Bail-in, up to a point

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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

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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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