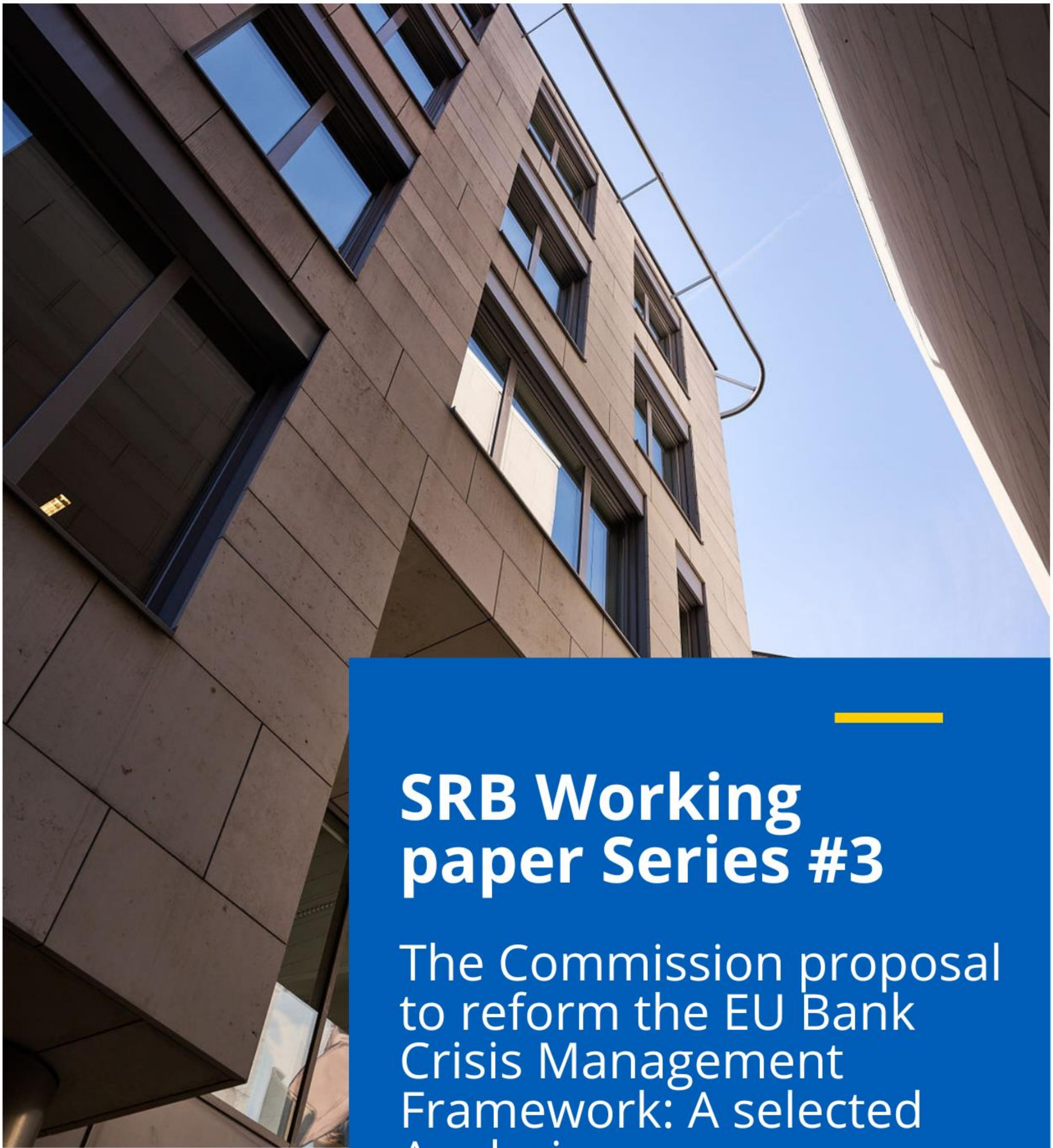


SRB Working paper Series #3

The Commission proposal to reform the EU Bank Crisis Management Framework: A selected Analysis

Authors: Paolo BIRASCHI, Riccardo DE BOSIO, Miriana LANGELLA, Barbara MAINIERI, Nuria MATA GARCIA, Lucia ORSZAGHOVA

Single Resolution Board

srb.europa.eu

Abstract

This SRB staff working paper aims to foster debate on the possible impact of the CMDI proposal, linked namely to the changes to the Public Interest Assessment and to the creditors' hierarchy and their effect on industry-funded resources both in resolution and in liquidation. The paper argues that the quantitative assessment indicates that the Commission's proposal provides a balanced and feasible approach, which can bring a broader range of small and medium-sized banks, where warranted, under the resolution framework by providing for sufficient funding for the resolution action through a more effective use of industry-funded safety nets so as to shield depositors from losses, in particular when this would have detrimental effects for financial stability and depositors' confidence. At the same time, the additional costs for industry-paid funds appear to be manageable both in resolution and in liquidation scenarios.

Disclaimer

This staff working paper is for information purposes only and aims to foster debate on some technical aspects of the CMDI proposal. This paper describes research being undertaken by the author(s) on certain technical aspects. It should not be reported as representing the views of the SRB. The views and opinions expressed in this paper are those of the authors and do not necessarily reflect the position of the SRB. The SRB cannot be held liable for the content of this paper and this paper does not represent a statement of official SRB policy, methodology or position on matters addressed therein, nor can this paper be understood as anticipating or pre-empting same.

JEL Classification:	G21, G28, O52
Keywords:	Banking Union, Crisis Management Framework, Deposit Insurance, Public Interest Assessment, Least Cost Test

The authors would like to thank Sebastiano Laviola, Kristian Kjeldsen, Thomas Grebot, José Hautemaniere, Cristina Vespro, Joachim Eule and Melanie Müller for their meaningful input and comments.

Publication date: December 2023

Abbreviations

AT1	Additional Tier 1 instruments
BU	Banking Union
BRRD	Bank Recovery and Resolution Directive
CBR	Combined Buffer Requirement
CET1	Common Equity Tier 1
CF	Critical Functions
CMDI	Crisis Management and Deposit Insurance Framework
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
DGS	Deposit Guarantee Scheme
DGSD	Deposit Guarantee Scheme Directive
EA	Euro Area
EBA	European Banking Authority
ECB	European Central Bank
EC	European Commission
EDIS	European Deposit Insurance Scheme
EU	European Union
G-SIB	Global Systemically Important Bank
GDP	Gross Domestic Product
IPS	Institutional Protection Scheme
JRC	Joint Research Centre
LCT	Least Cost Test
LSI	Less Significant Institution
MPE	Multiple Point of Entry
MREL	Minimum Requirements for Own Funds and Eligible Liabilities
MS	Member States
NIP	Normal Insolvency Proceedings
NRA	National Resolution Authority
NUTS	Nomenclature of Territorial Units for Statistics
PIA	Public Interest Assessment
P1R	Pillar 1 Requirement
P2R	Pillar 2 Requirement
PRS	Preferred Resolution Strategy
PRT	Preferred Resolution Tool
RA	Resolution Authority

RPC	Resolution planning Cycle
SI	Significant Institution
SO	Simplified Obligations
SoB	Sale of Business
SPE	Single Point of Entry
SRB	Single Resolution Board
SRM	Single Resolution Mechanism
SRMR	Single Resolution Mechanism Regulation
SSM	Single Supervisory Mechanism
Tier 2	Tier 2 instruments
TLOF	Total Liabilities and Own Funds
TREA	Total Risk Exposure Amount

Contents

SRB Working Paper Series #3

1. Introduction

The European Union provided a comprehensive set of policy responses to the 2007-2008 Great Financial Crisis. One main component was the establishment of the Banking Union (BU) for the euro area and volunteering non-euro countries in 2014. Since its inception, the BU's functioning has made European banks more resilient by strengthening their capital and liquidity position and by ensuring more effective supervision.

Despite the substantial progress made since the creation of the BU, the experience shows that it needs to be completed, notably in terms of the third pillar, i.e. the realisation of a European Deposit Insurance System. In addition, during the application of the current regulatory framework, some shortcomings became evident, in particular regarding how to effectively deal with the failure of medium-sized and small banks. Against this background, on 18 April 2023, the European Commission presented a proposal to revise and further strengthen the EU's existing bank Crisis Management and Deposit Insurance Framework, which consists of Bank Recovery and Resolution Directive, the Single Resolution Mechanism Regulation and the Deposit Guarantee Scheme Directive.[1] The proposed package does not complete the BU, however it represents a very important step towards the direction of realizing a more integrated and efficient crisis management framework, consistent with its overall objectives.

Overall, the EC's proposal aims at achieving the following objectives: (a) to bring a broader range of small and medium-sized banks under the resolution framework, further protecting taxpayers' money in crisis situations; (b) to harmonise resolution practices across the EU by shielding the real economy from the impact of bank failures and (c) to increase the protection of depositors in case of a bank failure across the EU.

The EC reform proposal envisages a broad range of tools enabling authorities to manage the failure of banks of any size and business model in an orderly and cost-efficient manner**.** For the purposes of this paper, the analysis focuses mainly on three areas:

- Changes to the depositor-creditor hierarchy: Under the proposal, the current three-tier ranking would be replaced with a single-tiered preferential ranking for all deposits. All deposits would rank above ordinary unsecured claims and would rank *pari passu* with each other. Covered deposits and claims of Deposit Guarantee Scheme would continue to be excluded from bail-in but would have no "super-preference" on insolvency compared to other deposits;
- Provisions to better protect taxpayers' funds by enabling access to industry-funded safety nets, such as DGS and resolution funds, to contribute to the cost of transferring assets and deposits to another bank, when less costly than compensating depositors after a bank has failed. However, a number of safeguards have been introduced, among which that DGS funds can be used only for banks already earmarked for

[1] In addition, the Commission also proposed amending the "Daisy Chains" aspects of the MREL.

resolution and after banks have exhausted their loss absorption and recapitalization capacity. Finally, the decision to exclude certain categories of deposits from loss absorption is bank specific and has to be justified by the resolution authority;

- Changes to the Public Interest Assessment, by requesting resolution authorities to show that resolution is not in the public interest (liquidation should be deemed more efficient than resolution with regards to the objectives of the framework), broadening of the assessment of the protection of depositors and application of resolution tools to banks with regional business models.

