
60. Directive 2014/59/EU (BRRD), article 2(57)

structured product where the amount to bail-in at the point of resolution is difficult to determine in advance. Therefore, it is paramount that the resolution authorities anticipate and limit as much as possible the difficulties to apply the bail-in in the resolution plans.

In order to enhance the likelihood to implement a bail-in successfully, the BRRD requests to set a Minimum Requirement of own funds and Eligible Liabilities (MREL) that could be bailed-in at the point of resolution. The objective of MREL is to enhance the banks' loss absorbing capacities by singling out an amount of liabilities easily "bail-inable" (I). However, such an objective needs time to be fully implemented as MREL is the outcome of the resolution planning and the resolvability assessment (II).

1. The need to enhance the banks' Loss Absorbing Capacities to ease the implementation of the bail-in

The BRRD does not foresee a harmonised minimum level of "bail-inable" instruments at the level of individual banks. Instead, it gives the resolution authorities detailed guidance for setting out these requirements for individual banks, while also allowing them discretion on the minimum level on MREL (A) and on the composition and the quality of MREL eligible items (B).

A. Setting a minimum requirement of Loss Absorbing Capacities

The resolution authority should ensure that, in case of application of the bail-in tool, the institution is capable of absorbing an adequate amount of losses and being recapitalised by a sufficient amount. As a matter of fact, after the bail-in, the capital should reach the level necessary to maintain the authorisation and to restore the market confidence.

The credibility and the feasibility of a resolution plan is largely built on the bank's capacities to get sufficient financial resources available to absorb losses and to be recapitalised at the point of resolution. Within the European Union, the loss absorbing capacity is assessed through the MREL. It is a sort of pure "pillar two requirement" for resolution – which should be tailored to the banks' features and adjusted to take into account the resolution strategy.

The BRRD sets the key criteria for MREL[61]. To be eligible to MREL, the instruments should be issued and fully paid up and have a remaining maturity of at least on year. The instrument could not be guaranteed or funded by the institution itself. Derivatives and preferred deposits[62] are not eligible to MREL. However, resolution authorities have the leeway to complete these minimum requirements by their own policy to enforce the legislation and to strengthen the efficiency of the bail-in tool in case of resolution.

Based on the work conducted by the European Banking Authority (EBA), the European Commission endorsed in 2016 a delegated regulation completing the BRRD and clarifying the calculation of the MREL requirements[63]. This regulation harmonises the methodology by providing guidance on the minimum amount of own funds and liabilities to absorb losses (Loss absorption amount) and to recapitalise the bank after resolution (Recapitalisation amount). This calculation is driven by the solvency requirements, taking into account the prudential pillar two, the buffers, the Basel one floor and, when implemented, the leverage ratio. All in all, taking into account the need to compute a specific additional amount to restore confidence, the outcome of the first step of the calculation should lead the resolution authorities to set a level of MREL at least twice the amount of the capital requirements.

This amount could be adjusted by resolution authorities to take into account the features of the banks (e.g. business model, funding model and risk profile) both at the level of the loss absorption amount and the recapitalisation amount. The possibilities for adjusting the loss absorption amount upwards or downwards are closely related to supervisory stress tests and the Supervisory Review and Evaluation Process (SREP). It should be the outcome of a discussion with supervisory authorities. The recapitalisation amount can be adjusted in relation to the resolution strategy.

The confidence layer can be linked to a comparison of the bank with its peers.

For the Global Systemically Important Institutions (G-SIIs), it can be assumed that the FSB Total Loss Absorbing Capacities (TLAC) term sheet will

61. Directive 2014/59/EU (BRRD), article 45

62. According to the article 108(a) of the Directive 2014/59/EU (BRRD), the preferred deposits are the "deposits from natural persons and micro, small and medium-sized enterprises which exceeds the coverage level provided for in Article 6 of Directive 2014/49/EU".

63. Commission Delegated Regulation n° 2016/1450 of the 23 May 2016 based on an EBA draft Regulatory Technical Standard.

be transposed as a binding minimum standard into EU law. For these banks, the MREL policy should start from this document published in November 2015. It requires a minimum amount of Loss absorbing capacities of 16% of the RWA plus the buffers as of 2019[64]. Although TLAC is a pillar 1 like requirement, it shares common objectives with MREL: enhancing the Loss Absorbing Capacities and simplifying the application of the bail-in. In that sense, even if the scope of institutions, the eligibility criteria and the computing methodology are not entirely aligned, it is nevertheless possible to say that MREL and TLAC are "two sides of the same coin".

The TLAC requirements should be introduced in the EU legislation by the European co-legislators in the coming months. It may have an impact on the BRRD and could be the opportunity for the European Commission to suggest improvements to the current provisions on MREL. However, this legislative proposal should not be a pretext to delay the implementation of MREL and the work done so far. Although the legislation could be amended, the substance of the BRRD and the SRMR on MREL should not change. The objective will still be to enhance the loss absorbing capacities. MREL is already a key element for resolution planning and this is why the SRB will keep working on its implementation in the coming months.

B. Enhancing the quality of the Loss Absorbing Capacity

The BRRD sets a wide scope of MREL eligible instruments. Conversely to the FSB TLAC term sheet which allows non-subordinated elements for a small fraction only and subject to stringent conditions, the BRRD is more open regarding senior unsecured liabilities. Nevertheless, resolution authorities have to pay attention on the quality of MREL eligible items to enhance the resolvability of the banks under their responsibility.

The resolvability assessment of loss absorbing capacity will start by a close analysis of the insolvency ranking of the liabilities eligible to bail-in. By principle, the resolution authorities should apply the bail-in tool to all the liabilities respecting a ranking from the more to the less junior instruments

64. FSB, Total Loss-absorbing Capacity (TLAC) Term Sheet, Principles on Loss-absorbing and Recapitalisation Capacity of G-SIBs in Resolution, 9th November 2015, http://www.fsb.org/wp-content/uploads/TLAC-Principles-and-Term-Sheet-for-publication-final.pdf

consistently with the order of claims applicable in the insolvency laws (with pari passu treatment within each class)[65]. However, the BRRD allows the exclusion of certain liabilities from the bail-in. These exclusions are justified by different reasons as, for instance, the protection of depositors (covered deposits), the protection of creditors' claims based on a charge, a pledge or collateral arrangements (secured liabilities) or the protection of employee's liabilities[66]. In exceptional circumstances, the resolution authorities could also exclude other liabilities from the scope of the bail-in. These exceptional circumstances could be constituted when there is an impossibility to bail-in certain banks' liabilities in a reasonable time, when there is the need to preserve the continuity of the critical functions, to avoid the risk of contagion or the destruction in value[67]. These exceptions introduce a difference in the treatment between creditors of the same classes, in particular within the senior debt category (i.e. ordinary claim category).

This difference could be justified from a resolution perspective. However, it creates an asymmetry between resolution schemes and the normal insolvency proceeding which could trigger legal actions on the basis of "No Creditor Worse Off" than in liquidation principle (NCWO). According to the BRRD "*no creditor shall incur greater losses than would have been incurred [...] under normal insolvency proceedings*" [68]. In case of breach of the NCWO principle, the creditors have the right to be compensated after the resolution action. It is important to note that there is a right to compensation, but not a possibility to undo what has been done through the resolution scheme. This particular situation reinforces the responsibility of the resolution authorities before taking decisions.

In order to enhance the legal certainty and transparency, the resolution authorities have a strong interest to require the banks to meet all or part of their MREL requirement with debt or equity instruments ranking junior to the other debt instruments.

