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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

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Abstract

In this paper we show that allowing deposit guarantee schemes (DGSs) the option of supporting asset and liability transfers in the event of a bank's insolvency provides important economic benefits. However, only 12 EU Member States have so far included such "alternative measures" in their DGSs' toolkits. The number of Member States where alternative measures have been actively used is even more limited. Based on our findings, we argue that giving deposit guarantee schemes in the EU the option of using alternative measures would improve the efficiency and effectiveness of the EU banking crisis management framework. It would speed up the handling of smaller banks' failures while reducing upfront outlays and final costs for deposit guarantee schemes. It would improve the protection of deposits, thereby safeguarding depositor confidence and overall financial stability. It would also allow access to finance to be better preserved and enhance the level playing field for banks and depositors in the EU. We also argue that, apart from the availability of the option in law, the least cost test and the creditor hierarchy determine the de facto availability and potential magnitude of alternative measures. Currently, however, both the least cost test and the creditor hierarchy limit the possibility of supporting asset and liability transfers and may therefore need to be reformed in order for economically efficient results to be achieved.

Keywords: Banking union, EU bank crisis management framework, deposit guarantee schemes, transfers of assets and liabilities, depositor protection.

JEL codes: G01, G21, G28.

Non-technical summary

Deposit guarantee schemes (DGSs) are essential to mitigate the risk of bank runs and are thus a key policy feature for ensuring financial stability. In the EU, the role played by DGSs in managing bank failures has only been harmonised to a limited extent. The ability to compensate covered deposits through payouts to depositors after bank failures is a feature of all EU DGSs. However, the ability to manage bank failures by supporting asset and liability transfers to acquiring banks is only available in 12 of the Member States and is actively used in very few of them. The European Commission is currently reviewing the crisis management and deposit insurance framework for banks, and we argue that making alternatives to a payout available across the EU would represent a considerable improvement.

Alternative measures can allow costly and time-consuming liquidation processes and depositor payouts, which destroy customer relationships, to be avoided. Based on recent cases and bank-level data, we show that depositor payouts require substantial outlays by the DGS, which may be significantly reduced when using alternative measures.

Alternative measures can also improve the quality and scope of protection for depositors, by ensuring uninterrupted access to deposits and in some cases also protect uncovered deposits. These beneficial effects of alternative measures may enable destabilising outflows of deposits to be avoided, thereby supporting financial stability.

Finally, alternative measures can support access to finance for specific groups of bank customers, enhance the level playing field for depositors and other bank creditors in the EU, and could pave the way towards a fully harmonised system: a European Deposit Insurance Scheme (EDIS).

Nevertheless, depositor payouts will still be an option for the DGSs, and the least cost test, which has to be passed before alternative measures can be taken, rules out the use of alternative measures whenever these would result in costs higher than a payout.

Transfers supported by DGSs are frequently used in some major non-EU jurisdictions that have drawn lessons from previous systemic banking crises in which DGSs were required to play a major role, such as the US and Japan. The US Federal Deposit Insurance Corporation (FDIC) estimates that between 2008 and 2013, the use of the most common type of transfer supported by the DGS saved $42 billion, or 43%, compared with the estimated cost of payouts.

To make alternative measures usable in practice in the EU, the DGS or other authority must be able to implement the transfer and the least cost methodology in all EU countries. Furthermore, ranking DGSs' claims pari passu with uncovered deposits in the creditor hierarchy would facilitate access to alternative measures.

1 Introduction

Deposit guarantee schemes are essential to mitigate the risk of bank runs and are thus key for ensuring financial stability. The risk of a bank run on deposits is inherent in the business model of banks, as they take short-term deposits but provide loans with longer maturities. If confidence in the ability of a bank to repay deposits falters, its liquid assets may be depleted rapidly, forcing it to close (Diamond et al.,1983). In particular, in a systemic crisis, mistrust may spread quickly and affect banks that would otherwise be viable. Deposit guarantee schemes (DGSs) work to prevent such risk by insuring deposits, typically up to a predefined limit. With a credible DGS in place, depositors' incentives to withdraw their funds when their bank's soundness is questioned are reduced substantially, turning insured deposits into a typically very stable source of funding for banks (Basel Committee on Banking Supervision, 2013).

After the Great Financial Crisis (GFC) began, most EU Member States substantially strengthened and subsequently harmonised the level and quality of DGS protection in Europe. With depositors' confidence at risk, many governments across the EU expanded the coverage of DGSs in the early phase of the GFC. Some governments went so far as to provide an unlimited government guarantee on deposits.[1] However, as these measures were not coordinated across the EU, coverage levels ended up varying widely between Member States, leading to level playing field issues between EU banks, and significant flows of deposits from Member States with low levels to those with high levels of protection (European Commission, 2010). Such cross-border flows may weaken or even deplete the liquidity reserves of the banking sector experiencing outflows, constraining new lending and, in extreme cases, triggering bank failures. In order to limit such destabilising dynamics and to strengthen the level playing field for banks, the EU harmonised key elements of national DGSs with its 2014 DGS Directive (DGSD).[2] Importantly, it set the DGS coverage level at a uniform €100,000 for all eligible deposits in EU banks.[3]

The set of measures with which DGSs may contribute to managing bank failures has, in the meantime, only been harmonised to a limited extent across Member States. The most important tool that all EU DGSs have at their disposal is the basic depositor payout, whereby the DGS compensates covered depositors within a few days of the bank's failure. The DGS then typically becomes a creditor in the insolvency proceeding and can recover some or all of its outlays, depending on its ranking in the creditor hierarchy and the case-specific recovery rate. In principle,

1 E.g. Germany, Denmark and Ireland.

2 Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (OJ L 173, 12.6.2014, p. 149–178).