This working paper aims to contribute to the ongoing discussion by quantifying the impact of the Commission's proposal in terms of funding and additional banks included in the resolution scope. More specifically, the paper focuses on the following elements:

- The PIA framework's proposed changes, which could lead to a change of a preferred resolution strategy for some banks from liquidation to resolution. This is the first impact assessment taking these aspects into account. As the decision on the preferred resolution strategy for a bank is at the discretion of the responsible resolution authority, this impact assessment attempts to quantify the effects without prejudice to the final decision of the responsible resolution authority.
- The effects on the costs for the DGS and for the SRF of using industry-funded safety nets in resolution. The analysis provides a detailed assessment of the funding needs of a failing credit institution, earmarked for resolution, which does not reach the 8 % TLOF threshold and on how the new legislative proposal could address the funding gap to reach the above-mentioned threshold.
- The effects of the changes to the depositor-creditor hierarchy on the DGS costs emanating from the banks that would continue to be earmarked for liquidation. To our knowledge, this is the first time the costs for the DGS in liquidation are also quantified.

Lastly, compared to the existing literature, this paper enhances some methodological aspects, for example, by building the analysis on the use of more granular data on banks' liabilities structure, with respect to previous analysis. In addition, the empirical analysis presented in this paper employs a complete sample of resolution entities and the most recent available resolution data.

Combining all the elements assessed in this paper, the analysis shows that the CMDI proposal provides a balanced package and fulfils its main objectives. This set of legislative proposals could lead to the shift of a manageable set of banks from liquidation to resolution, while providing resolution authorities with the necessary toolkit to ensure better funding to carry out resolution action, also in the form of a transfer strategy, if needed. Moreover, the estimated impact on industry-funded safety nets is limited, also because MREL will continue to be the first line of defence while the banks that would enter in the scope of resolution based on the proposal are relatively small when compared to the size of the concerned resolution funds.

Against this background, the paper is organised as follows: Section 2 summarises the relevant literature on bank crisis management frameworks; Section 3 describes the methodology used in the impact assessment; Section 4 presents the sample of banks and related data used in the analysis. Finally, Section 5 illustrates the main findings of the quantitative analysis, and Section 6 concludes.

2. Literature review

Over recent years, the BU architecture and its functioning have been at the centre of a lively policy and academic debate both at EU and national level. More specifically, there are three strands of literature and previous analyses which have inspired the analysis in this paper, namely an extensive set of analytical and policy studies with an explicit focus on the resolution framework, a number of papers dealing with the alternative strategies to the liquidation of a bank and lastly the impact assessments conducted by the European Banking Authority and the EC in the preparation of the CMDI legislative proposal.

Building on the experience from the application of the resolution framework, there has been growing literature about how to improve the bank resolution framework in the BU, especially for small and medium sized and largely deposit-funded banks. For instance, König (2021) emphases that for the small-medium size banks, which evenly reliant on deposit funding, the MREL might often mean equity only. The latter, entails an additional challenge as this might have been, or rather most likely has been, depleted at the point of FOLTF leaving little room for resolution. Moreover, analytical work and policy considerations have recently focused in particular on the issue of enlarging the scope of entities earmarked for resolution and at ensuring sufficient funding for the resolution action of these entities. Several authors in the course of last few years, for instance Restoy (2021), Beck and *al.* (2022) and Avgouleas and *al.* (2023), arrive at similar conclusions. They point to a number of banks, in particular mid-sized banks, which are considered too large to be managed through national insolvency regimes, but, at the same time, too small to be managed by the resolution framework under the existing BRRD/SRMR provisions. To address effectively this issue, the authors proposed a number of changes, namely (i) the expansion of the scope via wider interpretation of the PIA and/or establishing resolution as general practice in cases of failing or likely to fail banks (so-called reversal of proof for the PIA), in combination with (ii) broadening the scope for private-sector burden-sharing in future cases such as DGS funds or resolution funds. In order to unlock DGS funds' use for the resolution, the papers advocated for replacing the current super-preference of DGS and introducing a general depositor preference rule – the principle that all deposits rank equally (with different modifications depending on the paper, e.g. all deposits rank *pari passu* and above ordinary unsecured claims or all deposits beyond MREL eligible deposits) and the revision of the least-cost principle to take into account the general interests of the banking system as a whole and not just the cost paid by the DGS in implementing the optional measures concerned. Considerations were also made on the MREL requirements and how to access resolution funds for these banks, e.g. to replace the "one-size-fits-all rule" of the 8 % TLOF minimum bail-in threshold to access the SRF with a case by case threshold based on the failing bank's preferred resolution strategy[2] or to redefine the methodology for calculating MREL requirements for banks with a resolution plan based on transfer strategies to accommodate a higher likelihood of success of that strategy.

---

[2] The main issue according to the authors is that the 8% minimum bail-in condition for SRF access does not accommodate the situation of banks with a large amount of deposits relative to other liabilities that can absorb losses without unintended effects.

Moreover, the authors also note that significant crisis management competences remain at national level, the combination of a supranational resolution framework with various heterogeneous domestic insolvency regimes is set to cause inconsistencies, that there is a strong incentive to avoid applying the EU-level resolution and choose national liquidation measures and that there has not been any progress on European Deposit Insurance Scheme.[3] Furthermore, they conclude that national specificities should not apply when ensuring a level playing field in Europe.

Another strand of literature relevant for this study looks at the costs of liquidation and the use of DGS funds to support transfer strategies. For example, Eule et al. (2023) examined the benefits of including “alternative measures” in DGSs’ toolkits in national liquidation measures in order to support asset and liability transfers in the event following a bank’s failure. The authors conclude that alternative measures would improve the efficiency and effectiveness of the EU banking crisis management framework and would speed up the handling of the failure of smaller banks while reducing upfront outlays and final costs for DGS. Furthermore, the paper advocates for an EU-wide harmonisation of the least cost methodology and amendments to the creditor hierarchy, with a view to facilitating access to alternative measures. These findings are equally relevant for the comparison between the costs of liquidation and of the resolution action, which is the focus of this paper.

Finally, this paper builds on the impact assessments conducted by the EBA and by the EC in the preparation of the CMDI proposal[4]. The EBA has performed an impact assessment on funding in resolution and insolvency in light of possible changes in the creditor hierarchy. The quantitative evidences collected by the EBA are also referenced throughout the European Commission’s impact assessment that accompanies and underpins the legislative proposals to amend the CMDI framework. The results are based on a sample of banks from 27 EU countries reporting data as of 31 December 2019. The sample of banks reviewed includes institutions currently earmarked for liquidation, as well as for resolution, in order to take into account for the potential evolution of the framework where the PIA could be expanded. The analysis finds that the institutions not showing sufficient own internal resources to obtain access to resolution funds are mainly small or medium-sized with a high reliance on deposits. The EBA also finds that the impact on deposits to be bailed-in to obtain access to resolution funds is estimated to 0.3 % of deposits of institutions in the sample. When considering a potential DGS intervention after bailing in all bail-in able liabilities to provide funds to support banks in reaching the threshold to access resolution funds and to limit bailing-in of all types of deposits, only a very limited number of institutions could potentially benefit from such an intervention. Finally, the EBA estimates that the DGS intervention would be sufficient to reach the 8 % TLOF threshold that would allow banks to unlock resolution funds would only apply for a very limited number of institutions.

[3] The importance of these measures is recognised by the authors of this paper, but the topic remains outside of the scope of this analysis and the paper abstracts from considering all national specificities.

[4] See European Commission (2023) webpage on Reform of bank crisis management and deposit insurance framework: https://finance.ec.europa.eu/publications/reform-bank-crisis-management-and-deposit-insurance-framework_en

This working paper confirms the direction of the findings of the EBA, the JRC and the EC's impact assessments. There are, however, some significant differences in this paper which render a direct comparison with the other two impact assessments difficult. Firstly, this paper has a narrower scope and pertains only to BU entities and excluding other EU Member States from its scope due to the unavailability to the SRB of such data. Secondly, the SRB study uses the latest available data to conduct the assessment, namely end-2022 data, considering all the loss absorption capacity built-up over last years (i.e. the MREL amounts) and, notably, the final MREL targets (as they stood in the 2023 RPC). In comparison, the EBA and Commission impact assessments cover the snapshot at end 2019, where final MREL targets were not known. Thirdly, this paper distinguishes between resolution and liquidation entities, including possible future resolution entities, and it provides more nuanced views on the DGS costs, depending on the preferred resolution strategy for the entity. Lastly, it enhances some of the methodological aspects by building on granular data and past experience as well as latest discussions, for instance, by using a more accurate sample selection of resolution entities that can give more information on the distribution of results.

3. Methodology

During the course of this analysis, a comprehensive examination of various critical aspects of the CMDI proposal has been conducted with a primary focus on two distinct categories of banks, namely resolution and liquidation entities. For the former, the assessment involves the identification of banks requiring funding during the resolution process to meet the mandated minimum bail-in threshold which is set at 8 % of TLOF in both existing conditions and with balance sheet depletion at the point of failure (as explained in the section below). Secondly, the potential involvement of the DGS is assessed for banks' market exit during resolution, particularly those demonstrating a positive outcome in the LCT. Additionally, the analysis quantifies the associated costs to be incurred by the DGS and the SRF.

Concurrently, the analysis extends to the current liquidation entities, with a primary focus on identifying liquidation banks that are likely to transition to resolution based on the new PIA definition introduced by the CMDI proposal. The subsequent steps for these banks align with those outlined above for resolution entities. As a last step, this analysis also includes the quantification of additional expenses for the DGS incurred when introducing a single-tier depositor preference among the entities that would continue to be designated for liquidation.

To do so, throughout the paper, a number of assumptions have been made, drawing upon considerations from the EBA and EC impact assessments, as well as the SRB's own analytical models for the PIA.

3.1 General assumptions

Resolution costs

The central thesis of this paper is to explore the potential benefits that banks may derive from accessing resolution funds. Rather than taking a position on the direct costs of a resolution action, the paper adopts a measured approach by assessing the costs associated with interventions necessary to access the SRF. Notably, the proposed burden-sharing mechanism involves a substantial 8 % write-down of TLOF as a prerequisite for unlocking the utilisation of the SRF.

Bail-in capacity assumption

A bank's bail-in capacity is approximated by the liabilities that are not excluded from bail-in under Article 44(2) of the BRRD (Figure 4). Furthermore, it is assumed, for the purpose of this study that all deposits were excluded from bail-in. It follows that it is assumed that the DGS contribution would be used in lieu of bailing in of deposits eligible for bail-in.

