WHO PAYS FOR BANK RESOLUTION? THE SIZE OF THE DEPOSIT GUARANTEE SCHEMES WITHIN THE EU CRISIS MANAGEMENT AND DEPOSIT INSURANCE REFORME

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Abstract

Within the EU debate on the Crisis Management and Deposit Insurance (CMDI) reform, the article demonstrates the inadequacy of Deposit Guarantee Schemes (DGS) for the eurozone's covered and non-covered deposits, in view of the 8% bail-in threshold enabling access to the Single Resolution Fund. To this end, it introduces - by bank size - a model decomposing balance sheet liabilities to determine the insufficiency of DGS in protecting non-financial corporations and households. The results prove the necessity of extending the scope of DGSs in bank resolution according to the CMDI reform proposed by the European Commission in April 2023.

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Chi Paga la Risoluzione delle Crisi Bancarie? La Dimensione dei Deposit

Guarantee Schemes nella Riforma Crisis Management and Deposit

Insurance in Unione Europea – Sintesi

Nell'ambito del dibattito in Unione Europea sulla riforma Crisis Manage-

ment and Deposit Insurance (CMDI), l'articolo dimostra l'inadeguatezza dei

Deposit Guarantee Schemes (DGS) nell'eurozona, rispetto sia ai depositi co-

vered che non-covered, per il raggiungimento della soglia di bail-in dell'8%

che abilita l'accesso al Single Resolution Fund. Allo scopo, introduce - per di-

mensione bancaria - un modello basato sulla scomposizione delle passività di

bilancio per determinare l'insufficienza dei DGS a tutela di persone fisiche e

giuridiche non-finanziarie. I risultati comprovano la necessità di estendere lo

scopo dei DGS nella risoluzione bancaria secondo la riforma CMDI proposta

dalla Commissione Europea nell'aprile 2023.

Parole chiave: Sostenibilità; Banking; Finance; Prestiti alle Famiglie; Dynamic Panel.

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1. Introduction

The European sovereign debt crisis (ESDC) has provided the impetus to advance towards the integration of European Union's (EU's) banking regulation as a way to foster the key 'freedom' of capital movement within the Single Market project. In fact, the crisis, beginning in 2009, exposed structural weaknesses in the financial sector of Member States (MSs) in the euro area (EA) concerning accurate regulation and supervision of their national banking system. It underlined the need "to break the vicious circle between banks and sovereigns" (euro area, 2012) due to the fact that bank depositors, creditors and borrowers represent important political constituencies for governments, which find themselves in the delicate position to resort to taxpayers' money to protect them when facing the severe repercussions that financial crises entail on the social, political and economic functions. A consensus then emerged advocating the need to weaken western European States' direct ties with their banks and move banking authority from national politicians and regulators to EU Institutions (Epstein, 2017). The EU Banking Union (EBU) was thus ultimately established in 2014 with the Directive 2014/59 on Bank Recovery and Resolution (BRDD), thereby transferring to a certain extent responsibility for banking policy from the national to the EU level in all EA countries plus Bulgaria.

The EBU has taken shape under three foundational pillars: the Single Supervisory Mechanism (SSM), the Single Resolution Mechanism (SRM) and the European Deposit Insurance Scheme (EDIS). While the former two have been fully operationalised, the latter, aimed at instituting an EA centralised deposit insurance regime that would pool together national deposit schemes, has been under ongoing discussions since 2015 and has yet to be formally established. The SRM has inter alia established a new EU body, the Single Resolution Board (SRB), granting it central authority in homogenising banking resolution and providing it with the banking-sector-funded Single Resolution Fund (SRF) under its direct remit, with the objective to limit recourse to

State's intervention by ensuring that the costs of resolution are borne by the industry itself instead of taxpayers.

A resolution denotes a restructuring of a failing bank alternative to its liquidation (which would result in the termination of the bank's activities), to protect depositors and ensure there is neither harm to the broader economy nor to financial stability. In resolution procedures, the SRF - totalling EUR 77.60 billion as of 2023 (SRB, 2023) - may intervene to provide liquidity support to banks in the form of loans up to a maximum of 5% of the bank's total liability-side (Laviola, Loiacono & Santella, 2015). In this regard, to be able to access the SRF, the failing credit institution proceeds with a 'bail-in', that is to have its shareholders and creditors 'sharing in' its losses for a minimum of 8% of the bank's total liabilities and own funds (European Commission, 2014). For the former category of actors, it implies that their equity investment will be used to absorb losses. For the latter, it means either recapitalising the institution by converting the debt obligation of the bank into equity, or writing-off - partially or entirely - the same debt. Again, the bail-in process provides a strong alternative to a State-funded bail-out by having only private 'liability holders' to participate in saving the bank.

However, the 'bail-in' mechanism, clearly aimed at internalising the 'costs' of bank failures to avoid harm to the broader economy, is easier said than done. For failing banks, independently of their size, past experience has shown that the 8% bail-in condition cannot be attained only by 'hitting' the shareholders' and creditors' claims, but has to include in the calculation households' and non-financial corporations' (NFCs') non-covered deposits, that is those deposits above EUR 100,000. In fact, on the one hand, deposits up to EUR 100,000 (covered deposits) are excluded from the scope of bail-in since guaranteed by the banks-funded national Deposit Guarantee Schemes (DGSs - Bank Recovery and Resolution Directive [BRRD], 2014), which effectively contribute to cover losses that would have otherwise been shared by covered depositors; on the other hand, this is not the case for the non-covered ones (Laviola et al., 2015). Therefore, to access resolution proceedings, there may

be the need to 'bridge up' to the 8% condition by recurring to non-covered deposits, thereby causing losses on depositors, in turn negatively affecting market confidence and the financial stability of the system. To avoid these consequences, often the State is regrettably forced to intervene in shielding depositors by resorting to taxpayers' money (the bail-out process), underscoring the continuous interplay between banks and sovereign States.

In this context, the April 2023's Crisis Management and Deposit Insurance (CMDI) legislative reform (the Reform) proposed by the European Commission (EC) inter alia aims at instituting a crucial element of change in the second pillar of the EBU - the SRM. Specifically, the DGSs would be made available in bail-in *until* the aforesaid 8% is reached, in such way shielding non-covered deposits too. In other words, "Member States shall ensure that DGSs use the available financial means to finance the resolution of credit institutions" (European Commission, 2023), thereby preventing both depositors - in relation to the non-covered share of their deposits - and taxpayers from bearing losses related to the banking sector, leaving instead the burden of these losses on the private industry-funded safety nets, the DGSs. This would occur by means of additional banking contributions up to cover, *by themselves alone*, any potential losses for both households and non-financial corporations/enterprises (NFCs) when, as bank's depositors, they face the case of the failing of their credit institution.

Essentially, the Reform covers the matter of 'who pays for (bank) resolution?', i.e. who among the aforesaid categories - depositors, taxpayers or viable banks - must bear the losses allowing a failing bank to access the resolution procedure. This would be a change to the current legislation and modus operandi, which either only *partially* covers households' and NFCs' deposits through a DGS - thus leaving losses upon these direct stakeholders - or shields fully these same depositors, however by resorting to a State intervention burdening taxpayers.

