

ADEMU WORKING PAPER SERIES

Bank Resolution Credibility and Economic Implications

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May 2016

WP 2016/038

www.ademu-project.eu/publications/working-papers

Abstract

This paper tests the credibility of the bank resolution regime in the European Union in removing the implicit public guarantee that governments will bail-out their troubled banks, and discusses the implications of a resolution regime with limited credibility. It argues that the removal of the implicit guarantee, and thus the perceived credibility of the regime hinge greatly on the adequacy of funds envisaged for bank resolution in any given case, and on the willingness of a government to place a bank into resolution first, before bailing it out. As such, to test whether the implicit guarantee is removed, the paper analyses the adequacy of the envisaged funds by looking at their technicalities and their target-levels, starting from internal and external funding (the bail-in tool and capital markets) to the newly created Single Resolution Fund (SRF), National Resolution Funds (NRFs), Deposit Guarantee Scheme (DGS) and the Direct Recapitalisation Instrument (DRI) of the ESM. This analysis comes to the conclusion that the regime might not provide adequate funding for every given bank resolution, and as such it creates winners and losers under a limitedly-credible regime. This finding can have some important economic implications. Most importantly, it aggravates the inconsistencies of the cost of funding of different banks. Also, where it fails to remove the implicit guarantee, it creates an ever closer link between the cost of funding of the bank and its sovereign's credit rating instead of severing the sovereign-bank default loop. Nevertheless, the paper acknowledges that in order to construct a fully credible regime much higher sources of funding would be needed, which would pose huge opportunity losses and hurt the profitability of banks perhaps to a disproportionate extent. As such, the paper settles that the current regime might be a good compromise in terms of the limited credibility it provides.

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Acknowledgments

This paper is related to the research agenda of the ADEMU project, "A Dynamic Economic and Monetary Union". ADEMU is funded by the European Union's Horizon 2020 Program under grant agreement N° 649396 (ADEMU).

The ADEMU Working Paper Series is being supported by the European Commission Horizon 2020 European Union funding for Research & Innovation, grant agreement No 649396.

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1. Introduction

Following the messy bail-outs of troubled banks during the Eurozone crisis, which eventually largely contributed to the sovereign debt crisis, the EU has adopted the Bank Recovery & Resolution Directive (BRRD) which sets out a common framework on how troubled banks should be dealt with in the future, aimed at severing the bank-sovereign bond and putting an end to bail-outs.

The BRRD creates tools for precautionary and early intervention, designed to prevent bank failures, as well as tools to ensure “orderly resolutions” when the institution is failing but “resolving it”, as opposed to letting it fail under ordinary liquidation, is considered to be in the “public interest”.

This paper focuses only on the “orderly resolutions” aspect, i.e. resolutions¹ “without severe systemic disruptions” and without socializing the losses of credit institutions through bail-outs.² In particular it evaluates the regime’s credibility in achieving orderly resolutions by examining whether the different funds envisaged to finance the resolution of banks in trouble will be enough without imposing on the public’s purse.

The argument put forward is that the technicalities governing the use of the funds envisaged, as well as the absolute amounts targeted by the funds, can severely impair their adequacy to finance resolution in every given bank resolution, thus ultimately public funds may be needed.

This finding on its own is not however overly significant. Indeed, it might be irrelevant in practice since bank resolution is not a common occurrence and resolution of a very large bank, or aggregate bank resolutions, are highly unlikely at the very least. The importance of the argument lies in: how the lack of sufficient resolution funds undermines the *credibility* of the resolution regime, and, most importantly, how in turn a resolution regime whose credibility is undermined fails to eliminate implicit governmental guarantees³ and hence fails to influence the credit risk valuation by the bank’s creditors in a way that disciplines the bank’s perverse risk-taking incentives.

In this regard, the regime’s success depends largely on how well it influences risk valuation by the banks’ creditors in general, and not just during the exceptional occurrence of a resolution. It is argued that the credibility of the regime, and thus its success in removing implicit guarantees, as evidenced through the envisaged funding, is a pivotal element in this risk-valuation-influencing. Nevertheless, it must be noted that there are other elements allowing the lasting imprint of implicit guarantees, namely the government’s willingness to place a bank

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¹ Under the BRRD, Art 1(1) ‘resolution’ is defined as the application of a resolution tool or a tool referred to in Article 37(9) in order to achieve one or more of the resolution objectives referred to in Article 31(2)

² Financial Stability Board, ‘Key Attributes of Effective Resolution Regimes for Financial Institutions’ Preamble para 1

³ An implicit guarantee represents the expectation by market participants of future bail-outs upon failure of the beneficiary institution. It is ‘implicit’ because the provider of the guarantee does not have to commit to bailing out the firm. In the case of banks, (unwilling) providers of such guarantees are governments and public authorities in general, given the potential disruptive effects of bank failures. See Bongini et al (2015)

in resolution. For example, the resolution can still minimize moral hazard both for smaller *and* bigger banks despite the fact that the regime does not remove the moral hazard of 'Too-big-to-fail', since bail-outs would supposedly follow only after a number of state aid conditions are satisfied, for example, approving a plan for the sufficient restructuring of the bank. However, that depends largely on whether a government will choose to both harm the reputation of its banking sector by bailing-in its banks' creditors *and also* harm its own reputation by using taxpayer money to offset the difference when the funds are not enough.

Ultimately, the regime's credibility, and in turn its effectiveness in minimizing moral hazard and influencing risk-pricing, hinge greatly on two factors: (a) the adequacy of the available funds and (b) the actions taken by a country facing the insolvency of one of its major banks (whether it allows it to enter resolution before bailing it out). Since the second factor can only be established through future experience with applying the resolution regime, this paper discusses only the first factor: the adequacy of the available funds.

The paper tests this adequacy by undertaking a detailed analysis of the intricacies of each source of funds available to finance the potential resolution of a bank: private funding through the capital markets or the bail-in tool, Deposit Guarantee Schemes (DGS), the Single Resolution Fund (SRF), State Aid, and finally, the Direct Recapitalization instrument (DRI) under the ESM,⁴ to identify any potential shortcomings.

This paper finds that the absolute amounts of funding envisaged and the regime's technicalities governing the possible funding available severely limit the adequacy of the regime for financing the resolution of every given bank. The larger the liabilities of a bank, the more likely it is that the funds envisaged by the regime will not be sufficient for resolution. Thus the regime is not fully credible. Based on this finding, the paper then goes on to discuss some potential economic implications of this limited credibility. Importantly, these implications include the fact that the regime not only does not remove the Too-Big-to-Fail subsidy, but it actually creates winners and losers, not just among creditors, but also among institutions. In particular, only smaller banks, for whom the regime is credible,⁵ can suffer an increase of their cost of funding, further decreasing their competitiveness against larger banks. As such, it undermines *both* the minimization of moral hazard (that is the positive economic implication of a credible resolution regime) and the influence on the bank's cost of funding (the negative economic implication of a credible resolution regime). The positive i.e. minimising moral hazard: because the regime is not credible for the banks that do benefit from moral hazard. The negative i.e. the influence of a credible regime on the bank's cost of funding:⁶ again, because the cost will only be higher where the regime is credible, i.e. not for big banks.

⁴ Please note that Deposit Guarantee Schemes and the Single Resolution Fund are also forms of State Aid

⁵ And who might not even be eligible to benefit from resolution at all, if it is not considered in the public interest for them to enter resolution since due to the potential lack of systemic implication, thus incurring greater costs in the event of default given that the 'No creditor worst off than under ordinary liquidation' applies to resolution

⁶ On this point see a very interesting recent study by Paola Bongini, Arturo Patarnello, Matteo Pelagatti and Monica Rossolini, 'How difficult is it to raise money in turbulent times?' in Beccalli Elena Poli Federica (eds) *Lending, Investments and the Financial Crisis* (Palgrave Macmillan studies in Banking and Financial Institution, UK 2015) 4 finding that the reallocation of losses of bank failure on debt-holders (i.e. bail-in of creditors in resolution or depositor preference in liquidation) can alter the banks' funding costs, especially when combined with the regulatory changes to capital adequacy standards (i.e. more equity). They explain that while 'a larger loss-absorbing buffer makes debt safer and potentially cheaper, bail-in powers and the possible introduction of

Lastly, some remarks on how the inadequacy of funds envisaged can influence a sovereign's decision to place a bank into resolution are provided as well as some thoughts on what the potential (negative) implications of a credible regime would be. The paper concludes that given all the possible implications involved, the regime's limited credibility might be a tolerable compromise after all.