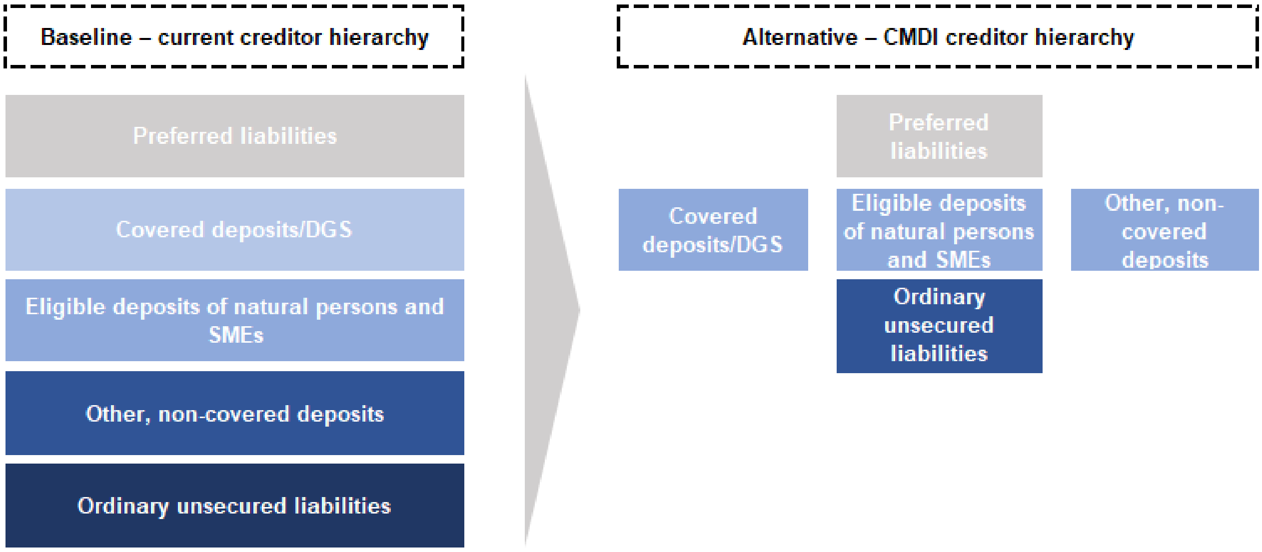
Creditor hierarchy and ranking of deposits and DGS claims

Creditor hierarchy, which defines the order in which shareholders and creditors are paid during liquidation, plays a crucial role in determining who bears losses during a resolution. Additionally, it is imperative that losses incurred in resolution do not exceed those in liquidation.

In the analysis, two distinct assumptions regarding creditor hierarchy and depositor preference are examined (Figure 1):

- Current creditor hierarchy (baseline): This represents the existing hierarchy, featuring a three-tier depositor structure and DGS super-priority. In this scenario, all deposits take precedence over ordinary unsecured debt.[5] The remaining aspects of the current creditor hierarchy remain unchanged.

Figure 1: Creditor hierarchy (relevant subset)



Source: Authors

- Single-tier as per CMDI proposal (alternative): This scenario introduces a universal single-tier depositor preference. This means all types of deposits[6] as well as DGS claims rank equally among themselves (so-called single tier) and above ordinary unsecured claims (so-called general depositor preference). The remaining components of the creditor hierarchy remain consistent with the current framework.

---

[5] This represents a simplification, as this aspect of the creditor hierarchy is not harmonised across BU MS. There are some BU Member States, where all deposits are senior to ordinary unsecured debt and other BU Member States where non-covered, non-preferred deposits rank *pari passu* with ordinary unsecured debt.

[6] This includes covered deposits, preferred non-covered deposits, non-covered non-preferred deposits. See Annex 1 for details.

Bank's balance sheet position at the point of failure

The financial position of a bank at the point of failure can differ significantly, depending on the nature of the crisis it faces. Whether for example it's a sudden liquidity crisis or a gradual depletion of its capital, these factors play a crucial role in shaping the bank's balance sheet at the moment of failure. This, in turn, has a direct impact on the burden-sharing mechanism under consideration in this study, involving a mandatory 8 % write-down and conversion of TLOF before the bank can access the SRF.

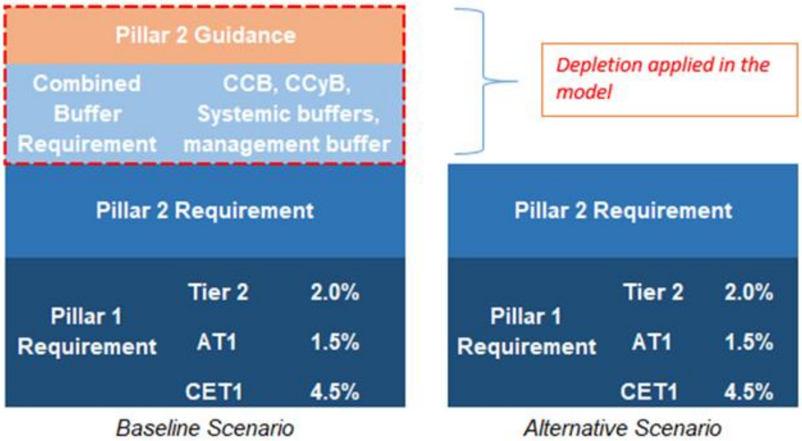
In the event that a bank's own funds have been partly eroded at the point of failure, the likelihood increases that the substantial 8 % write-down of TLOF will exert a more pronounced impact on a diverse array of creditors, encompassing depositors. This occurs because the capital losses reduce the cushion available to absorb the 8 % TLOF write-down. Consequently, a wider spectrum of creditors, including depositors, may be called upon to bear a portion of the losses during the resolution process.

In light of this context, the SRB study conducts a sensitivity analysis through the lens of two scenarios, i.e. in the *baseline scenario*, it is posited that the balance sheet at the point of failure closely resembles the state at the outset, that is, the situation at the end of 2022. This scenario leverages P1R, P2R, capital buffers, and P2G as reported at the reference date to absorb losses at the moment of failure, in conjunction with other liabilities eligible for bail-in.

Nonetheless, it is generally improbable that a bank would encounter failure with the same balance sheet that it held during more stable periods. In contrast, the *alternative scenario* anticipates that the balance sheet will have incurred losses leading up to the crisis, resulting in significant differences at the point of failure. In this scenario, a depletion is applied to the baseline, assuming a comprehensive depletion of P2G and capital buffers, yielding remaining own funds equivalent to P1R and P2R (Figure 2)[7].

[7] In a slow-burning solvency crisis, it is possible that the FOLTF would be declared when the capital is lower than P1R + P2R, typically when it has passed the so called "point of non-viability". However, there can be idiosyncratic liquidity crisis which determine FOLTF independently from the level of capital, for a variety of reason e.g. money laundering, geopolitical uncertainties, reputational risks and inadequate business models as in the cases of ABLV, Sberbank, recently Credit Suisse and US banks. In the second place, if one considers only a slow burning solvency crisis it is likely that the amount by which CET1 is reduced to absorb losses identified in the resolution valuations would count towards the 8 %TLOF. Therefore, the impacts on funding would be similar to those computed in this paper.

Figure 2: Own Funds baseline and alternative scenarios



Source: Authors
Note: The size of different types of capital is only illustrative. [8]

Recovery rate on assets in insolvency

In contrast to the losses incurred during resolution, the analysis assumes an 85 % average recovery rate for asset realisation in insolvency. This assumption is based on the European Commission's impact assessment and the EBA's call for advice, taking into account factors such as the cost of closing branches, employee layoffs, damage to the franchise, and potentially reduced asset values.

The selection of 85 % as the primary parameter is supported by initial findings from the SRB regarding the recent failures of specific LSIs as well as the average recovery rate on assets derived via the SRB network model.[9] Nevertheless, as outlined in several fora[10], recovery rates and insolvency losses vary significantly across members of the BU due to variations in national insolvency laws and legal systems, as well as the unique characteristics of individual banks. Against this background, different recovery rates on assets were applied as a sensitivity analysis, including bank-specific recovery rates derived from the SRB network model. Their results are not reported here for reasons of space, however they indicate that the lower the recovery rate on assets, the higher the costs for the DGS in liquidation as well as the higher the number of banks changing

[8] The average own funds of the sample for the current resolution banks (SIs and LSIs) in the baseline scenario is 11 % of TLOF and 4.5 % of TLOF in the alternative scenario.

[9] The SRB network model derives bank-specific recovery rates in insolvency. The disposal value is computed with different strategies, depending on the type of asset, e.g. for marketable assets the disposal value is estimated taking into account the market impact of liquidating the portfolio while for non-marketable assets, disposal value is obtained by applying haircuts to the gross or net carrying amounts in the balance sheet. To determine market impact functions and haircuts, several data sources are employed, including World Bank for loan recovery rates and data from valuation 2 reports of past resolution cases.

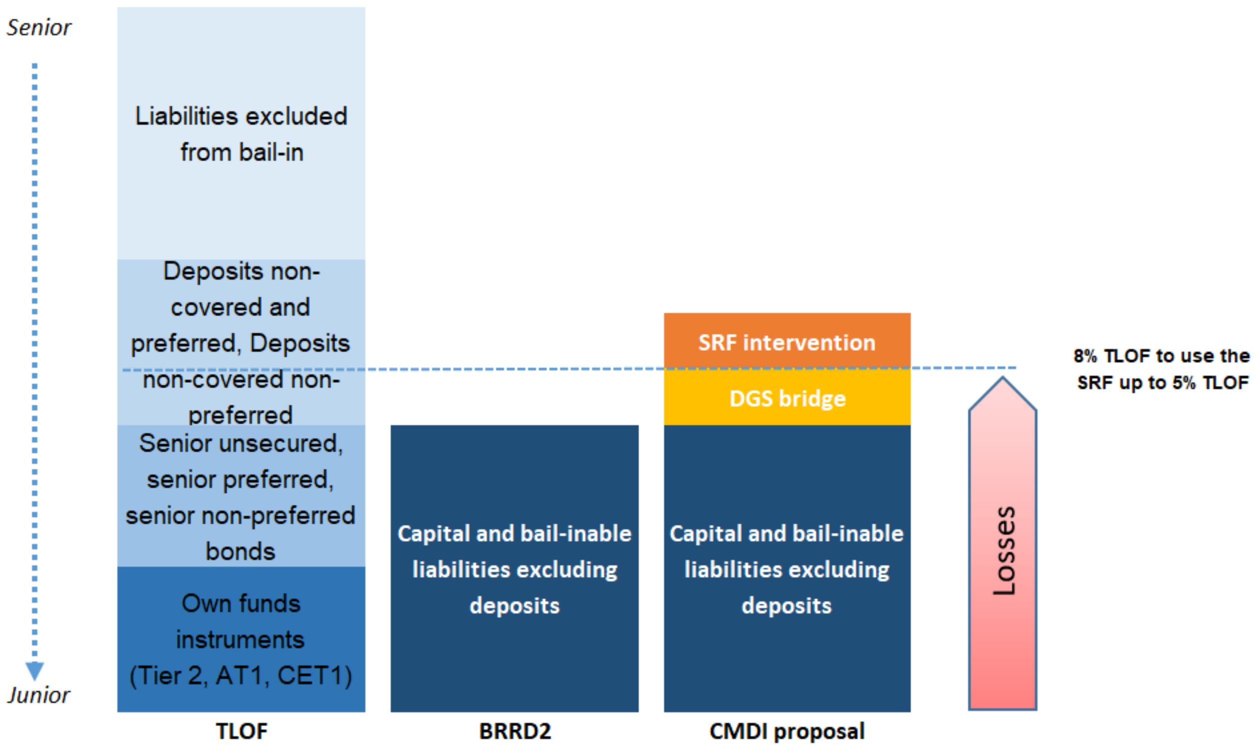
[10] This consideration is also highlighted by European Commission (2023), EBA (2021) or Eule et al (2022). In all these studies, a disclaimer suggests the need to be mindful of the high case-sensitive nature of recovery rates when carrying out a horizontal impact assessment on the LCT.

the PIA and the number of banks which could benefit from the DGS bridge in resolution. And vice-versa for the higher the recovery rate on assets.

