CALL FOR ADVICE REGARDING FUNDING IN RESOLUTION AND INSOLVENCY

PART OF THE REVIEW OF THE CRISIS MANAGEMENT AND DEPOSIT INSURANCE FRAMEWORK

EBA/REP/2021/31

EBA EUROPEAN BANKING AUTHORITY

Contents

List of figures

List of tables

Abbreviations

AT1	Additional tier 1
BRRD	Bank Recovery and Resolution Directive
BU	Banking union
CBR	Combined buffer requirement
CET1	Common equity tier 1
CfA	Call for advice
CMDI	Crisis management and deposit Insurance
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
DGS	Depositor guarantee scheme
DGSD	Deposit Guarantee Schemes Directive
EBA	European Banking Authority
EC	European Commission
EUCLID	European Centralised Infrastructure of Data
FOLF	Failing or likely to fail
GFC	Global financial crisis
G-SII	Global systemically important institutions
iMREL	internal MREL
JRC	Joint Research Centre
LCT	Least-cost-test
MREL	Minimum requirement for own funds and eligible liabilities
NCWO	No creditor worse off
O-SII	Other systemically important institutions
P2R	Pillar 2 requirement
PIS	Public interest assessment

RFA	Resolution financing arrangements
SRMR	Single Resolution Mechanism Regulation
SPE	Single-point-of entry
SYMBOL	Systemic model of banking originated losses
T2	Tier 2
TLOF	Total liabilities and own funds
TREA	Total risk exposure amount

1. Executive summary

In 2020 the EC initiated a review of the EU CMDI framework. In April 2021, the EC requested technical advice from the EBA regarding funding in resolution and insolvency.

In 2020 the European Commission (EC) initiated the review of the EU bank crisis management and deposit insurance (CMDI) framework, which lays out the rules for handling banking failures. The review aims to increase the framework's efficiency, proportionality, and overall coherence to manage bank crises in the EU, irrespective of the banks' size and business model, and to enhance the level of depositor protection.

As part of the initiative, in April 2021 the EC requested targeted advice[1] from the European Banking Authority (EBA) on funding sources to handle a bank failure in resolution and insolvency. In particular, the EC is seeking advice on (i) the capacity of banks to access resolution financing arrangements (RFA), (ii) the possibility of depositor guarantee scheme (DGS) intervention – under the current framework as well as under possible policy options – and (iii) the capacity of (small- and medium-sized) banks to issue sufficient loss-absorbing financial instruments.

This report presents the findings of the EBA's quantitative analysis under two approaches.

This report presents the findings of the EBA's analysis on funding sources to handle a bank failure in resolution and insolvency in light of possible changes in the creditor hierarchy. The results are based on a sample of 368 banks from 27 EU countries reporting data as of 31 December 2019, and therefore do not take into account MREL instruments issued after that date.

The sample includes institutions currently earmarked for liquidation (181 out of 368 in the sample and more than 6,000 banking institutions in the EU) as well as for resolution. The analysis was carried out for both types of institutions. This is to account for the potential evolution of the framework where the public interest assessment (PIA) could be expanded. However, the foreseeable impacts of a change in the strategy for 'liquidation' entities, such as the possible increase in the issuance of eligible instruments to meet the minimum requirement for own funds and eligible liabilities (MREL), is not taken into account in the analysis.

The findings are first presented using descriptive statistics, which allows to assess and compare the marginal impact of the implementation of the policy options identified in the call for advice (CfA) and assessed in the report. The first part of the analysis defines the most relevant policy options, notably in relation to depositor preference, which are analysed in-depth in the second part of the report. Policy options other than depositor

[1] European Commission (2021), 'Call for advice to the European Banking Authority (EBA) regarding funding in resolution and insolvency as part of the review of the crisis management and deposit insurance framework'.

preference, that may be relevant to achieving the objectives of the CMDI-review, are not within the scope of the advice and therefore not included in the analysis.

In the second part of the response, the SYstemic Model of Banking Originated Losses (SYMBOL) is used to analyse the impact of the current framework and the implementation of possible policy changes in a banking crisis. The application of the modelling approach allows a more realistic presentation of the banking sector – specifically of a potential crisis in the banking sector – and enables the introduction of a resolution group perspective.

The response concludes with a third part, which presents the findings on the institutions that are considered to have difficulties in issuing eligible instruments to meet an existing MREL.

Under the baseline scenario, reflecting the current creditor hierarchy and the simplifying assumption that no losses are suffered in the run up to resolution, the majority of institutions have sufficient internal capacity to meet the requirements for RFA access. Nevertheless, 96 entities may require a bail-in of (mainly non-preferred) deposits in the aggregate amount of EUR 18.3 bn. A DGS intervention to support such entities is rarely possible.

The baseline scenario is based on the current creditor hierarchy applicable in each EU Member State, on the simplifying assumption that banks suffered no losses in the run-up to resolution and considers all institutions in the sample (368) irrespective of whether a liquidation or a resolution strategy is currently assigned to the institution.

It should not be read as an assessment of the functioning of the current creditor hierarchy framework (in light of the simplifying assumptions and sample) but as a scenario against which the effect of possible changes in the creditor hierarchy are assessed.

Under the baseline scenario, the majority of institutions (272, of which 143 are resolution institutions) have sufficient own internal resources to absorb losses of at least 8% of the bank's total liabilities and own funds (TLOF) and therefore meet this requirement for accessing the RFA, even without needing to bail-in depositors.[2]

Still, when assuming no CET1 depletion under the baseline scenario, 96 institutions (44 entities with a resolution strategy and an additional 52 with a liquidation strategy entities) do have not sufficient own internal resources to reach the 8% TLOF threshold and thus to access RFA without bail-in of depositors. Out of the 96 entities, eight entities (seven of which have a liquidation strategy) would also need to bail-in preferred depositors on top of non-preferred deposits, and two resolution

[2] The descriptive analysis shows the impact on depositors by non-covered, non-preferred (e.g. public authorities, financial institution; large corporate deposits beyond EUR100k, hereafter 'non-preferred'); non-covered, preferred (e.g. SMEs, NGOs, private individuals above EUR100k; hereafter 'preferred'); and covered deposits. Non-preferred deposits refer to deposits as defined in Article 2(1) point 3 of the DGSD that do not qualify for exclusion from bail-in or preferential treatment in application of Articles 44(2) point a or 108 of the BRRD. Preferred deposits refer to deposits as defined in Article 2(1) point 3 of the DGSD that do not qualify for exclusion from bail-in (Article 44(2) point a of the BRRD), yet for which a preferential treatment is foreseen in line with Article 108 of the BRRD. Covered deposits refer to deposits as defined in point (5) of Article 2(1) of the DGS, with the exclusion of temporary high balances as defined in Article 6(2) of that Directive.

entities would need to bail-in all types of deposits including covered deposits.[3] Five entities are not able to reach the 8% TLOF threshold even after bailing-in all types of deposits (resolution strategy banks: two). These 96 institutions are mainly small- or medium-sized and have a higher reliance on deposits; the impact on deposits is estimated at EUR 18.3 bn (resolution strategy banks: EUR 14.2 bn), representing 0.3% of deposits of institutions in the sample (0.2% of deposits of resolution entities in the sample) and is almost entirely borne by non-preferred deposits.

When considering a potential DGS intervention after bailing in all bail-in able liabilities to provide funds to support banks in reaching the threshold to access RFA and to limit bailing-in all types of deposits, only three institutions could potentially benefit from such an intervention under the baseline scenario (one with a resolution strategy and two additional banks with a liquidation strategy). For only two banks would the DGS intervention be sufficient to reach the 8% TLOF threshold that would allow banks to receive RFA (one bank with strategy resolution and one bank with strategy liquidation).