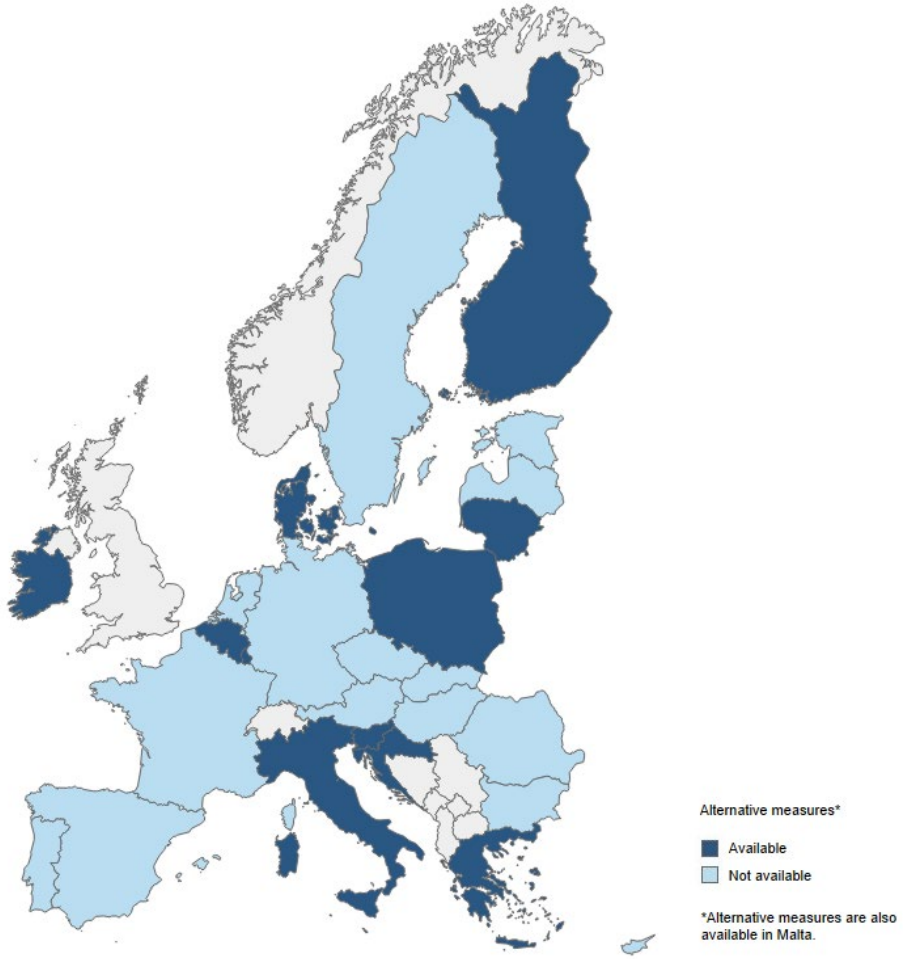
3 This means that the first €100,000 per account is insured. Higher coverage levels apply to joint accounts and temporary high account balances (which arise, for example, during house purchases). Eligible depositors include households and corporates, while deposits from public authorities or financial institutions are not protected by the DGS (Art. 5, DGSD). Furthermore, the DGSD requires DGSs to be prefunded by their members and to reach a target level of 0.8% of covered deposits by 3 July 2024.

all EU DGSs can also provide support during a bank resolution,[4] but under the current framework the conditions for doing so are stringent and thus unlikely to be met in practice.[5] Whether DGSs are allowed to try to prevent bank failures (i.e., by taking preventive measures) or to preserve access to deposits in insolvency by means other than payouts (through alternative measures, such as supporting asset and liability transfers) is left to the discretion of Member States. As of 2020, nine of the 27 EU Member States had implemented the option to adopt preventive measures and 12 Member States had allowed DGSs to implement alternative measures (see Figure 1). Where such measures are available, Member States have wide discretion on how to use them. Consequently, the range of available bank crisis management strategies varies considerably between Member States.

4 In the EU, banks with critical functions and banks whose insolvency may pose a threat to financial stability are resolved under the resolution regime established by the EU Single Resolution Mechanism Regulation (SRMR) (Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund (OJ L 225, 30.7.2014, p. 1–90)) and the Bank Recovery and Resolution Directive (BRRD) (Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms (OJ L 173, 12.6.2014, p. 190–348)). Smaller and less systemic failed banks are more likely to enter normal insolvency proceedings as defined in national law (see, for example, Art. 18, SRMR).

5 The DGS can only contribute subject to a least cost test (i.e. at most, as much as it would lose in the hypothetical insolvency proceeding) and only up to 50% of its target level (Art. 79, SRMR). Given that banks earmarked for resolution typically have to issue more liabilities designed to absorb losses than banks earmarked for liquidation, the likelihood that this least cost test will be positive is relatively remote (European Banking Authority, 2021a).

Figure 1
Availability of alternative measures for EU DGSs



In this paper, we assess the advantages and possible limitations of alternative measures compared with depositor payouts. To this end, Section 2 first contextualises the proposal to make alternative measures widely available to DGSs in Europe within discussions on improving the EU bank crisis management framework and completing the European banking union. Sections 3 and 4 describe how alternative measures work and how they can improve outcomes for DGSs, the failed bank's customers and creditors and financial stability. For this, we analyse a dataset developed for this purpose covering 2,455 banks, banking groups and hosted subsidiaries in the banking union and their DGSs. We show that depositor payouts can impose a significant burden on DGSs, which the implementation of alternative measures could alleviate. Section 4 also provides a brief stocktake of the use of alternative measures in some major non-EU jurisdictions. Section 5 summarises the main challenges in making alternative measures work effectively. Finally, Section 6 draws policy conclusions for the EU.

2 Improving the banking crisis management and deposit insurance framework

The EU's banking crisis management and deposit insurance framework is currently being reviewed by the European Commission, with a primary focus on improving the crisis management framework for smaller and medium-sized banks. The creation of the EU resolution framework following the GFC fundamentally improved public authority toolkits for dealing with bank failures in an orderly way. In the EU, this new framework applies to all banks for which resolution is assessed to be in the public interest. This assessment is carried out by resolution authorities during resolution planning and at the point of failure.[6] For failing smaller and medium-sized banks, in the banking union especially the less significant institutions (LSIs), resolution is less likely to be an option, as it is less likely to be assessed as being in the public interest. Instead, these banks are currently more likely to undergo national insolvency procedures. The national insolvency frameworks for banks were modified to a lesser extent by the post-crisis reforms, leaving some of them less well-suited to effectively deal with banking crises (European Commission, 2021). This is particularly the case when national insolvency frameworks mainly consist of tools developed for general corporate insolvencies and are not adapted to the specificities of banks. Table 1 provides a list of crisis management tools and external funding sources available across the EU for resolution and insolvency.[7]

6 Within the banking union, the Single Resolution Board (SRB) has 120 banks under its remit. More than 2000 smaller banks (less significant institutions (LSIs)) are under direct remit of national resolution authorities and the SRB maintains an oversight function. For 100 of the 120 banks under SRB remit (representing 97% in terms of their total risk exposure amount), resolution is assessed to be in the public interest.

7 For a comprehensive discussion of tools and funding sources in resolution and insolvency, see the European Central Bank (ECB) contribution to the European Commission's targeted consultation on the review of the crisis management and deposit insurance framework (European Central Bank, 2021).