3.2 DGS bridge and funding needs

The DGS 'bridge function' (Article 109 BRRD/Article 79 SRMR) introduced in the Commission's proposal will serve a crucial role in facilitating access to sufficient funding for a more significant number of banks with positive PIA, ensuring the resolution objectives can be achieved (Figure 3). This bridge function comes into play in specific cases where the MREL during a crisis is insufficient to reach bail-in of 8 % TLOF to meet the conditions for accessing the SRF. It is subject to rigorous safeguards and is exclusively accessible to banks not designated for liquidation. Several key elements are outlined below to assess the DGS bridge and the resulting funding requirements.

Figure 3: Use of the DGS bridge in the CMDI proposal



Source: Authors

Note: The size of different types of instruments is only illustrative. The left bar provides an overview of the loss absorption hierarchy. The second and the third bars depict how DGS funds can be used in resolution in order to ensure compliance with the 8 % TLOF requirement for accessing the SRF ('bridge function'), and is limited to the amount necessary to meet the 8 % TLOF. Subject to strict safeguards, the DGS bridge is applicable for transfer strategies only (where non-covered deposits are included in the transfer), leading to market exit. The liabilities excluded from bail-in referred in the left stack include covered deposits and secured liabilities.

Least cost test

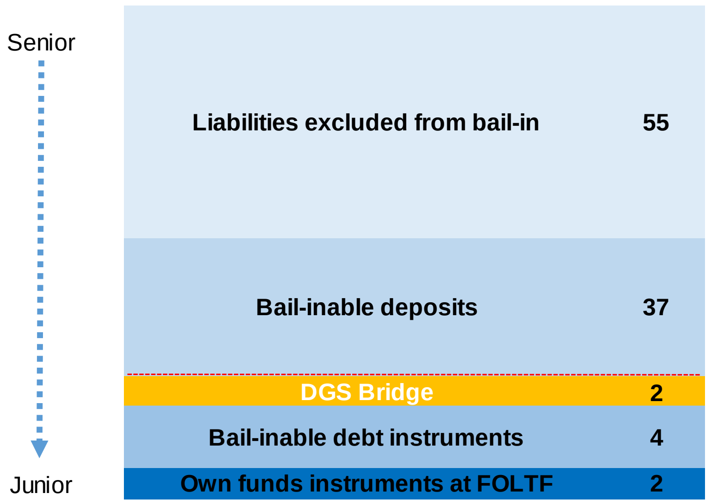
The LCT allows for the potential use of DGS funds in resolution to meet the 8 % TLOF requirement, provided that DGS losses are lower than those incurred under an insolvency scenario. The LCT calculation involves the difference between the DGS's net cost of intervention in resolution and the DGS's net cost of payout in an insolvency counterfactual.

To compute the LCT, several simplified assumptions were considered, namely:

- In resolution, the DGS's net cost of intervention represents the funding needed to meet the 8 % TLOF requirement (as shown in Figure 4) after the exclusion of deposits from loss absorption. This simulation excludes post-intervention recoveries, such as interest, as well as other administrative and operational costs.
- In insolvency, the DGS's net cost is determined by the maximum losses on the payout of covered deposits. Hence, the DGS's net cost of payout in an insolvency counterfactual accounts for the total gross payout by the DGS in insolvency, minus any recoveries in insolvency relative to the DGS's position in the hierarchy of claims. This simulation also excludes post-intervention recoveries, such as interest, as well as other administrative and operational costs.

When comparing the DGS costs in the two alternative scenarios of liquidation and resolution, the more cost-effective solution is the one that passes the least cost test and can be implemented.

Figure 4: Use of the DGS funds to reach the 8 % TLOF[11] for a bank's stylised balance sheet



Source: Authors.

Note: The size of different types of instruments is purely illustrative.

[11] As per the legislation, the bail-in of at least 8 % of TLOF is a pre-condition for accessing the Single Resolution Fund. The amount of the 8 % must be calculated at the time of the resolution action in accordance with the valuation carried out pursuant to Article 20 SRMR. The limit of 5 % of TLOF of the institutions under resolution applies. Beyond this limit, if there are further losses, other liabilities should be bailed-in, excluding deposits.

Use of the Single Resolution Fund

SRF is a fund that can be called upon in times of crisis. It can be used to ensure the efficient application of resolution tools for resolving the failing banks after other options, such as the bail-in tool, have been exhausted (8 % TLOF). The availability of SRF funds is subject to restrictions. The critical condition for accessing these arrangements is the prior write down and conversion of a minimum of 8 % of the bank's total liabilities, including own funds, during the resolution process. The MREL under the BRRD is designed to ensure that banks maintain enough loss-absorbing capacity, which facilitates bail-in and helps meet this condition. Secondly, the funding for an individual case is capped at 5 % of the bank's total liabilities and own funds. The analysis assumes both conditions apply when analysing the impact of the CMDI proposal on funding and on the SRF.

Assumption of a transfer strategy

There are four resolution tools at the disposal of the resolution authority.[12] In line with the CMDI proposal, only the application of the transfer tool[13] can benefit from the DGS bridge to reach resolution funding.

In the annual resolution planning process, the preferred resolution tool is defined for every point of entry. Across the SRB banks and LSIs, there is a prevalence of the use of bail-in as the preferred resolution strategy, followed by sale of business[14] .

Nevertheless, a conservative approach is taken in this paper with respect to the possible costs of the introduction of the DGS bridge and all resolution entities are considered for the application of the DGS bridge. This is for the sake of keeping the sample sufficiently large but also to recognise that the decision on the appropriate resolution action could change according to the circumstances.

3.3 Public Interest Assessment

The PIA determines whether a resolution action is necessary in the public interest. This assessment requires a comparison between resolution and insolvency to determine which procedure better achieves the five resolution objectives as defined by the BRRD and SRMR[15].

---

[12] Bail-in, sale of business (assets/share), bridge institution, asset separation.

[13] Sale of business and the bridge institution tools, also in combination with the asset separation tool.

[14] For SRB banks, bail-in remains the preferred resolution tool for 82 % of the plans vis-à-vis 18 % SoB while for LSIs, 57 % and 43 %, respectively.

[15] Resolution objective 1: to ensure the continuity of critical functions; Resolution objective 2: to avoid significant adverse effects on financial stability, in particular by preventing contagion, including for market infrastructures, and by maintaining market discipline; Resolution objective 3: to protect public funds by minimising reliance on extraordinary public financial support; Resolution objective 4: to protect depositors covered by the Deposit Guarantee Scheme Directive (DGSD) and investors covered by the Investor

As one of the main goals of the CMDI proposal is to expand the scope of resolution entities, the Commission proposed amendments refining the PIA framework, including to some of resolution objectives.[16] More specifically:

- The impact/criticality of a bank's functions on financial stability will be assessed at regional level (and not only at national level), (Resolution objective 1, critical functions, Article 2(1)(35) BRRD);
- The scope of depositors to be considered for protection is broadened while at the same time ensuring that resolution must always be preferred if insolvency would be more costly for the DGS (Resolution objective 4, protection of depositors, Article 31(1) BRRD/Article 14(2) SRMR);
- The introduction of a preference for resolution instead of liquidation under NIP. The latter should be considered as the preferred strategy only when it is proved that it meets the resolution objectives more efficiently (and not anymore to the same extent) than resolution (Article 32(5) BRRD/Article 18(5) SRMR). Moreover, in any case resolution authorities maintain a certain degree of discretion in each bank assessment.

Critical functions at regional level

The methodology used in this study to assess the impact of the CMDI proposal on the CFs is based on the two underlying assumptions:

- Banks operating at national level with no critical functions would not be affected. The change of the definition with respect to regional banks is not going to affect the criticality assessments for non-regional banks.
- Given the absence of banks data on deposits and loans at regional level, the assessment is based on the assumption that in most of the cases, the inter-regional distribution or weight of deposits and loans within a given county is the same as observed at national level. The focus is only on the deposit and lending activities as these functions are assumed to be the most relevant for banks operating at regional level, notably the LSIs.

Compensation Scheme Directive (ICSD); Resolution objective 5: to protect client funds and client assets. The SRB and NRAs will seek to minimise the cost of resolution and avoid destruction of value.

[16] In addition to Resolution objective 1 and 4 the Commission proposal envisages legislative changes to the Resolution objective 3, which is not part of the quantitative analysis included in this paper: resolution authorities are required to compare all extraordinary public financial support that can reasonably be expected to be provided in either case. If liquidation aid is expected, this should lead to a positive PIA outcome and trigger resolution (Article 32(5) BRRD/Article 18(5) SRMR).

The methodology applied consists of three main steps:

The first one is to calculate the ratio of the regional GDP over the national one. GDP data at NUTS 2[17] region were used to ensure a consistent approach to the definition of regions (see Box 1 for the NUTS classification);

The second one is to compute the ratio between institutions' deposits and loans to total deposits and loans of all banks operating in a given country;

The third step assumes that the bank's activities are concentrated in the main region (defined at NUTS 2) where it operates. Then, the ratios obtained in step 2 are compared to the ratio derived in step 1.

Box 1: Regions by NUTS

As part of the regional policy of the EU, EUROSTAT defined Nomenclature of territorial units for statistics (NUTS), which represents a geographical definition dividing the EU economic territory into regions at 3 different levels (NUTS 1, 2 and 3, moving from larger to smaller territorial units). NUTS definition takes into account population thresholds (Table 1) as well as it favours existing administrative divisions.

The EU regional policy is applied at NUTS 0 – NUTS 2 level, where also Eurostat collects main macroeconomic data points. This paper therefore considers NUTS 2 level for the CMDI proposal. The authors believe that this represents the lowest level where financial stability impacts from the discontinuity of a function could be reasonably measured.

Simplified scheme	
NUTS 0	Country
NUTS 1	Major socio-economic regions
NUTS 2	Sub socio-economic regions
NUTS 3	Local/Cities

Level	Minimum	Maximum
NUTS 1	3 000 000	7 000 000
NUTS 2	800 000	3 000 000
NUTS 3	150 000	800 000

Source: Authors based on EUROSTAT NUTS criteria

[17] As part of the regional policy of the EU, EUROSTAT defined Nomenclature of territorial units for statistics (NUTS) which represents a geographical definition dividing the EU economic territory into regions at 3 different levels (NUTS 1, 2 and 3, moving from larger to smaller territorial units). For details see Box 1.