Based on a model constructed through metrics from and computations derived by the banking sector's balance sheets of the Member States of the EA (hereinafter MSs), the proposed contribution of this article is to unveil whether, at the national level, the size of the DGS covers depositors' funds in the event of either a specific bank failure or a systemic crisis. Thereby, it establishes whether there should be or not a national economic interest for a reform extending the scope of DGSs and - consequently - the size of each of them, particularly in respect of households' and enterprises' stakes (as well as, indirectly, taxpayers). Accordingly, the methodology is structured as follows.

Section 2 presents theoretical and empirical findings on deposit guarantee schemes to contrast banking crises.

Section 3 elucidates the foundational underpinnings of the DGS and its pivotal role in ensuring financial stability.

Section 4 establishes the underlying rationales that led to the development of the CMDI framework and the subsequent proposal for its reform by the EC.

Section 5 presents the economic modelling. The latter shows the economic interests of bank stakeholders in relation to the Reform by conducting a comprehensive analysis on the status of the protection of banks' depositors under the respective national DGS. To this end, the employed approach and necessary computations are detailed by first developing them for a specific eurozone country, which serves as the basis for building the model. To allow for an analytical scrutiny across a varying range of credit entities, such analysis differentiates between Significant Institutions (SIs) and Less Significant Institutions (LSIs).

Section 6 applies the economic model to all MSs to ascertain whether a national economic interest exists for extending the scope of the DGSs.

In turn, section 7 establishes the necessity of the Reform by providing the comprehensive findings of the economic model from the previous section.

Lastly, section 8 establishes the legislative procedures that the Reform still needs to navigate to receive its final approval.

2. Theoretical and empirical findings on bank deposit guarantee schemes to contrast banking crises

The crucial function of a DGS is to serve as 'payout' or safety net for bank depositors when deposits become 'unavailable'. This may occur during insolvency or liquidation procedures of banks, rendering (covered) deposits 'default-free' and so contributing to preserve the stability of the banking system (Gortsos, 2019). Its rationale stems from the event of a systemic crisis leading to mistrust that could spread quickly and affect banks otherwise viable. DGSs are instituted to prevent such risk, by establishing the use of bank-funded safety nets to compensate depositors' money in the event of a bank's probable insolvency. This mitigates the inherent risk of 'bank runs' on deposits and consequent liquidity stress. If a credible DGS system is present in a jurisdiction, depositors' incentives to withdraw their funds when their bank's soundness is questioned are reduced substantially, positioning deposits as a theoretically stable backstop in the case of failing banks.

Early theory established the role of deposit insurance in banking crises. Diamond and Dybvig's (1983) multiple equilibria ("good" with depositors remaining calm and "run" where fear of bank failure leads to withdraw immediately) show that governments can eliminate the run equilibrium by guaranteeing deposits when the bank fails, thereby stabilising the financial system; however, the authors acknowledge that deposit insurance could introduce moral hazard. Building on this foundation, Chari and Jagannathan (1988) offer an information-based perspective on panics that reinforces the need for a credible safety net: explicit deposit guarantees can short-circuit the feedback loop of fear. Allen and Gale (1998) examine the design of an optimal safety net: their key insight is that completely eliminating the consequences of bank failures (for example, via full insurance) is not necessarily optimal because it could exacerbate moral hazard; instead, an optimal policy would still impose discipline on banks and creditors by allowing some loss-sharing. Allen and Gale's (1998) analysis thus reinforces the need for a carefully calibrated depo-

sit insurance scheme. Bhattacharya, Boot and Thakor (1998) emphasise that prudential regulations are needed to counterbalance the risk-taking incentives engendered by insurance. These include capital adequacy requirements, risk-based insurance premiums, asset restrictions and prompt corrective action regimes. The empirical research of Demirgüç-Kunt and Detragiache (2002) in 61 countries provides a large-sample statistical investigations finding that in countries with strong institutional frameworks and rigorous prudential regulation, deposit insurance can be implemented without provoking crises. Expanding the scope of deposit guarantees must go hand-in-hand with robust supervision and resolution tools: by pricing insurance properly and enforcing discipline (e.g. through "bail-in" rules that force bank shareholders and creditors to absorb losses before any public funds are used), regulators can mitigate the moral hazard that comes with a broader safety net. Recent empirical work has delved into how the design features of deposit insurance schemes influence banking stability. Chiaramonte, Girardone, Migliavacca and Poli (2019), using data from 27 EU countries, confirm that "how" deposit insurance is structured matters greatly for its effects: more protective insurance does not necessarily lead to riskier banks in normal times provided other moral hazard controls are in place. However, they uncover non-linear effects during crisis periods: an inverse U-shaped relationship between coverage level and stability, meaning that, up to a point, higher coverage improves stability, but excessively high can undermine the latter. Their study suggests also that the impact of deposit insurance on stability can vary over the business cycle, implying regulators might consider a dynamic approach. Again, the main opposition to DGSs stems from concerns about moral hazard: by recalling it, Asimakopoulos and Tröger (2024) however add also the financial burden on national DGSs and other barriers, including State aid rules. Notwithstanding above caveats, Eule, Kastelein & Sala (2022) conclude that allowing DGSs to intervene in bank resolution process greatly ensure depositor confidence. Particularly, Arnal, Lannoo & Lastra (2024) assert that the "DGS funds could play a bridging role, as they could count towards the minimum bail-in requirement

of 8% of Total Liabilities and Own Funds (TLOF), thus facilitating access to the SRF's resources".

In summary, the literature provides a cohesive narrative supporting stronger deposit guarantee mechanisms with important cautions. These findings are coherent with the article's argument that expanding and strengthening DGSs is a viable strategy to reduce reliance on taxpayer-funded bailouts, so long as the expansion falls within sound regulatory safeguards as the EU Banking Union.

3. The DGS role in protecting depositors in the Euro Area

The operation of DGSs in MSs is governed by Directive 2014/49 (the so-called DGSD) of the European Parliament (EP) and of the Council of the European Union. This legislative act, adopted on 16 April 2014 on the basis of Article 53(1) of the Treaty on the Functioning of the European Union (TFEU), lays down rules and procedures on the establishment and functioning of national DGSs in MSs. It has also amended the 2009 DGSD by increasing the minimum coverage level from €20,000 to €100,000. Alongside, the BRRD (Directive 2014/59) presents the legal bases for the DGSs to contribute financially during the bail-in resolution tool. As to Article 46(1), the DGS has legal responsibility to pay the amount by which covered deposits would have been written down in order to absorb the losses of the credit institution, thereby excluding these deposits from the bail-in procedure (Gortsos, 2019).

Nonetheless, a limit has been set to DGS contributions to prevent its depletion and excessive burdens on the banking sector: these may not exceed the amount of losses that they would have borne under normal insolvency proceedings (the above-mentioned payout function).