For the G-SIIs, the core features of the TLAC term sheet can be already taken into account when setting MREL, in particular regarding the subordination

65. Directive 2014/59/EU (BRRD), articles 44.1 and 34(b)
66. Directive 2014/59/EU (BRRD), article 44.2
67. Directive 2014/59/EU (BRRD), article 44.3
68. Directive 2014/59/EU (BRRD), article 34(g)

requirements[69]. For these banks, only a small part of the TLAC requirements could be met with senior unsecured debt, under stringent conditions. For the non-G-SIIs banks, especially the most systematic ones among the Other Systemically Important Institutions (O-SIIs), it will be necessary to set MREL with a minimum amount of subordinated instruments or of instrument ranking junior to the liabilities excluded from bail-in. In that respect, the TLAC principles could be extended to other systemic banks like the biggest O-SIIs.

The resolvability assessment of loss absorbing capacities should also take into account the analysis of the counterparties. The resolution authorities do not have the legal choice not to bail in retail creditors, except under exceptional circumstances[70]. Likewise, resolution authorities should not de-recognise instruments from MREL just because they are held by retail creditors, if they meet the requirements for MREL. There is no legal basis for resolution authorities to ex ante exclude liabilities held by natural persons or SMEs from bail-in or from MREL. However, holdings of senior bonds by the bank's own retail clientele could prove to be an impediment to correctly apply the bail-in tool, and make these banks difficult to be resolved. Resolution authorities would most likely have to bail-in these retail bondholders, which could lead to a loss of customers' base. This could endanger the bank's future viability and the continuation of critical functions, so that the resolution objectives may not be reached entirely. The issue around holding of MREL instruments by retailors is similar to others linked to the poor quality of MREL instruments. In that sense, the resolution authorities are driven by considerations related to the resolvability of the institutions and not by the protection of retailers against mis-selling. There are specific rules on mis-selling, which are of crucial importance, and therefore have to be enforced by designated authorities, different from the resolutions ones. Resolution authorities could address the particular situations based on a case-by-case analysis in the future by means of higher MREL requirements or of subordination requirements. Banks should be encouraged to think of measures to substitute or replace retail bonds with institutional ones.

69. The G-SIIs should meet, at a minimum, an amount equal to 13.5% of group RWA plus the combined buffer requirement with own funds and subordinated instruments. Alternatively, the TLAC requirement could be met by own funds and senior debt only, if the amount of "TLAC excluded liabilities" that rank pari passu or junior to the TLAC eligible liabilities does not exceed 5% of the eligible external TLAC.
70. Directive 2014/59/EU (BRRD), article 44.3

As another example of point of attention, it is worth mentioning that resolution authorities will need to assess the MREL eligibility liabilities subject to the contracts issued under non EU law. When liabilities are not governed by EU law, the resolution authorities run the risk that the courts of the country whose law governs the liabilities do not recognise the bail-in or transfer order of an EU resolution authority. These liabilities may not be "bail-inable" and should not be automatically eligible to MREL although they meet the criteria set by the BRRD. They should be included in MREL only if the bank is able to demonstrate that a bail-in would be effective while governed by foreign law. For that, the introduction of a bail-in clause is definitely necessary but could not be as such sufficient to consider the eligibility of these instrument into MREL. It should be completed by an independent legal opinion to demonstrate its effectiveness.

These examples of resolvability assessment illustrate that setting MREL is not the outcome of an automatic calculation but the result of a detailed analysis done through the resolution planning. In that sense, MREL is tailored to the specificities to each and every institution. The SRB has started this analysis in 2016 but may still need time to adjust it to the preferred resolution strategy for each institution, and to implement it in practice.

2. The need to adapt the Loss Absorbing capacities to the outcome of the resolution planning process

The bank-specific nature of MREL recognises the diversity of business models and resolution strategies among European banks (A). It will require for most of the banks a transitional implementation phase to comply with the MREL requirements (B).

A. Taking into account the resolution strategy and the resolvability assessment in setting MREL

MREL should reflect the strategy developed in the resolution plans. The MREL requirement should be set at the appropriate level to reflect whether the strategy is based on a multiple-point-of-entry (MPE) or a single-point-of-entry

approach (SPE). Given a resolution action would be applied at the legal entity level, the external loss-absorbing capacities should be primarily located in the entity where the losses should occur and where the bail-in would be applied. For the groups following an SPE approach, the external loss absorbing capacities should be located at the parent entity level. In case of MPE, the loss-absorbing capacities should be defined at sub-consolidated level for each point of entry of the MPE. Once the resolution strategy defined, the banks debt issuance policy should be set accordingly to enhance the feasibility of the resolution plans.

Beyond the points of entry, loss absorbing capacities could be allocated internally within the banking groups to cover the losses that could occur in entities bearing critical functions. The resolution authorities will have to ensure that loss-absorbing capacities are distributed properly across the group to upstream to losses to the point of entry if necessary. Internal loss absorbing capacities should be set, at least, between the point of entry and the material entities. Such an allocation of the loss absorbing capacities should rely on a robust analysis of the critical functions and of the risks within the groups.

The resolution strategy should also be reflected in the quantum of the MREL requirements. As a pure pillar two requirement, MREL gives a discretionary power to resolution authorities to adjust upwards or downwards the requirements. The banks' capacities to reduce their risks in case of crisis could be factored in the MREL requirements (e.g. sale of assets, discontinuation of certain activities). Such a reduction of risks would have to be assessed cautiously by the resolution authorities in order to understand the credibility and the feasibility of the measures presented by the banks. The banks have to quantity the impact of their decision (i.e. reduction of Risk Weighted Assets) and to demonstrate that the operationalization of the deleveraging is feasible in stressed conditions (e.g. liquidity of the considered market, appropriate valuation of the assets, ...). The assessment of the risk reduction should be done in cooperation with supervisory authorities.

According to the Delegated regulation on MREL, the bank's business model, funding model, and risk profile should also be taken into consideration to set MREL[71]. A bank that is a bigger risk to financial stability will have a higher MREL requirement to ensure that there is sufficient capital in case of

71. Commission Delegated Regulation n° 2016/1450, article 4

resolution, while a bank that has fewer critical functions and a less risky business model, or one that organises its critical functions in a way that they may easily be separated, receive a lower MREL requirement.

The resolution authorities assess the risks of the banks and their importance to the national and international financial markets, setting a level playing field for comparable banks, while still taking proportionality into account. However, MREL should be set at a level sufficiently high to access, if necessary, to the financing arrangements like Single Resolution Fund in the Banking Union. In that regard, the SRB has consistently made reference to minimum threshold of 8% of total own funds and liabilities to be generally considered in the MREL requirement.

Finally, the MREL decisions could be adjusted to reflect the outcomes of the resolvability assessment. In case of material impediments, the MREL requirement should be adjusted upward to ease the success of a resolution action. The MREL decision is not the starting point of resolution planning. It is rather the result of the resolution planning. For this reason, although most of the resolution authorities have started working on MREL and engaged in a discussion with banks, the process to take MREL decisions and to implement these decisions could be spread over the next few years.

B. An implementation to be spread over the next years

The legislation does not provide any guidance for the time period that banks may be given to meet their MREL requirement. The only guidance provided by the Delegated Regulation on MREL is that resolution authorities are required to communicate a "*planned MREL for each 12-month period during the transitional phase*" [72]. Consequently, once the MREL decision is taken, the banks should meet their MREL target as soon as possible but under a path decided by the resolution authorities. There could be practical limitations in terms of the volume of MREL eligible instruments that markets could absorb without significant distortion to the prices at which banks could issue securities. In addition, asking banks to issue as many securities as possible in order to meet their MREL requirement as quickly as possible could force banks to increase their balance sheets and

72. Commission Delegated Regulation n° 2016/1450 of the 23 May 2016, article 8.2

invest the additional funds obtained into risky activities that are not consistent with their existing business models and risk appetite.