If the derived ratio is higher or equal to 10 % of the regional GDP ratio, it is assumed that the discontinuity of this function would have a negative effect on financial stability in the given region. Against this background, these banks were considered providing critical function at regional level.

Protection of depositors

The proposed changes to the resolution objective of protection of depositors (Resolution objective 4) have been interpreted with the following two interlinked assumptions:

- Protection of all depositors: in case any depositor would not recover all its deposits in liquidation, it is considered to be better-off in resolution;
- Cost minimisation criteria for DGS: in case the DGS has lower costs (lower payouts) in resolution then in liquidation, the resolution is a preferred option.

The two subconditions need to be achieved at the same time in order to consider this resolution objective at risk. In case only one of the subconditions is met, this resolution objective is not considered at risk in liquidation.

Comparison between liquidation and resolution

The PIA is a relative assessment, where the resolution authority compares the outcome of the liquidation under national insolvency proceedings to the outcome of the resolution action. The CMDI proposal introduces a change for the PIA where the resolution authority would be able to choose liquidation under national insolvency proceedings as the preferred strategy only when the liquidation achieves the framework's objectives better than resolution. In other words, it would have to show that resolution is not in the public interest. For comparison, the current framework requires the resolution authority to choose liquidation if it achieves the framework's objectives at least to the same extent and the burden of proof for the resolution authorities is to show that resolution is in the public interest.

An important assumption of this study is that banks under simplified obligations would continue to be earmarked for liquidation given their characteristics as explained in Box 2.

All the banks under Simplified Obligations (SO) are earmarked for liquidation. Out of 2033 LSIs for which a resolution plan is required[18], around 1 900 banks are considered to be under SO according to the results of the eligibility assessment performed by resolution authorities in line with the EU Commission Delegated Regulation 2019/348 (box 2). Considering their simplified structure, business model, very low size (around 90 % of the banks has total assets below EUR 5bn and 54 % below EUR 1bn), reduced risk profile and the absence of critical functions, it seems justified to exclude banks under SO from the scope of this impact assessment since the rationale of the CMDI proposal relate to "banks too big to be liquidated and at the same

[18] SRB report on smaller banks: https://www.srb.europa.eu/system/files/media/document/2023-10-03_LSI-Small-and-medium-sized-banks-2022-2023.pdf

time too small to be resolved". In other words, the scope of the proposal does not concern banks under SO because of their features.

Box 2: Banks under Simplified Obligations

According to Article 4(1) of the BRRD, a bank may be eligible for simplified obligations whenever the relevant resolution authority assesses that its failure and subsequent liquidation under NIP would not have a significant negative effect on financial markets, on other institutions, on funding conditions or on the wider economy.

The simplified obligations eligibility assessment is performed on a regular basis, at least every two years, and follows a two-step approach as outlined in the Commission Delegated Regulation 2019/348 ("DR"). Firstly, a quantitative assessment is carried out according to a number of criteria (i.e. size of the bank, interconnectedness, scope and complexity of activities, nature of business) and indicators which are also used for determining the other systemically important institutions (O-SIIs) score. Secondly, a qualitative assessment is performed, if needed, based on a set of qualitative considerations referred to in Article 2 of the DR.

The RA may apply simplified obligations in different ways by streamlining the contents of resolution plans, lowering the frequency for updating resolution plans, reducing the reporting requirements and/or decreasing the level of details required for the resolvability assessment.

The level of simplification applied to a bank eligible for SO is determined by the RA considering several factors (e.g. size, interconnectedness, scope and complexity of activities, risk profile, legal status, nature of business, shareholding structure, legal form and the participation of an institution in an IPS or other mutual solidarity system), in line with the EBA Guidelines on the application of SO.

3.4 Net costs for the DGSs continuing to perform their payout function in insolvency

The methodology used to assess the impact of the CMDI amendments in terms of the additional net costs[19] expected to be borne by the DGSs, in cases where the DGS will continue to perform its payout function in liquidation, relies on the following assumptions:

[19] Net costs are here referred as the costs for the DGS, taking into account the funds recovered through the liquidation of the failed bank, following the pay-out of the covered depositors – i.e. depositors that are protected by DGS.

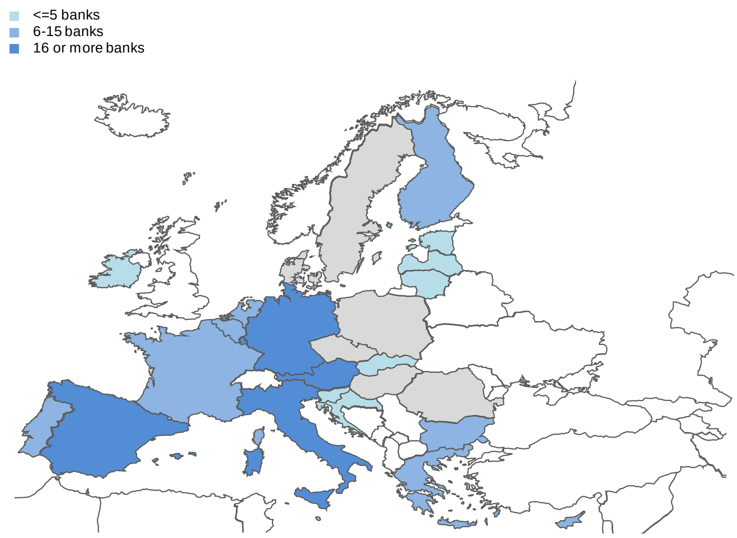
- The sample of the banks reviewed is composed of the sample of SIs and LSIs currently earmarked for liquidation (except those under SO, as mentioned above) reduced by the banks for which the PIA is expected to change from negative to positive (e.g. resolution) based on the methodology described in the previous subsections of this paper:
- In the case of entities that would still be expected to be liquidated under NIP, the liability side of the balance sheet of the bank is expected to reflect the capital depletion that would occur as described in the sections above in order to simulate the situation of the bank in the run up to FOLTF;
- The costs for the DGS are estimated assuming the standard recovery rate of 85 % of the value of the assets at time of FOLTF described previously in this paper, as well as a general depositor preference in all Member States in line with the European Commission’s proposal;
- The net costs for a DGS following a payout of covered depositors are then estimated and expressed as the difference between the net costs under a baseline scenario (the current situation) and a simulated “post CMDI scenario”. The baseline scenario reflects the existing tiering of depositors’ claims in insolvency, whilst the latter scenario simulates the new situation following the implementation of the CMDI review.

4. Sample and data

4.1 Sample

The sample of banks in the analysis includes 204 institutions domiciled in the BU which were part of the 2022 resolution planning cycle.[20] More specifically, the sample covers 92 banks under the SRB's remit (SRB banks) as well as 112 banks under the remit of NRAs' (LSIs) irrespective of their preferred resolution strategy. The sample includes 142 banks that are earmarked for resolution as well as 62 banks earmarked for liquidation. They are located across all 21 BU countries (Figure 5).

Figure 5: Sample by Member State and by type of bank



Type of banks	Resolution	Liquidation
SRB banks	83	9
LSIs	59	53
Total	142	62

Source: Authors based on 2022 Resolution Planning Cycle

The following group entities were considered: for resolution groups, the entity considered for the sample was the point of entry[21], as in the event of a failure, only the resolution entity POE would be subject to a resolution

[20] The resolution planning cycle (hereinafter, RPC) is an annual process leading to the approval of the updated resolution plan for each SRB bank. It includes the preferred resolution strategy, minimum requirements for own funds and eligible liabilities (MREL) and resolvability assessment. It implements the requirements for the resolution planning of banks under direct remit of the SRB laid down in the SRMR and BRRD.

[21] An important consideration in resolution planning is the decision between Single Point of Entry (hereinafter, SPE) and Multiple Point of Entry (hereinafter, MPE), the decision for one of the two largely depends on the business model of the bank under consideration. SPE

action (e.g. bail-in, access to external funding, etc.). All POEs located in the BU were included in the analysis.[22] For the liquidation groups, despite not having a defined POE, the entity recognised as the parent entity within the resolution perimeter was considered in the sample.

Liquidation entities subject to Simplified Obligation[23] regime are not reported in the sample. This affects around 1 900 BU entities, which are in large part public promotional banks, cooperative and savings banks (the latter two are often part of IPS) and have total assets below EUR 5bn (around 90 % of the SO entities). Across the paper, they are assumed to continue to be earmarked for liquidation. Furthermore, for the assessment of DGS costs in liquidation, these banks have been excluded from the analysis, due to the limited amount of data reported by banks under SO.

Table 2: Sample by size (Total Assets) and type of bank

Type of banks	Total Assets below EUR 5 bn	Total Assets EUR [5 bn – 10 bn]	Total Assets EUR [10 bn – 30 bn]	Total Assets EUR [30 bn – 300 bn]	Total Assets above EUR 300 bn	Total
SRB nanks	**6**	**5**	**14**	**49**	**18**	**92**
LSIs	**49**	**29**	**32**	**2**	**0**	**112**
Total	**55**	**34**	**46**	**51**	**18**	**204**

Source: Authors based on 2022 Resolution Planning Cycle and supervisory data

The sample banks differ in terms of size (Table 2). Moreover, their funding structure composition also varies, especially regarding their reliance on deposits and equity for potential bail-in. A more significant dependency on deposits is linked to the smaller size of the banks (Table 3).

entails the application of resolution powers at the parent level by a resolution authority. Under SPE, the bank is resolved as a group and the parent absorbs group losses. Under an SPE approach, only the resolution entity, i.e. the parent company, will be the direct target of resolution powers, and operational subsidiaries are preserved and would not themselves be subject to resolution. An MPE resolution strategy is an approach in which resolution powers are applied by resolution authorities to different parts of the group. Under the MPE strategy, parts of the group could be separated in resolution and losses are absorbed by the relevant subsidiaries.

[22] It follows that for banking groups with MPE resolution strategies, all POE within the BU were included and those outside of the BU were not included. Along the same lines, group entities located in the BU but with the POE outside of the BU were excluded. This refers to non-BU EU banks (“host cases”) as well as EU-based subsidiaries of third countries (“non-EU subsidiaries”).

[23] Simplified Obligation (Art.4(1) BRRD) and eligibility assessment as per Delegated Regulation 2019/348.