However, the ESDC highlighted budgetary weaknesses in the capacity of

European DGSs to safeguard depositors' confidence during large economic and financial shocks-induced bail-in (Eurofi, 2020). States were prompted to provide an unlimited government/public guarantee on deposits, backed up by national budgets that de facto took the place of bank/private guarantees. Stated differently, DGSs across various MSs lacked the financial means available to intervene as backstops, eventually intensifying the loop between sovereign risk and banks (Eurofi, 2020), where the State is ultimately obliged to intervene. In this regard, Zielińska-Lont (2021) argues that because of limited scope of harmonisation in DGSs across MSs, discrepancies in protection levels persist across the EU, so raising concerns over financial stability.

Particularly with regards to the use of DGSs' in the context of resolution in the EA, the EC's legislative proposal aims to integrate and extend significantly DGSs' financial means in the process of bank resolution. This is obtained by having them share banks' losses, including non-covered deposits, to reach the 8% target. This is in line with Annoscia and Martinez (2023), who note that the EC emphasises the need for enhanced depositor protection, especially in the case of small and medium-sized banks.

4. The EU CMDI Reform on the access to bank resolution

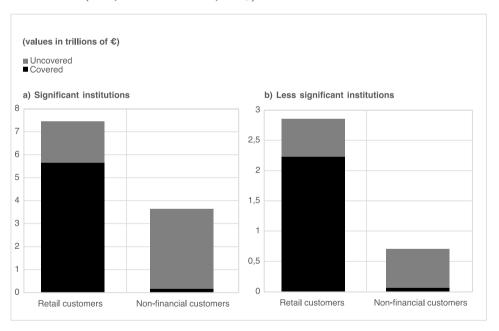
As mentioned, the ESDC acted as a catalyst for advancing the integration of the European Union's banking regulation. This issue arose from the interdependence between national governments and their banking systems, where banks held large amounts of sovereign debt and governments often had to resort to taxpayers' money to bail out failing banks. Such interventions were considered politically sensitive as bank depositors and creditors represent important constituencies, so creating pressure on governments to protect them from monetary losses that could lead to severe economic repercussions. In response to this, a consensus emerged advocating for the decoupling of national governments from their banking systems. Banking regulation and

supervision needed to shift from national authorities to EU-level institutions to mitigate the risks posed by bank-State ties, paving the way for the EBU. At the expense of national supervisors, the SSM has designated the European Central Bank (ECB) as the central authority in the supervision of large financial institutions and banking conglomerates, i.e. the so-called Significant Institutions (SIs), having total assets exceeding EUR 30 billion, or exceeding both €5 billion and having the ratio of its cross-border assets/liabilities in more than one other participating Member State to its total assets/liabilities being above 20%, or be regarded as being of strong economic importance the specific Member State or the EU economy as a whole (ECB, n.d.). As of the fourth quarter of 2023, SIs represent nearly 93% of total banking assets in the EA (ECB, 2024a; ECB, 2024b). National supervisors remain the national competent authorities responsible only for overseeing Less Significant Institutions (LSIs) in their respective jurisdictions. The decision to entrust the ECB with the role of single banking supervisor is intended to fulfil the central objective of ensuring the effective oversight of European banking groups as a consequence of national supervisors revealing significant weaknesses during the ESDC.

The CMDI framework established a harmonised approach to resolving bank failures and safeguarding depositors across MSs by developing in 2014 comprehensive rules and mechanisms within the EBU to manage failing banks in the form of the BRRD and Deposit Guarantee Schemes Directive (DGSD). The former set out the procedures for putting a bank under resolution to ensure, in contrast to liquidation procedures, the survival of the credit institution's critical functions. Under the same directive, the bail-in mechanism was introduced as a resolution tool mandating shareholders and creditors to absorb losses by covering at least 8% of the failing institution's liability-side, thereby ensuring both operational continuity and access to the SRF liquidity package. The DGSD (Directive 2014/49) required all EU Member States to institute DGSs granting coverage for deposits up to EUR 100,000, so to protect such deposits in the advent of bank failures to prevent bank runs.

However, the decade after the EBU's creation highlighted a remaining significant problem: financially unstable banks, especially LSIs, needed to recur to non-covered deposits (not protected by DGS) during bail-in procedures to reach the 8% condition, so exposing depositors to losses (Council, 2024). Consequently, ahead of a bank's resolution, the anticipation of losses could still prompt the withdrawal and redistribution of the share of the deposits that are not protected, potentially undermining the effectiveness of a bail-in process (Eule, Kastelein & Sala, 2023). This risk could multiply since non-covered deposits compose a sensitive share of total households' and, even more, NFCs' deposits across MSs' banks, as shown in fig. 1.

Figure 1 - Share of covered and non-covered deposits for households and NFCs in SIs and LSIs (Eule, Kastelein & Sala, 2023)



For the above, on 16 June 2022 the Eurogroup agreed on the urgent need to strengthen the EU CMDI framework by broadening the application of the bail-in during crisis managements. The Eurogroup subsequently invited the EC to draft a legislative proposal for a reformed CMDI framework amending the BRRD and DGSD (Huertas, 2023), which the EC officially presented in

April 2023. The Reform seeks to "facilitate the recourse to industry-funded safety nets [namely the DGSs] together with, in the EBU, the SRF ... as an additional source of funding" (Council, 2024). Ultimately, the Reform urges to use "DGS funds to 'bridge the gap [the 8% bail-in target]' allowing to subsequently unlock an intervention of the SRF" (Council, 2024). To this day, the aforesaid legislative proposal is still debated along the EU legislative process as its formal approval is currently pending at the Council, whilst the EP has voted favourably only few weeks before the conclusion of the 2019-2024 legislature.

5. The economic modelling

As introduced in Section 1, the model is exemplified through its application to a paradigmatic eurozone's country, as it stands out among MSs for having experienced the highest number of bank failures within the initial five-year period following the implementation of the 2014 BRRD. As detailed in Table 1, Italy saw the failure of Carichieti, Banca Popolare dell'Etruria, Cassa di Risparmio di Ferrara, Banca delle Marche, Banca Popolare di Vicenza, Veneto Banca and Banca Base (Restoy, Vrbaski & Walters, 2020), sparkling the then still ongoing debate about how to enhance the access to the related resolution process to avoid financial failures.