Table 1

Crisis management tools and external funding sources for bank resolutions and insolvencies available across the EU

Resolution		Insolvency	
Tools	**External funding sources**	**Tools**	**External funding sources**
Sale of business tool	Single Resolution Fund and deposit guarantee scheme funds.	Various sets of tools as part of national insolvency procedures. Depositor payout is available in all Member States.	Deposit guarantee scheme funds.
Bridge institution tool			
Asset separation tool			
Bail-in tool			

Notes: For further details on resolution tools, see Single Resolution Board (SRB) (n.d.). Resolution tools may be used by the SRB at European level or by national resolution authorities for the banks under their remit.
National insolvency procedures vary significantly between Member States, although the option of supporting them with a depositor payout is available in all Member States. National authorities are entirely responsible for the governance of insolvency procedures. In this paper, we use the term "liquidation" to describe the activity carried out after the bank has entered the insolvency procedure. There is hence a considerable overlap between the terms "liquidation" and "insolvency", although they may have different meanings in the individual Member States.
Liquidation aid may also be available in insolvency, subject to State aid rules. Furthermore, in some Member States, voluntary funds established by the banking industry are available. Deposit guarantee schemes can be supported by extraordinary contributions from banks and, possibly, public backstops when they are depleted.

The ECB's contribution to the Commission's consultation on the review of the crisis management and deposit insurance framework sets out a comprehensive vision of how to improve the handling of bank crises, particularly in the case of smaller banks (ECB, 2021). It includes a broader scope of resolution, as well as a harmonised administrative liquidation framework supported by a European Deposit Insurance Scheme (EDIS) for failing banks not within the scope of resolution. These steps, in combination, are intended to help make best-practice tools available for all bank failures in the EU. Progress towards achieving this goal requires a political agreement between co-legislators and will therefore take some time.

Making alternative measures widely available would be a major milestone in improving crisis management for banks for which resolution is not in the public interest. The analysis in this paper shows, in particular, that making alternative measures available in all Member States in a harmonised way would improve crisis management outcomes. While alternative measures are beneficial with or even without a European Deposit Insurance Scheme (EDIS), the latter would be highly desirable to improve the resilience of the crisis management framework in the banking union. Broadening banks' access to alternative measures should also facilitate agreement on EDIS, as recourse to these could significantly reduce the amount of funds the relevant DGSs, including EDIS, would have to contribute in the event of a banking crisis. Before discussing these benefits in detail, the following section explains what alternative measures are and how they work.

3 Alternative measures: what are they in practice and under what conditions can they be used?

Alternative measures refer to measures other than depositor payouts that DGSs can take after the failure of a bank to preserve the access of depositors to covered deposits. The piecemeal liquidation of a failed bank's assets is typically economically less efficient than a timely sale to an acquiring bank (see Section 4 for a detailed discussion). However, if the failed bank's shareholders and subordinated creditors have absorbed losses and the remaining liabilities still exceed the bank's assets, it is often impossible to find a buyer for the failed bank, especially in the absence of outside financial support to close the gap. In such a scenario, the DGS can, through an alternative measure, enable a sale. The sale to the acquiring bank then takes place through a full or partial transfer of assets and parts of the liabilities, carried out by the DGS itself or by a different authority.[8] The scope of the transfer may encompass the entire failed bank's balance sheet or only parts of it. For example, in some instances, the transfer may be limited to the deposit book or even to covered deposits. The support from the DGS can take various forms, such as direct cash support, guarantees on or subscription for equity instruments issued by the acquiring bank, the acquisition of NPLs of the bank under liquidation, or a guarantee on assets transferred to the acquiring bank (European Forum of Deposit Insurers, 2019).

The maximum contribution the DGS can make through an alternative measure can never be higher (and is typically lower) than the net costs of a hypothetical alternative depositor payout.[9] This upper limit on the DGS's contribution is known as the least cost test and guides the DGS's decision between an alternative measure and a payout. If a payout is expected to be cheaper for the DGS than an alternative measure, the payout has to be chosen. Policy considerations related to the least cost test are discussed in sections 5 and 6.

8 The DGS may thus either provide the funding only, or also take charge of implementing the transfer.

9 Net costs here are typically understood as the costs for the DGS, taking into account the funds recovered through the liquidation of the failed bank.

Figure 2

Scenario of a transfer supported by an alternative measure and the alternative option of an insolvency proceeding supported by a depositor payout (simplified)

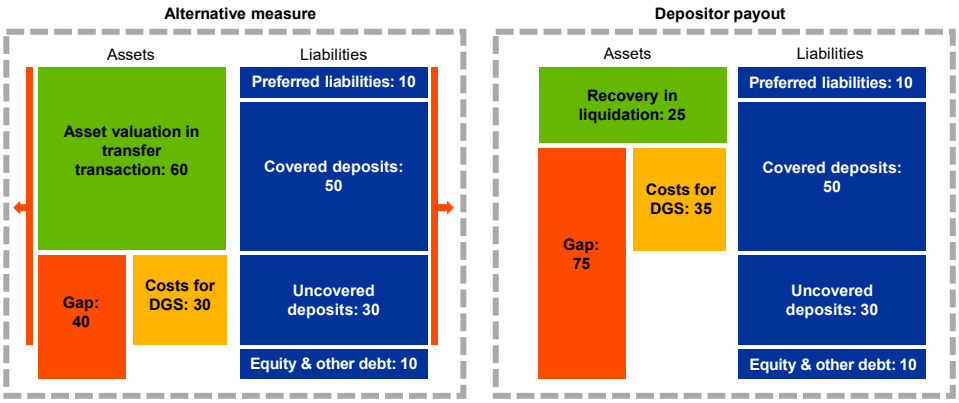


Figure 2 shows an illustrative case of a failing bank in which a transfer strategy supported by an alternative measure would be preferable to an insolvency proceeding. It focuses on the mechanics of applying alternative measures. A comprehensive discussion of their advantages, including for the bank's customers and financial stability, is provided in Section 4. The left-hand side shows the alternative measure scenario, in which assets and liabilities worth 90 are transferred to an acquiring bank (indicated by the red line). This transfer scope would allow the acquiring bank to assume all deposits and the liabilities ranking above deposits. The panel on the right-hand side presents the alternative insolvency scenario. The liability side is based on a realistic small to medium-sized bank under stress. The liabilities are sorted by their ranking in the creditor hierarchy, with those ranking highest at the top. Recovery rates vary widely across jurisdictions and individual bank failures. The example is purely illustrative in this respect. The transfer value of a bank's assets is typically higher (here: 60) than recoveries in insolvency (here: 25, net of administrative costs). In the transfer scenario, the DGS contributes 30, whereas in insolvency the net costs for the DGS of compensating depositors would be 35. Comparing the costs for the DGS between the two scenarios, the transfer supported by an alternative measure would be the cheaper solution and would therefore also be allowed by the least cost test. It would preserve asset value and, in this scenario, also protect uncovered deposits.