Considering scenarios where capital depleted in the run up to resolution, the number of banks requiring deposits to access RFA increases significantly to up to 311 entities with an aggregate amount of EUR 147.8 bn of affected deposits.

The results of the descriptive analysis change significantly when more realistic scenarios of capital depletion are considered, i.e. assuming losses suffered in the run-up to resolution. Under the assumption that the bank's capital buffers are depleted (combined buffer requirements (CBR) and any management buffer are depleted while P2R remains available), the number of banks that are able to access RFA without the bail-in of (mainly non-preferred) deposits decreases from 272 (resolution strategy banks: 143) under the baseline scenario to 86 entities (resolution strategy banks: 53) under the scenario where buffers are depleted. This number further decreases to 60 (39 resolution entities and an additional 21 liquidation entities) under the assumption that the bank's Pillar 2 capital would be fully depleted as well.

For the scenario in which a bank's capital buffers are depleted, the number of banks with losses on deposits increases to 283 banks with an aggregate EUR 123.7 bn in affected deposits (of which 134 with EUR 107.6 bn for resolution banks) from 96 banks with an aggregate of EUR 18.3 bn in affected deposits (of which 44 resolution banks with EUR 14.2 bn) under the baseline scenario. Under this scenario, the share of losses on deposits over the deposits of the total sample increases from 0.3% to 2.0% (from 0.2% to 1.9% for resolution strategy institutions).

For more severe capital depletion scenarios, the impact on depositors further increases up to EUR 147.8 bn (of which

[3] Covered deposits are excluded from bail-in under Article 44(2)a of the BRRD, but this analysis looks into the potential use of DGS fund which is condition by the losses that covered deposits would have suffered were they are not excluded from bail-in (Article 109(1)a of the BRRD).

	EUR 129.7 bn for resolution institutions) in the scenario with Pillar 2 capital fully depleted and only P1 remains available, representing 2.4% of the sample's deposits (2.3% for resolution strategy institutions). In this scenario, 311 entities (of which 150 are resolution institutions) would suffer losses on deposits.
Preferring all deposits to other ordinary unsecured claims could increase the number of institutions that could access RFA without bail-in of deposits by 80 banks. In addition, the number of institutions that could receive a potential DGS intervention to support them to access RFA could increase up to 136 banks. The results are contingent on the recovery rates assumed under a counterfactual insolvency scenario.	The CfA requires the EBA to assess four different potential policy options in relation to depositor preference in the creditor hierarchy. In each of these scenarios all types of deposits are preferred to other ordinary unsecured claims and each of the scenarios has a different relative order of preference between deposits (non-preferred, preferred and covered). In a scenario where banks depleted their capital buffers prior to resolution, preferring all deposits to other ordinary unsecured claims would increase the number of institutions that are able to access RFA without having to bail-in (mainly non-preferred) deposits by 80 institutions (of which 48 are resolution banks) compared to the current creditor hierarchy applicable in each Member State. A DGS intervention in resolution is inter alia conditional on the least-cost-test (LCT), which requires that the DGS contribution in resolution is less costly than reimbursing covered deposits in a payout event. Considering a scenario where a bank's capital buffer is depleted prior to resolution, a single-tier depositor preference (i.e. all deposits rank pari-passu and senior to ordinary unsecured claims) would allow for a higher DGS contribution and, in turn, would increase the number of banks that could receive DGS support to 136 institutions (of which 58 are resolution institutions) compared to two resolution and four liquidation institutions under the current creditor hierarchy. The maximum contribution of the DGS increases to EUR 0.98 bn compared to EUR 0.05 bn under the currently applicable creditor hierarchy. The single-tier depositor preference scenario and the baseline scenario represent the upper and lower bound, respectively, for the maximum DGS intervention of all depositor preference scenarios, thus all the remaining three depositor preference scenarios result in a DGS intervention within this range. It should be noted that the LCT allows for the possibility of using DGS funds in resolution up to the amount of losses that covered deposits would suffer in an insolvency. This will depend not only on the creditor hierarchy but also on the recovery rate assumed, which may vary by bank and crisis scenario. As tested in the response, higher or lower recovery rates would therefore lead to a more or less constraining LCT, respectively, which in turn decreases or increases the maximum DGS funds available in resolution. The extent to which a more or less extensive use of the DGS may affect, and with what consequences, the level of the participation

	of the entire financial system into the absorption of losses is not in the scope of this exercise.
In a crisis scenario of a severity similar to the GFC, as simulated by the SYMBOL, the average number of institutions required to bail-in deposits decreases by eight banks under a single-tier depositor preference. A single-tier depositor preference allows the highest DGS contribution at EUR 0.8 bn, sufficient for almost all banks requiring potential DGS contributions to access a maximum of EUR 1.3 bn of RFA funding.	In the second part of the response, the modeling approach simulates losses in the banking sector in a crisis scenario similar to the global financial crisis (GFC) of 2008 and presents the impact of the baseline scenario, the single-tier and the three-tier depositor preference scenarios for institutions with need for potential DGS contribution to access RFA under such a situation. In a crisis scenario, preferring deposits to other ordinary unsecured claims would reduce the average number of banks that need to bail-in any types of deposits in resolution from 19 to 11 institutions (11 to 6 resolution institutions) and would decrease the average amount of losses for depositors by EUR 2.8 bn to EUR 1.2 bn, almost entirely driven by banks with a resolution strategy. While under the current creditor hierarchy and a three-tier depositor preference, on average, only an aggregate of around EUR 0.1 bn can be contributed by DGS funds to support banks to access RFA, the average, aggregated DGS contribution would increase to EUR 0.8 bn (of which EUR 0.6 bn for resolution institutions) under a single-tier depositor preference. Under the single-tier depositor preference, out of 11 banks, which, on average, need to bail-in deposits to access RFA, nine entities would receive enough DGS contributions to meet the 8% TLOF threshold to access RFA (four out of six resolution banks). This represents an increase by eight banks compared to the baseline and the three-tier depositor preference scenarios. In the modelling approach, the maximum amount of RFA accessible is also computed. Under a single-tier depositor preference it increases by EUR 0.5 bn to EUR 1.3 bn compared to the three-tier depositor preference (by EUR 0.4 bn to EUR 1.2 bn for resolution banks).
When the SPE strategy breaks, the average number of banks requiring a bail-in of deposits and, in turn, a potential DGS contribution, increases to 37 entities under the current creditor hierarchy and to 18 under a single-tier depositor preference.	The impact changes in a scenario where the single-point-of entry (SPE) strategy of resolution groups breaks, i.e. when subsidiaries of a resolution entity may not be able to upstream losses higher than the pre-positioned internal MREL (iMREL) to their parent. The average number of institutions that would need to bail-in deposits in such a scenario would increase to 37 compared to 19 (to 22 from 11 for resolution institutions) when the SPE strategy holds under the current creditor hierarchy with an additional EUR 3.7 bn in DGS contributions needed (EUR 2.7 bn for resolution banks). Under a single-tier depositor preference, the average number of banks with losses on deposits increases from 11 to 18 banks (from six to 10 for resolution banks) with an additional EUR 1.6 bn

	in DGS contributions needed (of which EUR 1.0 bn for resolution banks).
The response finds that 12 institutions currently facing an MREL shortfall have not issued any MREL eligible instruments. However, the strong simplification in the assumptions underlying the analysis suggests caution in the interpretation of the results and the need for further in-depth analysis, in particular, with respect to banks which are currently earmarked for liquidation, as they are not considered in the analysis.	The response also investigates the issue of reported difficulties for small- and medium-sized banks to access the market for MREL instruments. Without concluding on the capacity of the institutions to issue instruments, due to some limitations of the analysis, the response finds that 12 institutions currently facing an MREL shortfall (representing 3.5% of total assets of all resolution banks with total assets below EUR 30 bn, and 0.1% of EU total domestic assets) had not yet issued MREL eligible instruments as of end-2019. The response looks into institutions with total assets below EUR 30 bn that currently face an MREL shortfall against their end-state requirement (sample: 161 banks, of which 73 have an MREL shortfall taken from EBA's 2020 quantitative MREL report). It finds that 39 banks have senior MREL instruments on their balance sheets. Out of the remaining 34 institutions, 22 banks have additional tier 1 (AT1) or tier 2 (T2) instruments on their balance sheet and for the institutions without senior MREL instruments or AT1/T2 instruments, two have an investment grade credit rating from at least one of the main credit rating agencies. While providing useful information, this analysis should not be taken as drawing a conclusion as to the capacity of institutions to issue but rather as a way of assessing the extent of the problem for institutions currently facing a shortfall. Indeed, this analysis does not capture liquidation institutions that may face an MREL requirement were the PIA to be extended, nor does it consider the potential impact on profitability stemming from the issuance of eligible instruments. The findings should therefore be interpreted with caution. That said, the EBA aims to conduct further work on this topic and, in particular, on the cost of MREL as part of in its MREL monitoring activity.