Table 1 - Banks having failed in the first 5 years since BRDD (Restoy, Vrbaski & Walters, 2020)

Name of bank	Date	Assets at failure	*IS	PIA	PIA Authority**	Procedure***
Jadranska Banka	10/2015	HRK1.9bn	0U	positive	NRA	Resolution
CariChieti	11/2015	EUR 4.7bn	00	positive	NRA	Resolution
Banca Popolare dell'Etruria	11/2015	EUR 12.3bn	0U	positive	NRA	Resolution
Cassa di Risparmio di Ferrara	11/2015	EUR 6.9bn	00	positive	NRA	Resolution
Banca delle Marche	11/2015	EUR 22.7bn	0U	positive	NRA	Resolution
Coop Peloponnese	12/2015	EUR (200m)	0U	positive	NRA	Resolution
BANIF	12/2015	EUR 12.8bn	0U	positive	NRA	Resolution
Andelskassen JAK	1/2016	DKK 250m	00	positive	NRA	Resolution
Maple Bank	2/2016	EUR 5bn	0U	negative	NRA	Insolvency
Trasta Komercbanka	3/2016	EUR 430m	00	positive	NRA	Insolvency
Banco Popular Español	6/2017	EUR 148bn	yes	positive	SRB	Resolution
Banca Popolare di Vicenza	6/2017	EUR 34bn	yes	negative	SRB	Insolvency
Veneto Banca	6/2017	EUR 28bn	yes	negative	SRB	Insolvency
ABVL	2/2018	EUR 183m	yes	negative	SRB	Insolvency
Tesla Stedna Banka	2/2018	HRK 4m	0U	negative	NRA	Insolvency
Dero Bank	3/2018	EUR 27m	00	negative	NRA	Insolvency
Banca Base	4/2018	EUR 38m	0U	negative	NRA	Insolvency
Kobenhavns Andelskassen	9/2018	DKK 411m	00	positive	NRA	Resolution
PNB Banka	8/2019	EUR 550m	0U	negative	SRB	Insolvency

[&]quot;Significant Institution" subject to consolidated supervision by the ECB.

Sources: SP Global, public domain.

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Authority that carried out the public interest assessment: the national resolution authority (NRA) of the home Member State or the SRB.

^{*** &}quot;Insolvency" includes any collective procedure other than resolution under the BRRD.

Italy is not only the MS with the highest number of bank failures during the specified period, but is also a pivotal MS for its considerable economic and financial magnitude since ranking second among eurozone's countries in terms of the number of SIs under direct supervision of the ECB (these being 12) as of 2023 (ECB, 2024a). Italy's importance within the eurozone's banking ecosystem is further underscored by the aggregate volume of deposits held by its SIs, which represents 11.25% of total deposits across all MSs (ECB, 2024a).

Having demonstrated the relevance of Italy as a paradigmatic case, the presentation of the necessary data for the required modelling will start with a focus at first with regards to this country, with a similar framework then applicable to all other MSs¹.

The modelling begins (*Step 1*) by introducing the aggregate liabilities of the banking sector's balance sheets, which amounts in Italy to approximately EUR 4 trillion (of which 2.8 of households' and NFCs' deposits), as well as the number of credit institutions (both SIs and LSIs), which are 431 in Italy. These data are derived for all MSs from the Bank for International Settlements (n.d.) and the ECB (2024c; 2024d).

Out of that, data about SIs only are extrapolated in *Step 2*, by observing a total liability-side amounting to about EUR 2.6 trillion. This value may then be divided by the number of SIs (ECB, 2024a) giving the average liabilities per Italian SI of around EUR 214 billion. Based on this calculation, the 8% bail-in threshold - the portion of liabilities that can be written down or converted to equity in the event of a bail-in - is roughly EUR 17 billion per SI. In SIs, households' and NFCs' deposits, i.e. the categories to be protected from bail-in, are then extrapolated from the total liability-side (ECB, 2024a), along with their related percentage (56.45%) and corresponding average (EUR 121 billion). These interim findings under *Step 2* are then fundamental for the ultimate ones in *Step 5.a*).

¹ All data presented for Italy from now onwards within the current Section are later recapped in table 2, alongside to the other MSs'.

Step 3 replicates for LSIs the same metrics, analysis and findings of Step 2 for SIs, thereby enabling partially the last findings of the model under Step 5.c).

Step 4 elaborates a further level of detail by distinguishing for households and NFCs the 'covered deposits' from the 'non-covered (share of) deposits', so obtaining their average within credit institutions, for both SIs and LSIs. This step determines the intermediate findings needed to obtain the conclusive ones under Step 5.b) and, in combination with the partial findings from Step 3, also under Step 5.c).

Step 5 concludes the model by factoring in the DGS size of EUR 665 million in Italy (EBA, n.d.) and eventually deriving the indicators of the national economic situation and interest regarding the Reform, i.e.:

- a) if the size of the national DGS is *insufficient* to cover even in just one SI the portion that may miss in order to reach 8% of the total liability-side (after bailing-in liabilities other than households' and NFCs' deposits), the MS should have an economic interest in a 'YES' to the Reform; and/or
- b) if the size of the DGS is *in*sufficient to protect even just one SI's non-covered deposits, the MS should have an economic interest in a 'YES' to the Reform; and/or
- c) if the size of the DGS is *in*sufficient to protect at least four average LSIs' non-covered deposits in a specific MS, the MS should have an economic interest in a 'YES' to the Reform. The number 'four' is scientifically determined since matching a precedent of an initial systemic banking crisis post BRDD, that is the maximum number of LSIs within a single MS (Italy again) that 'simultaneously' failed, i.e. in the same year 2015.

Each 'YES' outcome derived from these scenarios, provides a strong rationale to support the proposed Reform. Clearly, the more the number of affirmative responses, the greater the justification for approval by a MS, as it would indicate a more pressing need for enhanced resolution mechanisms and depositor protection within the national banking system.

6. Application of the economic modelling to Euro Area's Member States

The model can now be extended to all MSs as illustrated in table 2, whereas 'YES/NO' simultaneously - as in Latvia and Spain - expresses economic conditions that may lead to neutral national stances towards the Reform. The notation 'n.a.' (not available) is used in cases where certain data points are not available or could not be obtained. This applies particularly to smaller jurisdictions. More particularly, 'C' denotes the unavailability of data due to specific reasons of confidentiality. This occurs in instances where supervisory confidentiality rules prevent the disclosure of sensitive banking information by the ECB, such as detailed breakdowns of deposit structures or specific liability-side figures, which might inadvertently expose individual banks to market scrutiny. The EA's aggregated data are also provided, allowing for a potential macro-level assessment of the potential impact of the proposed Reform across the entire eurozone.

7. Necessity for the Reform

The data provided in Table 2 reveal the financial capacity of DGSs in various MSs, showing that almost all are inadequately funded - including Germany, France and Italy - both in contributing to cover the minimum 8% bail-in threshold required to access the SRF and in safeguarding non-covered deposits of SIs and LSIs. This insufficient funding raises real concerns about whether the banking/private sector can absorb banking losses in the event of a systemic crisis risking to bankrupt several credit institutions without recurring to State intervention, thus continuing the reliance on taxpayer-funded bailouts. Similarly, if a national DGS cannot contribute adequately to reaching the 8% bail-in requirement and the national government does not intend to step up to cover non-covered deposits, these depositors' funds will suffer losses in the bail-in process.