In order to find an appropriate balance and in case of a shortfall, a reasonable debt issuing plan should be set by banks and discussed with resolution authorities to reach the MREL requirement as soon as possible.

The MREL requirement will have to be complied with by the deadline defined by the resolution authorities. On a case by case basis, the deadline could be adjusted for each banking group and could be adjusted in the context of the annual review of the MREL requirement. The MREL requirement could be re-set based on a refined resolution strategy and resolvability assessment, as well as due to the outcome of joint decisions by resolution colleges, in coming years. In that sense, MREL is an evolving tool tailored to each bank. Decisions taken by the bank in terms of business model and strategy will have to be assessed in terms of resolvability and translated into a revised MREL target as far as necessary. In all the cases, the G-SIIs will have to comply with the FSB TLAC Term sheet no later than 1 January 2019, which implies that MREL requirement should be defined accordingly.

The disclosure of MREL requirement will have to be considered cautiously by resolution authorities and banks, in particular at the beginning of the process. The figure could be difficult to interpret for the market without a good understanding of resolution planning analysis. Any comparison between two MREL figures would be irrelevant as each MREL figure starts from a common methodology but is tailored to the situation of each bank from a resolvability point of view. The communication to the markets should be conducted in parallel with clear explanation of the objectives and features of MREL setting. For the moment, the SRB is building its dialogue with bank and has not taken yet any binding decision around MREL.

3. Conclusion

MREL is key to increase the loss absorption capacities of European banks, creating real incentives for better resolvability and for ensuring that banks in Europe will never again be 'too big to fail'. Going forward, bail-in rather than bail-out will be the rule of the game.

However, beyond the MREL setting and the implementation of the bail-in tool, the resolution authorities will have to work on other aspects of resolution planning. Although MREL is essential, resolution planning is not limited to the assessment of the loss absorbing capacities. The resolution authorities will have also to take care of the operational continuity of critical services after the resolution. The banks' capacity to raise funding, the access to financial market infrastructures or the restoration of the market confidence are also key elements to take into consideration. The creation of a new institutional and legislative framework on resolution is a major improvement for the financial stability but its full implementation and effectiveness will be achieved only through an on-going discussion between resolutions authorities, between resolutions authorities and supervisory ones, and with banks themselves.

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Bank Resolution and Mutualization in the Euro Area

by María J. Nieto[73]

Abstract

This article analyses the reform of the European institutional framework for bank supervision and crisis resolution in the aftermath of the Euro area bank and sovereign crises. The reform aimed at centralizing the decision-making structures for bank prudential supervision and resolution. Mutualization of bank risk is a cornerstone to ensure financial stability and to lend credibility to the Banking Union. To this purpose, the European Stability Mechanism (ESM) – preceded by the European Financial Stability Facility (EFSF) - was created as a mechanism of mutualisation of sovereign risks in the Euro area, which was followed soon after by a clear push toward the centralization of the decision-making structures of bank prudential supervision and crisis resolution. The Single Resolution Fund (SRF), and the single euro area deposit insurance scheme (EDIS) were created as two further Euro area private mutualisation mechanisms in the context of the Banking Union, to cover all banks in the euro area and in future participating countries. Neither the SRF nor the EDIS have the ESM as a fiscal backstop in the steady state as yet. In order to limit moral hazard, mutualization takes place hand-in-hand with burden-sharing with bank private investors in crisis resolution as per the Bank Recovery and Resolution Directive (BRRD). This article also compares

73. María J. Nieto, Banco de España Alcalá 48, 28014 Madrid (maria.nieto@bde.es). The views expressed here are the author´s and they do not necessarily represent those of Banco de España or the Eurosystem. Any errors are my own. I am grateful to Gillian Garcia for her suggestions.

the European and US regulatory frameworks based on the ultimate objectives of limiting moral hazard and preserving market discipline in bank resolution.

1. Introduction

The euro area faced the onset of the recent financial crisis with a decentralized system for bank prudential regulation, supervision, emergency liquidity assistance, deposit insurance and failed bank reorganization and resolution. The safety net had been almost entirely the responsibility of national authorities of each member state in spite of the highly integrated euro denominated money and, albeit to lesser extent, capital markets. The conflicting financial and political interests and objectives reflected a non-incentive-compatible decision making structure (Nieto and Schinasi, 2007) in which national authorities scrambled to support their national banking systems with little consideration of the potential spill-over effects on other European Union (EU) Member States. Since 2010, financial markets have shown recurrent concerns about the debt sustainability in those euro area countries most affected by the banking crisis, which has resulted in a diabolical negative sovereign – bank loop, between banking and sovereign debt crisis. The rise in government spreads mirrored that of the government guaranteed bonds.

The twin banking and sovereign crisis in some euro area countries contributed to make significant progress in the process of internalizing the existing national-oriented arrangements for dealing with bank crisis resolution, including a (partial) credit transfer among sovereigns: the European Stability Mechanism (ESM).[74]

Against this background, the objectives of this article are threefold. The article presents:

74. The European Council agreed on 17 December 2010 on the need for euro area Member States to establish a permanent stability mechanism. This European Stability Mechanism ("ESM") assumed the tasks assigned to the European Financial Stability Facility ("EFSF") and the European Financial Stabilisation Mechanism ("EFSM") in providing financial assistance to euro area Member States. On 25 March 2011, the European Council adopted Decision 2011/199/EU amending Article 136 of the Treaty on the Functioning of the European Union (TFEU) with regard to a stability mechanism for Member States whose currency is the euro. It did so by adding the following paragraph to Article 136: *"The Member States whose currency is the euro may establish a stability mechanism to be activated if indispensable to safeguard the stability of the euro area as a whole. The granting of any required financial assistance under the mechanism will be made subject to strict conditionality."*

1) The institutional design of the Banking Union and its contribution to breaking the negative sovereign – bank loop;
2) An analysis of the sufficiency of the existing mutualization mechanisms in the Banking Union;
3) An analysis of the regulatory framework for bank recovery and resolution as a policy instrument to for limiting moral hazard because the authorities have no other option but to save an institution.

The remainder of this article is divided in three sections. Section 2 describes Banking Union and the mechanisms for the mutualization of bank risks. These include: The Single Resolution Fund (SRF); the European Deposit Insurance (EDIS) and the potential role of the ESM to engage in precautionary direct bank recapitalizations. Section 3 presents the new framework for bank recovery and resolution as a policy instrument to limit moral hazard and impose market discipline. This section also highlights the framework´s limitations when banks need to be liquidated. The last section concludes and presents final reflections.

2. Breaking the diabolical sovereign – bank loop: centralization and mutualization

2.1 Banking Union: Centralization as response to the euro area sovereign crisis

This section starts with a very brief summary of the economic literature on the incentives for safety net regulators to cooperate, and of the optimal design of regulation in a multi-country framework. The related literature provides the background for the analysis of the policy decisions that followed the immediate aftermath of the crisis in the euro area, which will be presented in the second part of this section.

2.1.1 Related literature

Before the financial crisis, academics' interest was initially motivated by the trend towards greater financial market integration in Europe. The financial crisis further intensified awareness of the perilous interconnections among

financial institutions and markets. Holthausen and Rønde (2005) argued that prudential supervisors in the EU do not have the incentives to cooperate when their interests do not perfectly coincide. Then, the host country supervisor does not reveal all the information it possesses. As a result, it is not possible to implement the first-best bank closure rule. The authors showed that the better aligned are the interests of the supervisors, the greater is the detailed information that can be exchanged and the higher is the welfare resulting from the closure decision. In this context, they propose supranational supervision as a mechanism to resolve goal conflicts. The supranational supervisor has fewer opportunities to exploit the information that it receives to its 'own' advantage than does the home country supervisor who is better informed than the hosts.