2. General remarks

2.1 Background and mandate

1. The CMDI framework was introduced as a legislative response to the GFC to provide tools to address bank failures while preserving financial stability, protecting depositors and avoiding the risk of excessive use of public financial resources. It consists of three EU legislative texts acting together with relevant national legislation: the Bank Recovery and Resolution Directive (BRRD – Directive 2014/59/EU); the Single Resolution Mechanism Regulation (SRMR – Regulation (EU) 806/2014); and the Deposit Guarantee Schemes Directive (DGSD – Directive 2014/49/EU).[4]

2. The CMDI framework provides for a set of instruments that can be used before a bank is considered failing or likely to fail (FOLF). These allow a timely intervention to address a financial deterioration (early intervention measures) or to prevent a bank's failure (preventive measures). When a bank is considered FOLF and the resolution authority assesses the existence of a public interest to resolve the bank (i.e. a positive PIA), the framework – specifically the BRRD – further provides resolution authorities with powers to intervene. If there is no public interest (i.e. a negative PIA), the bank failure should be handled through insolvency proceedings available at the national level.

3. The CMDI framework also provides rules on the funding of resolution actions. When it comes to funding, the overarching principle is that the bank should first cover losses with private resources (through the reduction of shareholders' equity and the bail-in of creditors' claims) and that external public financial support can be provided only after certain requirements are met. External financing of resolution actions (should the bank's private resources be insufficient) is provided by resolution financing arrangements[5] and the DGS funds, both financed by the banking industry, rather than taxpayers' money.

4. The EC is reviewing the CMDI framework with the aim of increasing its efficiency, proportionality and overall coherence to manage bank crises in the EU. As part of this review, the Commission requested technical advice from the EBA regarding the funding sources (internal and external) in resolution and insolvency.

5. The CfA seeks to inform the Commission on:

    - the reported difficulty for some small- and medium-sized banks to issue sufficient loss-absorbing financial instruments, namely MREL;

[4] Provisions complementing the crisis management framework are also present in the Capital Requirements Regulation (CRR – Regulation (EU) 575/2013) and the Capital Requirements Directive (CRD – Directive 2013/36/EU). The winding up Directive (Directive 2001/24/EC) is also relevant to the framework.
[5] Article 99 of the BRRD.

- banks' current funding capacity in view of the funding structure of banks and banks' capability to access external sources of funding; and

- the impact of various possible policy options in relation to funding within resolution and insolvency on banks' internal and external funding capabilities. The possible policy options are specified by the CfA.

2.2 Data

6. The analysis in this report is largely based on resolution data reported under Commission Implementing Regulation (EU) 2018/1624 of 23 October 2018 (hereafter 'ITS on resolution reporting') for the reference date of 31 December 2019 by institutions within the scope of the BRRD. A simplified information obligation is allowed at the discretion of the resolution authorities for institutions whose failure would have a limited impact on financial markets, on other institutions and on funding conditions.

7. The scope of the reporting framework differs between reporting templates. For the general information used in this analysis, the EU parent entity is expected to report information for all entities in the accounting consolidation and exceeding a minimum relevant threshold.[6] For balance sheet and own fund requirements information, resolution groups are expected to report on a consolidated basis at the level of the EU parent[7] as well as at an individual level for the EU parent entity and every entity that is a relevant legal entity,[6] except where solo MREL has been waived. Standalone entities are expected to report the information on an individual level.

8. Information on the identification of the resolution strategy is based on the European Centralised Infrastructure of Data (EUCLID) master data template reported by resolution authorities prior to the submission of the ITS on resolution reporting with the reference date of 31 December 2019. Entities flagged with a 'contingent resolution' strategy are treated under the 'resolution' strategy.

9. The second part of the report, which applies a modelling approach, includes complementary data on formally adopted MREL decisions that were reported to the EBA under Article 45(16) of the BRRD for the reference date of 31 December 2019. Where formally adopted MREL decision were not yet available on 31 December 2019, indicative MREL decisions are considered. Indicative MREL decisions are, for instance, communicated to banks prior to the bank's right to be heard process. For entities that are not currently subject to MREL (e.g. entities with a liquidation strategy), a MREL proxy applies (see section 3.2.3).

[6] Threshold: 0.5% of group total assets of the group consolidated financial statements; or 0.5% of the total risk exposure amount (TREA) or total common equity tier 1 (CET1) calculated at a prudentially consolidated level. In addition, all entities that provide critical functions.
[7] Where the resolution entity is different from the parent, on a consolidated basis at the level of the resolution entity.

2.3 Sample

10. Institutions participating in the ITS on resolution reporting exercise were included in this report, subject to on data quality criteria.[8] The CfA requests to focus on scenarios, where in the event of a failure only the resolution entity would be subject to a resolution action (e.g. bail-in; access to external funding) based on its own balance sheet. Subsidiaries are not supposed to be subject to specific supervisory actions as the impact on their own balance sheet is embedded into the impact on the resolution entity via the upstreaming process. For this reason, the analysis includes information reported by entities at an individual level as opposed to information reported at a consolidated level.

11. Further, the EBA considers a possible broader outcome of the PIA, i.e. a possible increase in the number of institutions with a positive PIA, and therefore treats all entities in the sample as resolution entities, irrespective of the strategy (resolution or liquidation) defined by the resolution authority as at 31 December 2019. However, it is important to note that:

    - the sample (368 out of more than 6,000 banking institutions in the EU representing around 74% of EU total domestic assets) excludes a large number of small institutions for which resolution authorities do not collect resolution reporting data as provided by Article 4 (1) of the BRRD provisions, which allow small banks to be exempt from resolution reporting;

    - the extension of the analysis to the liquidation banks included in the sample does not apply to that part of the analysis that aims to explore the capabilities to issue MREL eligible liabilities. That part only considers resolution groups and entities currently facing an MREL shortfall;

12. The CfA specifically requests the analysis of an alternative assumption regarding loss allocation within banking groups. To that end, the modelling approach uses the sample of resolution entities and, in addition, subsidiaries in resolution groups. The term ‘resolution entities’ refers to the EU parent entity of a resolution group as well as EU standalone entities.

2.3.1 Bank size classification criteria

13. Experience with the application of the CMDI framework indicates only partial achievement of the objective to shield public money from the effect of bank failures, particularly for small- and medium-sized banks. Therefore, this analysis focuses on funding in resolution and insolvency of small- and medium-sized banks.

[8] The loss simulation requires that a minimum set of three variables (total assets, TREA and CET1 capital) are reported by an entity to be included in the analysis. Entities for which these basic information are missing are excluded from the analysis. Prior to excluding entities without reported total assets, reported TLOF is used as a proxy for non-systemic and smaller institutions (< EUR 50 bn TLOF). In the modelling analysis, one additional entity was excluded from the analysis due to insufficient data quality.