Table 3: Selected metrics by type of bank

Type of banks	Average Total Deposits/Total Assets	Average CET1/Total Assets	Average Covered Deposits as % of Covered and Uncovered deposits	Average Uncovered Deposits as % of Covered and Uncovered deposits
SRB banks	**47%**	**8%**	**47%**	**53%**
Resolution	47%	8%	47%	53%
Liquidation	34%	8%	47%	53%
LSIs	**58%**	**8%**	**48%**	**52%**
Resolution	55%	7%	54%	46%
Liquidation	65%	9%	38%	62%

Source: Authors based on 2022 Resolution Planning Cycle and supervisory data

4.2 Data

The analysis uses data from the supervisory reports (FINREP and COREP) and resolution reports (Liability data reporting and additional resolution data reporting, RESOL)[24] with reference date 31 December 2022, the latest available data for all the reports when writing this paper. The data are taken at individual level, whenever available. For cooperatives groups, the analysis is done at the 'Consolidated POE' level. For the liquidation entities, data are taken at the individual level or at consolidated level if the individual level is not available.

For some specific analysis, the supervisory and resolution data are complemented with other datasets, in particular ECB and EUROSTAT data. More specifically, the source of deposits and loans (at Member State and bank level) data is the European Central Bank statistics, while data on national and regional (NUTS 2) GDP were taken from Eurostat (contrary to other data, GDP data with reference to December 2021 are used, as regional GDP for end of 2022 were not available when the analysis was conducted).

[24] https://www.srb.europa.eu/en/content/reporting-0

5. Findings

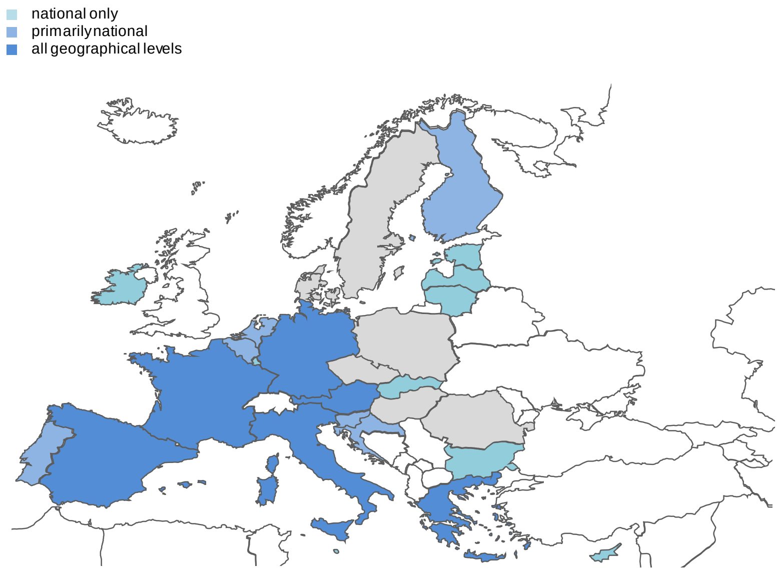
5.1 Changes to PIA: Identification of additional resolution banks

This section examines whether some banks currently earmarked for liquidation could be reasonably expected to be changing their preferred strategy to resolution, based on the changes to the PIA in the CMDI proposal. This assessment involves checking if banks operating at lower geographical level than national would have caused financial stability implications at the given region due to the discontinuity of their deposit and lending functions as well as testing whether the broader protection of depositors combined with the DGS cost-minimisation criterion would trigger further banks to change their preferred strategy to resolution.

Regional critical functions

The relevance of the CMDI proposal concerning regional critical functions differs across members of the BU, depending on the presence of banks operating at regional level in the individual MS. For instance, for a non-negligible number of MS, no regional banks are present (usually countries which are smaller in size). There is also a group of countries where the majority of the banking sector operates predominantly at the national level but a few regional banks are present. Finally, there are some MS where the banking sector is rather fragmented and several banks operate at different geographical levels, i.e. national, regional and local (Figure 6).

Figure 6: Presence of regional banks by MS



Source: Authors' compilation based on resolution plans

All banks reporting data at regional level are currently earmarked for resolution. According to a preliminary analysis conducted on the basis of the information provided by the banks through the Critical Function Report (CFRs) in 2023, it emerges that nine SRB banks established in three MS and four LSIs from two MS reported CFs at regional level. As all these banks are already earmarked for resolution due to the expected impact on financial stability as a consequence of their failure, these institutions are not affected by the PIA changes envisaged in the CMDI proposed enhancement. In addition, there are no SRB banks earmarked for liquidation operating at regional level.

The proposed change of definition of critical functions would trigger a small number of banks to switch to positive PIA. Based on the methodology described in the methodological section, only two credit institutions established in a single MS currently earmarked for liquidation are expected to switch to resolution.

Broader protection of deposits and DGS costs minimisation

This section takes into account the expansion proposed for the resolution objective of protection of deposits. It was quantified in the following way: banks where depositors would suffer losses in liquidation and in which, at the same time the cost for DGS would be lower in resolution than in liquidation, would have the resolution objective of depositor protection at risk and thereby a positive PIA.

Based on the above assumptions, 26 additional banks (out of 62 earmarked for liquidation) could have their PIA changed from negative to positive. This includes one additional SRB Bank and 25 additional LSIs. These banks are located in 12 different BU Member States.

As highlighted in the methodological section, the two conditions need to be met at the same time in order to consider the resolution objective at risk in this analysis. If considered in isolation, a higher number of banks would be likely changing the outcome of their PIA. More specifically, 38 banks fulfil the first subcondition (e.g. 4 additional SRB banks and 34 additional LSIs), while 47 banks fulfil the second subcondition (e.g. 6 additional SRB banks and 41 additional LSIs). If the two subconditions are considered jointly, the number of banks are reduced to 26 additional banks, as reported above.

Banks with positive PIA

The PIA is considered positive if any of the resolution objectives are considered at risk. The CMDI proposal provides for an expansion of two resolution objectives, namely the critical functions (resolution objective 1) and protection of deposits (resolution objective 4). From the performed analysis, it is evident that the changes to the PIA outcome seem to be driven primarily by the broadening of the resolution objective of the protection of deposits (Table 4). Moreover, there is an overlap for the two banks concerned for the change of the first resolution objective, as they are also expected to have the fourth resolution objective at risk.

These conclusions have been driven only for the purpose of assessing the effects of the Commission proposal. It has to be highlighted that the PIA outcome is a discretionary decision of the resolution authority and the quantification proposed in this paper does not preclude any future decision of the responsible resolution authority.

Table 4: Number of banks changing PIA by BU Member State

Type	MS1	MS2	MS3	MS4	MS5	MS6	MS7	MS8	MS9	MS10	MS11	MS12	Total
New RO1 (Regional CF)	2	0	0	0	0	0	0	0	0	0	0	0	**2**
New RO4	4	4	3	3	3	3	1	1	1	1	1	1	**26**
Total	4	4	3	3	3	3	1	1	1	1	1	1	**26**

Source: Authors' own calculations
Note: Given the overlap in the identified banks for the two resolution objectives, the overall numbers are identical with the list of banks for the proposed new RO4.

Looking at the identified additional resolution banks, the majority of them could be classified as small and medium sized banks, in line with the objectives of the CMDI proposal (Table 5). Moreover, they also show higher reliance on deposits for their funding structure. More specifically, total deposits as percentage of total assets represent, on average, around 68 %, while covered deposits represents 55 % of the total deposits.

Table 5: Additional resolution banks – Size

Total Assets	PIA change banks
Below EUR 10 bn	21
EUR [10-30] bn	3
EUR [30-100] bn	2
Total	26

Source: Authors' own calculations

5.2 Funding needs in resolution

This section examines whether banks can access resolution financing arrangements, specifically the SRF. This assessment involves checking if a bank has adequate internal resources in resolution to absorb losses equivalent to at least 8 % of the bank's TLOF. The analysis accomplishes this by calculating the ratio of liabilities that can be "bailed-in" (i.e., converted to equity or written down) to the bank's TLOF, under various scenarios related to capital availability and the range of liabilities that can be bailed in. It then identifies the banks that fall below the 8 % TLOF threshold.

Regarding the scope of liabilities that can be bailed in, two categories are considered, ranging from a broad to a more limited scope: (i) the bank's own funds and all liabilities that can be bailed in; (ii) the bank's own funds and liabilities that can be bailed in, excluding deposits, i.e. uncovered deposits that could be bailed-in. In terms of capital availability, the analysis explores a scenario in which the bank's equity buffers have been exhausted by the time the bank is declared FOLTF, as outlined in the methodology section.

Considering banks which are currently earmarked for resolution:

- If we assume CET1 capital as of end 2022 (i.e. no depletion at FOLTF), 9 banks, i.e. 2 SIs + 7 LSIs, had (at end-2022) a liability structure that would not allow them to reach the 8 % TLOF without bailing in deposits. These 9 banks are in 7 MS of the Banking Union. The median gap to reach 8 % TLOF is 0.81 % TLOF. For the 2 SIs the gap is 0.3 % TLOF; for the 7 LSIs, the median gap is 0.84 % TLOF;
- If we were to assume CET1 capital depletion as explained in the methodology section, 47 banks, i.e. 17 SIs + 30 LSIs, would not reach 8 % of TLOF without bailing in deposits. These 47 banks are located in 13 Member States of the Banking Union. The median gap to reach 8 % TLOF is 2.4 %. For the 17 SIs and 30 LSIs, the median gap is respectively 1.7 % and 3.1 % TLOF.

For the additional banks assumed to change preferred resolution strategy from liquidation to resolution based on the proposed change to the PIA (i.e. 26 banks, as per previous section):

- If we assume CET 1 capital as of end 2022 (i.e. no depletion at FOLTF), all additional banks had (at end 2022) a liability structure that would allow them to reach the 8 % TLOF without bailing in deposits;
- If we were to assume CET1 capital depletion, 19 additional resolution banks (out of the 26 additional resolution banks, based on SRB calculations), i.e. 1 SI + 18 LSIs, would not reach the 8 % TLOF without bailing in deposits. These banks are in 12 MS of the Banking Union. The median gap to reach 8 % TLOF for these banks is 2.2 % TLOF.

Table 6: Number of banks not reaching 8 % TLOF assuming deposits are excluded from bail-in (with capital buffers depleted/not depleted), resolution banks

Type	MS1	MS2	MS3	MS4	MS5	MS6	MS7	MS8	MS9	MS10	MS11	MS12	MS13	MS14	MS15	MS16	Total
Banks not reaching 8 % TLOF without deposits bail-in (no capital depletion)																	
SRB banks	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	**2**
LSIs	1	0	0	1	0	0	0	3	0	0	0	1	1	0	0	0	**7**
Total	1	0	0	1	1	0	1	3	0	0	0	1	1	0	0	0	**9**
PIA change banks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Type	MS1	MS2	MS3	MS4	MS5	MS6	MS7	MS8	MS9	MS10	MS11	MS12	MS13	MS14	MS15	MS16	Total
Banks not reaching 8 % TLOF without deposits bail-in (capital depletion)																	
SRB banks	3	1	2	0	2	0	1	1	2	0	0	0	0	0	0	6	**18**
LSIs	5	2	2	9	3	3	3	5	1	1	1	4	1	1	2	5	**48**
Total	8	3	4	9	5	3	4	6	3	1	1	4	1	1	2	11	**66**
PIA change banks	3	1	2	2	2	3	1	1	1	1	1	1	0	0	0	0	**19**

Source: Authors' own calculations

In summary, the findings for the resolution banks are heavily contingent on the level to which a bank's capital has been depleted during the run-up to the declaration of failure (FOLTF). Furthermore, the distribution of banks that fail to meet the 8 % TLOF requirement indicates that smaller and medium-sized banks are more likely to fall short, particularly if they rely heavily on deposits.