Finland

Estonia

Cyprus

Croatia

Belgium

Austria

E

 Table 2 - National banking data by MS (author's own creation)

1. All banks							
Total liability-side (€′000s), of which:	41,209,330,027	1,013,000,001	41,209,330,027 1,013,000,001 1,303,000,000	80,000,001	68,000,001	53,010,000	759,000,001
Households' and NFCs' deposits (€′000s)	22,659,332,882 632,000,001	632,000,001	806,000,001	64,000,001	52,000,000	31,000,000	297,000,000
Total number of credit institutions	3,924	423	78	21	23	31	185
2. Significant Institutions (SIs)							
Total liability-side of SIs (€′000s)	25,873,000,007 674,000,000	674,000,000	627,000,000	0	U	31,000,000	700,000,001
- number of Significant Institutions (SIs)	106	9	5	0	2	3	8
Average liability-side of SIs (€'000s)	244,084,906	112,333,333	125,400,000	0	n.a.	10,333,333	233,333,334
Average 8% bail∹in threshold in SIs (€′000s)	19,526,792	8,986,667	10,032,000	0	n.a.	826,667	18,666,667
Households' and NFCs' deposits in SIs (€'000s)	9,874,000,014	367,000,000	357,000,001	0	n.a.	18,000,001	248,000,001
Households' and NFCs' deposits out of total liability-side in SIs (%)	38.16%	54.45%	56.94%	0	n.a.	28.06%	35.43%
Average households' and NFCs' deposits per SI (€'000s)	93,150,944	61,166,667	71,400,000	0	n.a.	000'000'9	82,666,667
3. Less Significant Institutions (LSIs)							
Total liability-side (€′000s)	15,336,330,020 339,000,000	339,000,000	000'000'929	80,000,001	n.a.	22,010,000	29,000,000
- number of Less Significant Institutions (LSIs)	3,818	417	73	21	21	28	182
Average liability-side of LSIs (€′000s)	4,016,849	812,950	9,260,274	3,809,524	n.a.	786,071	324,176
Average 8% bail-in threshold in LSIs (€'000s)	321,348	65,036	740,822	304,762	n.a.	62,886	25,934
Households' and NFCs' deposits in LSIs (€'000s)	12,785,332,868	265,000,000	449,000,000	64,000,001	n.a.	13,000,000	48,999,999
Households' and NFCs' deposits out of total liability-side in LSIs (%)	83.37%	78.17%	66.42%	80.00%	n.a.	29.06%	83.05%
Average households' and NFCs' deposits per LSI (€'000s)	3,348,699	635,492	6,150,685	3,047,619	n.a.	464,286	269,231

	EA	Austria	Belgium	Croatia	Cyprus	Estonia	Finland
4. Covered vs non-covered deposits of households and NFCs:							
Covered deposits (€'000s), of which:	5,055,215,440	101,453,978	343,352,289	34,621,510	27,422,685	19,706,792	152,799,464
- covered deposits in SIs (€'000s)	2,202,853,790	58,913,940	152,080,357	0	n.a.	11,442,654	127,590,125
- covered deposits in LSIs (€'000s)	2,852,361,650	42,540,038	191,271,932	34,621,510	n.a.	8,264,138	25,209,339
Average covered deposits per SI (€′000s)	20,781,640	9,818,990	30,416,071	0	n.a.	3,814,218	42,530,042
Average covered deposit per LSI (€′000s)	747,083	102,014	2,620,163	1,648,643	n.a.	295,148	138,513
Non-covered deposits (€'000s), of which:	17,604,117,442	530,546,023	462,647,712	29,378,491	24,577,315	11,293,208	144,200,536
- non-covered deposits in SIs (€'000s)	7,671,146,224	308,086,061	204,919,644	0	n.a.	6,557,347	120,409,876
- non-covered deposits in LSIs (€'000s)	9,932,971,218	222,459,962	257,728,067	29,378,491	n.a.	4,735,861	23,790,660
Average non-covered deposit per SI (€′000s)	72,369,304	51,347,677	40,983,929	0	n.a.	2,185,782	40,136,625
Average non-covered deposit per LSI (€'000s)	2,601,616	533,477	3,530,521	1,398,976	n.a.	169,138	130,718

5. Deposit Guarantee Scheme (DGS):	Size of DGS (€'000s) 37,975,071 673,494 4	 a) Is the size of DGS insufficient to cover even in just one SI the share that may miss, in order to reach 8% of the total liability-side, after bailing-in liabilities other than households' and NFCs' deposits? 	b) Is the size of DGS insufficient to protect even just one SI's non-covered deposits?	c) Is the size of DGS insufficient to protect at least four* LSIs' non-covered depos- its? [*N.B.: four is the maximum number of bank failures within a single MS - YES ((taly) in the same year (2015) since the EBU]	c.l) In how many LSIs the non-covered deposits would be protected?
	4,994,591 2,609,006	YES	YES	YES YES	1.4 1.9
	06 189,912	n.a.	n.a.	n.a.	n.a.
	283,098	YES	YES	YES	1.7
	1,427,731	YES	YES	ON	10.9

	France	Germany	Greece	Ireland	Italy	Latvia	Lithuania
1. All banks						#REF!	
Total liability-side (€'000s), of which:	12,454,000,000	10,317,000,000 341,021,000	341,021,000	847,000,000	4,049,000,000	75,173,194	63,000,001
Households′ and NFCs′ deposits (€′000s)	6,755,000,001	5,913,000,000	239,000,000	483,000,000	2,765,000,001	n.a.	47,000,000
Total number of credit institutions	388	1333	35	768	431	42	79
2. Significant Institutions (SIs)							
Total liability-side of SIs (€'000s)	9,120,000,000	4,776,000,000	303,000,001	623,000,000	2,574,000,000	52,000,001	33,000,001
- number of Significant Institutions (SIs)	Ξ	22	4	9	12	3	2
Average liability-side of SIs (€′000s)	829,090,909	217,090,909	75,750,000	103,833,333	214,500,000	17,333,334	16,500,000
Average 8% bail-in threshold in SIs (€′000s)	66,327,273	17,367,273	000'090'9	8,306,667	17,160,000	1,386,667	1,320,000
Households' and NFCs' deposits in SIs (€′000s)	3,746,000,001	1,298,000,001	208,000,001	267,000,001	1,453,000,001	38,000,001	24,000,001
Households' and NFCs' deposits out of total liability-side in SIs (%)	41.07%	27.18%	%59.89	42.86%	56.45%	73.08%	72.73%
Average households' and NFCs' deposits per SI (€'000s)	340,545,455	29,000,000	52,000,000	44,500,000	121,083,333	12,666,667	12,000,000
3 . Less Significant Institutions (LSIs)							
Total liability-side (€′000s)	3,334,000,000	5,541,000,000	38,020,999	224,000,000	1,475,000,000	23,173,193	30,000,000
- number of Less Significant Institutions (LSIs)	377	1,311	31	797	419	39	77
Average liability-side of LSIs (€'000s)	8,843,501	4,226,545	1,226,484	854,962	3,520,286	594,184	389,610
Average 8% bail-in threshold in LSIs (€′000s)	707,480	338,124	98,119	68,397	281,623	47,535	31,169
Households' and NFCs' deposits in LSIs (€'000s)	3,009,000,000	4,615,000,000	31,000,000	215,999,999	1,312,000,000	n.a.	22,999,999
Households' and NFCs' deposits out of total liability-side in LSIs (%)	90.25%	83.29%	81.53%	96.43%	88.95%	n.a.	76.67%
Average households' and NFCs' deposits per LSI (€'000s)	7,981,432	3,520,214	1,000,000	824,427	3,131,265	n.a.	298,701