Figure 2 also illustrates the difference between initial outlays and net costs for the DGS. In this example, the DGS would initially need to pay out 50 to covered depositors in the payout scenario, i.e. all covered deposits. After the liquidation of the failed bank's assets, it can recover 15,[10] leaving it with net costs of 35. Ideally, both the initial outlays and the net costs are minimised. The use of the alternative measure reduces both initial outlays and net costs to 30. While this example shows the use of direct cash support from the DGS to support a transfer, the implications

[10] Overall recoveries of 25 and deducting 10, which go towards satisfying the claims of preferred creditors. In line with the current EU framework, covered deposits rank above uncovered deposits.

can generally be extended to other types of DGS support for a transfer, such as the use of a guarantee.

The outcome of the least cost test is primarily driven by the expected recovery rate and the extent to which the failed bank's liability structure shields the DGS against losses in the payout scenario. Holding the costs of supporting the transfer transaction constant, a lower expected recovery rate in the payout scenario makes a positive least cost test more likely. Furthermore, the more exposed the DGS's claims after a payout are to losses, the more likely the least cost test is to be positive. This exposure to losses can be driven by a strong reliance on the part of the failed bank on covered deposits, a small proportion of liabilities ranking below covered deposits or a large proportion of liabilities ranking above covered deposits. Similarly, the extent to which the DGS's claims are treated preferentially in the creditor hierarchy may affect the outcome of the least cost test.

4 Alternative measures can significantly improve bank crisis management

The current situation, in which DGSs in some Member States are only permitted to use depositor payouts and cannot access the advantages of alternative measures, is suboptimal. As the above example illustrates, in some situations alternative measures may be more cost-efficient for the DGS and prevent its depletion, while also benefiting the bank's creditors. However, broadening access to alternative measures may also help to better safeguard financial stability, including by ensuring uninterrupted access to deposits and limiting spill-overs. It would also be beneficial from a level playing field perspective, as it would make the benefits of alternative measures available throughout the EU. Ensuring the availability of alternative measures in all EU Member States would thus be a significant step towards improving the crisis management framework for banks for which resolution would not be in the public interest.

4.1 Ensuring quick and cost-effective crisis resolution

A liquidation process combined with a depositor payout is typically lengthy and expensive. If the bank is liquidated, valuable customer relationships, which would have generated revenue in the future, are lost, as depositors and borrowers move on to other banks. The multi-year nature of liquidation procedures and the associated administrative costs also reduce the recovery rate. In such cases, liquidation destroys value that could otherwise have benefited creditors. The depositor payout accompanying the liquidation typically requires the DGS to compensate fully all covered deposits within seven working days of the bank's failure. The funds provided by the DGS are then (often only partially) recovered after several years.[11] As covered deposits often make up a sizeable part of a failed bank's liabilities, this can impose a substantial burden on the available financial means of the relevant DGS. When the DGS is depleted, the other DGS member banks have to step in with extraordinary contributions, with an adverse impact on their profitability and ability to absorb shocks.[12]

The covered deposits of many mid-sized banks in the banking union exceed the target level of their DGS, thus requiring the DGS to tap further sources of funding if a depositor payout is necessary. Based on recent cases and a set of DGS and bank-level data, Box 1 illustrates how depositor payouts require large outlays by the DGS even when the failing bank is relatively small. Nevertheless, in many Member States that have not provided their DGS with the option of alternative

11 Earlier recovery may be possible: for example, when the bank mainly failed for liquidity reasons.

12 Setting up EDIS could mitigate this by reducing the likelihood of depletion and spreading contributions across more banks.

measures, liquidation with a depositor payout may currently be the only option for managing these kinds of bank failures.

Transfer strategies can, by contrast, minimise upfront outlays and result in low ultimate costs for the DGS. In a transfer supported by an alternative measure, the DGS does not have to pay out all covered deposits upfront, as these are integrated into the balance sheet of the acquiring bank. As also illustrated in Figure 2, the immediate cash needs of the DGS are therefore typically much lower and closer or even identical to the final costs,[13] preserving the DGS's firepower, reducing the need for ex post contributions from the banking sector and minimising opportunity costs for the DGS.[14] Final costs are kept low, as transferred assets can be valued on a going-concern basis, rather than being sold at a lower liquidation value. Furthermore, especially when the scope of assets selected for the transfer encompasses all of the failed bank's assets, administrative costs can be minimised, as no assets remain to be liquidated. These value-preserving features benefit creditors and reduce costs for the DGS. In addition, the least cost test ensures that, if an alternative measure is chosen, the final costs for the DGS do not exceed the costs of a payout.

Box 1

Recent cases and an analysis of bank-level data highlight the fact that depositor payouts are very costly for DGSs and their member banks

Recent bank liquidations in the banking union required high contributions from the relevant DGS. As Table A shows, paying out covered deposits following recent bank failures in the EU required the mobilisation of large sums of money, even for failures of relatively small banks.

Table A

Selected recent liquidation cases in the banking union and their upfront costs to DGSs

Bank	Significant or less significant institution	Member State	Year	Covered deposits	Percentage of DGS target level	Percentage of DGS available financial means
ABLV Bank	SI	Latvia	2018	€480 mln	711%	312%
Commerzialbank Mattersburg	LSI	Austria	2020	€490 mln	34%	72%
Greensill Bank	LSI	Germany	2021	€1.1 bln	22%	31%
Sberbank	SI	Austria	2022	€931 mln	60%	211%

Sources: ABLV Bank (ABLV, 2022); Commerzialbank Mattersburg (EBA, n.d.); Greensill Bank (Bloomberg, 2021); Sberbank (Entschädigungseinrichtung deutscher Banken, 2022); DGS target level and available financial means (EBA, 2021b).
Notes: Q4 2020 figures for the Austrian DGS are used for the Sberbank case. Some DGSs hold financial means in excess of their target level.

13 The precise relationship between upfront outlays and final costs depends on the structure of the transaction, and, in particular, on whether the DGS retains any upside or downside risk following the transfer.