Eisenbeis and Kaufman (2006 and 2008) proposed principles to ensure the efficient resolution of EU cross-border banks, and Eisenbeis (2006), associated the likely incidence of systemic risk and the negative externalities with the pre-crisis bank resolution procedures in the EU (including deposit guarantee arrangements).

Hardy and Nieto (2012) focused on the optimal level of both supervision and deposit insurance schemes, where policy-makers have either similar or asymmetric preferences regarding the profitability and stability of the banking sector.[75] We concluded that the first best approach would involve the simultaneous strengthening of prudential supervision and the limiting of depositor protection. Each country, however, has an incentive to "free ride" on the strengthened supervision of others, so an enforcement mechanism is needed. Indeed, strengthening coordinated prudential regulation and supervision is valuable even if deposit guarantee schemes are not well coordinated. Stronger supervision (which can be taken to include enforcement action that requires imperiled banks to take remedial action long before they become insolvent) will reduce the need for deposit guarantees, and help induce countries to limit protection to depositors and other bank creditors.

More recently, Schroth (2016) studies optimal supervision of local financial regulators who are better informed about the benefits of lenient regulation.

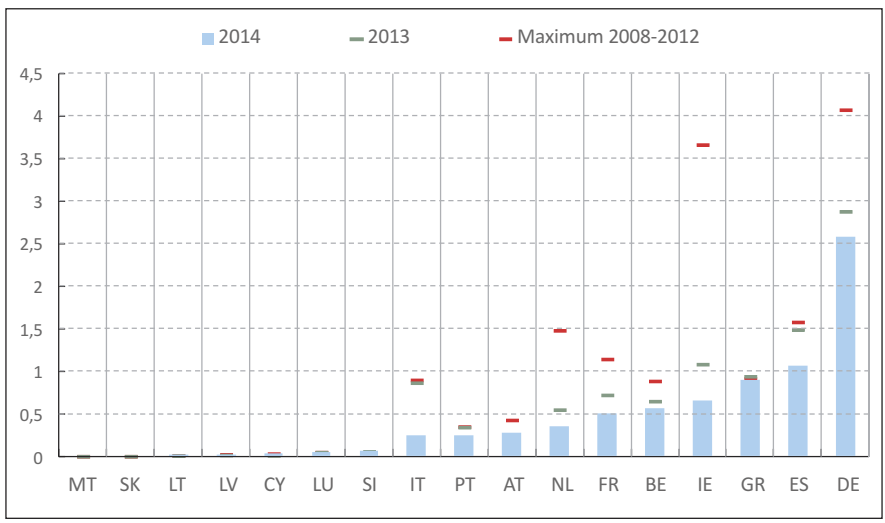
75. Deposit insurance measures the credibly committed and expected amount of assistance ("commitment technology") that a country may have to deploy to ensure that support for claimants of a failed bank is limited to the predetermined deposit guarantees.

The author concluded that in order to strengthen incentives for local supervisors to share relevant information, they should be supervised jointly, rather than separately. Optimal supervision coordinates regulatory leniency across local regulators within each period.

2.1.2 Regulatory decisions

In the immediate aftermath of the collapse of Lehman Brothers, euro area national authorities provided generous financial support to their national banking systems (Figure 1) and focused on preserving their national financial stability with little regard for potential negative spill overs. Supervisors´ behavior was in line with what the literature had predicted, also, its consequences. As a result, financial market integration came to a halt, and even reversed to some extent, resulting in fragmentation and renationalization of the interbank market, of cross border bank lending, and of bank securities holding (Laeven and Tressel, 2014). Furthermore, as the financial crisis began to engulf the sovereign credit standing of an increasing number of euro area countries, the European Council agreed on a credit transfer mechanism within the framework of a macro-economic adjustment program: namely the ESM.

Figure 1: Government support (liabilities + contingent liabilities) received by recipient banks in the euro area measured in terms of the euro area GDP (per cent)



Source: Eurostat and Nieto and Wall (2015)

Against this background, governments of the euro area gave a clear push toward the centralization of the decision-making structures of bank prudential supervision and crisis resolution. These structures had previously been characterized by an iterative process in which Member States gradually and selectively internalized some of the negative externalities associated with cross-border banking.

In June 2012, the EU took steps to centralize supervision and resolution: it created a Single Supervisory Mechanism (SSM)[76] and a Single Resolution Mechanism (SRM).[77] This still left two elements of the Banking Union in the domain of national jurisdictions: emergency liquidity assistance and deposit insurance. The underlying economic rationale for such centralization is that euro area public backstops (such as the ESM) could absorb the extreme tail risks of crisis banks only after euro area banks had become subject to common oversight in the SSM.[78] However, the ESM has not as yet been made operational to recapitalize banks. At the end of 2015, however, the European Parliament and European Council made a proposal to establish a European Deposit Insurance Scheme (EDIS).[79]

At present, the provision of Emergency Liquidity Assistance to solvent but illiquid banks in the euro area (ELA) is the only element of the design of Banking Union that will remain a national responsibility. Since the inception of the euro, this main guiding principle of the ECB has not changed. It is the national central bank (NCB) that takes the decision to provide ELA and assumes the credit risk (or a third party acting as a guarantor) associated with providing ELA to a bank operating in its jurisdiction (ECB, 1999).[80] The

76. 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 L287, 29-10-2013).

77. Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010 (OJ L 225, 29-7-2014) (Henceforth SRMR).

78. As outlined in the Communication from the Commission to the European Parliament and the Council 'A Roadmap towards a Banking Union'(COM(2012) 510, 12.9.2012), in the Communication from the Commission 'A Blueprint for a Deep and Genuine Economic and Monetary Union Launching a European Debate' (COM(2012) 777 final/2, 30.11.2012) and in the Four Presidents' report 'Towards a genuine economic and monetary union' (Report by President of the European Council, Herman Van Rompuy EUCO 120/12, 26.06.2012).

79. Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 806/2014 in order to establish a European Deposit Insurance Scheme. COM (2015) 586 Final. Strasbourg 24-11-2015.

80. See ELA procedures at http://www.ecb.europa.eu/mopo/ela/html/index.en.html (accessed 14 July, 2015).

decentralization of ELA assistance implies that the ultimate credit risk lies with Member States´ fiscal sovereignty. Nonetheless, coordination arrangements are robust because national central banks of the euro area are required to inform the ECB (and to request authorization when the overall size of ELA exceeds certain thresholds) on the financial situation of the beneficiary institution, the systemic implications as well as the terms of the financial assistance including the repayment schedule.

In practice, centralization of the decision making on banks' prudential supervision in the SSM and crisis resolution in the SRB encompasses the active participation of the respective national authorities in the euro area in both joint decision making and execution.[81] The ECB is assigned ultimate responsibility for the effectiveness and consistency of the SSM. The SRB is a euro-level resolution authority, which together with the ECB, as the supervisor, should be able to assess whether a bank is failing or is likely to fail and whether there is no reasonable prospect that any alternative private sector or supervisory action would prevent its failure within a reasonable timeframe.

The ECB has a broad range of supervisory responsibilities including, among others, granting and withdrawing licenses; authorization of mergers and acquisitions (M&A) (except in the context of failed bank resolution) and macroprudential policy. However, enforcement is the responsibility of the Member State, which risks inconsistent implementation among the euro area countries. Hence, close cooperation on sanctioning will be needed in order to achieve a consistent supervisory approach as well as a level playing field with respect to compliance and deterrence between the euro area members.