5.3 Impact on DGS and SRF

Access to the DGS

The main findings indicate that, as per the current creditor hierarchy, the DGS would be rarely able to intervene to support resolution entities falling below the 8 % TLOF without bailing-in deposits. Specifically, none of the banks unable to meet the 8 % TLOF threshold without bailing in non-covered deposits, regardless of the capital levels scenario, would have a positive LCT under the current depositor preference in the creditor hierarchy.

However, if a single-tier depositor preference were implemented, prioritising all deposits above other ordinary unsecured claims, more institutions could potentially receive DGS intervention to access the SRF without bail-in deposits. For the current resolution banks 36 out 47 banks (17 SRB banks + 19 LSIs) would have a positive LCT with a general depositor preference, enabling the use of DGS funds in resolution up to an amount that, together with the MREL requirement, would be equal to 8 % TLOF. For the additional banks assumed to have a positive PIA test, all 19 banks needing funding would have a positive LCT with a single tier and general depositor preference.

It is important to note that these results depend on assumed recovery rates in a hypothetical insolvency scenario and the assumption that non-covered deposits would not be bailed in. The results are based on an 85 % asset recovery rate under an insolvency scenario, and variations occur with different rates, such as 50 % or bank-specific recovery rates. A lower recovery rate in the NIP scenario leads to more positive LCT outcomes.

Costs for the DGS and SRF

Lastly, the economic impact on the DGS and the use of the SRF is quantified by country. The DGS cost in each country is calculated as the sum of the maximum disbursement required to bridge the gap to 8 % TLOF for all banks (both SRB and LSIs) falling short of the 8 % TLOF threshold without bailing-in non-covered deposits under the capital depletion scenario. This cost is expressed as a percentage of the AFM of the DGS as of end 2022. The DGS's capacity to support resolution depends on the relative sizes of the banks and the DGS, considering that banks are not expected to request DGS support simultaneously. For the 36 resolution banks that have a positive LCT, the median DGS contribution would correspond to 15 % of DGS AFM. For the additional 19 banks assumed to have a positive PIA, median DGS contribution would be 4 % of DGS AFM, lower than the banks currently earmarked for resolution, given the overall lower size (Table 7). It is worth noting that in Table 7 and Table 8 below the average values for DGS and SRF contributions are higher than the median due to the presence of few outliers. The latter is attributable to the characteristics and relative size of the national DGSs and the banking sector.

Table 7: Distribution of maximum disbursement for the DGSs use, resolution banks not reaching 8 % TLOF without deposits – depletion of buffers

DGS contribution as % of the AFM	Current resolution banks	Additional resolution banks	Overall
Quartile 1	9%	2%	3%
Median	15%	4%	9%
Average	40%	7%	25%
Quartile 3	31%	7%	24%

Source: Authors' own calculations

On the other hand, the theoretical cost of SRF intervention after the DGS covers the gap up to the 8 % TLOF involves computing the 5 % TLOF contributions from the same sample of banks mentioned earlier. For the 36 banks currently having a resolution strategy and positive LCT the maximum contribution required from the SRF for the median bank would be 1.6 % of the current SRF capacity. For the additional 19 banks assumed to have a positive PIA and a positive LCT the maximum contribution required from the SRF for the median bank would be 0.1 % of the current SRF capacity (Table 8).

Table 8: Distribution of maximum disbursement for the SRF use, resolution banks not reaching 8 % TLOF without deposits – depletion of buffers.

SRF contribution as % of SRF capacity	Current resolution banks	Additional resolution banks	Overall
Quartile 1	0.5%	0.1%	0.1%
Median	1.6%	0.1%	0.8%
Average	2.0%	0.5%	1.5%
Quartile 3	3.2%	0.5%	2.3%

Source: Authors' own calculations

5.4 Additional costs for the DGSs continuing to perform a payout function in insolvency

Ceteris paribus among the factors that are impacted by the EC's commission legislative proposal, the creditor hierarchy is a key parameter for determining the net cost of a DGS payout. A higher position of the DGS's claims in the creditor hierarchy after a payout of the covered depositors for the failed bank entail higher recoveries for the DGS, and thus lower net costs to be borne by the DGS. DGSs' claims benefit from a super-priority in the creditor hierarchy, ranking above all non-covered deposits and ordinary unsecured liabilities. Ranking DGS claims as uncovered deposits (*pari passu*), therefore, may increase the DGS's potential exposure from a bank's failure.

Based on the estimations performed on the banks that would continue to be earmarked for liquidation, the removal of the DGS' super priority, with the adoption of a general depositor preference instead, is expected to lead to only marginal increases in the cost borne by DGSs following the liquidation of a bank under NIP. For the set of liquidation entities in the sample, the additional net costs for the DGS to liquidate a bank would amount to EUR 11.2 million on average, and 4.7 % of the DGS' Available Financial Means on average. It is to be highlighted that the average is largely driven by a single SI as the values reported in the tables below show that the median impacts are nil, whilst the averages impacts are higher. It follows that the shift to a single tier would lead to losses to DGSs that are manageable, and nil for most of the individual banks reviewed (Tables 9 and 10). These results appear to be driven by the relatively small balance sheet size and therefore low absolute amount of covered deposits of the banks affected. This is also driven by the fact that, under a depositors single tier, covered depositors would still maintain a relatively high position in the creditor hierarchy (above bail-inable debt instruments and own funds instruments). The fact that for many of those banks the portion of non-covered deposits over the total deposits is not pronounced also contribute to maintain the impacts limited.

Tables 9 and 10: Distribution of potential increases in net costs to be borne by DGSs expressed in nominal amounts and as % of DGS' AFM for banks remaining under liquidation following the broadening the PIA scope

Increase in the costs for DGS expressed as % of AFM	SRB banks	LSIs	Overall
Quartile 1	0%	0%	0%
Median	0%	0%	0%
Average	18.6%	0.7%	4.7%
Quartile 3	5.9%	0.5%	0.7%

Increase in the costs for DGS expressed as EUR million	SRB banks	LSIs	Overall
Quartile 1	0	0	0
Median	0	0	0
Average	37.4	3.9	11.2
Quartile 3	52.4	2.2	5.2

Source: Authors' own calculations.

Note: For the data sources and main methodological assumptions used to carry out the analysis, please refer to section 3 of this report.

6. Conclusions

This paper provides a comprehensive quantitative assessment of the expected impact of three specific elements included in the Commission's CMDI proposal. Firstly, the proposed amendments slightly broaden the scope of the PIA framework which are likely to change strategy for some banks from liquidation to resolution. Secondly, the effects of the use of the DGS bridge in resolution on the costs of DGS and of the SRF, mainly for the small and medium banks. Thirdly, the impact of modifying the depositor-creditor hierarchy on the DGS costs for the banks which would remain for liquidation.

All in all, the quantitative assessment of the elements described in this paper shows that the Commission's proposal provides a balanced and feasible approach which can bring a broader range of small and medium-sized banks, where warranted, under the resolution framework. The proposal provides for sufficient funding for the resolution action through a more effective use of industry-funded safety nets so as to shield depositors from losses, in particular when this would have detrimental effects for financial stability and depositors' confidence. At the same time, the additional costs for industry payed funds, i.e. the national DGS and the Single Resolution Fund, appear to be manageable.

More specifically, concerning the objective to broaden the PIA scope, the proposed changes seem to be addressing the intentions behind the CMDI proposal. This implies that only relevant small and medium-sized banks currently earmarked for liquidation will likely change to resolution.

Concerning the issues of funding in resolution, the analysis shows that the proposed changes in creditors' hierarchy (single-tier) and the use of DGS as a bridge would help banks relevant for resolution with funding need to reach the 8 % TLOF requirement without bailing-in deposits, on a case-by-case basis. The additional costs for the industry-funded means are estimated to be limited, given also that MREL always remains the first line of defence.

Finally, regarding the use of DGS and SRF, the quantitative analysis highlights that the CMDI proposal would not excessively weigh in on DGSs or the SRF. The impact assessment shows that authorities would be able to bring additional relevant banks under resolution in the public interest with limited additional costs for the industry-funded means. On a similar note, only marginal increases are expected for the costs that the industry would continue to bear following the liquidation of banks under NIP. In conclusion, the impact assessment shows that the Commission proposal strikes a good balance between ensuring that banks can be resolved without use of public money and limiting the additional burden for industry-funded means.

7. References

Avgouleas et al.(2023), "*Reform of the CMDI framework that supports completion of the Banking Union*", IPOL In-depth analysis paper, n. 741516, Economic Governance and EMU Scrutiny Unit (EGOV), Directorate-General for Internal Policies, European Parliament, May, available here.

Beck, T., Krahnen, J.-P., Martin, P., Mayer, F., Pisani-Ferry, J. Tröger, T. Weder di Mauro, B. Véron, N. and J. Zettelmeyer (2022), *"Completing Europe's banking union: economic requirements and legal conditions"* Policy Contribution 20/2022, Bruegel, available here.

EBA (2021), "*Call for advice regarding funding in resolution and insolvency part of the review of the crisis management and deposit insurance framework*" downloadable here, October 2021.

Eule J., W. Kastelein and E. Sala (2022), "*Protecting depositors and saving Money. Why deposit guarantee schemes in the EU should be able to support transfers of assets and liabilities when a bank fails",* ECB Occasional Paper, No 308, October 2022 revised June 2023

European Commission (EC) (2021), "*Targeted consultation on the review of the crisis management and deposit insurance framework*", January.

European Commission (2023), *"Commission Staff Working Document Impact Assessment Report Accompanying the amendments to the CMDI framework"*, downloadable here, April 2023.

European Commission Press Release (2023), *"Banking Union: Commission proposes reform of bank crisis management and deposit insurance framework"*, 18 April 2023.

European Commission Press Release (2023), *"Questions and Answers: Reform of bank crisis management and deposit insurance framework"*, 18 April 2023.

Garicano L (2020), *"Two proposals to resurrect the Banking Union: the Safe Portfolio Approach and SRB"*, paper prepared for ECB conference on "Fiscal policy and EMU governance", Frankfurt, 19 December.