14. The EBA chose to classify institutions in the sample as 'large'[9] or 'small and non-complex'[10] (hereafter 'small') in accordance with the criteria in the final amended CRR.[11] A third class, 'medium', refers to institutions that are neither 'large' nor 'small'. Such criteria relate to the balance sheet size and systemic risk importance, but also elements of complexity such as trading activities and the activities outside of the European Economic Area (Table 1).

Table 1 Simplified size clustering criteria[12]

Size	Criteria
Large	**The institution meets <u>any</u> of the following conditions, with the exception of condition (d) which acts like a binding threshold for all the other conditions:[13]** a) Identified as global systemically important institutions (G-SIIs) in accordance with Article 131(1) and (2) of the CRD b) Identified as other systemically important institutions (O-SIIs) in accordance with Article 131(1) and (3) of the CRD c) One of the three largest institutions in terms of the total value of assets in the Member State in which it is established d) The total value of the institution's assets on the basis of its consolidated situation is equal to or larger than EUR 30 bn
Small (and non-complex)	**The institution is not a 'large' institution (see criteria above) and meets <u>all</u> of the following conditions:** a) The total value of its assets on an individual basis or, where applicable, on a consolidated basis in accordance with CRR and CRD is on average equal to or less than the threshold of EUR 5 bn over the four-year period immediately preceding the current annual disclosure period b) The total value of its derivative positions is less than or equal to 2% of its total on- and off-balance sheet assets, whereby only derivatives that qualify as positions held with trading intent are included in calculating the derivative positions c) More than 75% of both the institution's consolidated total assets and liabilities, excluding in both cases the intragroup exposures, relate to activities with counterparties located in the European Economic Area
Medium	**The institution is neither 'large' nor 'small'**

2.3.2 Depositor-reliance classification (funding structure)

15. The size of an institution is one of the parameters helping to understand how effective resolution measures can be. The EBA further considers the institution's funding structure and its reliance on deposits and chose to classify institutions in the sample according to

[9] Article (4)(1)(146) of the CRR2.
[10] Article (4)(1)(145) of the CRR2.
[11] The final amended CRR, Regulation 2019/876, published in the Official Journal on 7 June 2019.
[12] The proposed criteria were simplified as follows: i) the criterion on the application of simplified resolution obligations was disregarded due to missing data; ii) the criteria on the discretionary classification of institutions by their national competent authorities were disregarded; iii) an individual data point (31 December 2019) instead of time averages was used for the 'total asset' threshold under the 'small- and non-complex' classification (a).
[13] i.e. banks with a balance sheet size below EUR 30 bn are not captured in the 'large' category even if they are O-SIIs or among the third largest institutions in their Member State.

their ratio of deposits to TLOF into four categories ('low', 'mid', 'mid-high', 'high'). The indicator takes into account all forms of deposits, irrespective of the counterparty or the nature of the deposit (non-preferred, preferred or covered). The average depositor reliance in the sample stands at around 50% of TLOF (Table 27 in Annex 3):

Table 2 Depositor-reliance classification

Deposit-reliance	Deposits/TLOF (%)
Low	0-60
Mid	60-70
Mid-high	70-80
High	>80

2.3.3 Consolidation

16. The current framework and policy specification apply to resolution entities at an individual level. Therefore, the report is based on a sample of resolution entities reporting at an individual level. In the second part of the report, the sample is extended to include subsidiaries of resolution groups reporting at an individual level in order to evaluate specific considerations regarding resolution group losses as outlined in the CfA (see section 3.2.3).

2.3.4 Summary statistics

17. A total of 1,784 institutions participated in the EBA ITS on resolution reporting. Among these, 1,479 report at an individual level, 255 at the highest level of consolidation in the EU and 50 at a sub-consolidated level. Out of the relevant submissions, 862 institutions submitted the minimum data points needed for the analysis, i.e. they reported total assets, TREA and CET1 capital. The 862 institutions included in the analysis are separated between types of entity, whereas 368 entities are point-of-entry entities (resolution entity of a group or standalone entity).[14] Those entities represent the main sample of the analysis. In the modelling analysis of the report, 494 subsidiaries are added to the sample, where relevant. The sample is presented by country (Table 3), size (Table 4), resolution strategy (Table 5) and depositor reliance (Table 6) and separated according to the type of reporting entity.

Table 3 Sample by country and type of entity[15]

Country	Point of entry (parent level entity)	Point of entry (standalone entity)	Total	Subsidiary
AT	24	0	**24**	27
BE	5	7	**12**	11
BG	1	11	**12**	5

[14] Based on the assumption of an extended PIA, also including entities with a current liquidation strategy.
[15] The institutions with MREL requirements from Denmark are not included. The DK institution included in the sample is a credit mortgage institution, which is exempted from MREL and instead subject to a debt buffer requirement. The institution should therefore not have been included in the sample. This implies that Danish institutions are not adequately reflected in the sample.

CY	8	0	**8**	3
CZ	1	3	**4**	4
DE	31	3	**34**	21
DK	1	0	**1**	0
EE	5	0	**5**	4
ES	28	35	**63**	12
FI	8	0	**8**	201
FR	9	0	**9**	89
GR	7	8	**15**	3
HR	4	0	**4**	6
HU	0	0	**0**	6
IE	0	8	**8**	12
IT	24	0	**24**	39
LT	4	0	**4**	2
LU	5	32	**37**	11
LV	1	2	**3**	2
MT	2	7	**9**	0
NL	5	1	**6**	4
PL	6	7	**13**	0
PT	8	16	**24**	11
RO	3	9	**12**	1
SE	9	10	**19**	11
SI	4	2	**6**	6
SK	1	3	**4**	3
Total	**204**	**164**	**368**	**494**

18. The sample of the analysis covers approximately 63% to 74% of EU total domestic assets.[16] The level of coverage varies across jurisdictions (Table 77 in Annex 5), with coverage of less than 10% in some jurisdictions and up to 85% in others.

Table 4 Sample by size and type of entity

Size	Point of entry (parent level entity)	Point of entry (standalone entity)	Total	Subsidiary
Large	46	3	49	9
Medium	97	27	124	180
Small	61	134	195	305
Total	**204**	**164**	**368**	494

Table 5 Sample by resolution strategy and type of entity

Resolution strategy	Point of entry (parent level entity)	Point of entry (standalone entity)	Total	Subsidiary
Resolution	142	45	187	405
Liquidation	62	119	181	89
Total	**204**	**164**	**368**	494

Table 6 Sample by depositor reliance and type of entity

Depositor reliance	Point of entry (parent level entity)	Point of entry (standalone entity)	Total	Subsidiary
Low	79	28	107	130
Mid	32	12	44	68

[16] Please refer to Annex 5 for an explanation why the coverage is presented as range.

Mid-high	37	26	63	161
High	56	98	154	135
Total	**204**	**164**	**368**	494

19. Table 7 shows that the majority of liquidation entities are small entities with a high reliance on depositors. Entities with a resolution strategy are of different sizes. However, in general, Table 7 shows that large entities with strategy resolution tend to have fewer deposits on their balance sheet, while small entities with strategy resolution have a rather large share of deposits on their balance sheets.