In the SRM, the decision-making structure is the Single Resolution Board (SRB). If the SRB considers that all the criteria relating or triggering bank resolution have been met, it decides on a particular resolution scheme, including the choice of resolution tools and their financing, and so it instructs the national resolution authorities. The SRB resolution tool kit consists of tools to facilitate the continuity of banks´ vital operations.[82] Resolution tools

81. Banking Union is compulsory for the euro area countries and optional for the rest of the EU countries.

82. Resolution tools are defined in the Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council (L 173/190, OJ 12.6.2014) (Henceforth BRRD).

give powers to the SRB to transfer assets and liabilities to bridge financial institutions or to new purchasers (using the proceeds for the benefit of the institution under resolution) and / or to asset management vehicles if the situation of the particular market for the transferred assets is of such nature that the liquidation of those assets under normal insolvency proceedings could have an adverse effect on the financial markets. Moreover, the resolution tool kit includes a conservation mechanism to absorb losses of institutions failing or likely to fail, which aims to save the firm from failure (bail-in tool). The EU Bank Recovery and Resolution Directive (BRRD) establishes a creditor hierarchy with certain "carve-outs." The carve outs recognize secured creditors claim to the collateral pledged by the bank, grant preference to insured deposits, and allocate first losses to capital instruments (common equity first, then Additional Tier 1, and then Tier 2.)

The SRB's decision to place a credit institution in resolution may be overturned by the Council, acting on a proposal by the EU Commission acting on the grounds that it is not necessary for the public interest. Also, the Council may approve or object to material modification of funding by the SRF (see subsection 2.2). Against this background, it could be argued that the Commission may have potential conflicts between two policy objectives of preserving fair competition and protecting financial stability.

The SRB will also administer the European Deposit Insurance System (EDIS) (see subsection 2.2). The special tasks of EDIS would require a special composition of the plenary session for decisions that relate to EDIS only. Members representing national resolution authorities in the plenary session of the SRB would be replaced by members representing national designated authorities by the national deposit guarantee schemes.[83]

To the extent that the designated national authorities are members of both the ECB's Supervisory Board (supervisors) and of the SRB (resolution authorities and national designated authorities of deposit guarantee schemes), their influence cannot be overlooked, hence the importance of both the SSM and the SRB European mandates and governance arrangements in order to allow first best solutions both in normal and crisis situations. Furthermore,

83. Title II of the Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 806/2014 in order to establish a European Deposit Insurance Scheme. COM (2015) 586 Final. Strasbourg 24-11-2015.

the procedure relating to the adoption of the resolution scheme, which involves the EU Commission and the Council, strengthens the necessary operational independence of the SRB.[84]

2.2 Mutualization of risks: Public and private

ESM

In the euro area, the centralization of the decision-making structures of supervision and resolution came together with (albeit partial) mutualization of bank risks amongst the credit institutions and certain investment firms via the SRF and EDIS. The ESM, which is financed by sovereigns of the euro area, preceded Banking Union. Furthermore, it could be argued that the limitations of the ESM served as a catalyst for the Banking Union.

In the immediate aftermath of the financial crisis, EU governments could not agree on a pan- European Government Bond that had been proposed to lend credence to the rescue of the banking system. The political debate focused on the question of the degree of joint guarantees (where every country guarantees everything –i.e. joint guarantee-) vs each country guarantees its own tranche / part (several, no joint guarantee). No agreement was reached. As the banking crisis was negatively impacting the sovereign credit standing of an increasing number of euro area countries and turning into a crisis that was affecting the credibility of the single currency, Heads of State and Government agreed on the ESM to contain the sovereign debt crisis.

More precisely, the European Financial Stability Facility (EFSF) was created by the euro area Member States in the context of the Greek sovereign debt crisis in 2010. The EFSF was a (partial) credit transfer mechanism from the investment grade rated sovereigns, which were exposed to first-loss guarantees, to those countries that were losing the investment grade credit ratings and experiencing difficulties in tapping the financial markets. EFSF financial assistance was provided within the framework of a macro-economic adjustment program and financial assistance was subject to conditionality laid out in detail in MoUs. In November 2012, responsibility for providing financial support to

84. In the case of EDIS, however, the decision to assess whether the conditions for the provision of liquidity and loss cover are met corresponds entirely to the Board, which determines the amount of funding.

euro area Member States experiencing or threatened by financing difficulties was transferred from the EFSF to Europe's new permanent rescue mechanism, the ESM. The euro area Member States signed an intergovernmental treaty establishing the ESM on 2 February 2012.[85]

The beneficiary of the ESM financial support must be an Euro area sovereign that can receive assistance in any of the following ways: (1) precautionary financial assistance in the form of a precautionary conditioned credit line or enhanced conditions credit lines; (2) loans or; (3) financial assistance (loans) for the re-capitalization of financial institutions (i.e. no direct bank capitalizations).[86] During the crisis, government capital support and funding guarantees benefited bank creditors and helped improve market conditions for sometime, but the banks' underlying vulnerability to the European sovereign debt crisis has remained. Hence, the ultimate solution for a future banking crisis could not lie in sovereign guarantees or the sovereign-funded recapitalization of banks.

The ESM finances itself by issuing short term money market instruments as well as medium and long-term debt with maturities of up to 30 years. Also, the ESM can borrow in the capital markets from banks, financial institutions or other institutions. ESM issuance is backed by its authorized capital stock of EUR 700 bill and the irrevocable and unconditional obligation of ESM Member States to provide their contribution to ESM's authorized capital stock. An ESM member´s contribution is set by the contribution key agreed in the ESM Treaty, which is the same as the one for the ECB capital subscription. For example, after Greece, Ireland and Portugal entered EFSF programs, contribution keys increased from 27.06% to 29.07% for Germany; from 20.32% to 21.83% for France and from 17.86 % to 19.18% for Italy. This increase in the burden sharing mechanism garnered significant opposition particularly within the financially stronger nations.[87]

85. See ESM Treaty at http://www.esm.europa.eu/pdf/esm_treaty_en.pdf (accessed 14 July, 2016).

86. In the case of Spain, it was the first time the instrument of recapitalization of banks through loans granted to a government was used. There were no contributions from other lenders. Spanish authorities requested financial assistance from the European Financial Stability Facility (EFSF) to support the ongoing restructuring and recapitalization of its financial sector. The program concluded as scheduled in January 2014 and the total financial assistance required was € 38.8 bill. The program consisted of 32 measures, which included institutional and regulatory changes that had to be completed in eighteen months.

87. The rise in EFSF spreads relative to the spreads of its Aaa-rated guarantors reflected limits of the EFSF's ability to support European government bond markets. The movement of the spread of other Aaa-rated euro area countries to Bunds explained only 30% of the increase in the spread on the EFSF issuance.

The ESM's loans to Member States enjoy preferred creditor status in a fashion similar to those of the IMF, although the IMF loans enjoy preferred creditor status over those of the ESM. On the one hand, preferred creditor status supports corrective policy programs. On the other hand, it potentially introduces moral hazard into EMS lending decisions when political pressures to lend are strong because it pushes down private creditors in the hierarchy of the priority of claims and increases banks´ cost of financing.[88]

The other two Euro area mutualization mechanisms (SRF and EDIS) were designed in the context of the Banking Union, to cover all banks in the euro area and in future participating countries. Both the SRF and EDIS are financed by banks and will be administered by the Single Resolution Board (SRB). Neither the SRF nor the EDIS have the ESM as a fiscal backstop. In sum, both were designed as private burden-sharing mechanisms.

SRF

The SRF ensures that credit institutions of the euro area finance the stabilization of the financial system, in so doing it, mutualizes the risks involved in the efficient application of resolution tools and the exercise of the resolution powers conferred on the SRB. The SRB is responsible for the calculation of the "ex-ante" contributions that finance the SRF. The national resolution authorities are responsible for the collection of contributions from credit institutions and certain investment firms and for transferring them to the SRF. The Board decides on the use of the SRF; however, because Member States are sovereign and decide on fund use in their national budgets, the Board cannot require Member States to provide extraordinary public support to any entity under resolution.