2. Financing a bank resolution: the (in)adequacy of funds envisaged

As mentioned, the funds envisaged for bank resolution are: private funding through the capital markets or the bail-in tool, Deposit Guarantee Schemes (DGS), the Single Resolution Fund (SRF), State Aid, and finally, the Direct Recapitalization instrument (DRI) under the ESM.⁷

For the regime to be credible, the aforementioned funds should be enough to keep the critical functions of the institution (i.e. its commercial functions) running while the bank enters resolution, and enough to guarantee that covered deposits will be paid out to avoid bank runs and contagion to the bank's counterparties and to the real economy.

If the overall funds are not enough for any given institution, then the regime is not credible enough and the implicit guarantee is not removed, thus its ability to influence risk-valuation to its full potential is hindered. If they are enough then the regime is credible and it has better chances of influencing risk-valuation.

2.1 Private funding: Internal and External

The adequacy of resolution funds can be achieved through the minimisation of the cost of resolution since the more costly a resolution is, the higher the probability that public money will be needed to supplement resolution funds.⁸ Minimising the cost of resolution hinges greatly on early intervention⁹ and on maximising the pool of the private-financing of the resolution: both internally through bail-inable creditors; and externally through investors. The next section explores whether the regime's provisions do actually maximise the pool of private funding.

2.1.1 Exemptions from bail-in

'[B]ail-in', i.e. the write-down and conversion of liabilities of an institution under resolution,¹⁰ 'if sufficient, can...avoid the need for public funding.'¹¹ However, the BRRD contains important

depositor preference laws, combined with high levels of asset encumbrance, magnify the expected losses of unsecured debt-holders in the event of bank failure, driving upwards the issuance cost of this class of debt'

⁷ Please note that Deposit Guarantee Schemes and the Single Resolution Fund are also forms of State Aid. The way the term "State Aid" is used here is narrow to reflect only the situations where aid is given indirectly through the state where the failing bank is incorporated to the failing bank and attaches conditionality to the state itself

⁸ BRRD Article 31(2) para 2 requires the resolution authority, when pursuing resolution objectives, to minimise the cost of resolution

⁹ Please note that this paper does not explore other tools facilitating early intervention and diminishing resolution costs such as the sale of business tool (Art 38-39), the bridge bank tool (Art 40-41 BRRD), the asset separation tool (Art 42 BRRD),

statutory exceptions from bail-ins, minimizing instead of maximizing the pool of bail-inable creditors. Covered deposits,¹² secured liabilities, derivatives, and inter-institution liabilities with maturities of less than seven days are all exempted.¹³ The Single Resolution Board (SRB), which is the European Agency in charge of administering a bank resolution, also has considerable discretion to waive losses for certain unsecured bondholders, and possibly unguaranteed depositors,¹⁴ in situations subjectively interpreted by the SRB as a “crisis” or to avoid “serious disturbance to the economy”¹⁵ (which could have a very wide interpretation given that the imposition of bail-in is bound to severely diminish confidence, not only in the bank involved but in the banking sector of the country as a whole, causing bank runs and deterring investments).

The excuse that statutory exemptions from bail-in are necessary to avoid the danger of systemic risks and the hindering of financing conditions is unimpressive.¹⁶ Protecting creditors is relevant only to the extent required to achieve the resolution objectives.¹⁷ The primary objectives of resolution, as expressed in the BRRD, are: to resolve the bank in a way that ensures the continuity of critical functions, the prevention of contagion, and the minimisation of public intervention and thus moral hazard.¹⁸ It follows that, such an extensive protection of creditors -other than covered depositors, and the creditors needed to maintain critical functions- should not have been in place since it minimizes the available amount to be bailed-in, and thus maximises the potential need for public intervention,¹⁹ contrary to the express objectives of the BRRD.

The minimisation instead of maximisation of private funding is further aggravated in this case, since the non-exempted creditors are likely to be required to undergo a deeper haircut to recapitalize the bank, to the point that they might be placed in a worse position than they would had been under ordinary liquidation. As such, under the “no creditor worse off than under liquidation” (NCWOL) principle²⁰ these disadvantaged creditors are entitled to compensation,

¹⁰ BRRD Art 2(1)(57)

¹¹ John Armour, ‘Making Bank Resolution Credible’ in E Ferran, N Moloney and J Payne (eds), *Oxford Handbook of Financial Regulation* (Oxford: Oxford University Press 2014) (SSRN: <http://ssrn.com/abstract=2393998>) 3

¹² For the definition of covered deposits the BRRD refers to Directive 2014/49/EU, which clarifies in Article 6 that “Member States shall ensure that the coverage level for the aggregate deposits of each depositor is EUR 100 000 in the event of deposits being unavailable”

¹³ BRRD Art 44(2) of course also salaries, deposit guarantee schemes held in the bank, liabilities of social and tax authorities etc are also exempted (BRRD Art 44(2)(g))

¹⁴ C Goodhard E Avgouleas, A Critical Evaluation of Bail-ins as Bank Recapitalisation Mechanisms’ (2014) CERP Discussion Paper No 10065, 13; Even though Article 44(2) paragraph 4 BRRD empowers the resolution authority to bail-in deposits that exceed the coverage level.

¹⁵ SRM Regulation Art 27(5)(c); BRRD Art 43(3)

¹⁶ Benedict Udoye ‘Depositors’ Priority over Senior Unsecured Bondholders: A clog in the Bank Resolution Process?’ (2015) University of Zurich, 24 accessed 15/04/2015 <<http://ssrn.com/abstract=2560321>> 26

¹⁷ Financial Stability Board, ‘Key Attributes of Effective Resolution Regimes for Financial Institutions’ Preamble para 1 Para 2

¹⁸ BRRD Art 31(2)

¹⁹ BRRD Art 31(2)(c)

²⁰ Article 34 (g) BRRD

which does not derive from taxpayers' money.²¹ However, such compensation claims will further increase the resolution costs, and as such the risk of resorting to public funds.

2.1.2 Minimum bail-inable liabilities requirement

In light of these exemptions, and to ensure that there are some resources available on the balance sheet to absorb losses, the BRRD requires institutions to hold a minimum amount of 'own funds and eligible liabilities'²² in a form which can be readily bailed-in:²³ the Minimum Eligible Liabilities requirement ('MREL').²⁴ An estimated reference level of MREL of 10% of total liabilities has been suggested by the impact assessment of the BRRD,²⁵ however the final amount of MREL remains to be determined on a case-by-case basis by resolution authorities.²⁶

Moreover, in order to ensure some bail-in does take place, there is a prohibition on any contribution being made from resolution funds—whether national or the Eurozone's Single Resolution Fund (SRF)—unless at least 8% of the outstanding liabilities of the firm have been recapitalised by bailing-in shareholders and eligible creditors.²⁷ Although this is only 'placing a floor', on the level of bail-inable claims a financial firm must issue and more bail-in can take place to meet the needs of resolution, it is also possible that this will also place a cap on the of bail-inable claims a financial firm will issue.²⁸ Therefore, the success of bail-in is linked directly to the institution's capital structure and the designing and monitoring of this new form of regulatory capital by the supervisor.²⁹ In either case, it is important that the supervisors not only oversee that such debt is raised, but also that the parties holding the bail-inable debt are

²¹ The FSB precludes taxpayer money as the source of compensation to creditors with a claim under NCWOL, but does not provide a source for such compensation

²² BRRD Art 45(1)

²³ 'Bail-inable' debt: long-term debt which is not already counted as Tier 1 or 2 capital, which is free from any guarantees or self-funding by the firm and which is not associated with derivative transactions. Such liabilities must be governed by the laws of jurisdictions which recognise the decision of a resolution authority to write down the debt under Art 45(5) BRRD (Thus this definition can be problematic in cross-border resolutions); eligible liabilities for the MREL requirement must satisfy the following conditions under Article 45(4) BRRD: (a) the instrument is issued and fully paid up; (b) the liability is not owed to, secured by or guaranteed by the institution itself; (c) the purchase of the instrument was not funded directly or indirectly by the institution; (d) the liability has a remaining maturity of at least one year; (e) the liability does not arise from a derivative; (f) the liability does not arise from a deposit which benefits from preference in the national insolvency hierarchy in accordance with Article 108.