Table 7 Sample by size, depositor reliance and resolution strategy

		Large	Medium	Small	Total
Resolution	**Low**	24	30	9	**63**
	Mid	7	14	4	**25**
	Mid-high	10	16	13	**39**
	High	3	27	30	**60**
	Total	**44**	**87**	**56**	**187**
Liquidation	**Low**	5	13	26	**44**
	Mid	0	7	12	**19**
	Mid-high	0	6	18	**24**
	High	0	11	83	**94**
	Total	**5**	**37**	**139**	**181**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

2.4 Data quality and interpretation of the results

20. Given the complexity of the exercise, the EBA applied several simplifying assumptions.

21. The number of additional banks that would go into resolution under the policy options cannot be estimated upfronting advance, as the PIA remains a case-by-case assessment by resolution authorities, retaining elements of discretion and being highly dependent on the financial condition of the bank at the moment of failure. Moreover, the strategy set out for a bank at the planning stage (resolution vs liquidation) is a presumptive path based on backward-looking information that allows deviations to take into account the specific situation at the time of failure. Further, the analysis aims to provide the results considering any relevant changes in the application of the PIA after the reference date (31 December 2019) of this analysis and potential changes after the publication of the response. To that end, the analysis shows the results for the entire sample (institutions with resolution and liquidation strategies) and for the entities with a current strategy resolution separately, with the exception of the part of the analysis that aims to explore the capabilities to issue MREL eligible liabilities.[17] This approach enables to show the results of the analysis under

[17] Only considers banks with an MREL shortfall.

the current PIA decisions, while also providing information about how changes to those decisions may alter the impact.

22. However, it should be noted that for liquidation institution the analysis does not take into account the potential build-up of senior MREL eligible instruments, which would contribute to limit the impact on covered deposits in insolvency and thus limit the use of DGS.

23. The recovery rates - and therefore the losses in insolvency - vary significantly across Member States as they are impacted by national insolvency laws and judicial regimes. Moreover, recovery rates are also highly case-dependent. It is therefore not possible to use a 'correct' recovery rate in the analysis. In addition, these rates do not take into account the need to actualise the recoveries at the time of the insolvency proceedings. Section 4.1.2 therefore shows how the results of the first part of the response change with a different recovery rate.

24. The current creditor hierarchy ranking used in the baseline scenarios of the analysis reflects a simplification of the actual ranking applicable to each bank. The ranks under the national hierarchies have been mapped to a standard ladder, keeping the relative seniority between the main categories of liabilities, in particular deposits, and taking into account the most frequent rank reported for each form of liabilities to cater for cases where contractual features affect the rank of a given liability (see Annex 2).

25. The results presented reflect the situation as at 31 December 2019. While the first part of the analysis has also been conducted assuming that banks reach their steady-state MREL requirements, the results shown in this report omit four years of MREL issuance, which has already or is yet to take place while institutions approach their MREL targets. Moreover, the analysis does not take into account the fact that liquidation institutions included in the analysis would increase their loss absorbing capacity if they were set an MREL above their own funds requirements. In addition, as of 31 December 2019 most subsidiaries in the sample had not received iMREL requirements. A proxy was therefore applied (see 3.2.3).

26. The analysis refers to data conducted prior to the emergence of the COVID-19 crisis. However, as shown by the 'Monitoring of risk reduction indicators' report dated May 2021 by the Commission, the ECB and the SRB, the full impact of the COVID-19 pandemic had not been reflected on balance sheets of banking union significant institutions as at Q4 2020. This is in part due to the extraordinary policy measures taken in response to the COVID-19 pandemic, in particular the introduction of loan moratoria and public guarantee schemes. The borrower relief and liquidity support measures have mitigated the impact of the pandemic on bank balance sheets, so that a potential deterioration in the financial position of banks (e.g. non-performing loans) is only expected later on, once the support measures by governments are phased out.

27. The analysis in the third part of the response is also based on data as at 31 December 2019. It should be noted that many of the smaller institutions, in particular within the banking

union, had only recently been set an MREL and thus may not yet have started issuing MREL eligible instruments.

28. Taking into account data quality and several simplifying assumptions, the results of this part the analysis should be interpreted with caution.

3. Methodology

29. The EBA was asked to analyse and assess the impact on institutions of introducing revisions to the EU crisis management and deposit insurance legislation, as well as the combined impact of these potential revisions. Specifically, the respective revisions concentrate on (i) loss simulation and allocation of losses to various categories of instruments, (ii) the possibility for DGS intervention under various scenarios of depositor preference and (iii) the access to RFA.

30. The response to the CfA is presented in three parts. The first part of the response shows the impact of specific policy options on the internal resources to cover losses and subsequently the bank's ability to reach the conditions to use RFA. A first step describes the baseline scenario, which shows the impact assuming that banks suffered no losses in the run-up to resolution and under the current creditor hierarchy applicable in each Member State. In a second step, the individual impact of alternative scenarios against the baseline is explored to provide advice on the marginal effects of depositor preference scenarios, and to describe how the impact changes under different capital depletion assumptions. In a third step, the combined impact of selected scenarios is presented. The analysis focuses on an institution's loss absorbing capacity beyond MREL, which means considering all bail-inable instruments (see section 3.1.3).

31. The first part of the response also covers the potential intervention of the DGS to facilitate the institution's access to the RFA, assuming that such an intervention is possible in all jurisdictions under the revised framework.

32. The second part of the response complements the first part and aims to show the dynamics of internal and external funding in resolution following a banking crisis based on the most relevant scenarios identified in the first part of the response. To that end, it shows to what extent institutions would be able to cover losses and what type of instruments would be used to do so. After exhausting the internal funding capacities, the analysis shows to what extent DGS and RFA can support failing institutions. The analysis is based on a modelling approach and allows to introduce a resolution group perspective into the analysis.

33. Comparing the two approaches, the first part of the response describes a bank's current balance sheets under different depositor preference assumptions and shows for all banks if a bank has sufficient own internal resources to absorb losses of at least 8% of the bank's total liabilities and own funds and therefore meet one of the requirements to access RFA. Here, the DGS can potentially intervene, subject to certain conditions, to provide funds for losses of depositors and thereby support banks in reaching the threshold to access RFA. The second part of the response simulates losses on banks under different economic scenarios and shows the internal funding capacity of banks in a banking crisis. Similar to the descriptive analysis, the model simulation shows the extent to which banks are able to

absorb losses in a banking crisis and meet the requirements to access RFA, again also considering a possible DGS intervention. It further adds a resolution group perspective and makes the analysis closer to the effective implementation of the strategy defined for the resolution group.

34. The third part of the report focuses on the reported difficulty of some banks to issue MREL eligible instruments in the face of currently applicable MREL decisions. This part is largely descriptive, looking at the balance sheet composition of small- and medium-sized resolution groups to broadly assess the share of institutions currently facing difficulties in accessing markets for MREL eligible instruments.

3.1 Descriptive statistical analysis

35. The first part of the CfA response aims to show in detail the impact of specific possible framework revisions, especially with respect to a bank's ability to access RFA. These potential revisions are reflected in four different assumptions regarding depositor preference and four pre-defined levels of CET1 depletion. The CET1 depletion scenarios are also analysed to consider situations potentially closer to a resolution scenario.

36. Table 8 summarises the different scenarios considered under this part of the analysis. In a first step, the results of the baseline scenario are presented. Second, the alternative scenarios are assessed against the baseline scenario with the aim of showing the marginal impact of each of those adjustments. The final step shows the results of the combined application of certain adjustments.

37. The remainder of section 3.1 explains the scenarios of the descriptive statistical analysis and the assumptions and simplifications applied.

Table 8 Overview of descriptive statistical analysis scenarios

Scenarios	Loss simulation	Creditor hierarchy	Bail-in
Baseline	**All CET1 available**	**Applicable creditor hierarchy in the Member State**	**All bail-inable liabilities**
CET1 depletion	**CET1 depletion scenarios 2-5**	Applicable creditor hierarchy in the Member State	All bail-inable liabilities
Depositor preference	All CET1 available	**Depositor preference scenarios 2-5**	All bail-inable liabilities

3.1.1 CET1 depletion scenarios

38. The statistical analysis presents the results under five different loss assumptions. Losses are not based on a simulation but rather on different, pre-defined levels of CET1 depletion in the run-up to resolution.