The SRF may be used to ensure the effective application of the resolution tools in the context of a bank resolution scheme in order to: (1) guarantee the assets or the liabilities of the bank under resolution; (2) make loans to or to purchase assets of the bank under resolution; (3) make contributions to a bridge institution and an asset management vehicle; (4) make a contribution

Furthermore, while the EFSF bond spread remained significantly lower than the weighted average spread of all its guarantors, it had moved further away from the AAA guarantors spread and closer to the all-member spread during the last six months of 2011 (Moody´s 2011).

88. See Schadler (2014) for an analysis of the IMF preferred creditor status.

to the institution under resolution in lieu of the write-down or conversion of liabilities of certain creditors under specific conditions (bail-in tool); (5) pay compensation to shareholders or creditors who incurred greater losses than under normal insolvency proceedings so that they will not be worse off in resolution than they would have been under liquidation. The SRF (as well as the national resolution funds) shall not be used to absorb the losses of an institution or to recapitalize an institution.

In exceptional circumstances, where an eligible bank liability or class of liabilities is excluded or partially excluded from bailing-in, the BRRD leaves open how Member States would fulfill its commitment. The BRRD has set conditions and limits on the extent to which the SRF might be used: Contributions from the SRF cannot exceed a maximum of 5% of total bank liabilities including own funds and then only after at least 8% of the total liabilities including own funds of the bank under resolution have been bailed in. Limitations and restrictions on the use of the SRF (as well as national resolution funds) aim at limiting the moral hazard that may derive from the mutualization of risks. Still, moral hazard behavior could materialize, for example in funding decisions that gravitate toward using categories of funds that are exempt from bail-in, such as repos.

The moral hazard risk associated with the mutualization is limited, however, by *ex ante* bank fee contributions, which adjust for both idiosyncratic and systemic risks. Moreover, the *ex ante* fee contributions limit moral hazard by requiring all institutions to contribute. *Ex post* levies do not address moral hazard because they exclude contributions from those banks that receive resolution funds. In addition, *ex post* contributions to the resolution fund to recover the costs of financial crisis would be pro-cyclical, because premiums would be collected during the economic downturn. Premia are typically lower in good times and higher in bad times. Schoenmaker (2010) argues that an insurance fund is typically pro-cyclical. That funding for the SRF will be collected over a sufficiently long period of time (until 31 December, 2024) further limits concerns over the SRF pro cyclicality.

Consistent with the objective of limiting the risk of moral hazard associated with mutualization, the liability of each participating Member State within the SRF is separated. That is, it is not joint and several. Hence each of the participating member states responds only for its reimbursement

obligation. In the case of contributors for cross border bank resolution funding, recourse to all contracting parties in the SRF is much protected. It is made so by the Intergovernmental Agreement (IA) that requires, first, financial recourse to the national compartments of the SRF.[89] If such funding is not sufficient, the IA envisages recourse to all contracting parties (mutualized part of the SRF - full mutualization will take place only after 8 years starting 2016). If not sufficient to finance resolution tools, recourse will be made to the remaining financial means of national compartments. If not sufficient, the IA envisages extraordinary "ex post" contributions from banks of the Member States where the cross-border bank is incorporated. If "ex post" contributions are not immediately accessible, the SRB will decide on temporary transfers between compartments of the SRF that are not yet mutualized, up to a maximum of 50% of existing SRF funds (the SRB will decide on the terms and conditions). The SRB´s decision should exclude financing from contracting parties that object based on a number of reasons contemplated in the IA. For example, the objecting Member State might consider that it will need those financial resources in the near future or the objecting Member State might consider that the borrower does not have the financial capacity to pay back the loan. These are among the reasons envisaged in the IA.

During the transition phase, some special financing arrangements have been put in place in order to enhance market and investors' confidence should the scenario of a large crisis leading to the depletion of the SRF's resources from multiple resolution procedures arise. In this situation, Member States participating in the Banking Union have agreed to put in place a system of bridge financing arrangements in order to ensure sufficient funding to the SRF during the transition period.[90] Starting in 2016, each participating Member State enters into a harmonized Loan Facility Agreement with the SRB that will provide a national individual credit line to the SRB to back its national compartment in the SRF when funding shortfalls follow from the resolution of banks with headquarters in the Member State concerned. The maximum

89. Agreement on the transfer and mutualization of contributions to the Single Resolution Fund. ECOFIN, 14 May 2014.

90. See http://www.consilium.europa.eu/en/press/press-releases/2015/12/08-statement-by-28-ministers-on-banking-union-and-bridge-financing-arrangements-to-srf/?utm_source=dsms-auto&utm_medium=email&utm_campaign=Statement+on+Banking+Union+and+bridge+financing+arrangements+for+the+Single+Resolution+Fund accessed 10th August, 2016.

aggregate amount of the credit lines of euro area Member States will amount to EUR 55bn.[91] The individual credit lines are to be drawn on as a last resort, after having exhausted all other financing sources, including bail-in requirements under the BRRD as well as the SRB's external borrowing capacity (as described above in the IA). Such national individual credit lines to the SRB are designed to be fiscally neutral over the medium term. The banking sector of the Member State concerned will be liable for the repayment of the amounts drawn under the credit line.

EDIS

Deposit guaranteed schemes had been a neglected dimension in the coordination of national safety nets until recently. In the EU, deposit guaranteed schemes (DGS) aim at reimbursing depositors of wound- up banks, but they can also contribute to resolution by reducing the likelihood of future claims on the DGS. The credibility of DGS in enhancing confidence and preventing bank runs is paramount. Moreover, both the monetary union and the Banking Union demand that deposits inspire the same degree of confidence regardless of the Member State where they are located (Schoenmaker and Wolf 2015).

Historically, EU Directives on DGS imposed only a minimum conformity regarding authority; powers (only paybox or paybox and resolution), premiums paid by banks, time period to pay insured depositors when their deposits become unavailable and sources of additional funding, etc. The financial crisis instigated further harmonization of national regimes by, for example, introducing risk-based premiums. Nevertheless, harmonization merely facilitates coordination and it is insufficient to break the negative loop between sovereign and banking crisis. Only recently, in the so called five presidents´ report on the future of EMU, did policy makers identify deposit insurance as one of the main areas of the Banking Union still pending completion and then proposed to launch a single euro area deposit insurance scheme: the EDIS.[92]

91. The aggregate amount and the repartition key will be reviewed by the end of 2017 or earlier, if a non-euro area Member State joins the Banking Union.
92. European Commission (2015) Completing Europe´s Economic and Monetary Union Report by J. C. Junker, D. Tusk, J. Dijsselbloem, M. Draghi and M. Schultz.

The EDIS will provide the respective national DGS with the funds it needs to meet its funding obligations if there is a payout event[93] and/or DGS needs to contribute to a bank resolution.[94] The Commission proposal provides for a progressive mutualization of contributions and an increase in the share of depositor payouts, which will be funded by the EDIS:[95] (i) During three years starting in July 2017, a reinsurance scheme will also cover up to 20% of any liquidity shortfall (the remaining 80% will have to be paid back by the national DGS). It will also cover up to 20% of the excess loss of the national DGS whenever payouts and losses exceed the DGS´s available financial resources. (ii) Following the reinsurance phase during the co-insurance phase, DGS´s liquidity needs are progressively co-insured (but they need to be repaid) and losses are to be shared pro rata for four years until 2024.[96] This happens whether national DGS resources are exhausted or not. (iii) After seven years, the DGS are fully insured. Then the EDIS covers all the liquidity needs and losses of the participating DGS. The time horizons for the mutualization of EDIS and the SRF coincide. In both cases, mutualization will be completed in 2024. Comparisons should stop there to the extent that EDIS is an insurance fund on which insured depositors will have a partial claim from 2020 and full claim in 2024. No bank creditor has a claim on the SRF.