	France	Germany	Greece	Ireland	Greece Ireland Italy	Latvia	Lithuania
4. Covered vs non-covered deposits of households and NFCs:						#REF!	
Covered deposits (€'000s), of which:	1,466,621,229	710,884,888	134,034,631	136,213,461	136,213,461 121,431,348	10,574,080	26,272,391
- covered deposits in SIs (€ 000s)	813,318,005	156,050,835	116,649,386	75,298,125	63,811,844	5,680,031	13,415,689
- covered deposits in LSIs (€′000s)	653,303,224	554,834,053	17,385,245	60,915,336	57,619,504	4,894,049	12,856,702
Average covered deposits per SI (€′000s)	73,938,000	7,093,220	29,162,347	12,549,687	5,317,654	1,893,344	6,707,845
Average covered deposit per LSI (€′000s)	1,732,900	423,214	560,814	232,501	137,517	125,488	166,970
Non-covered deposits (€′000s), of which:	5,288,378,772	5,202,115,112	104,965,369	346,786,539	2,643,568,653	33,747,311	20,727,609
- non-covered deposits in SIs (€'000s)	2,932,681,996	1,141,949,166	91,350,614	191,701,877	1,389,188,157	32,319,970	10,584,311
- non-covered deposits in LSIs (€'000s)	2,355,696,776	4,060,165,946	13,614,755	155,084,663	1,254,380,496	1,427,341	10,143,298
Average non-covered deposit per SI (€′000s)	266,607,454	51,906,780	22,837,654	31,950,313	115,765,680	10,773,323	5,292,156
Average non-covered deposit per LSI (€′000s)	6,248,533	3,096,999	439,186	591,926	2,993,748	36,598	131,731

5. Deposit Guarantee Scheme (DGS):						#REF!	
Size of DGS (€′000s)	6,668,265	4,484,430	1,681,717	877,546	665,392	175,814	279,612
a) Is the size of DGS in sufficient to cover even in just one SI the share that may miss, in order to reach 8% of the total liability-side, after bailing-in liabilities other than households' and NFCs' deposits?	YES	YES	YES	YES	YES	YES	YES
b) Is the size of DGS insufficient to protect even just one SI's non-covered deposits?	YES	YES	YES	YES	YES	YES	YES
c) Is the size of DGS in sufficient to protect at least four* LSI s' non-covered deposits? <i>[*N.B.: four is the maximum number of bank failures within a single MS (Italy) in the same year (2015) since the EBUJ</i>	YES	YES	YES	YES	YES	YES/NO	YES
c.l) In how many LSIs the non-covered deposits would be protected?	1:1	1.4	3.8	1.5	0.2	4.8	2.1

	Luxembourg	Malta	Portugal	Slovakia	Slovenia	Spain	The Netherlands
1. All banks							
Total liability-side (€′000s), of which:	949,000,000	42,000,001	425,000,000	122,000,001	54,000,000	54,000,000 5,428,125,826	2,767,000,000
Households' and NFCs' deposits (€'000s)	565,000,001	n.a.	323,000,000	84,000,000	41,000,001	41,000,001 2,092,000,000	1,470,332,874
Total number of credit institutions	119	21	137	24	15	187	84
2. Significant Institutions (SIs)							
Total liability-side of SIs (€′000s)	98,000,001	U	237,000,000	0	45,000,001	45,000,001 3,750,000,001	2,230,000,000
- number of Significant Institutions (SIs)	3	2	3	0	3	10	9
Average liability-side of SIs (€'000s)	32,666,667	n.a.	000'000'62	0	15,000,000	375,000,000	371,666,667
Average 8% bail-in threshold in SIs (€'000s)	2,613,333	n.a.	6,320,000	0	1,200,000	30,000,000	29,733,333
Households' and NFCs' deposits in SIs (€'000s)	43,000,001	n.a.	178,000,001	0	33,000,001	1,596,000,001	1,208,000,000
Households' and NFCs' deposits out of total liability-side in SIs (%)	43.88%	n.a.	75.11%	0	73.33%	42.56%	54.17%
Average households' and NFCs' deposits per SI (€'000s)	14,333,334	n.a.	59,333,334	0	11,000,000	159,600,000	201,333,333
3. Less Significant Institutions (LSIs)							
Total liability-side (€′000s)	850,999,999	n.a.	188,000,000	122,000,001	000'000'6	1,678,125,825	537,000,000
- number of Less Significant Institutions (LSIs)	116	19	134	24	12	177	78
Average liability-side of LSIs (€′000s)	7,336,207	n.a.	1,402,985	5,083,333	750,000	9,480,937	6,884,615
Average 8% bail -in threshold in LSIs (€′000s)	286,897	n.a.	112,239	406,667	000'09	758,475	550,769
Households' and NFCs' deposits in LSIs (€'000s)	522,000,000	n.a.	144,999,999	84,000,000	8,000,000	495,999,999	262,332,874
Households' and NFCs' deposits out of total liability-side in LSIs (%)	61.34%	n.a.	77.13%	68.85%	88.89%	29.56%	48.85%
Average households' and NFGs' deposits per LSI (€'000s)	4,500,000	n.a.	1,082,090	3,500,000	299'999	2,802,260	3,363,242

	Luxembourg	Malta	Portugal	Slovakia	Slovenia	Spain	The Netherlands
4. Covered vs non-covered deposits of households and NFCs:							
Covered deposits (€′000s), of which:	38,194,931	15,769,443	178,482,574	41,086,400	25,327,685	884,542,600	586,423,063
- covered deposits in SIs (€'000s)	2,906,871	n.a.	98,358,818	0	20,385,698	674,823,131	481,795,023
- covered deposits in LSIs (€'000s)	35,288,060	n.a.	80,123,755	41,086,400	4,941,987	209,719,469	104,628,040
Average covered deposits per SI (€′000s)	756'896	n.a.	32,786,273	0	6,795,233	67,482,313	80,299,170
Average covered deposit per LSI (€′000s)	304,207	n.a.	597,938	1,711,933	411,832	1,184,856	1,341,385
Non-covered deposits (€'000s), of which:	526,805,070	n.a.	144,517,427	42,913,600	15,672,316	1,207,457,400	883,909,811
- non-covered deposits in SIs (€'000s)	40,093,130	n.a.	79,641,183	0	12,614,303	921,176,870	726,204,978
- non-covered deposits in LSIs (€'000s)	486,711,940	n.a.	64,876,244	42,913,600	3,058,013	286,280,530	157,704,833
Average non-covered deposit per SI (€′000s)	13,364,377	n.a.	26,547,061	0	4,204,768	92,117,687	121,034,163
Average non-covered deposit per LSI (€′000s)	4,195,793	n.a.	484,151	1,788,067	254,834	1,617,404	2,021,857