- **Baseline scenario (scenario 1)** assumes that all the CET1 (Pillar 1 (4.5% RWA), Pillar 2 requirement (P2R), combined buffer requirement (CBR) and any

management buffer) is available to absorb losses at the moment of failure (in addition to other bail-inable liabilities), i.e. no CET1 depletion;

- **Scenario 2** assumes a 75% depletion of CET1 held as capital buffers (CBR + management buffer), meaning that the CET1 held as Pillar 1 (4.5% RWA), P2R and 25% of the buffer requirement are available to absorb losses at the moment of failure (in addition to other bail-inable liabilities);

- **Scenario 3** assumes a 100% depletion of CET1 held as capital buffers (CBR + management buffer), meaning that the CET1 held as Pillar 1 (4.5% RWA) and P2R are available to absorb losses at the moment of failure (in addition to other bail-inable liabilities);

- **Scenario 4** assumes that the depletion of CET1 continues further and only Pillar 1 (4.5% RWA) and 50% of P2R are available to absorb losses at the moment of failure (in addition to other bail-inable liabilities);

- **Scenario 5** assumes that only Pillar 1 (4.5% RWA) is still available to absorb losses at the moment of failure (in addition to other bail-inable liabilities).

3.1.2 Depositor preference scenarios

39. The rules and decision-making processes for supervision and resolution have been harmonised for a number of years, while deposit guarantee schemes are still national. Beyond the level of deposit guarantee (EUR 100k), depositors enjoy different levels and types of guarantees depending on their location. Differences in the functioning of national DGS and their ability to handle adverse situations are also observed.

40. Under Article 109 of the BRRD, DGS are liable for covered deposits when resolution tools are applied. Deposit preference under Article 108 of the BRRD states that covered deposits (referred to in Article 108 (1)(b)) rank higher than preferred deposits (i.e. the eligible, non-covered deposits, referred to in Article 108 (a)), which rank higher than ordinary, unsecured, non-preferred creditors. However, there are divergences between EU Member States with regard to the approach to how deposits other than covered and preferred deposits as referred to in Article 108 of the BRRD rank against ordinary unsecured claims. As such, the framework only provides for partial harmonisation. The Commission is therefore considering additional reforms to promote further harmonisation in the hierarchy of creditor claims in bank insolvency, in particular additional rules on depositor preference.

41. The response aims to assess the extent to which banks are able to absorb losses and the level of losses at which the DGS could potentially intervene in resolution, considering five different scenarios of depositor preference (Figure 1):

- **Baseline (scenario 1)**: simplified current hierarchy of claims in each Member State as per Table 26 in Annex 2 – taking into consideration that in some Member States non-eligible deposits (i.e. non-preferred, non-covered) rank pari-passu to ordinary unsecured claims;

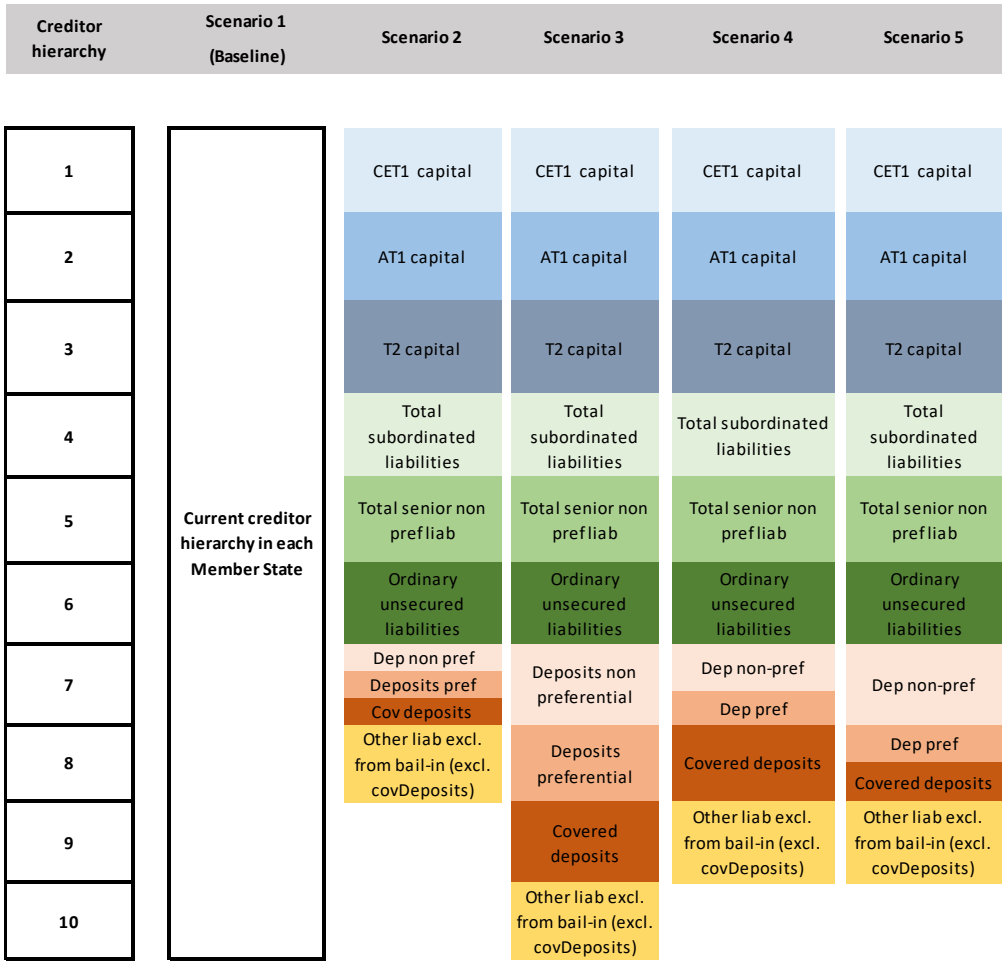
- **Scenario 2**: implementing a **general or single-tier depositor preference** in all Member States, i.e. all types of deposits, including deposits that are currently excluded from DGS coverage and eligibility, rank pari-passu among themselves but rank immediately above ordinary unsecured claims;

- **Scenario 3**: implementing a **3-tier depositor preference** in all Member States whereby covered deposits remain super-preferred and eligible deposits remain preferred, but also where non-eligible deposits rank above all other unsecured claims

- **Scenario 4**: implementing a **2-tier depositor preference** in all Member States whereby covered deposits rank above preferred deposits which rank pari-passu with non-preferred deposits, the latter ranking immediately above ordinary unsecured claims.

- **Scenario 5**: implementing a **2-tier depositor preference** in all Member States whereby covered deposits rank pari-passu with preferred deposits, all of which rank above non-preferred deposits, the latter ranking above ordinary unsecured claims.

Figure 1 Stylised example of the five depositor preference scenarios[18,19]



3.1.3 Bail-in capacity assumption

42. The first part of the CfA response aims to determine institutions' capacity to access RFA. RFA funds may be available subject to a number of strict conditions including the requirement that losses totalling not less than 8% of the bank's total TLOF have already been absorbed[20] by internal resources. The RFA can then provide funding of up to 5% of the institution's TLOF.[21,22]

43. Bank's bail-in capacity in this report is approximated by the liabilities that are not excluded from bail-in under Article 44(2) of the BRRD. In addition, liabilities except (preferred and non-preferred) deposits with a maturity of less than one month are assumed to not be available as bail-in capacity at the point of resolution. However, under this assumption the

[18] Figure 1 provides the creditor hierarchy under the five scenarios in a stylised form. The hierarchy of the instruments is based on the current, simplified creditor hierarchy applicable in each Member State (Annex 2). Starting from the current creditor hierarchy, different deposit preferences are applied under scenario 2 to 5.
[19] Ordinary unsecured liabilities = total senior unsecured liabilities + total structured notes + non-financial liabilities + residual liabilities + balance sheet liabilities arising from derivatives + other MREL eligible liabilities.
[20] Article 44(5)(a) of the BRRD.
[21] Article 44(5)(b) of the BRRD.
[22] Additional funding under extraordinary circumstances pursuant to Article 44(7) of the BRRD is not considered.

institution's balance sheet remains unchanged. It is assumed that short-term liabilities are replaced by secured liabilities and the 8% TLOF benchmark stays constant.