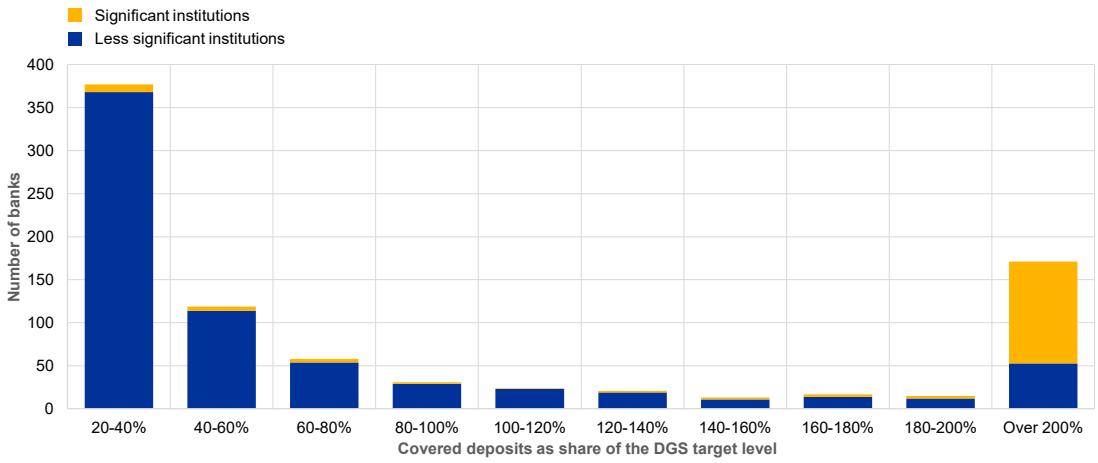
14 These may include lost interest income (assuming positive returns on the DGS's assets), execution costs and the need to obtain financing to cover any shortfall. Given the significant sums required for a payout, even opportunity costs as low as 0.5% can generate a material burden for the DGS in absolute terms.

Box 1 investigates more systematically the potential burden of an individual depositor payout for a DGS. While the final costs for the DGS after recoveries are hard to predict, the initial payout needs can be easily estimated based on the covered deposits of each individual bank. For the purpose of this exercise, we started out with data from 116 significant institutions (SIs) and 2,941 less significant institutions (LSIs) and mapped these banks and their subsidiaries in the banking union to their respective DGSs. For example, the German subsidiary of a French banking group would be a member of one of the German DGSs. Where several members of a banking group are affiliated with a single DGS, such as a French parent bank and its French subsidiary, they are treated as a single entity. Our data set covers 2,455 such banks, banking groups and hosted subsidiaries in the banking union. 196 of them are (part of) SIs. This box then compares the covered deposits of these entities as reported for Q4 2020 with the target level of their DGSs as reported by the EBA.

The analysis shows that many banks would significantly deplete their DGSs if their individual failures resulted in depositor payouts. 261 banks, banking groups or hosted subsidiaries in the banking union could individually deplete their fully filled DGSs with a single depositor payout.[15] 129 of these are SIs or their hosted subsidiaries in other banking union countries. For most SIs, the crisis management strategy is likely to involve resolution rather than a depositor payout. However, 132 LSIs or their hosted subsidiaries also have covered deposits exceeding the target level of their DGSs. A depositor payout is more likely for these smaller banks. Each Member State in the banking union has at least one LSI that could deplete its DGS. Charts A and B illustrate these results. Importantly, these results should not be interpreted as questioning the ability of DGSs to implement a payout where needed, as they can draw on ex post contributions from DGS member banks and possibly other backstop mechanisms. However, they show that the ex post contributions resulting from depositor payouts can be very high.

Chart A

Payouts can deplete significant shares of a DGS's target level

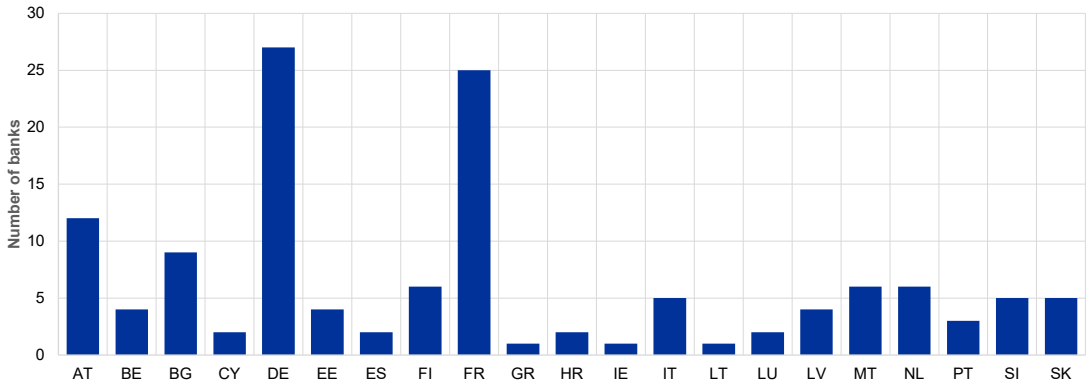


Notes: The chart compares the covered deposits of banks, banking groups and their hosted subsidiaries within the banking union with the target level of the relevant national DGSs in the banking union. Entities within one banking group that are members of the same DGS are treated as one entity. 1,562 banks, banking groups and their hosted subsidiaries that would deplete 0-20% of their respective DGSs' target levels, corresponding to 64% of the banks in the sample, are excluded from the graph for ease of reading.

15 Assuming that all covered deposits would have to be paid out.

Chart B

In each Member State in the banking union, at least one less significant institution can deplete its fully filled DGS with a single depositor payout



Note: The chart counts the number of LSIs, LSI groups and LSIs' hosted subsidiaries per Member State whose covered deposits match or exceed the target level of the relevant DGS.

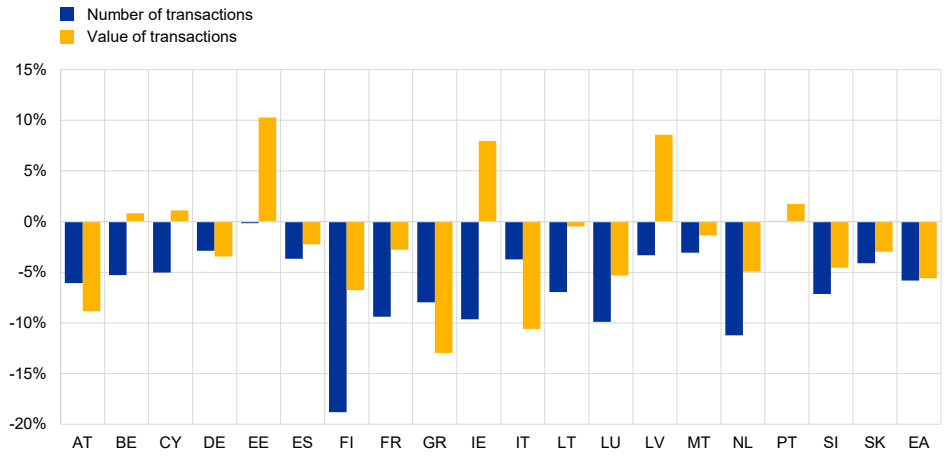
4.2 Safeguarding depositor confidence and financial stability