	3,611,149	YES	YES	YES	1.8
	6,609,281	YES	YES	YES/N0	4.1
	148,230	YES	YES	YES	9.0
	331,300	1	1	YES	0.2
	1,678,651	YES	YES	YES	3.5
	129,829	n.a.	n.a.	n.a.	n.a.
	456,024	YES	YES	YES	0.1
5. Deposit Guarantee Scheme (DGS):	Size of DGS (€′000s)	a) Is the size of DGS in sufficient to cover even in just one SI the share that may miss, in order to reach 8% of the total liability-side, after bailing-in liabilities other than households' and NFCs' deposits?	b) Is the size of DGS ${\bf in}$ sufficient to protect even just ${\bf one}$ ${\bf SI}$'s non-covered deposits?	c) Is the size of DGS in sufficient to protect at least four* LSI s' non-covered deposits? [*N.B.: four is the maximum number of bank failures within a single MS (Italy) in the same year (2015) since the EBU]	c.l) In how many LSIs the non-covered deposits would be protected?

This inclusion significantly risks to undermine confidence in the banking system. Clearly, these outcomes are unfavourable.

The CMDI reform aims to resolve both problems by enhancing the role and increasing the size of DGSs, allowing them to bridge the funding gap in resolution proceedings and protect deposits more effectively. Therefore, the findings from table 2 show decisively a favourable opportunity for MSs - for which data are available - to support the EU legislative procedure concerning the Reform, in order to protect the national banks' depositors (households and non-financial enterprises) and, thereby, indirectly the taxpayers. Clearly, this implies burdening conversely the banking system, as considered less of a priority compared to the aforesaid banks' direct and indirect stakeholders.

In summary, two key findings can be extrapolated from Table 2:

- 1) Insufficiency of national DGSs: national DGSs are inadequately funded to meet the minimum 8% bail-in threshold required to trigger the SRF. This shortfall means that, in the event of a bank failure, DGSs are unable to provide sufficient coverage for non-covered deposits, which are more vulnerable during a crisis;
- 2) Economic necessity for the Reform: the analysis gives a strong economic rationale for supporting the EC's proposed CMDI reform. By extending the scope of DGSs and enhancing their financial capacity, MSs can better protect depositors, particularly in scenarios of systemic risk. The Reform seeks to bridge the gap to reach the 8% bail-in requirement by effectively utilising DGS funds. Moreover, even MSs that are perceived as financially robust with sufficiently capitalised bank systems, such as Germany and Austria, are at high risk of destabilisation without enhanced DGS funding.

8. The next legislative steps of the Reform

While having been approved in the EP's 24 April Strasbourg plenary, the EC's proposal to update the CMDI framework has faced opposition from MSs at Council's discussions.

The 16 May 2023 meeting of the Ministers of Finance (ECOFIN) scheduled to discuss the proposal revealed divisive positions on the new piece of legislation with regards to mobilising DGSs to reach the 8% minimum bailin requirement for bank resolution. Both Austria and Germany, Austria and Germany argued that their banking systems were strong enough to meet the 8% requirement without risking to impact (non-covered) depositors, emphasising that bailing-in their national banks' own funds and eligible liabilities, i.e. respectively shareholders' equity and creditors' claims, would suffice for resolution. Consistently, Austrian finance minister Magnus Brunner voiced opposition by stating that "we have done our homework in Austria... so it's questionable why we should change so much" (Allenbach-Ammann, May 17, 2023). In a similar vein, his German counterpart Christian Lander asserted that "it has always been clear to us that functioning systems must be kept and protected. In the Commission's proposal, this is not given anymore" and "it has always been clear to us [Germany] that these functioning instruments [DGSs] must be preserved and their ability to function protected (Allenbach-Ammann, May 17, 2023; The Business Times, May 16, 2023). Such statements prioritise the avoidance of any consequent additional burdens and obligations on the respective banking systems, with regards to the DGS, above the less incumbent and visible risk for their households, NFCs and taxpayers. Likely, the rationale may encompass a political 'marketing' message about the stability, reliability and resilience of the country's credit institutions that is not however confirmed by the findings of the previous Section. In contrast, other colleagues, such as the Spanish Minister, expressed more positive views on the Reform, remarking that the proposal is moving in the right direction to keep improving the banking resolution framework (Allenbach-Ammann,

May 17, 2023).

The Council agreed only in June 2024 on a general approach to the Reform, about which the Minister of Finance of Belgium, holding the rotating Presidency of the Council, commented: "we are taking a significant step towards a more integrated and effective crisis management framework that will reinforce our ability to address the challenges posed by the resolution of small and medium-size banks. The revised CMDI framework will bring significant benefits in terms of strengthened financial stability, better protection of deposits and taxpayers' money ... key to the deepening of the Banking Union" (Council, 2024). However, this Council's approach, amending the EP's first reading, limits the availability of funding from the DGSs to 'bridge up' the gap in resolution than the EC's original proposal. The latter has commented on this approach, classifying the reduced DGS funding as "very disappointing" (European Parliament, 2024).

Since then, the process has no longer moved forward at all (Hallak, 2025) as both European co-legislators' agenda are giving priority to other matters.

9. Conclusions

The ESDC exposed both the deep vulnerabilities within the banking sectors of EA's MSs as well as the faulty ties between national governments and their banking systems. The crisis demonstrated that when banks fail, they pose significant economic and political challenges that ultimately prompt governments to step in with taxpayer-funded bailouts in order to stabilise and save the financial system. However, these bailouts have only reinforced the malicious nexus between sovereign risk and bank failures, leading to a consensus on the need to have banks solve problems 'from within'. The creation of the EBU and the respective CMDI framework in 2014 aimed to centralise banking oversight and harmonise resolution processes across the EA, with the primary objective of breaking the cycle between banks and sovereigns.

The bail-in mechanism introduced within the CMDI framework has since required a banks' shareholders and creditors to 'absorb' at least 8% of a failing bank's liabilities before the SRF can intervene to supply the needed liquidity. One of the key issues identified in the analysis is that, in practice, achieving the 8% bail-in requirement has proven difficult for many banks. In fact, for these banks, their shareholders' and creditors' contributions are often insufficient to absorb losses, requiring the integration of non-covered deposits (i.e., deposits exceeding EUR 100,000) in the bail-in process. But, this inclusion poses significant risks to depositors' confidence and financial stability, as the prospect of losing money deposited can trigger bank runs, leading to broader systemic failures and panics. Ultimately, the State is therefore forced to financially intervene to ensure depositors' funds, thereby undermining the core objective of reducing reliance on taxpayer bailouts.