²⁴ SRM Regulation, Rec (83)-(84) and Art 3(1)(49), 7(3)(d), 8(9)(o) and 12.

²⁵ Commission Staff Working Document, Impact Assessment Accompanying the document 'Proposal for a Directive of the European Parliament and of the Council establishing a framework for the recovery and resolution of credit institutions and investment firms, SWD(2012) 166/3, 46; EBA, 'Final Draft Regulatory Technical Standards on criteria for determining the minimum requirement for own funds and eligible liabilities under Directive 2014/59/EU' (03 July 2015) EBA/RTS/2015/05, 6

²⁶ Subject to the BRRD criteria BRRD Art 45(6); and the pending consultation on the matter by the European Banking Authority EBA, 'Draft Regulatory Technical Standards on criteria for determining the minimum requirement for own funds and eligible liabilities under Directive 2014/59/EU' (28 November 2014) EBA/CP/2014/41 Accessed 16/04/2015

<<http://www.eba.europa.eu/documents/10180/911034/EBA+CP+2014+41+%28CP+on+draft+RTS+on+MREL%29.pdf>>, 4

²⁷ BRRD Art 44(5) and (8); BRRD Art 37(10)(a)

²⁸ J Armour (above n 11) 23

²⁹ J Armour (above n 11) 31, 21

not systemically important themselves³⁰ so as to prevent systemic risk and contagion to the bank's bail-inable creditors from a resolution

2.1.3 External forms of private funding

Given the low percentages of the minimum bail-in requirements and the extensive exemptions, other forms of private funding may be necessary, for example market funding.³¹ However, market funding is likely to vanish unless creditors are given guarantees that they will not be bailed-in.³² Such guarantees are partially given by excluding short-term interbank creditors (inter-institution liabilities with maturities of less than seven days) from the bail-in.³³ Excluding these short-term liabilities minimises their risk and thus their cost. As such, the bank is more incentivised to act in a procyclical manner and issue short-term liabilities at turbulent times. As seen above in section 2.1.1, excluded liabilities, as well as the capital structure of the bank, can ultimately have a negative impact on the robustness of the bail-in.

In addition, the problem of raising funding is further aggravated in the current adjustment period. Institutions are more risk-averse and are in the process of deleveraging on a massive scale to remove problematic assets from their balance sheets to meet new capital requirements,³⁴ making it unlikely that they will be willing to increase their leverage to provide funding in a failing bank. Therefore, there is a great possibility that private funding overall will not be enough.

2.2 Pre-funded Funds: DGS, SRF, NRFs

To avoid burdening the public's purse, National resolution Funds (NRFs) and the Single Resolution Fund (SRF), funded by the participating financial institutions,³⁵ can be used, along with the Deposit Guarantee Scheme (DGSs), to make good certain shortfalls.

2.2.1 Deposit Guarantee Schemes (DGS)

The DGSs' contribution in the open-bank resolution is limited to the amounts that would be required to pay out to covered depositors in normal insolvency proceedings,³⁶ in accordance

³⁰ J Armour (above n 11) 23

³¹ Steven L Schwarz, 'Systemic risk' (2008) 97(1) Georgetown Law Journal

³² Martin Hellwig, 'Yes Virginia, There is a European Banking Union! But It May Not Make Your Wishes Come True' (2014) Max Planck Institute for Research on Collective Goods, Kurt-Schumacher-Str. 10, D-53113 Bonn, 17

³³ BRRD Art 43(2)

³⁴ IMF, 'Global Financial Stability Report – The Quest for Lasting Stability' (April 2012) The IMF estimates that 58 major banks in the EU could reduce their balance sheets by €2 trillion, or around 7%, by the end of 2013, fearing that this deleveraging could have a negative impact on the credit supply within the euro area, posing a systemic danger; Giancarlo Corsetti Lars P. Feld Philip R. Lane Lucrezia Reichlin Hélène Rey Dimitri Vayanos Beatrice Weder di Mauro, *A New Start for the Eurozone: Dealing with Debt* (2015 CERP PRESS), 56 Simon Tilford arguing that even where banks' funding costs are very low such as France and Italy debt would become unsustainable because the stagnation results from private sector deleveraging

³⁵ Both credit institutions and applicable investment firms; BRRD Rec 107 the contributions must be proportional to the degree of credit, liquidity and market risk incurred by the institutions

with the 'no creditor worse off' principle. Since losses from payments to covered depositors cannot logically occur unless the bank's net worth is negative, the DGS's responsibility does not go beyond bringing a bank's net worth back to zero.³⁷

The DGSs are meant to be financed partially (75%) *ex-ante* through levies on the banking industry.³⁸ However, the target level is set at only 0.8% of covered deposits.³⁹ The low target level renders them a rather weak tool, especially since even though DGSs only insure the claims of covered depositors, the government arguably impliedly insures all depositors and stands behind the DGS⁴⁰ where the DGS is unable to support depositors' confidence.⁴¹ If they become depleted, national DGSs can borrow from DGSs in other Member States through a mutual borrowing facility, to be implemented by 31/12/2020.⁴² Until then, the possibility for using public funds to supplement depleted DGSs is rather dangerous.

While DGS can only be used to pay covered (and arguably unguaranteed) deposits, other industry-funded resolution funds are being put in place to finance the resolution itself if private funding is not enough on its own. If those funds are still not enough, public assistance and the use of the ESM might be necessary.

2.2.2 Resolution Funds: insufficient backstop

The BRRD subjects the use of the resolution funds, either nationally⁴³ or through the SRM,⁴⁴ to the condition that stakeholders must have contributed at least 8% of total liabilities to loss absorption.⁴⁵ This contribution is limited to medium-term financing of no more than 5% of the bank's total liabilities,⁴⁶ and must be used exclusively for the implementation of resolution tools and resolution powers.⁴⁷ Therefore, the SRF can extend short-term funding to maintain systemically important operations at least between the time the bank entered into resolution until the resolution plan is approved and implemented;⁴⁸ or provide guarantees to potential investors to facilitate the resolution procedures, but it cannot be used directly to absorb losses

³⁶ R M Lastra, R Ayadi, 'Proposals for reforming Deposit Guarantee Schemes in Europe' (2010) 11(3) Journal of Banking Regulation 210–222, 212 noting that DGS financing is only available in insolvency proceedings; SRM Regulation Rec 81, 110 & Art. 79; BRRD Rec 71 & Art 109

³⁷ BRRD Rec (110) & Art 109(1); C Hadjiemmanuil 'Bank Resolution Financing in the Banking Union' (2015) LSE Law, Society and Economy Working Papers 6/2015, 24

³⁸ Memo 10/318, 'Deposit Guarantee Schemes – Frequently Asked Questions' Available from: <http://europa.eu/rapid/press-release_MEMO-10-318_en.htm?locale=EN>

³⁹ By 3 July 2014, the available financial means of each DGS must have reached a target level of at least 0.8% of its members' total covered deposits; DGSD, art. 10(2), sub para 1

⁴⁰ M Lastra, R Ayadi (above n 36) 212

⁴¹ *ibid* 215 noting that: 'The rationale for depositor protection is the...inability of ordinary depositors to monitor the riskiness of banks...and the potentially severe cost of deposit losses to individual savers.'