While being costly for DGSs, depositor payouts are also not the best possible tool in a bank failure for the purpose of ensuring depositors' access to their deposits, which is increasingly critical as cashless payment instruments become more prevalent. In a depositor payout, depositors' access to their accounts is typically interrupted for several days before their deposits are paid out. This could be problematic for depositor confidence, and disruptive, especially for depositors who increasingly use digital means of payment.[16] The available ECB data show that the proportion of cash payments is already low in some Member States, for example 48% of total transactions at point of sale in Estonia, 35% in Finland and 34% in the Netherlands (ECB, 2020). This trend has accelerated in recent years and is expected to continue.

[16] Consumer payment behaviour and payment preferences are changing only gradually. Nevertheless, the total number of non-cash payments in the euro area increased from 114 million in 2015 to 152 million in 2019, an increase of 33.2%. Looking at consumer preferences, in the euro area, 49% of consumers preferred cashless instruments in 2020, up from 43% in 2016.

Chart 1

The number and value of cash transactions trended downwards between 2016 and 2019

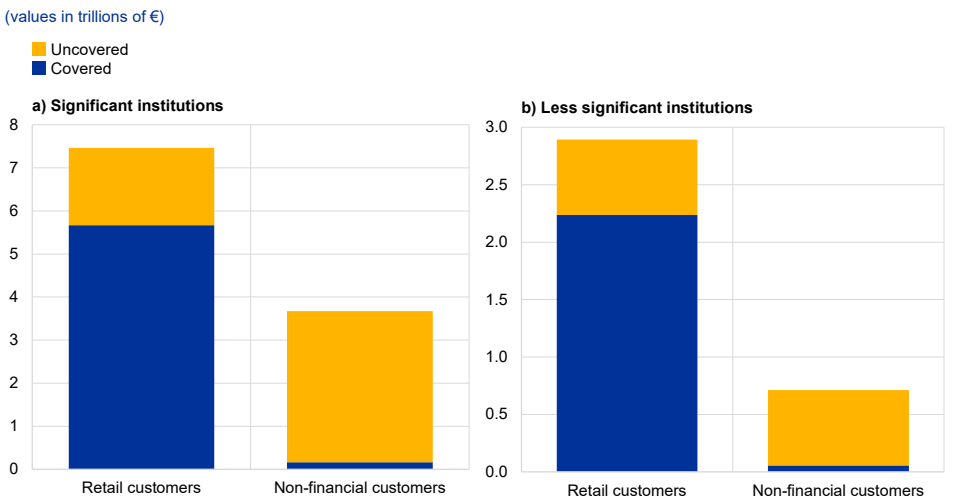


Sources: Study on the payment attitudes of consumers in the euro area (SPACE). Calculation based on data from the ECB, De Nederlandsche Bank and Dutch Payments Association (2019) and Deutsche Bundesbank (2017).
Notes: "EA" refers to the euro area (all 19 countries). The 2016 values only include point-of-sale (POS) payments, while the 2019 values include both POS and person-to-person (P2P) payments. Since P2P payments are mostly made in cash according to the SPACE results, the values might slightly underestimate the difference between SUCH and SPACE. The German data refer to years 2014 and 2017.

As a depositor payout only compensates covered depositors, the expectation of losses may lead to destabilising outflows of uncovered deposits ahead of a bank's failure. When, during a crisis, depositors start to expect that their uncovered deposits may have to bear losses, they quickly reallocate their deposits among banks to stay below the coverage limit. As this reallocation has empirically been observed to be asymmetric, e.g. from smaller to bigger banks (Iyer et al., 2016), this can lead to destabilising net outflows endangering the liquidity buffers and eventually the viability of those banks that are perceived as being weaker. Looking at overall deposits by retail and other non-financial customers, uncovered deposits make up 48% of the total for significant institutions and 36% for less significant institutions (see Chart 2). Uncovered deposits thus make up a notable share of overall deposits and if they start being moved during a crisis, this can have systemic consequences.

Chart 2

Uncovered deposits make up a significant share of overall deposits in the banking union



Source: ECB, Q4 2020.
Note: Retail deposits are liabilities to natural persons or to small or medium-sized enterprises (SMEs). Non-financial customers excludes retail customers.

A transfer strategy facilitated by an alternative measure can achieve a greater scope and a better quality of protection for depositors. Using transfer tools, the range of deposits being effectively protected by the DGS can often be broadened to include uncovered deposits. Furthermore, the transferred deposits are typically not interrupted but remain continuously available. This allows households and businesses to continue to fulfil their financial obligations without experiencing a severe disruption to the accessibility of, or even a significant haircut to, their most liquid assets. This would be in the interest of authorities and the acquiring bank which wants to establish a positive relationship with its new customers.

A transfer strategy can thus also better preserve the stability of the financial system. A transfer strategy typically avoids triggering anxiety among investors and a fall in depositor confidence. The transaction can instead be presented as a rescue or a merger, calming markets and avoiding destabilising deposit outflows. As a result, it can also reduce second-round costs for the DGS and the wider economy, which may arise if the fragility of one bank spills over to others. Also, the lower costs of alternative measures for the DGS could be helpful in reassuring depositors that the DGS will be strong enough to protect their deposits.

4.3 Preserving access to finance

Small banks may play a vital role for a specific customer base with otherwise limited access to banking services, which may therefore be harmed by a liquidation. These may be customers in remote regions or in specific professional, ethnic or religious groups, who are otherwise underserved by banks (see also International Association of Deposit Insurers, 2018). The liquidation of such a bank

may be harmful for those customers still relying on its physical network, which is likely to be closed down, and for borrowers, who may find it hard to refinance their loans, given the lack of other banks in the market segment. While for bigger banks, a large market share with a specific customer base is likely to be considered a critical function and a reason for resolution when they fail, the public interest assessment may not be positive for small and highly specialised credit institutions. If liquidation with a depositor payout is the only option for such a bank, there is a risk of limiting its customers' access to banking services. By integrating the business of the failed bank into the acquiring institution, a transfer strategy instead maintains existing customer relationships and preserves access to banking services.