This paper has provided an in-depth analysis of the role of national DGSs in the context of bank resolutions, showcasing critical deficiencies in the current structure and funding of DGSs across nearly all EA's MSs. Using a detailed economic model based on MSs' banking data, this paper has assessed that DGSs lack adequate resources and their scope is too reduced to cover (non-covered) depositors when banks are required to meet the 8% bail-in threshold for SRF access during banking crises. In response to these challenges, the EC has introduced a legislative proposal to reform the CMDI framework, which the article has demonstrated to be necessary. By highlighting the shortcomings in existing resolution mechanisms - particularly with regards to meeting the 8% bail-in requirement before a bank can access the SRF - the article shows how, without the Reform, depositors in MSs risk bearing losses during systemic crises that would necessitate States recurring to tax-funded bail-outs. This undermines the primary goal of transferring the costs of bank failure from taxpayers to the private banking sector. The data and findings of this paper strongly support the need for such a reform: in several major EA's economies, including Germany, France and Italy, national DGSs are insufficiently funded to meet the demands of a systemic crisis. Our

proposed answer to this challenge is to enlarge the role and financial capacity of DGSs through the Reform. By expanding their scope, DGSs will contribute to the 8% bail-in requirement, allowing to share in losses of banks in place of non-covered deposits, thereby avoiding bank panics and public bail-outs. It is expected that if the proposed Reform's legislative process comes to a favourable outcome, the cost of bank failures in resolution will be borne (almost) exclusively by the private banking industry instead of the public, so aligning with the above-stated principle of the EBU. However, as noted, the process is currently stuck.

Notwithstanding the clear evidence that this study provides regarding the current underfunding of DGSs and the need to expand their remit, a few limitations should be noted. First, the analysis relies on nationally aggregated datasets, which may mask heterogeneity across individual institutions or depositors. Second, incomplete data for some MSs restrict the universal application of the model's findings. Lastly, the study focuses on balance sheet metrics without addressing potential behavioural responses - such as deposit flight - that could influence outcomes during a crisis.

Future research could build on this work by incorporating more granular bank-level data and exploring how depositor psychology affects resolution scenarios, especially under varying macroeconomic conditions. Additionally, comparative case studies might reveal best practices for DGS funding and governance structures across different jurisdictions. Despite these constraints, the paper contributes significantly to the literature by highlighting the structural vulnerabilities of existing DGS systems and reinforcing the policy rationale for a more robust CMDI framework.

Bibliography

- [1] Allen, F., Gale, D. (1998), Optimal banking crises. *Journal of Finance* 53(4), 1245-1284.
- [2] Allenbach-Ammann J. (May 17, 2023), Bank crisis rules proposal "not acceptable yet" for Germany, Austria. *Euractiv*.
- [3] Annoscia D., Martinez C. (2023), The reform of the crisis management and deposit insurance framework: An overview. *Zeitschrift für Bankrecht und Bankwirtschaft*, 35(5), 313-328.
- [4] Arnal J., Lannoo K., Lastra R. (2024), Is Cmdi What The Banking Union Needs? *CEPS Policy Brief*.
- [5] Asimakopoulos I. G., & Tröger T. (2024), Reform of the CMDI framework: Driving off with the breaks on. In Leibniz Institute for Financial Research SAFE, *SAFE Working Paper* (Working Paper No. 418). Leibniz Institute for Financial Research SAFE.
- [6] Bhattacharya, S., Boot, A.W.A., Thakor, A.V. (1998), The economics of bank regulation. *Journal of Money, Credit, and Banking 30*(4), 745-770.
- [7] Chari, V.V., Jagannathan, R. (1988), Banking panics, information, and rational expectations equilibrium. *Journal of Finance*, 43, 749-761.
- [8] Chiaramonte, L., Girardone, C., Migliavacca, M., Poli, F. (2019), Deposit insurance schemes and bank stability in Europe: how much does design matter? *The European Journal of Finance*, 26(7-8), 589-615.
- [9] Council of the European Union. (2024), Bank crisis management and deposit insurance framework: Council agrees on its position.
- [10] Demirgüç-Kunt, A., Detragiache, E. (2002), Does deposit insurance increase banking system stability? An empirical investigation, *Journal of Monetary Economics*, 49(7), 1373-1406.
- [11] Diamond, D., Dybvig, P. (1983), Bank runs, deposit insurance, and liquidity. *Journal of Political Economy*, 91(3), 401-419.
- [12] EBA. (n.d.), Deposit Guarantee Schemes data.
- [13] ECB. (2024a), Supervisory Banking Statistics for significant institutions. In Supervisory Banking Statistics: Vol. Fourth quarter 2023.
- [14] ECB. (2024b), ECB publishes consolidated banking data for end-December 2023.

- [15] ECB. (2024c), Total number of Credit Institutions, Euro area (changing composition), Monthly.
- [16] ECB. (2024d), Breakdown of Eurosystem aggregated balance sheet, Euro area (changing composition), Monthly.
- [17] Epstein R. A. (2017), Introduction: The Paradox of Financial Control. Banking on Markets: The Transformation of Bank-State Ties in Europe and Beyond (pp. 1-14). Oxford: Oxford University Press eBooks.
- [18] Eule J., Kastelein W., Sala E. (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. *SSRN Electronic Journal*.
- [19] Euro area. (June 29, 2012), Euro area summit statement.
- [20] Eurofi Secretariat. (2020), REGULATORY UPDATE ZAGREB APRIL 2020.
- [21] European Central Bank. (n.d.), What makes a bank significant? European Central Bank Banking Supervision.
- [22] European Commission. (2014), Directive 2014/59 EN brrd EUR-Lex. (n.d.).
- [23] European Commission. (2023), EUR-LEX 52023PC0228 EN EUR-LEX.
- [24] European Parliament. (2024), Council position on the CMDI reform: An initial analysis regarding key aspects of the proposed bank crisis management framework.
- [25] German finance ministry challenges EU bank rescue proposals. (May 16, 2023), *The Business Times*.
- [26] Gortsos C. (2019), The role of Deposit Guarantee Schemes (DGSS) in resolution financing. *SSRN Electronic Journal*.
- [27] Hallak I. (2025), Revision of the bank crisis management and deposit insurance framework in "A new plan for Europe's sustainable prosperity and competitiveness". European Parliament.
- [28] Huertas M. (2023), European Commission legislative proposals for reform of the crisis management and deposit insurance (CMDI) framework. PwC Legal.
- [29] Laviola S., Loiacono G., Santella P. (2015), Il nuovo regime europeo di risoluzione delle crisi bancarie: un'analisi comparata dell'applicazione del

- bail-in, Bancaria.
- [30] Restoy F., Vrbaski R., Walters R. (2020), Bank failure management in the European banking union: What's wrong and how to fix it. *Financial Stability Institute*.
- [31] Single Resolution Board. (2023), *Single Resolution Fund grows by €11.3 billion to reach € 77.6 billion* [Press release]. Single Resolution Fund.
- [32] Zielińska-Lont K. (2021), European Deposit Insurance Scheme(s) Consequences for the EU's Financial Stability. *Comparative Economic Research Central and Eastern Europe*, 24(4), 123-136.