⁴² Memo (above n 38)

⁴³ Proposed Recovery and Resolution Directive, Art 91

⁴⁴ Proposed SRM Regulation, Arts 64-66

⁴⁵ BRRD Art 44 (5)(a); BRRD Art 37(10)(a)

⁴⁶ BRRD Rec (73)–(74), & Arts 44(5)(b), 44(7); SRM Regulation Rec (78) & Art 27(7)(b)

⁴⁷ SRM Regulation Rec. (101)

⁴⁸ At least for 24 hours SRM Regulation, Art 18(7); 32 hours (24+8) if the Commission or the Council amend the Resolution Scheme

of the failed bank or to recapitalize it.⁴⁹ This is at least the case until all unsecured, non-preferred liabilities have been written down in full.⁵⁰ After that, the SRF can intervene beyond its 5% cap. However, this intervention will always be subject to the absolute limit set by the fund's total available resources. For example, the Single Resolution Fund (SRF), for Member States in the European Banking Union (EBU), sets its initial target at only 1% of the covered deposits of credit institutions within the EBU, amounting merely to a level of €55 billion by January 2024 after an eight-year transition period that begins on January 1, 2016.⁵¹ During the transition period, the SRF will consist of "national compartments" corresponding to each participating Member State's resolution authority and fund. An Intergovernmental Agreement (IGA) provides for the activation of the mutualisation of risk between the national compartments during the 8-year transition period.⁵² For non-EBU Members, National Resolution Funds' (NRFs) ⁵³ target level is at 0.8%. For example, the German Bank Restructuring Fund is targeted at a level of €70 billion.⁵⁴

Given the numbers involved, the targets of the resolution funds are unlikely to be sufficient.⁵⁵ The SRF is insufficient to deal with an aggregate crisis, or even individual crises, given that some banks account for a huge part of their domestic GDP.⁵⁶ It is needless to say that non-EBU NRFs are unlikely to be sufficient in dealing with individual domestic crises under their 0.8% target. As Professor Martin Hellwig points out, these numbers are much too small to ensure even interim funding when it comes to institutions like Deutsche Bank, with liabilities over €2 trillion, or even Commerzbank or Landesbanken with liabilities in the €100 billion range.⁵⁷

Arguably, the BRRD recognizes this and holds that in the event that a resolution must take place at a time when the funds raised are insufficient, both the SRF and the NRFs will have the power to raise *ex post* contributions by the institutions.⁵⁸ If then the *ex-ante* and *ex-post* contributions are not sufficient for the SRF's intended intervention, the legislation enables the SRF to borrow additional sums and/or enter into other contractual arrangements for the purpose of attracting third-party financial support.⁵⁹ However, the SRF's borrowing capacity depends critically on the industry's lending capacity, which is bound to be seriously impaired during a crisis as described above.⁶⁰ It also depends on the existence of a credible guarantee, for example by the ESM,⁶¹ which as discussed below is not as strong as it was intended to be.

⁴⁹ SRM Regulation Rec (100) & Art 76; BRRD, Rec (103) 1st sentence, & Art 101

⁵⁰ SRM Regulation, art. 27(9)–(10); BRRD Art 59

⁵¹ SRM Regulation Ch 2 "Single Resolution Fund" Arts 67-79; Article 69(1)

⁵² Council, Legislative Acts and other Instruments, Agreement on the transfer and mutualisation of contributions to the SRF 8457/14, LIMITE, EF 121, Ecofin 342, Art 3

⁵³ BRRD Rec 103-104

⁵⁴ M Hellwig (above n 32) 19

⁵⁵ M Hellwig (above n 32) 19; C Hadjiemmanuil (above n 37) 1

⁵⁶ CERP 2015 (above n 44), 66 giving the example of IMG accounting for 60% of German GDP

⁵⁷ M Hellwig (above n 32) 19

⁵⁸ BRRD Art 104(1) SRM Regulation Rec (102) & Art 69–71; BRRD Rec (105)–(107) & Art 102

⁵⁹ SRM Regulation, Rec (102), Art 73

⁶⁰ M Hellwig (above n 32) 21

⁶¹ George S Zavvos and Stella Kaltsouni, 'The single resolution mechanism in the European banking union: Legal Foundation, Governance Structure and Financing' in Matthias Haentjens & Bob Wessels (eds), *Research Handbook on Crisis Management in the Banking Sector*, (Edward Elgar Publishing Ltd, forthcoming, 2015) Accessed 17/04/2015 <<http://ssrn.com/abstract=2531907>>, 46

Furthermore, in any case, *ex-post* funding either through extraordinary levies or borrowing can induce pro-cyclical, destabilizing effects on the participating banks.⁶²

2.3 ESM to fund directly bank resolutions

Despite the initial hype,⁶³ the final implementation sets strict limits on the utilization of the ESM⁶⁴ and, in particular, the ESM's Direct Recapitalisation Instrument (DRI), imposing grueling conditions for its activation.⁶⁵

The DRI is available only to banks whose recapitalization through the DRI is considered indispensable, because the beneficiary institution is:

- (i) unable to meet the capital requirements established by the ECB in its capacity as supervisor;
- (ii) unable to obtain sufficient capital from private sources and the foreseen bail-in would not be sufficient to address the anticipated capital shortfall;
- (iii) systemically relevant or poses a serious threat to the financial stability of the euro area as a whole and of its Member States.⁶⁶

Also, the requesting ESM Member has to be unable to provide financial assistance to the beneficiary institution without very serious effects on its own fiscal sustainability, or where other solutions risk endangering the ESM Member's continuous access to markets.⁶⁷

Importantly, the ESM Board of Governors, i.e. the euro area's finance ministers, takes the decision to grant financial assistance based on the assessment of the Troika⁶⁸ for the requesting Member State and the ESM's Managing Director, the competent resolution authority and the ECB in its capacity as supervisor for the requesting institution.⁶⁹ Crucially, like all ESM decisions, this decision is reached by 'mutual agreement', that is; unanimity,⁷⁰ thus giving a veto power to each government in the Eurozone.⁷¹ Therefore, on top of the stringent eligibility criteria, the assistance-granting decision is highly political. As such the decision to use the DRI might well rely on the extent to which the deciding countries will themselves be affected by the resolution.

⁶² C Hadjiemmanuil (above n 37) 27

⁶³ Eurogroup document 'ESM direct recapitalization instrument – Main Features of the operational framework and way forward' (Luxembourg, 20 June 2013) Stating that the DRI's objective was 'to preserve the financial stability of the euro area as a whole and of its member states in line with Article 3 of the ESM Treaty, and to help remove the risk of contagion from the financial sector to the sovereign by allowing the recapitalization of institutions directly'

⁶⁴ Treaty Establishing the European Stability Mechanism (ESM) (2 February 2012), as amended

⁶⁵ ESM, 'Guideline on Financial Assistance for the Direct Recapitalisation of Institutions' (8 Dec 2014)

⁶⁶ ESM, 'FAQ on the ESM direct recapitalisation instrument' 8 December 2014 Q6; ESM DRI Guideline, Art. 3(1)

⁶⁷ Ibid Q5; ESM DRI Guideline, Arts. 2(1) and 3(2)(a)

⁶⁸ The Commission, the ECB and the IMF

⁶⁹ ESM DRI Guideline, art. 4(2), third sentence, and (3)

⁷⁰ 'Mutual agreement' means 'unanimity of the members participating in the vote', with abstentions excluded from consideration ESM Treaty Art 4(3)

⁷¹ ESM Treaty Art 5(6)(f) and (g)

Apart from the fact that few countries/institutions will be eligible to use the DRI, this strict conditionality also pushes states to admit severe fiscal weaknesses, making even eligible countries reluctant to apply for the DRI, since admitting to such fiscal weakness could itself trigger ‘the negative bank-sovereign spiral’.⁷²

In addition, for the DRI to be applied the state is still required to contribute to the recapitalisation. For example, if the beneficiary institution has insufficient equity to reach the requisite Common Equity Tier 1 (CET1) of 4.5%,⁷³ the state is required to make a capital injection to reach this level before receiving ESM assistance. Beyond the 4.5% requirement, the national contribution is also subject to a floor of 10% (or, in the transitional period until the end of 2016, 20%) of the ESM’s contribution.⁷⁴ The ESM Board of Governors will have the right to partially or fully suspend an ESM Member’s contribution in the exceptional cases when the ESM Member is not able to contribute up-front.⁷⁵ However, it is unlikely that the Board would apply the restriction because of fears of discrimination.⁷⁶ In any case, such exemption comes with the price of macroeconomic conditionality and indemnities to the ESM for any loss attributable to the country’s non-participation.⁷⁷

Finally, the ESM direct financing tool is not available in cases where the costs of recapitalization for banks result from losses of pre-existing bad assets,⁷⁸ since this would amount to an *ex post facto* Europeanisation of the costs from past national supervisory failures.⁷⁹ Therefore, its use should be limited to cases where financial or economic distress is anchored exclusively in the financial sector and is not directly related to fiscal or structural policies.⁸⁰

Apart from the ESM’s weaknesses in applicability, the ESM’s capacity to credibly play the role of the ultimate fiscal backstop for the SRM in a major systemic crisis has also been doubted.⁸¹ It has been argued that its target level for its DRI, set at EUR 60 billion⁸² (out of its EUR 500 billion total lending capacity), is set too low to be able to deal with a major crisis, even if that sum is to be applied after all the aforementioned tools.⁸³ As Hellwig points out ‘any amount would be insufficient in the 2-digit billions level’.⁸⁴ As such, only the ECB, a central bank

⁷² C Hadjiemmanuil (above n 37) 31

⁷³ ESM DRI Guideline, Art 9(1)(a).