The economic rationale for the EDIS arises from the lack of risk diversification of national DGS and their vulnerability to large domestic shocks, in particular, shocks where both the sovereign and the national banking sector are perceived to be in a fragile situation. The history of State DGSs in the US is relevant in this regard, since numerous state guarantee funds particularly those of small states failed in the US at the beginning of the 20th century as result of their lack of diversification and their small size as compared to the banks´ losses (Thies and Gerlowski, 1989). In the euro area, EDIS will contribute to break the diabolical sovereign – bank loop and will

93. The payout event could be the result of a "liquidity shortfall" or a "loss cover" of the participating DGS.

94. When using resolution tools (bail-in...) for the amount of losses that covered depositors would have suffered, if they would have suffered losses in proportion to the losses suffered by creditors with the same level of priority (i.e. unsecured debt) under normal insolvency procedures. The liability of DGS shall not exceed the losses it would have incurred under normal insolvency.

95. Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 806/2014 in order to establish a European Deposit Insurance Scheme. COM (2015)686 final. 2015/0270 (COD). Strasbourg 24.11.2015 (Article 41q).

96. 20% in year 1; 40% in year 2; 60% in year 3; 80% in year 4.

also be fiscally neutral over time because its risks will be spread more widely and because private contributions will be raised over a much larger pool of financial institutions. However, the EDIS relies on the credibility of the backstops from the national DGSs. Member States whose fiscal position is compromised may be perceived as unable to provide a credible backstop to a national DGS. This would cause a negative spill over to other Member States, which could negatively impact depositor confidence and cause competitive distortions.

2.3 Would these mutualization mechanisms (SRF and EDIS) be sufficient?

Neither the SRF nor the EDIS have a common fiscal backstop from the euro area. Recently, the IMF (2016) has advocated a common fiscal backstop such as a credit line from the ESM, for both the EDIS and the SRF.[97] Such backstop would minimize the chances that bank-sovereign risk links would reemerge, which the IMF considers possible during the transition to becoming fully financed. In the IMF view, the ESM could be empowered to engage in the precautionary direct bank recapitalizations of viable banks in order to safeguard financial stability as allowed under BRRD, with the appropriate conditionality. Schoenmaker and Wolf (2015) shared the IMF view and went further by advocating that the ESM would be a suitable option for a common public backstop in both the transition phase and also in the steady state. Also, the common backstop should be fiscally neutral over the medium term because any public funds would be subsequently reimbursed over time by the banks via their *ex post* contributions. The repayment period would need to be realistic in order to prevent the creation of an unsustainable burden for European banks and avoid procyclicality.

Indeed, a comparison can be drawn with the US FDIC, which traditionally has had ready access to a line of credit from the Treasury. The FDIC also has authority to borrow up to USD 100 billion for insurance losses from the U.S. Treasury. The law requires the banking industry to repay any FDIC funds borrowed from the Treasury over a period of several years (Ellis, 2013). Such

97. This solution is consistent with article 76 SRMR that already foresees that the SRB can "contract for the Fund financial arrangements, including, where possible, public financial arrangements, regarding the immediate availability of additional financial means [...]"

capability was extended to USD 500 bill. by Title II of the Dodd-Frank Act (2010), which establishes a special insolvency regime under the Orderly Liquidation Authority ("OLA") for SIFIs including bank holding companies, nonbank financial companies including insurance and broker dealers. FDIC may borrow from the US Treasury among other things, to make loans to, or guarantee obligations of, a covered financial company or a bridge financial company or to provide liquidity for the operations of the receivership and the bridge financial company. Tapping the backstop (USD 500 bill. of OLA) requires recommendations from super-majorities of the Board of Governors and the FDIC and a decision by the Treasury Secretary in consultation with the US President. Any public funds provided by the FDIC are to be given priority as administrative expenses of the receiver or as amounts owed to the US when used for the orderly resolution of banks. In the unlikely event that recoveries from the disposition of assets are insufficient to repay amounts owed to the US Treasury, there would be a subsequent assessment on the industry to repay those amounts. By law, no taxpayer losses from the liquidation process are allowed. An important distinction between the EU and US frameworks is that minimizing moral hazard is not an explicit objective in the EU, where resolution objectives include minimizing reliance on extraordinary public funds subject to State Aid rules.[98] In contrast, OLA specifically bars any losses to taxpayers and requires that all losses be borne by the failed company's creditors or, if necessary, through contributions by other SIFIs (Krimminger and Nieto, 2015).

The EU approach to bank recovery and resolution potentially raises concerns about moral hazard because high risks in a national banking sector are shared by other credit institutions in the euro area via the SRF and EDIS. Also, bank loses could be potentially shared amongst sovereigns if the EMS is used as a public backstop; hence, it is important to have a demanding SSM prudential supervision to break the sovereign-bank nexus as well as a strong EMU fiscal and economic institutional framework to secure the sustainability of public finances. Against this background, the current prudential treatment

98. Communication from the Commission on the application, from 1 August 2013, of State aid rules to support measures in favor of banks in the context of the financial crisis ("Banking Communication") (http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XC0730(01)&from=EN accessed 12th August, 2016).

of banks that have large holdings of banks' home sovereign exposures is at the center of the policy debate.[99]

More stringent capital requirements for sovereign exposures would result in rebalancing of banks´ portfolios. Discouraging bank holdings of sovereign debt could have a significant impact on sovereigns´ financing costs and the sovereigns´ capacity for undertaking macroeconomic stabilization policies. Policy makers acknowledge this trade off and so the transition to the new regime is likely to be lengthy. Furthermore, it might be argued that the timing of the transition to the new bank regulatory framework of banks´ sovereign holdings should ideally coincide with the mutualization of EDIS and the SRF in the euro area.

3. The Copernican change: Bank Recovery and Resolution Directive

The mutualization of risks amongst banks and sovereigns would be ineffective without an incentive compatible decision making framework to deal with failed banks whose ultimate objective is not only to preserve financial stability but also to minimize the public costs of bank crises. The BRRD establishes common objectives for the first time for national resolution authorities in the EU: (i) to ensure the continuity of critical functions; (ii) to avoid significant adverse effects on financial stability, preventing contagion and protecting insured depositors, while at the same time minimizing the public and private costs of failed bank resolution.

The BRRD general principles governing resolution are consistent with the objectives of limiting moral hazard and incentivizing market discipline amongst credit institutions, because shareholders take first losses; creditors bear the next losses after shareholders in accordance with their priority; senior management is replaced; creditors of the same class are treated in an equitable manner and no creditors incur greater losses that they would have incurred under liquidation.

99. The Netherlands EU Presidency 2016 made a priority the discussion on how to address this risk (http://english.eu2016.nl/documents/publications/2016/04/21/wisselwerking-landen—banken accessed on the 19th July). At the time of writing, the regulatory treatment of banks´ sovereign exposures has been passed over to the Basel Committee of Banking Supervisors.

The BRRD also provides the Resolution Board and national resolution authorities with a broad range of powers and tools to effectively resolve a bank that reached the point of non-viability and has no reasonable prospect of a private or supervisory solution in the immediate future. The Directive harmonizes, for the first time, those powers and tools.