44. In addition, the EBA acknowledges that resolution entities remain in a transitional period with MREL still being built up (with final targets binding in 2024). To that end, the EBA calculated the impact of an additional scenario under which it is assumed that banks met their steady-state MREL requirements. In such a scenario banks hold a stock of eligible liabilities that is sufficient to meet their MREL requirements by the end of the transition period. This scenario does not take into account a change in the structure of the balance sheets due to compliance with future MREL levels, as institutions retain discretion as to how they plan to comply with the requirements by the end of the transition period.[23]

3.1.4 Public interest assessment assumption (scope of analysis)

45. In consideration of some relevant changes to the approaches used for the application of the PIA after the reference date of this analysis (31 December 2019)[24] and considering that the PIA remains a case-by-case assessment by resolution authorities at the moment of bank's failure, the application of the PIA in this analysis has been broadened to include entities with a current liquidation strategy in the analysis.

46. Table 9 shows that around 50% of the entities in the sample had a positive PIA as at 31 December 2019, whereas 90% of the large banks, including all G-SIIs and a majority of O-SIIs, have a positive PIA.[25] The assumption of a broader PIA therefore allows to include small- and medium-sized institutions in particular in the analysis as well as entities that are highly reliant on depositors.

Table 9 Entities with a positive PIA (% of total sample)

	Obs	Positive PIA	
		Count	%
Large	49	44	89.8
Medium	124	87	70.2
Small	195	56	28.7
High	154	60	39.0
Mid-high	63	39	61.9
Mid	44	25	56.8
Low	107	63	58.9
Total	**368**	**187**	**50.8**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

[23] In particular, the analysis does not make general assumptions applying to all banks on the type of liabilities that would be issued, replaced or renewed and their relative location in the hierarchy of claims, nor on other strategic choices made to comply with future requirements (restructuring, disposal of assets, etc.).
[24] May 2021 (SRB): 'Addendum to the Public Interest Assessment: SRB Approach'.
[25] The information provided is irrespective of the resolution authorities' decision regarding the PIA when an institution is at the moment of failure or likely to fail (Article 32 of the BRRD).

3.1.5 LCT assumption and DGS intervention

47. The role of the LCT is to determine whether and for what maximum amount (if any) the DGS could make a contribution in resolution in a less costly way than under a payout event in insolvency. The potential contribution of the DGS to support banks to meet the 8% TLOF requirement is subject to several conditions. First, under the LCT, the DGS exposure in resolution may not exceed the DGS exposure in a counterfactual insolvency situation, i.e. DGS funds cannot exceed the amount of losses that the DGS would have suffered in a counterfactual insolvency. The LCT provides a counterfactual scenario to the resolution case and applies the same creditor hierarchy as in resolution. In comparison to the losses under resolution,[26] an average 85% recovery rate is assumed for the realisation of all assets in insolvency. The assumption takes into account that a haircut on assets in insolvency is greater than a haircut on assets in a scenario of sale of business using 'disposal value' in the resolution valuation. This is in part to account for the destruction of value incured in insolvency via the cost of closing down branches, laying off employees, destroying the franchise and the potentially lower realisation on assets. The 85% recovery rate assumption applies to all scenarios analysed in this report, regardless of wheter the assumptions regarding capital losses in resolution change. In this impact analysis, it is assumed that the DGS contribution could be used to limit the bail-in of any types of deposits in resolution (non-preferred, preferred and covered), however, the LCT is calculated based on the maximum losses on covered deposits in insolvency.

48. The 85% recovery rate assumption comes with the following important caveats and limitations:

i. insolvency haircuts and recovery rates are very divergent across Member States. They depend on the economic/financial stance of each country, as well as on the national insolvency laws and judicial systems. Moreover, they are also bank-specific, depending on asset quality and a bank's overall financial position;

ii. an EU benchmark on recovery rates or insolvency haircuts is not available;

iii. the haircut rate does not take into account the time needed to realise the assets in insolvency.

49. In order to address these limitations, the EBA chose to repeat the analysis on DGS intervention under a second, lower recovery rate of 50% for the realisation of all assets in insolvency.

50. Moreover, Article 109(5) of the BRRD limits the contribution of the DGS for one institution to half the size of the DGS. The size of the DGS is as a minimum 0.8% of covered deposits of institutions belonging to a DGS pursuant to Article 10(2) of the DGSD. On the basis of a target level of 0.8% of the covered deposits, the EBA assumes this cap to be 0.4% of the covered deposits of all the institutions belonging to a DGS, despite the possibility for some Member States to increase or decrease that level. Bank's indirect costs are not considered in the LCT.

[26] The DGS intervention in resolution is assumed to support banks to reach the 8% TLOF threshold after a bail-in of eligible liabilities, excluding all types of deposits, subject to two thresholds (see paragraph 100).

3.2 Simulation model analysis (dynamic analysis)

51. Figure 2 summarises the steps carried out during the simulation and shows the assumptions applied. Furthermore, this section presents the scenarios tested, which focus on the most relevant scenarios already identified in the descriptive statistical analysis.

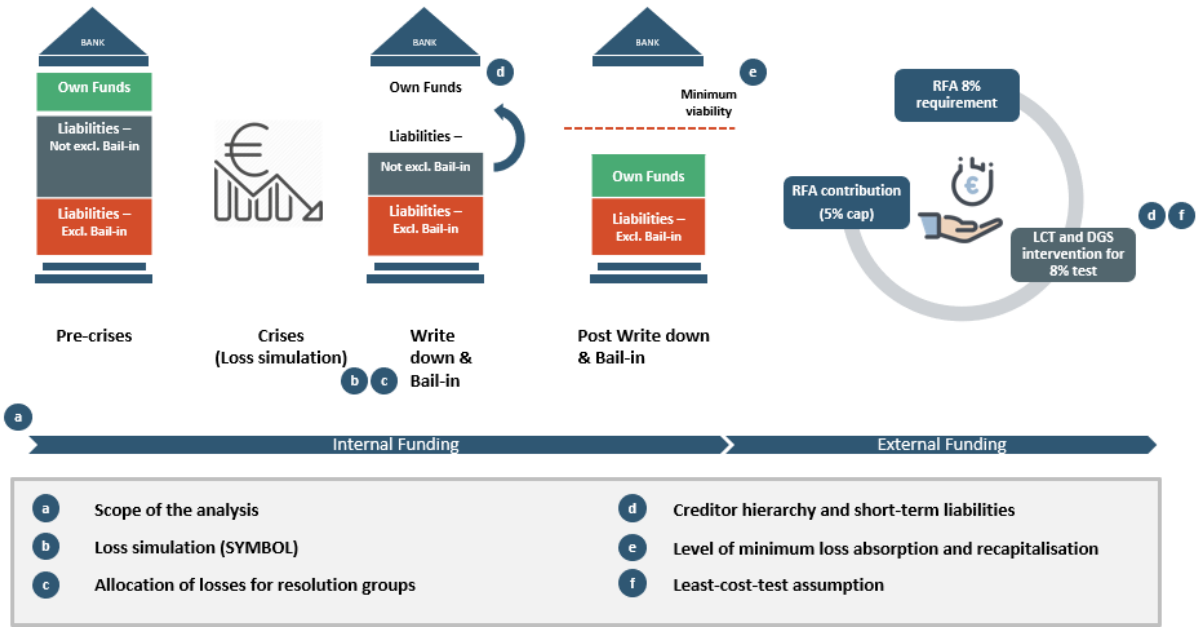
52. Starting from a pre-crisis situation, a few million economic scenarios are simulated. Each time, the shock to the economy results in a different outcome in terms of the institutions' losses, which in turn results in different outcomes for the sequence of funding actions. Once a sufficient number of loss scenario have been simulated, it is possible to obtain the statistical distribution of outcomes for the banking sector as a whole. The analysis focuses on the right tail of the distribution that is comparable to the severity of the 2008 GFC. Here, the results are shown for the subset of entities that meet the condition to receive DGS intervention. The analysis is based on a modelling approach using the SYMBOL.[27]

53. In each of the scenarios, banks suffer losses on their balance sheet. In the first step, the objective is to assess the allocation of simulated losses to various categories of instruments in the institution's balance sheet, respecting the hierarchy of claims, to show which class of instruments would be impacted and ultimately to provide an overview of the institution's internal loss-absorbing capacities.