4.4 Enhancing the level playing field

In the EU, the use of alternative measures has been uneven across Member States. Since 2015, all Italian bank liquidation cases with DGS involvement have been dealt with through alternative measures. De Aldisio et al. (2019) reflect on the Italian experience, provide data on individual cases and draw lessons for the European framework. The United Kingdom (while it was still in the EU, for the purposes of this paper) and Poland have also had some experience with using alternative measures since the adoption of the DGSD (Centre for European Policy Studies and Milieu Consulting, 2019). When EU DGSs have intervened by compensating bank depositors, alternative measures are often not part of their toolbox. It is worth noting that four euro area DGSs which do not currently have the option of alternative measures have explicitly stated that they would be in favour of this going forward (European Forum of Deposit Insurers, 2019).[17]

The pronounced differences between Member States in terms of DGS powers and functions weakens the level playing field. In Member States where alternative measures are possible, deposits can be transferred to an acquiring bank and depositors can access their deposits as if nothing had happened, while for depositors in Member States without alternative measures available, access to deposits is temporarily disrupted. This puts bank customers in some Member States at a disadvantage.

Even within Member States, differences arise between banks under resolution and those in liquidation. For banks under resolution a transfer strategy can be implemented through the sale of business tool. For crisis cases where banks are subject to insolvency proceedings, a transfer may be equally advantageous (as outlined in this section), but, in the absence of alternative measures in national laws, a payout may be the only option.

Such differences in the degree of deposit protection could result in significant shifts towards better protected banks in a banking crisis. While bank customers are typically unaware of such differences between Member States and between banks based in their home countries, in a systemic crisis the expected accessibility

[17] Eight did not ask for legislative changes.

of deposits might suddenly become a salient feature for them and trigger destabilising movements of deposits and potentially severe market distortions (Bonfim and Santos, 2020).

Finally, a future EDIS would benefit from a harmonisation of the DGS toolbox. Making alternative measures available in a harmonised manner throughout the EU would ensure that EDIS could use the same tools across the banking union, allowing all Member States to benefit equally from it. At the same time, as explained in this section, alternative measures could significantly reduce the sums which DGSs, and hence also EDIS, would need to contribute to bank failures, which could increase the political acceptability of the project.

4.5 Depositor payout as a fall-back option

A depositor payout always remains an option for the DGS and the least cost test ensures that alternative measures are not used when they would lead to higher costs. While advantageous in many scenarios, alternative measures are not appropriate for all circumstances. Notably, when the failed bank has an unviable business model that is hard to integrate into an acquiring bank, if its assets are mostly non-performing and difficult to restructure, if more time is needed for conducting due diligence, or in cases of fraud or systematic money laundering, there might be no potential acquirer interested in submitting a bid that would be less costly for the DGS than a payout. Also, even if a bid were the least costly option, the resulting combined entity might not be able to meet regulatory requirements or an acquisition might not be desirable from a financial stability or competition perspective. If in such cases no qualifying and least costly bid remains, the least cost test requires the DGS to revert to its fall-back option: the DGS compensates depositors and the bank is liquidated.

For many small banks, a transfer of assets and liabilities with liquidation as a back-up option could be an effective crisis management strategy, while resolution might be less appropriate. Many arguments in favour of alternative measures apply similarly to the use of the sale of business tool in resolution. It could therefore be argued that all failed banks for which a transfer would be advantageous should undergo resolution. However, resolution tools are only available under the conditions defined by the public interest assessment. While it would be welcome to broaden the scope of resolution, these conditions will remain less likely to be fulfilled by smaller banks. Furthermore, alternative measures have the advantage of offering liquidation as a fall-back option if the transfer fails, which may be more suitable for small banks than a variant resolution strategy, such as a bail-in.

4.6 Alternative measures are a best practice used in major international jurisdictions with banking crisis experience

Given the advantages reviewed in this section, it should not come as a surprise that transfers supported by DGSs are frequently used in some major non-EU jurisdictions that have drawn lessons from past systemic banking crises in which DGSs were required to play a major role. The US equivalent of a transfer tool supported by an alternative measure, the purchase & assumption (P&A) transaction, is the method most commonly used by the Federal Deposit Insurance Corporation (FDIC) to resolve failing institutions. It "minimizes disruptions to the bank's customers and the local community, and conserves cash for the FDIC" (FDIC, 2017 and De Aldisio et al., 2020). Between 2000 and 2020, 95% of the FDIC's interventions to preserve access to deposits in a failed bank were P&As, and only 5% were payouts.[18] The FDIC estimates that between 2008 and 2013, the use of the most common type of P&A[19] saved $42 billion, or 43%, compared with the estimated cost of using payouts.[20] Similarly, the Deposit Insurance Corporation of Japan (DICJ) notes that its intervention method should minimise cost and the "confusions" associated with the failure of a bank. "The pay-out method should [therefore] be avoided as far as possible." (DICJ, 2005). Accordingly, the overwhelming majority of the DICJ's interventions after the failure of Japanese banks since 1992 have been in support of transfers.[21]

18 Only 31 out of 568 such interventions were payouts (FDIC, n.d.). Some lessons from the FDIC experience may also be relevant to the use of a transfer tool in resolution.

19 Loss-share transactions, in which the FDIC agrees to share losses on certain types of assets up to an established limit with the acquirer. This P&A type has proved useful during periods of systemic distress.

20 The resulting savings corresponded to 13.6% of the total assets of the failed banks. In liquidation, the FDIC and the uninsured depositors share losses on a pro rata basis based on their respective percentages of total deposits. The FDIC covers deposits up to $250,000 (FDIC, 2017).

21 Around 180 cases of failed banks in which the DICJ intervened.

5 How to make alternative measures usable and effective in the EU

Besides making alternative measures an option for DGSs, their effective availability in the EU requires complementary legislative measures. Specifically, a transfer tool has to be available, and the least cost methodology has to be harmonised. Furthermore, the creditor hierarchy could be amended to facilitate access to alternative measures. These open issues are outlined below.

5.1 Putting in place a transfer tool

A transfer tool is a necessary complement for implementing an alternative measure. If a DGS has the option of supporting a transfer through an alternative measure, there must be an authority in place to oversee the bank's failure and effect the sale of its assets and liabilities over a short time horizon. The funding source (the option of implementing alternative measures) and the means of carrying out the transaction (the transfer tool) therefore have to established in tandem.