⁷⁴ ESM DRI Guideline, art. 9(1)(b) and (2)

⁷⁵ ESM DRI Guideline, art. 9(3)–(4)

⁷⁶ Silvia Merler ‘Comfortably numb: ESM direct recapitalization: too late to solve the current crisis, too little to deter future crises’ (24th June 2014) Accessed 15/04/2015 <<http://www.bruegel.org/nc/blog/detail/article/1369-comfortably-numb-esm-direct-recapitalization>>

⁷⁷ ESM DRI Guideline, Art 9(3)–(4)

⁷⁸ ‘Joint Statement of the Ministers of Finance of Germany, the Netherlands and Finland’ (25 Sept 2012)

⁷⁹ C Hadjiemmanuil (above n 37)

⁸⁰ ESM Treaty Art 1

⁸¹ M Hellwig (above n 32) 17; IMF, ‘2014 Article IV Consultation with the Euro Area: Concluding Statement of the IMF Mission’ (June 19, 2014), para. 10

⁸² Eurogroup document on ESM’s DRI

⁸³ M Hellwig (above n 32)

⁸⁴ *ibid*

able of issuing unlimited amounts of cash, can play this role of the lender of last resort and not the ESM which has been built to tackle only liquidity and solvency problems.⁸⁵

The use of ESM funds for direct recapitalisations could have put a stop to bailouts.⁸⁶ However, based on the strict conditionality of the ESM's direct application and its low target amount, the ESM's role as a direct fiscal backstop is incredibly limited for the foreseeable future.⁸⁷

2.4 State Aid

If the aforementioned conditions are not satisfied, and during the interim phase up until the full implementation of the SRF and the ESM's DRI, or where recapitalization is done for precautionary purposes,⁸⁸ the ESM Member could still access the indirect State Aid loans for bank recapitalization.⁸⁹

The conditions here are that: (i) there are no alternatives for the recapitalization due to inability to meet capital shortfalls from the private sector, therefore shareholders, creditors *and banks* should bear the cost of resolution before any external funding is granted;⁹⁰ (ii) the ESM Member cannot recapitalize the institution without incurring very adverse effects on its own fiscal sustainability; (iii) it has systemic relevance or threatens the financial stability of the euro area as a whole. Also, for a loan to be granted the beneficiary ESM Member should further demonstrate its ability to reimburse the loan granted, even in cases in which it would not be able to recover the capital injected in the beneficiary institution.⁹¹

These criteria are meant to control state aid loans to minimize bailouts. However, as shown by the decade-long fight over the public guarantees for the Landesbanken, where significant political stakes are involved, state aid control can be weak and slow.⁹² With the effects of the crisis still very vivid, any government that wants to maintain a bank will simply claim that if the bank is resolved, financial stability will perish. In that case it is not easy for the Commission to question whether the bank really poses a threat to financial stability. This created an acute paradox. If the ESM Member's finances are not thought to be at risk to qualify for the DRI, indirect recapitalization would worsen the ESM member's finances enough to eventually put it

⁸⁵ P De Grauwe, 'The European Central Bank: The Lender of Last Resort in the Government Bond Market?', CESIFO Working Paper, No 3569, September 2011; G S Zavvos S Kaltsouni (above n 50); H Minsky, *Stabilizing the Unstable Economy* (Yale University Press, 1986) 279 – 282; G Zavvos S Kaltsouni (above n 50)

⁸⁶ E Avgouleas D W Arner, 'The Eurozone Debt Crisis and the European Banking Union: A Cautionary Tale of Failure and Reform' (2013) 24

⁸⁷ C Hadjiemmanuil (above n 37) 21

⁸⁸ ESM DRI Guideline Art 8(1)

⁸⁹ C Kerle, 'Burden-sharing Under State Aid Rules: Evolution, State of Play and the Way Ahead' 109

⁹⁰ E Avgouleas D W Arner (above n 70) 41; See European Parliament, "'Bail-ins" in recent banking resolutions and state aid cases' (7 July 2016) PE 574.395

⁹¹ ESM Treaty Art 3

⁹² In the end, the 2001 agreement between Commissioner Monti and the German government enabled the European Commission to establish the prohibition of guarantees for public banks as a form of illicit state aid without having to go to court. See the European Commission's Press Release IP/02/343 01/03/2002 of February 28, 2002, available at http://europa.eu/rapid/press-release_IP-02-343_en.htm?locale=en. The Commission accepted a 4-year transition period to raise additional funding under government guarantees

at risk.⁹³ The ESM's guidelines take note of this paradox and allow for a direct recapitalization where indirect assistance is bound to trigger by itself a drastic deterioration of the ESM Member's fiscal prospects.⁹⁴

To avoid this outcome and deter such loans, strict conditionality has been attached to state aid loans, often going as far as to doubt their legality. Therefore, state aid is an absolute last resort due to extraordinary circumstances i.e. the threat of sovereign insolvency. As such, its role in bank resolution should be very limited.

3. The implications of inadequacy, limited credibility and credibility

3.1 Inadequacy

The core objective of bank resolution is to enable non-viable banks to exit the market "without severe systemic disruptions and without exposing taxpayers to loss".⁹⁵ The BRRD seeks to do so by involving creditors in the sharing of the burden of bank resolution.

The regime's emphasis on placing the burden on the institutions' creditors has been marketed as aiming to 'save the taxpayers' money' and to 'break the bank-sovereign loop'. In reality, the regime's most important potential is succeeding in eliminating an explicit or an implicit bail-out assurance, thus changing the risk calculation of the institution.⁹⁶ As such, a credible no-bailout regime increases the price of the risk, and places losses flowing from such increased risk with the institution's creditors and shareholders, deterring excessive debt accumulation *ex ante*⁹⁷ and incentivising creditors and stakeholders as gatekeepers to support the curtailing of excessive risk-taking by banks.⁹⁸ Therefore, it is crucial that the resolution regime in the EU communicates credibly that there will be no more bailouts.⁹⁹

Unfortunately, it is doubtful that it does so credibly. For the new resolution regime to avoid all future bail-outs, the funds raised through the envisaged bail-in under the BRRD (estimated at 10% of the bank's total liabilities), and the funds of the SRF (targeted at 1% of the total deposits), as supplemented by the DGS and any potential external funding, must be enough to cover all expenses of bank resolution (financing or resolution and loss absorption) in the absence of a *credible* fiscal backstop, the ESM not being one. Given firstly, the BRRD's several exceptions to the bail-inable liabilities;¹⁰⁰ secondly, the SRF's and DGS's low target levels; and thirdly, the difficulty of accessing external funding through the markets in times of turbulence: it is unlikely that this will be the case.

⁹³ S Merler (above n 76)

⁹⁴ ESM DRI Guideline, arts. 2(1), third sentence, and 3(2)(a), first sentence

⁹⁵ FSB (above n 9) Preamble para 1

⁹⁶ J Herring, 'The Central Role of Resolution Policy in Dealing with Systemically Important Financial Institutions' (2011) 5; Oana Toader 'Quantifying and Explaining Implicit Public Guarantees for European Banks' (9 October 25, 2013) Univ. Orléans, LEO 1-30

⁹⁷ CERB (above n) 2

⁹⁸ HM Treasury, 'Banking Reform: Delivering Stability and Supporting A Sustainable Economy' (June, 2012) 1-57, 47; J-H Binder, 'Resolution: Concepts, Requirements and Tools' in J-H Binder and D Singh (eds), *Bank Recovery and Resolution in Europe*, (Oxford University Press 2015) available from: <<http://ssrn.com/abstract=2499613>>, 2

⁹⁹ J Armour (above n 11); EU Commission, 'Commission Staff Working Paper: The effects of temporary state aid rules adopted in the context of the financial and economic crisis', SEC(2011) 1126 final, 20 November 2012