König E. (2021), *"The crisis management framework for banks in the EU: what can be done with small and medium-sized banks"*, keynote speech at the Banca d'Italia workshop on the crisis management framework for banks in the EU, 15 January.

Restoy F. (2021), *"How to improve funding of bank resolution in the banking union: the role of deposit insurance"*, speech provided at 2021 Biennial International Association of Deposit Insurers Research Conference "Navigating the New Normal for Financial Stability, Deposit Insurance and Bank Resolution", Basel, May.

Spitzer, K.G., Grigaitè, K. and M. Magnus (2023), *"To resolve, or not to resolve a bank? Options for framing bank resolution vs. insolvency"*, Briefing, European Parliament, Economic Governance and EMU Scrutiny Unit (EGOV), Directorate-General for Internal Policies, February, available here.

Spitzer, K.G., Magnus, M. and K. Grigaitè (2023), *“Progress on the Banking Union? On current plans for crisis management reform”*, Briefing, European Parliament, Economic Governance and EMU Scrutiny, Unit (EGOV), Directorate-General for Internal Policies, January, available here.

Trapanese M., Bellacci S., Bofondi M., De Martino G., Laviola S. and Vacca V. (2023) *“The interplay between large banks’ prudential and resolution frameworks: do we need further improvements?”* Questioni di Economia e Finanza (occasiona paper), Banca d’Italia, 807, available here.

Visco I. (2021), *"The crisis management framework for banks in the EU. How can we deal with the crisis of small and medium-sized banks?"* Welcome address at the Banca d’Italia workshop on the crisis management framework for banks in the EU, 15 January.

8. Annexes

8.1 Annex 1 - Glossary

Covered deposits: These are the part of eligible deposits that does not exceed the coverage level of EUR 100 000 for each depositor (Article 2(1)(5) DGSD), with the exclusion of temporary high balances (Article 6(2) DGSD). It follows that covered deposits include deposits by households, small and medium-sized enterprises (SMEs) as well as corporates.[25] Subject to a derogation exercised by individual BU Member States, deposits by personal pension schemes and occupational pension schemes of SMEs and deposits held by local authorities with an annual budget of up to EUR 500 000 could be considered as covered deposits (Article 5(2) DGSD). The resolution authority shall not exercise the write down or conversion powers in relation to covered deposits (Article 44(2)(a) BRRD).

Non-covered but preferential deposits: These are deposits that do not qualify for exclusion from bail-in, but for which a preferential treatment is foreseen (Article 108 BRRD). This type of deposits covers the part of DGS eligible deposits from households (natural persons) and micro, small and medium-sized enterprises which do not qualify as covered deposits.

Non-covered non-preferential deposits: These are deposits that do not qualify for exclusion from bail-in or preferential treatment (Article 44(2)(a) and Article 108 BRRD). This type of deposits covers the part of DGS non-eligible deposits from corporates as well as from sectors subject to the relevant derogation which do not qualify as covered deposits. Furthermore, it covers also all DGS non-eligible deposits, namely deposits from credit institutions, other financial corporations as well as public authorities, which are excluded from any repayment by a DGS.

DGS eligible deposits: These are all deposits, which are not excluded from protection by DGS (Article 5 DGSD). DGS eligible deposits include deposits by households, SMEs as well as corporates, while deposits by credit institutions, other financial corporations (incl. insurance firms and pension funds) as well as public authorities (government, central banks and supranational) are excluded from any repayment by a DGS, unless a derogation up to the coverage level of EUR 100 000 for each depositor was exercised by individual BU Member States with respect to deposits by personal pension schemes and occupational pension schemes of SMEs and deposits held by local authorities with an annual budget of up to EUR 500 000 (Article 5(2) DGSD).

---

[25] Corporations and quasi-corporations not engaged in financial intermediation but rather in the production of market goods and non-financial services according to the ECB BSI Regulation, and excluding SMEs.

Bail-inable deposits: These are all deposits with the exception of covered deposits. Covered deposits qualify for exclusion from bail-in (Article 44(2)(a) BRRD).

MREL eligible deposits: Non-covered non-preferred deposits may count towards MREL if they have a maturity of at least one year (and meet all other applicable MREL criteria). However, some non-covered non-preferred deposits may have an early redemption clause that needs to be taken into account in the maturity assessment for MREL eligibility purposes. If there is any opportunity for the owner to withdraw the non-covered non-preferred deposit with less than one year's notice (regardless of whether penalties apply), the SRB will not recognise it as eligible for MREL purposes.

DGS super-preference/DGS super-priority: This refers to the situation where DGS claims have the same priority ranking to covered deposits in the creditor hierarchy, which is senior to all other deposits (Article 108(b) BRRD).

General depositor preference: This refers to the situation, where all types of deposits have a ranking in the creditor hierarchy which is senior to ordinary unsecured claims. This is being proposed by the EC in the CMDI proposal.

Single tier depositor hierarchy: This refers to the situation, where all types of deposits have the same rank in the creditor hierarchy. This is being proposed by the EC in the CMDI proposal.

Three tier depositor hierarchy: This refers to the situation, where there are three different ranks for deposits in the creditor hierarchy, with the covered deposits (and DGS claims) benefiting from the super-priority, followed by non-covered but preferential deposits and with non-covered non-preferred deposits being the most junior from all deposits (Article 108 BRRD).

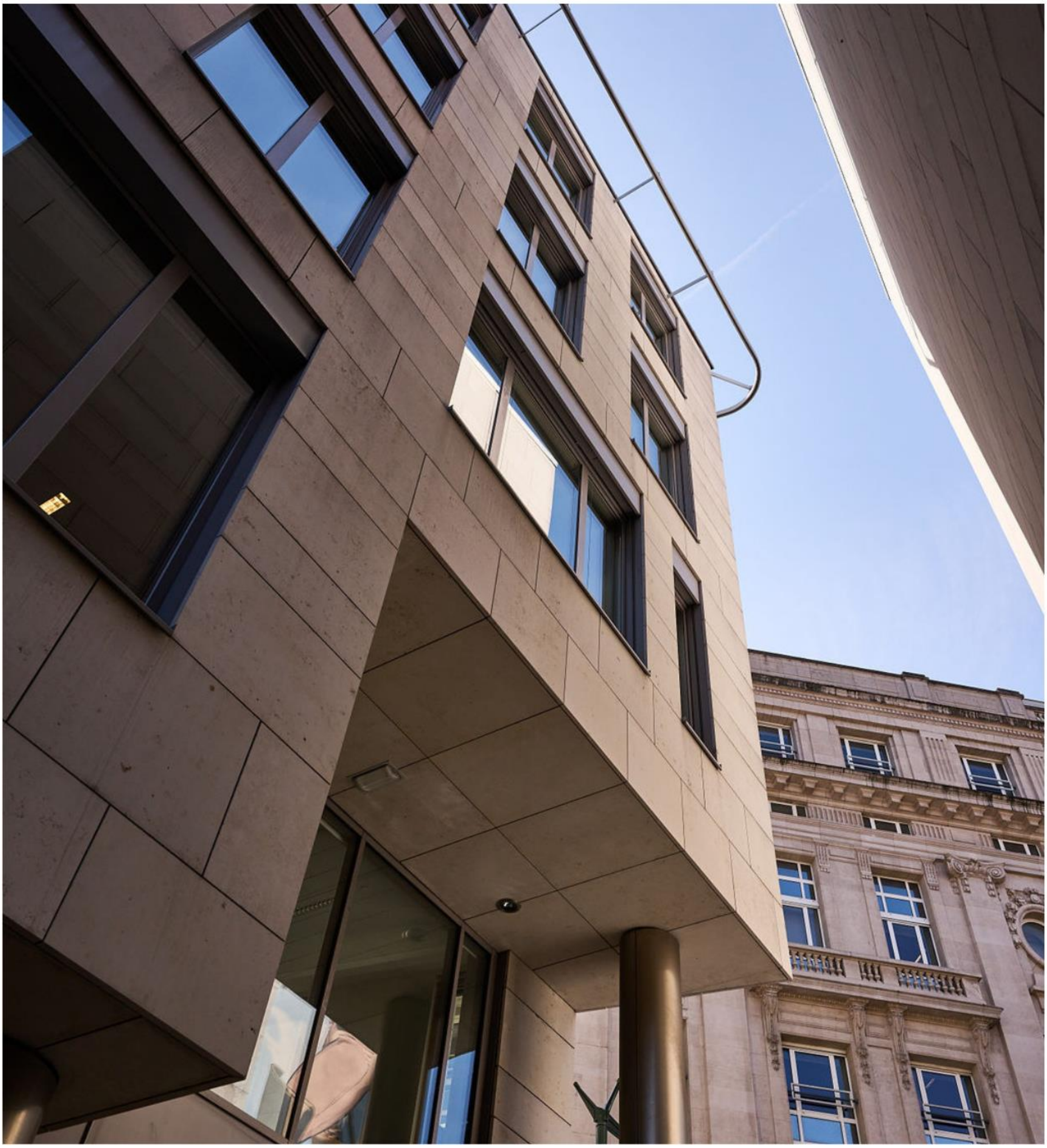
8 % TLOF requirement: As indicated in Article 44(5) BRRD, shareholders, holders of instruments of ownership, holders of relevant capital instruments and other eligible liabilities must provide a contribution to loss absorption and recapitalization equal to at least 8 % of the institution's total liabilities, including own funds before being able to access the financing arrangement or resolution fund for the purposes of Article 44(3) and (4) BRRD. The amount of the contribution must be measured at the time of the resolution action and in accordance with the valuation carried out pursuant to Article 36 and of Article 46 of the BRRD.

DGS bridge (Commission Proposal): The use of DGS in resolution, which counts towards compliance with the 8 % TLOF requirement for accessing the SRF ('bridge function'), and is limited to the amount necessary to meet the 8 % TLOF. Subject to strict safeguards, the DGS bridge is applicable for transfer strategies only (where non-covered deposits are included in the transfer), leading to market exit.

Least cost test: The least cost test is a comparison of the cost of a DGS intervention (e.g. to support a bank's transfer to another bank) to the DGS costs of a hypothetical scenario of a payout of covered deposits in liquidation.

Transfer strategy/transfer tool: Transfer tools are resolution tools, allowing for a failing bank to exit the market in an orderly way. The sale of business tool, bridge bank or those two tools in combination with any other resolution tool (e.g. the asset separation tool) are considered as transfer tools, which are at the disposal of the resolution authority.

MREL/Minimum Requirement for Own Funds and Eligible Liabilities: MREL represents a binding regulatory requirement, which aims at ensuring sufficient loss absorbing and recapitalisation capacity in resolution. Bank-specific MREL targets are set by resolution authorities, which banks are required to maintain at all times, to facilitate the implementation of the preferred resolution strategy.



SINGLE RESOLUTION BOARD

Treurenberg 22, 1049 Brussels
https://srb.europa.eu