Respecting the right to property, the use of the transfer tool has to ensure that no creditor ends up worse off than in the case of insolvency. Given the value-preserving features of the transfer tool, this should be feasible in the great majority of cases, in particular in transfers involving all the failed bank's assets and all liabilities remaining after the bank's shareholders and some of its creditors have absorbed losses. The fact that the DGS can contribute in the first place indicates that creditors ranking below covered deposits would not recover any money in a hypothetical insolvency proceeding, so the range of creditors whose claims have to be satisfied is limited.

5.2 Harmonising the least cost test

The least cost test (see Section 3) plays an important gate-keeper role in the use of alternative measures. Currently, European law provides very little guidance on how to use it. The resulting lack of clarity has been highlighted by the EFDI (2019) and the EBA (2020). The EFDI notes that an inadequate definition of the least cost test could in many circumstances result in a negative outcome. This could be the case, in particular, if the definition of the costs of a payout is too narrow and therefore fails to capture relevant cost components for the DGS, such as the missing return on liquidity. To achieve equal outcomes across the banking union, the least cost test could be further harmonised.[22]

[22] For a comparison of least cost methodologies across jurisdictions, see Costa et al. (2022).

5.3 The role of the creditor hierarchy

The creditor hierarchy is a key parameter for determining the cost of a payout and thus the outcome of the least cost test. The higher the DGS's claims after a payout rank in the creditor hierarchy of the failed bank, the higher the eventual recoveries for the DGS and the lower its net costs. In other words, the higher the rank of the DGS's claims, the less likely it is that the least cost test will allow for an alternative measure. Currently, DGSs' claims benefit from a super-priority in the creditor hierarchy, ranking above all non-covered deposits and ordinary unsecured liabilities. This limits the availability of alternative measures in the EU, and differs from the US approach, for example, where the claims of the DGS rank the same (pari passu) as uncovered deposits (Mecatti, 2020). While moving to such a pari-passu ranking would somewhat increase the DGS's potential exposure in a bank failure, such a change would be advantageous overall from the authors' perspective given the benefits of broader access to alternative measures.

5.4 Possible further safeguards to improve the efficiency of alternative measures and the bank crisis management framework

To maximise the efficiency of alternative measures, a competitive bidding process and a safeguard that DGS funds should not be used to support shareholders and subordinated creditors may be desirable. First, a competitive bidding process open to eligible acquirers across the EU could, where circumstances allow, maximise value recovery. Second, while the least cost test is likely to prevent the DGS from being used to benefit subordinated creditors or shareholders in most cases, this could be ruled out in general as a safeguard against moral hazard. Such clarification could also avoid concerns from a State aid perspective, where relevant, as State aid rules generally require shareholders and subordinated creditors to absorb losses before State aid can be used.

Putting in place effective crisis management tools in liquidation should not lead to a renationalisation of bank crisis management. The banking union aims to achieve a level playing field for banks. While making alternative measures widely available supports this objective, there may be concerns that it would also incentivise the use of (national) liquidation at the expense of the (European) resolution framework.[23] To address this concern, the availability of effective tools in liquidation (i.e. when the public interest assessment is negative) could be combined with a similar possibility for the DGS to support the use of transfer tools in resolution (i.e. when the public interest assessment is positive). In fact, the harmonisation of crisis management tools for banks with a negative public interest assessment could be a step towards a stronger role for the SRB in the crisis management of these banks in the long run, supported by EDIS when it is established.

[23] The SRB's public interest assessment is a relative assessment, comparing the expected achievement of the resolution objectives in resolution and insolvency with each other.

6 Conclusions and policy proposals

This paper has discussed how the use of alternative measures can benefit DGSs, depositors and financial stability. They serve to contain DGSs' upfront outlays, administrative costs and the loss of asset value caused by the winding up of banks. They facilitate depositors' uninterrupted access to their deposits and banking services and may, at least in some cases, also protect uncovered deposits. This enhanced quality and scope of protection may lower the risk of destabilising deposit flows and thereby support financial stability. We have also argued that widespread access to alternative measures in the EU would support the level playing field and could facilitate political discussions on EDIS.

Conversely, we also showed that a depositor payout can lead to inferior outcomes. Here, we highlighted the large amount of money a DGS has to mobilise to implement a payout and the typically costly and lengthy process required to recover (a share of) it. We illustrated this by reporting the payout needs which arose during recent failures of relatively small banks. We compared the theoretical payout needs of banking union banks with the target level of their respective DGSs and found that a significant number of less significant banks would be able to deplete their DGSs (assumed to be at their target levels) with their individual failures.

We also reported how DGSs in the US and Japan have learnt from systemic banking crises in which DGSs had to intervene, and as a consequence now strongly favour the support of transfers over payouts. By comparison, the use of alternative measures in Europe has been limited and uneven.

Finally, we noted that for alternative measures to be used effectively in the EU, a number of legislative amendments would be necessary. The most important of these is the need to make a transfer tool in insolvency available at national level, together with a no-creditor-worse-off safeguard. Furthermore, the least cost test should be harmonised and the creditor hierarchy could be amended. To achieve the best possible outcome, the transfer transaction should be the result of a competitive bidding process and the availability of a transfer tool in liquidation should not limit the application of the European resolution framework.

Given the possible benefits of alternative measures compared with a depositor payout that we have outlined in this paper, making the tool available in all EU Member States appears desirable. In our view, this would require the following legislative steps. Some of these steps would also facilitate the use of the DGS in resolution and help to harmonise conditions for applying preventive measures and would therefore be useful more generally.

- **Making alternative measures available across the EU,** by making them a mandatory feature of the Deposit Guarantee Scheme Directive (Art. 11) and/or a future EDIS Regulation.

- **Making a transfer tool in insolvency available to national authorities across the EU, for example by amending the Bank Recovery and Resolution Directive (BRRD).** Given the similarity of the use of the transfer tool in insolvency to the use of the sale of business tool in resolution, the national resolution authority may be an obvious candidate for assuming this role. However, based on the specificities of the national legal framework, other solutions, such as giving the DGS this role, may also be considered.

- **Harmonising the least cost test by amending the DGSD (Art. 11) and/or by conferring the task of providing further clarity to the EBA.** The least cost test should take a comprehensive view of the costs of a payout scenario for the DGS, including administrative costs, the costs of diminishing the DGS's available financial means over several years and, potentially, the adverse effects of a payout on other banks through extraordinary contributions as well as contagion.

- **Considering ranking the DGS's claims in liquidation pari passu with uncovered deposits,** to make the benefits of alternative measures more widely available. This pari passu ranking could be introduced through an amendment of the BRRD (Art. 108), together with a general depositor preference, which helps to avoid the no-creditor-worse-off problems that might arise if ordinary unsecured liabilities rank pari passu with deposits.

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