¹⁰⁰ BRRD, Art 48(1)(e), Art 108

Nevertheless, in pure practical resolution terms, the recapitalization of banks with fiscal resources might be the exception rather than the rule.¹⁰¹ First of all, the new resolution regime is focused on early intervention and avoidance of regulatory forbearance to trigger resolution on time, minimizing the ultimate accumulated losses. This is particularly the case if effective recovery and resolution plans are in place ready to be used once resolution is triggered. After that, the private sector must finance at least 13% (8% bail-in + 5% from the SRF) of the failed bank's total liabilities, before public funds are used in the resolution (unless the state holds a substantial amount of the bank's shares and is bailed-in as it happened in several cases).¹⁰² Where there is a high loss-absorbing capacity requirement in place the initial 13% percentage is bound to increase substantially to absorb more losses, especially taking into account the national DGSs' contribution.¹⁰³ Therefore, it is only where the bail-in is not enough and the Resolution Funds' contribution proves to be insufficient to cover the resulting gap that an intervention with public funds may be needed.¹⁰⁴

3.2 Limited credibility

The fact that the use of public funds might be the exception rather than the rule does not change the fact that the perception of the inadequacy of funds limits the credibility of the regime. The limited credibility of the regime has important implications on the cost of funding of banks, and inconsistencies thereof, influencing bank competitiveness; and on the sovereign's willingness to place a bank in resolution in the first place. Finally, the implications of the credibility of the regime could, *and should*, influence the important decision of whether it is in the public interest to place a bank in resolution.

3.2.1 Cost of funding implications

The reallocation of losses of bank failure upon debt-holders (i.e. bail-in of creditors in resolution or depositor preference in liquidation), especially combined with the regulatory-driven changes to funding structures (i.e. more equity), can produce changes of bank funding costs on either side of the scale. On the one hand, a larger loss-absorbing buffer makes debt safer and potentially cheaper. On the other hand, bail-in powers and the possible introduction of depositor preference laws, combined with high levels of asset encumbrance,

¹⁰¹ C Hadjiemmanuil (above n 37) 22

¹⁰² The justification is that '[i]t should be the financial industry, as a whole, that finances the stabilisation of the financial system'; BRRD, rec. (103), third sentence; and, in identical terms, SRM Regulation, rec. (100), third sentence; See European Parliament, "Bail-ins" in recent banking resolutions and state aid cases' (7 July 2016) PE 574.395 for a summary of these cases

¹⁰³ Thomas Huertas and María J. Nieto, 'How much is enough? The Case of the Resolution Fund in Europe', VoxEU.org, 18 March 2014, <http://www.voxeu.org/article/ensuring-european-resolution-fundlarge-enough>; C Hadjiemmanuil (above n 37) 37

¹⁰⁴ SRM Regulation, Rec (79); C Hadjiemmanuil (above n 37) 29

magnify the expected losses that unsecured debt-holders will suffer in the event of a bank failure and will likely drive upwards the cost at issuance of this class of debt instruments.¹⁰⁶

In a recent study conducted by Paola Bongini, Arturo Patarnello, Matteo Pelagatti and Monica Rossolini, it was found that in fact the cost of bank bonds at issuance increased dramatically, signaling a perceived increase in bank risk by debt markets.¹⁰⁷ Bongini et al found that secured and unsecured debt spreads have increased not only because of a perceived higher probability of default for banks, and ensuing expected losses, but also because of the diminution of implicit guarantees for bailing-out banks.¹⁰⁸

The cost at issuance of bank bonds is linked to the characteristics of the issue itself, (i.e. issuance maturity, size and rating), and to any accompanying guarantees, direct or implicit, private or public.¹⁰⁹

Thus, the new regime's limited credibility for big banks, suggesting the perseverance of implicit guaranties, implies a funding cost advantage for the beneficiary banks. This advantage further distorts the already distorted competition amongst credit institutions of different sizes and can influence the beneficiary banks' risk-taking decisions inducing them to take on more risk than they would normally take. Abusive risk-taking practices in turn make the use of the guarantee, and thus tax-payers' money, more likely.

3.2.2 Sovereign-beneficiary bank cost and decision to place in resolution implications

Implicit guarantees also imply a dangerously intimate link between the bank and the sovereign, including potential negative feedback effects from the value of sovereign debt to the value of bank debt and vice versa.¹¹⁰

The case under the bail-out regime used to be that sovereigns stepping in to save the bank augmented sovereign debt, and as such, often led to a sovereign debt crisis.¹¹¹ The case

¹⁰⁶ Paola Bongini, Arturo Patarnello, Matteo Pelagatti and Monica Rossolini 4, They also find that the price of retail deposits have been driven upwards. The reason they cite for this rise is 'increased competition in the household segment of retail deposit markets' making deposit-funding more expensive than before, which would also agree with the higher risk deposits not exempted from the bail-in would carry (see the case of the Cypriot unguaranteed deposits being bailed-in and the case of Spanish deposits being converted to equity). This is particularly noteworthy given that during the crisis deposits experienced negative interest rates for the first time.

¹⁰⁷ Ibid, 8 This risk is only perceived because in the same period reference rates (central banks' rates and interbank rates) had an opposite direction. (Note that they also find that capital adequacy (both considering a measure of regulatory adequacy and the inverse of the leverage ratio) started to exert its positive effect on the cost of borrowing after 2011)

¹⁰⁸ Ibid 8. Specifically: 'The dummy variable 'guarantee' analyses the effect of a specific contractualized support to the issue: in 2009 and 2011 such a support is significantly different from zero and can be measured in an average reducing in the issuance premium of around 78 and 27 bps respectively for floating rate issues. For fixed rate issues, it starts to be relevant in 2010 (especially if it is in the form of a public guarantee).'

¹⁰⁹ Ibid 8 private for instance from the parent bank, and public typically from the sovereign

¹¹⁰ S Schich S Lindh 'Implicit Guarantees for Bank Debt: Where Do We Stand?' (2012) 1 OECD Journal: Financial Market Trends 1-22

¹¹¹ E Avgouleas D W Arner, (above n 70), 23

under bail-ins is the worst of both worlds. Banks' holdings of sovereigns are marked by a strong home bias.¹¹² And, sovereigns which used ESM funds to bail-out banks have become the banks' biggest shareholders, putting them at risk of bail-in. Therefore the argument becomes cyclical. A state facing a financial shock places its banks at risk, and insolvent banks feed back to the state finances.¹¹³

The link between sovereigns and banks affects significantly the banks' cost of funding.¹¹⁴ Cardillo and Zaghini¹¹⁵ and Zaghini¹¹⁶ find that in crisis periods the effects of a deteriorating sovereign creditworthiness spill-over to home banks.¹¹⁷ Similarly, a paper by the CGFS analysing the impact of sovereign risk on the cost of bank funding for a sample of 534 unsecured fixed rate senior bonds from 114 banks in 14 advanced economies for the years 2006 and 2010 finds that while in normal times the characteristics of the sovereign have virtually no effect on the cost of funding,¹¹⁸ in crisis time, a large part of the spread at launch on bank bonds (nearly 30%) reflects the conditions of the sovereign. This percentage increases to 50% for countries for which concerns over public finance conditions are more pronounced. Such results imply a significant funding cost advantage for banks in countries with high creditworthiness.¹¹⁹ This means that the possibility that the sovereign will not be able financially to bail-out the banks has a significant impact on the funding cost of the bank.

Where the sovereign is financially able to bail-out a failing bank, there are strong political incentives that it will choose to do so. Given the insufficiency of the resolution funds, it is doubtful that a sovereign will choose to hurt both the confidence in its banking system by bailing-in its creditors, and also be blamed for bailing-out a bank. So there is a strong possibility that it will pick one of the two instead of trying to minimize the use of taxpayers'

¹¹² CERP 2015 (above n 44) 55, 12; C Hadjiemmanuil (above n 37) 6 Noting that banks in receipt of quantitative easing through the ECB often used the money received to purchase home-country public debt instruments; see also Council Regulation No 1024/2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions Rec 6 stating that: 'The stability of credit institutions is in many instances still closely linked to the Member State in which they are established. Doubts about the sustainability of public debt, economic growth prospects, and the viability of credit institutions have been creating negative, mutually reinforcing market trends.'