In particular, the bail-in tool allows for (although it does not guarantee) an equitable burden sharing between investors in the bank and the exiting mutualization mechanisms in the euro area. The bail-in tool is a conservation mechanism to absorb the losses of institutions that are failing or likely to fail. The tool aims to save the bank from failure by absorbing its losses and recapitalizing it to above the regulatory minimum via equity conversion and / or the reduction of the principal amount of claims / debt in order to facilitate bank resolution. The BRRD establishes a minimum requirement for liabilities including own funds (Minimum Requirement of Eligible Liabilities –MREL), which have to be bailed-in before mutualization via SRF can contribute to the financing of bank resolution up to a limit also defined in terms of total bank liabilities (8%). The BRRD establishes a creditor hierarchy with certain 'carve-outs.' These carve-outs acknowledge the claim that secured creditors have to collateral pledged by the bank. They also grant preference to insured deposits, and allocates first loss capital instruments (common equity, Additional Tier 1, and Tier 2). Also, the application of the resolution tools goes hand in hand with the recovery and reorganization measures that are reflected in the Business Reorganization Plan that aim at restoring the bank long-term viability.

Minimum bail-in, together with temporary financing from the SRF and a Business Reorganization Plan could allow systemically important institutions in the euro area to remain open and operating with potentially greater protection for creditors than the closed institution approach used in the US. Closed bank bail-in simply describes the FDIC's long-standing process for resolving failed banks in which all creditors are "bailed-in" by having their claims impaired in proportion to the bank's losses and the creditors' seniority under the statutory claims hierarchy. Insured depositors are protected under FDIA, but uninsured depositors may suffer losses. Krimminger and Nieto (2015) argue that the greater flexibility under the EU resolution framework to take action to preserve a credit institution without putting it through an insolvency process raises the question to what degree the BRRD framework will

significantly limit losses of a failed bank. Moreover, the cumbersome decision-making process that involves the SRB, the SSM, national resolution authorities, the Commission and the Council will not facilitate timely resolution decisions, particularly in emergency situations. Furthermore, such cumbersome decision making structure may provide an incentive for the SSM to forebear, which, in turn, may eventually result in larger ultimate claims on the SRF.

In sum, it could be argued that the BRRD still leaves room for moral hazard in the form of risk taking by the crisis bank.

3.1 The missing link: Banks´ bankruptcy law

The BRRD enshrines an administrative procedure for the recovery and orderly resolution of systemic credit institutions and investment firms that could not be liquidated without putting financial stability at risk. However, most banks in the euro area are not systemic and their liquidation would not threaten financial stability.[100]

In 2010, the Commission was planning to examine the need for further harmonization of bank insolvency regimes which fell outside the scope of the BRRD, with the aim of resolving and liquidating failing banks under the same substantive and procedural rules. Banks´ insolvency was then (and it is today) only bound by the principles of "universality" (all the bankrupt bank´s assets and the claims against these assets are treated equally regardless of their location) and "unity" (single set of proceedings, covering both the insolvent banks´ head office and its foreign branches in the EU -home country) as well as the obligatory notification to others by the national authority initiating the bankruptcy process.[101]

The disparity of national regimes for dealing with banks´ bankruptcy within the EU could have a material impact on the financial position of national DGS. The impact would arise because of different contributions in case of payout events as well as contributions to resolution aimed at reducing

100. EBA has recently published financial information of 36 large financial institutions whose leverage ratio exposure measure exceeded 200 billion Euro by the end of 2015 (see http://www.eba.europa.eu/documents/10180/1360107/EBA+Interim+report+on+MREL, accessed 10th August, 2016)

101. Directive 2001/24/EC of the European Parliament and of the Council of 4 April, 2001 on the reorganization and winding up of credit institutions (OJ L 125, 5.5.2001). Note that financial institutions were excluded from the regulation harmonizing collective insolvency proceedings which entail the partial or total divestment of a debtor and the appointment of a liquidator. Council Regulation (EC) No 1346/2000 of 29 May, 2000 (OJ L 160 30.6.2000).

the likelihood of future claims against DGSs. National regimes vary in their effectiveness regarding the pre insolvency processes; the timeliness in initiating the liquidation procedure; the priority that they grant for claims and the legal certainty that creditors´ face. The financial position of national DGS will be affected by such disparities, which may result in national differences in bank losses and the levels in which impairments affect claims.

Figure 2 shows how differences in the priority of claims impact the DGS´s contributions to bank resolution and can reduce the amount that needs to be contributed by the resolution fund.[102] Panel A: Senior unsecured debt does not take first loss. Panel B: Senior unsecured debt takes first loss. Granting insured deposits preference greatly reduces the likelihood that they would incur losses. Accordingly, there is only a potentially limited risk that resolution will result in a claim on the deposit guarantee fund. This, in turn, should be a factor that reflects in any risk-based premiums levied on banks in order to finance the DGS (Huertas and Nieto, 2014).

Figure 2: DGS contribution to resolution - Differences in priority of claims

Panel A			**Losses 265**				
First Loss			BRRD	Liquidation	Difference	**RF**	**DGS**
CET1	40		40	40	0		
AT1	15		15	15	0		
T2	20		20	20	0		
Middle Layer							
Sr Unsecured	30		30	2	28	**28**	
Other liabilities	60		60	4	56	**56**	
Liabilities exempt from bail in	300		0	20	-20		
Last Loss							
Deposits not subject to guarantee by DGS	100		100	7	93	**93**	
Insured Deposits	2200		0	**147**	-147		**147**
Secured Liabilities	150		0	10	-10		
TOTAL			265			**177**	**147**

102. Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (L 173 / 149, OJ 12.6.2014): Role of DGS in resolution (Recital 3): "In view of the costs of the failure of a credit institution to the economy as a whole and its adverse impact on financial stability and the confidence of depositors, it is desirable not only to make provision for reimbursing depositors but also to allow Member States sufficient flexibility to enable DGSs to carry out measures to reduce the likelihood of future claims against DGSs. Those measures should always comply with the State aid rules..." See also, BRRD, Article 99.

Panel B			Losses 265				
First Loss			BRRD	Liquidation	Difference	RF	DGS
CET1	40		40	40	0		
AT1	15		15	15	0		
T2	20		20	20	0		
Sr Unsecured	30		30	30	0		
Middle Layer							
Other liabilities	60		60	3	57	57	
Liabilities exempt from bail in	300		0	17	-17		
Last Loss							
Deposits not subject to guarantee by DGS	100		100	6	94	94	
Insured Deposits	2200		0	125	-125		125
Secured Liabilities	150		0	9	-9		
TOTAL			265			151	125

In sum, harmonization of bankruptcy laws is particularly relevant before the full launching of EDIS, which enshrines the progressive mutualization of liquidity shortfalls and excess losses on national DGS. Furthermore, because extreme tail risks always belong to the government, the impact of triggering such fiscal backstops on public accounts would challenge fiscal coordination in the euro area.

4. Conclusions: Will next time be different?

The recent financial crisis in the euro area triggered important institutional changes aimed at centralizing the decision-making structures for prudential supervision and bank crisis resolution, and so reducing forbearance. Burden sharing amongst credit institutions across the euro area (in the SRF and the EDIS) and amongst sovereigns (ESM) as well as between those and banks' investors (through bail-inable debt) are consistent with limiting moral hazard and imposing market discipline.

Furthermore, the BRRD achieves the common objective of limiting public and private costs of bank crisis resolution while preserving financial stability. The BRRD harmonizes resolution tools, which are consistent with those ultimate objectives. In particular, bail in makes it possible to share the burden

of losses between banks´ creditors and mutualization funds (SRF and EDIS) thus limiting the need of public backstops for financial tail risks.

However, moral hazard and challenges to market discipline have not been completely removed to the extent that:

a) The centralization of decision-making structures does not fully internalize all the potential negative externalities in supervision and resolution (e.g. sanctioning is a national responsibility);
b) Open bank bail –in excessively protects banks' creditors;
c) The rules on readily available fiscally neutral public backstops for SRF and EDIS have not been defined for the steady state phase of SRF and EDIS.

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