¹¹³ M Hellwig (above n 23); CERP (above n 44) 47

¹¹⁴ Paola Bongini, Arturo Patarnello, Matteo Pelagatti and Monica Rossolini 4

¹¹⁵ A Cardillo A Zaghini, 'The recent trends in long-term bank funding' (2012) Questioni di Economia e Finanza, Occasional Paper no. 137 Bank of Italy

¹¹⁶ A Zaghini, 'Bank bonds: size, systemic relevance and the sovereign' (2014) Temi di discussione 966, Bank of Italy

¹¹⁷ They base this finding on the analysis of the cost of bank bonds at issuance between 2006-2011 for a sample of US, Eurozone and UK banks

¹¹⁸ Cost of funding is instead closely related to issue-specific and bank-specific factors See: Committee on the Global Financial System, 'The impact of sovereign credit risk on bank funding conditions' (2011) CGFS paper no. 43, Bank for international Settlements

¹¹⁹ Bongini et al (above n 6) 8, 10 finding that in a case of a sovereign rated AA+ (below AAA), it would cost the issuing bank a higher charge of 149 bps to issue floating bonds after 2011. For fixed rate bonds from 2008-2011 all European banks with the same rating of German banks faced higher long-term funding costs (See Table 1.4 at page 11); CGFS, 'The impact of sovereign credit risk on bank funding conditions' (2011) CGFS (above n 118)

money. Indeed, the resolution regime in the EU perhaps has foreseen the need to resort to public funds and has refrained from explicitly prohibiting bail-outs in the EU.

Bail-outs or not, it should not be forgotten that in some cases,¹²⁰ the distinction between creditors and taxpayers is just technical.¹²¹ Therefore, even under a bail-in taxpayers may still be covering the bill indirectly, which although might be justifiable given the positive externalities the public enjoys from the services of the banking sector,¹²² it can equally create a public outrage, even in the absence of bail-outs. Understandably, using the unguaranteed depositors of the bank to restructure it is not something that can be easily fathomed given that these persons had legitimate expectations, both contractually and socially, that they would continuously have access to their savings.

The difference with putting the burden of resolution on the bank's creditors is that it can alter the way in which bank creditors price credit risk. This can discipline the bank's moral hazard, but it can also affect the bank's access to funding and in turn its ability to finance loans, which can be counterproductive for the growth of the economy.

3.3 What would the economic implications of a credible regime be?

Having observed the implications of the limited credibility of the resolution regime, it is important to also reflect briefly upon some implications that a credible regime would have.¹²³

Firstly, as discussed above, a credible regime affects the bank's cost of funding because it increases credit default risk and places the losses flowing from the risk expressly on the bank's creditors and shareholders.

On this front, the regime seems to be perceived as substantially credible, since the implicit subsidy benefitting bigger banks due to the limited credibility of the regime appears to have been limited only to Systemically Important Financial Institutions (SIFIs).¹²⁴ That is, astonishingly, larger banks (other than SIFIs), paid higher premium with respect to their smaller peers in 2012.¹²⁵ This is arguably because as the paper showed, only smaller banks entering resolution can be resolved without resorting to bail-outs. This leaves larger banks exposed during resolution if indeed no bail-out takes place, increasing their risk and as

¹²⁰ Especially where the bank has a strong home-bias and the unguaranteed depositors are not exempted from bail-in

¹²¹ C Goodhard E Avgouleas (above n 14) 13

¹²² I Angeloni, 'Rethinking Banking Supervision and the SSM Perspective' in Allen F, Carletti E, Grey J (eds) *The New Financial Architecture in the Eurozone* (2015 EUI Florence, Italy), 15

¹²³ Please note that the implications mentioned are by no means exhaustive

¹²⁴ This subsidy is actually exacerbated for the period 2007-2009, i.e. during and post crisis, as confirmed by the data of Bongini, Patarnello, Pelagatti and Rossolini

¹²⁵ Ibid 18; Bongini et al find that 'starting from 2011 the positive effect of the implicit guarantee is limited to SIFIs, i.e. those financial institutions that in 2011 the Financial Stability Board (FSB) recognized as systemically important after applying the criteria set out by the Basel Committee on Banking Supervision (BCBS) to detect such institutions' and not to larger banks in general (measured by total assets)

such, their cost of capital.

At the same time, a credible regime would probably entail holding higher amounts of bail-inable debt, which would make the institution safer, and thus decrease its cost of funding. Nevertheless, the argument that higher capital adequacy standards would result in decreasing the amount of loans given by banks applies equally to the requirement of higher bail-inable debt. If that is true, then a credible resolution regime could contribute to the slow recovery and growth of the real economy, or so the argument is usually solicited by banks. However, this view has been highly contested, and the view that more capital equals not only safer institutions, but also more money available to lend, is gaining momentum.¹²⁷

Secondly, creating a fund that can ensure the credibility of the regime entails serious opportunity costs. It has been argued above that the ESM's capacity to credibly play the role of the ultimate fiscal backstop for the SRM in a major systemic crisis is limited because its target level for its DRI, set at EUR 60 billion¹²⁸ (out of its EUR 500 billion total lending capacity), is set too low to be able to deal with a major crisis.¹²⁹ However, creating a resolution fund with high-enough target levels to accommodate any given bank's resolution in the absence of a formal European lender of last resort would cause massive opportunity losses for the funds put aside for resolution. Therefore, it would arguably not be justified in a cost-benefit analysis, especially given that it has been showed above that even currently the bank resolution regime affects the cost of funding for banks.¹³¹

As such, only the ECB, a central bank which can create unlimited amounts of cash,¹³² can play this role of the lender of last resort and not the ESM which has been built to tackle only liquidity and solvency problems.¹³³ However, these arrangements are not in place in Europe. The ECB has a very limited mandate for discharging LoLR powers both expressly and institutionally, given the absence of fiscal union and/or fiscal powers in the Eurozone. Only

¹²⁷ A Admati P M DeMarzo M F Hellwig P Pfleiderer, 'Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive' (2013) Max Planck Institute for Research on Collective Goods 2013/23 1-70; Thorsten V Koepl 'How complicated is bank regulation?' Youtube <<https://www.youtube.com/watch?v=KtqOhNvYqUw>>; see ECB, 'The impact of the CRR and CRD IV on bank financing Eurosystem response to the DG FISMA consultation paper' (December 2015)

¹²⁸ Eurogroup document on ESM's DRI (above n)

¹²⁹ M Hellwig (above n 32) 17; IMF, '2014 Article IV Consultation with the Euro Area: Concluding Statement of the IMF Mission' (June 19, 2014), para. 10

¹³¹ Bongini et al (above n)

¹³² This is in line with Minsky's finding that to deal with a systemic crisis, a state needs a 'Big Bank', that is a central bank to act as a LoLR to provide ample liquidity to the banking system, and a 'Big Government', that is a Treasury to provide finance for banks solvency: H Minsky, *Stabilizing the Unstable Economy* (Yale University Press, 1986) 279 – 282; G Zavvos S Kaltsouni (above n 50)

¹³³ P De Grauwe, 'The European Central Bank: The Lender of Last Resort in the Government Bond Market?', CESIFO Working Paper, No 3569, September 2011; G S Zavvos S Kaltsouni (above n 50)

fiscal authorities can carry out bailouts using taxpayers' money, constraining therefore the ECB's ability to act as a LoLR.¹³⁴

¹³⁴ C Goodhart 'The Political Economy of Financial Harmonisation in Europe' in J Kremer D Schoenmaker P Wierds (Eds), *Financial Supervision in Europe* (Cheltenham Edward Elgar 2003); See CERP (above n 34) 58 claiming that the proposition that the ECB will buy AAA assets is not a solution as long as it does not embrace the role of LoLR

4. Conclusion

The paper has looked at the different financing avenues available for resolving a bank and found that the funding available might not be sufficient in every given case. The inadequacy of the funds can limit the credibility of the regime, and as such it can have important economic implications. These implications include: the need to use public funds for bank resolution where resolution funds are inadequate; how the need to also use public funds can influence the decision of a sovereign to place a bank in resolution first; and the creation of inconsistencies on the cost of funding of different banks either making it cheaper for certain institutions to access funding because they still enjoy an implicit public subsidy, depending on the creditworthiness of their sovereign, or making it more expensive because they are too big to be covered by the resolution funds, but not systemic enough to enjoy a public subsidy.

Therefore, regardless of whether the funds will be enough for resolving banks in practice, the resolution regime's impact lies in the credibility of its design, which shapes the corresponding implications stemming from it depending on whether the regime is credible, non-credible, or limitedly credible. What level of credibility is most desirable is a complicated question, as even a fully-credible regime might have severe implications that might be undesirable.

In the end, a balance must be sustained. The resolution regime must be credible enough to achieve financial stability by materially influencing risk-pricing, but it must be wary of impairing the real economy either by harming confidence in the banking system of a country because of the bail-in tool or by negatively-influencing loan-granting, either because it is causing massive opportunity losses by creating a fund so big that massive amounts of funds are put aside for the off-chance a resolution takes place, or because the credit risk of the bank's instruments is too detrimental to its funding cost and therefore its access to finance.

Arguably, as it stands the regime currently achieves this balance. The regime is credible for small banks, thus affecting their funding costs, but it also affects the funding costs of bigger banks (even more severely as found by Bongini et al) because its limited credibility makes resolving such bigger banks more dangerous when no bail-out takes place. At the same time, it is not fully credible and it does not create massive funds carrying massive opportunity costs. Therefore, despite the many criticisms attached to the regime, it might be a good compromise in the absence of fiscal powers for the ECB to act as a lender of last resort - at least until a SIFI experiences difficulties.

Bibliography

Books

Angeloni Ignazio, 'Rethinking Banking Supervision and the SSM Perspective' in Allen F, Carletti E, Grey J (eds) *The New Financial Architecture in the Eurozone* (2015 EUI Florence, Italy)

Armour John, 'Making Bank Resolution Credible' in E Ferran, N Moloney and J Payne (eds), *Oxford Handbook of Financial Regulation* (Oxford: Oxford University Press 2014)

Bongini Paola, Arturo Patarnello, Matteo Pelagatti and Monica Rossolini, 'How difficult is it to raise money in turbulent times?' in Beccalli Elena Poli Federica (eds) *Lending, Investments and the Financial Crisis* (Palgrave Macmillan studies in Banking and Financial Institution, UK 2015)

Corsetti Giancarlo, Feld Lars P, Lane Philip R, Reichlin Lucrezia , Rey Hélène, Vayanos Dimitri, Weder di Mauro Beatrice, *A New Start for the Eurozone: Dealing with Debt* (2015 CERP PRESS)

Minsky Hyman, *Stabilizing the Unstable Economy* (Yale University Press, 1986)

Zavvos George, Kaltsouni Stella, 'The single resolution mechanism in the european banking union: Legal Foundation, Governance Structure and Financing' in Matthias Haentjens & Bob Wessels (eds), *Research Handbook on Crisis Management in the Banking Sector*, (Edward Elgar Publishing Ltd, forthcoming, 2015)

Journals

Admati A DeMarzo P M Hellwig M F Pfleiderer P, 'Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive' (2013) Max Planck Institute for Research on Collective Goods 2013/23 1-70

Avgouleas E Arner D W, 'The Eurozone Debt Crisis and the European Banking Union: A Cautionary Tale of Failure and Reform' (2013)

Cardillo A Zaghini A, 'The recent trends in long-term bank funding' (2012) Questioni di Economia e Finanza, Occasional Paper no. 137 Bank of Italy

Commission Staff Working Document, Impact Assessment Accompanying the document 'Proposal for a Directive of the European Parliament and of the Council establishing a framework for the recovery and resolution of credit institutions and investment firms, SWD(2012) 166/3

Committee on the Global Financial System, 'The impact of sovereign credit risk on bank funding conditions' (2011) CGFS paper no. 43, Bank for international Settlements

De Grauwe P, 'The European Central Bank: The Lender of Last Resort in the Government Bond Market?', CESIFO Working Paper, No 3569 , September 2011

EBA, 'Draft Regulatory Technical Standards on criteria for determining the minimum requirement for own funds and eligible liabilities under Directive 2014/59/EU' (28 November 2014) EBA/CP/2014/41 Accessed 16/04/2015
<<http://www.eba.europa.eu/documents/10180/911034/EBA+CP+2014+41+%28CP+on+draft+RTS+on+MREL%29.pdf>>

EBA, 'Final Draft Regulatory Technical Standards on criteria for determining the minimum requirement for own funds and eligible liabilities under Directive 2014/59/EU' (03 July 2015) EBA/RTS/2015/05

ECB, 'The impact of the CRR and CRD IV on bank financing Eurosystem response to the DG FISMA consultation paper' (December 2015)

ESM, 'FAQ on the ESM direct recapitalisation instrument' 8 December 2014 Q6; ESM DRI Guideline, Art. 3(1)

ESM, 'Guideline on Financial Assistance for the Direct Recapitalisation of Institutions' (8 Dec 2014)

EU Commission, 'Commission Staff Working Paper: The effects of temporary state aid rules adopted in the context of the financial and economic crisis', SEC(2011) 1126 final, 20 November 2012

Eurogroup document 'ESM direct recapitalization instrument – Main Features of the operational framework and way forward" (Luxembourg, 20 June 2013)

Financial Stability Board, 'Key Attributes of Effective Resolution Regimes for Financial Institutions'

Goodhard C Avgouleas E, 'A Critical Evaluation of Bail-ins as Bank Recapitalisation Mechanisms' (2014) CERP Discussion Paper No 10065

Goodhart C 'The Political Economy of Financial Harmonisation in Europe' in J Kremer D Schoenmaker P Wierts (Eds), *Financial Supervision in Europe* (Cheltenham: Edward Elgar 2003);

Hadjiemmanuil C 'Bank Resolution Financing in the Banking Union' (2015) LSE Law, Society and Economy Working Papers 6/2015

Hellwig Martin, 'Yes Virginia, There is a European Banking Union! But It May Not Make Your Wishes Come True' (2014) Max Planck Institute for Research on Collective Goods, Kurt-Schumacher-Str. 10, D-53113 Bonn

HM Treasury, 'Banking Reform: Delivering Stability and Supporting A Sustainable Economy' (June, 2012) 1-57, 47; J-H Binder, 'Resolution: Concepts, Requirements and Tools' in J-H Binder and D Singh (eds), *Bank Recovery and Resolution in Europe*, (Oxford University Press 2015 forthcoming) available from: <<http://ssrn.com/abstract=2499613>>

Huertas Thomas Nieto María J, 'How much is enough? The Case of the Resolution Fund in Europe', VoxEU.org, 18 March 2014, <http://www.voxeu.org/article/ensuring-european-resolution-fundlarge-enough>

IMF, '2014 Article IV Consultation with the Euro Area: Concluding Statement of the IMF Mission' (June 19, 2014)

IMF, '2014 Article IV Consultation with the Euro Area: Concluding Statement of the IMF Mission' (June 19, 2014)

IMF, 'Global Financial Stability Report – The Quest for Lasting Stability' (April 2012)

J Herring, 'The Central Role of Resolution Policy in Dealing with Systemically Important Financial Institutions' (2011) 5; Oana Toader 'Quantifying and Explaining Implicit Public Guarantees for European Banks' (9 October 25, 2013) Univ. Orléans, LEO 1-30

Kerle C, 'Burden-sharing Under State Aid Rules: Evolution, State of Play and the Way Ahead'

Lastra M Rosa, Ayadi R, 'Proposals for reforming Deposit Guarantee Schemes in Europe' (2010) 11(3) Journal of Banking Regulation

Memo 10/318, 'Deposit Guarantee Schemes – Frequently Asked Questions' Available from: <http://europa.eu/rapid/press-release_MEMO-10-318_en.htm?locale=EN>

Merler Silvia 'Comfortably numb: ESM direct recapitalization: too late to solve the current crisis, too little to deter future crises' (24th June 2014) Accessed 15/04/2015 <<http://www.bruegel.org/nc/blog/detail/article/1369-comfortably-numb-esm-direct-recapitalization>>

Schich S Lindh S 'Implicit Guarantees for Bank Debt: Where Do We Stand?' (2012) 1 OECD Journal: Financial Market Trends 1-22

Schwarz Steven, 'Systemic risk' (2008) 97(1) Georgetown Law Journal

Udoe Benedict 'Depositors' Priority over Senior Unsecured Bondholders: A clog in the Bank Resolution Process?' (2015) University of Zurich, 24 accessed 15/04/2015 <<http://ssrn.com/abstract=2560321>>

Zaghini A, 'Bank bonds: size, systemic relevance and the sovereign' (2014) Temi di discussione 966, Bank of Italy

'Joint Statement of the Ministers of Finance of Germany, the Netherlands and Finland' (25 Sept 2012)