54. Following the write-down and bail-in of instruments, and where the losses cannot be borne by the bank's internal loss absorbing capacity, the RFA could make a contribution. After meeting the 8% TLOF bail-in requirement (section 3.1.5), the RFA can provide funding of up to 5% of the institution's TLOF.[22] Here, the analysis further considers to what extent the DGS could contribute to meeting the 8% TLOF threshold. In these cases it is assumed that the DGS could 'fill in' this gap (which, as described above, would entail a change to the current framework for some Member States). The intervention of the DGS is capped to the losses that deposits would have suffered in resolution (under assumed write-down or the application of other resolution tools) and the losses on covered deposits in insolvency (LCT).

[27] See 3.2.2 and Annex 1 for further details about the model.

Figure 2 Dynamic analysis



3.2.1 Scope of the analysis

55. In line with the consideration of the descriptive statistical analysis, the EBA applies a broader PIA (see Section 3.1.4). The dynamic analysis therefore assumes that all entities, i.e. entities with current strategy resolution or liquidation, are resolved. This also applies to subsidiaries included in the 'SPE breaks' scenario. The results, however, are presented for the whole sample as well as only for entities with a resolution strategy as at 31 December 2019.

3.2.2 Systemic Model of Banking Originated Losses (SYMBOL)

56. The SYMBOL is a micro-simulation portfolio model that allows to generate losses for individual banks on the basis of limited parameters (total assets, TREA and own fund requirements). The rationale for using SYMBOL is that it allows for assessing the possible impact of different policy options in a more realistic setting.

57. It has been used by the Commission in all impact assessments for banking regulatory reforms since the introduction of CRR/CRD IV and is routinely used for the assessment of contingent liabilities from the financial sector in the context of Debt Sustainability Analysis reports. The model has also been used to assess the overall impact of the introduction of several tools in the Economic Review of the Financial Regulatory Agenda exercise.

58. The SYMBOL model has been developed by the Joint Research Centre (JRC) in cooperation with members of academia and representatives of DG FISMA. The core of the model is the Fundamental Internal Risk-Based formula from the Basel III regulatory framework. The

original article describing the working of the model appeared in the peer-reviewed Journal of Financial Services Research[28] (see Annex 1 for a detailed description of the model).

3.2.3 Allocation of losses for resolution groups

59. The model enables the specific resolution group structures to be incorporated into the analysis in more detail. For a multiple point of entry strategy resolution group, the losses are not considered at the banking group level but instead at the resolution group level. For a SPE resolution group, the analysis includes two scenarios for the allocation of losses of subsidiaries that exceed the pre-positioned iMREL (Table 10):

Table 10 Scenarios on the allocation of losses for resolution groups

Scenario	Explanation
SPE strategy holds	Losses of a subsidiary exceeding its pre-positioned iMREL requirement are shifted to the resolution entity without triggering the resolution of the subsidiary.
SPE strategy breaks	Losses of a subsidiary exceeding its pre-positioned iMrel requirement are not shifted to the resolution entity and are covered by instruments held by or external funding provided to the subsidiary itself.

60. The allocation of losses at the subsidiary level starts with own funds and iMREL eligible liabilities of the subsidiary at the individual level up to the point, where the iMREL requirement is reached. Under the first scenario (SPE strategy holds), possible remaining losses are then transferred to the parent level, where together with the parent's own losses they will be covered by taking into account the parents individual balance sheet, and in the order of the parent's hierarchy of claims.

61. Under the second scenario (SPE strategy breaks), the resolution group structure breaks down, which triggers the resolution of the subsidiary. All losses of the subsidiary are allocated at its own individual level according to the applicable hierarchy of claims.

62. The reaction of a parent to the failure of a group subsidiary cannot be anticipated. The EBA applies a conservative assumption and assumes that all subsidiaries, irrespective of whether they are earmarked for liquidation or not, are supported by the parent in the scenario where the SPE strategy holds. This scenario is conservative in the sense that, in practice, support to the subsidiary might be less likely if it goes beyond the pre-positioned resources.

63. As at 31 December 2019, most subsidiaries in the sample had not received an iMREL requirement. A proxy is applied to non-resolution entities without a requirement as at December 2019, which equals double the own funds requirements (Pillar 1 + P2R) for material entities[29] and entities with strategy resolution. For non-material entities and

[28] R. De Lisa, S. Zedda, F. Vallascas, F. Campolongo, M. Marchesi; 'Modelling Deposit Insurance Scheme Losses in a Basel 2 Framework'; Journal of Financial Services Research; December 2011, Volume 40, Issue 3, pp 123-141. First pnline November 2010. Please note that at the time of submission the acronym SYMBOL was not yet employed.
[29] Material subsidiaries represent 5% of the resolution group's TREAs for non-banking union (BU) entities and 4% for BU entities.

entities earmarked for liquidation, the iMREL requirements are assumed to be equal to once the own funds requirements.

3.2.4 Creditor hierarchy and assumptions on short-term liabilities

64. In the second part of the response, three out of the five depositor preference scenarios described in section 3.1.2. are analysed – the baseline scenario, scenario 2 and scenario 3.

65. The EBA carries out the analysis on the baseline scenario (scenario 1) to reflect the current situation. Scenario 2 relates to the most conservative outcome. Depositors would face the highest losses, which in turn results in the highest DGS contribution. Scenario 3 allows to measure the impact of seniorising deposits against other senior ordinary unsecured liabilities without touching the three-Tier approach currently in place in several Member States.

66. In line with the assumption in the descriptive analysis, the EBA's response assumes that bail-inable liabilities, except (preferred and non-preferred) deposits, with a maturity of less than one month are depleted at the moment of failure and only liabilities with a longer remaining maturity can be used to absorb losses. For simplicity, these short-term liabilities are assumed to have been replaced by non-bail-inable secured funding, i.e. total assets and TLOF remain unchanged.

3.2.5 Level of minimum loss absorption and recapitalisation

67. The EBA applies a single threshold to determine if an entity remains viable. After the application of resolution tools, entities need to hold a minimum level of capital equal to Pillar 1 and P2R. This threshold is based on the minimum level of required capital held for authorisation.

3.2.6 Least-cost-test (LCT) assumption and DGS intervention

68. The model simulation applies the same assumptions regarding the LCT and DGS intervention as described in section 3.1.5 of the descriptive analysis. The lower recovery rate of 50% is not tested. The impact of different recovery rates is demonstrated in the descriptive analysis and applies to the modelling approach accordingly.

3.3 Reported difficulty for some small- and medium-sized banks to issue sufficient loss absorbing financial instruments

70. The third part of the response gives advice on the reported difficulty for some small- and medium-sized banks to issue sufficient loss absorbing financial instruments (MREL).

71. The objective is to identify institutions that under the current framework face difficulties in accessing the market for MREL instruments. In this regard, the analysis focuses on the population of small- and medium-sized banks with a MREL shortfall. Small- and medium-

sized banks are defined here as banks with total assets below EUR 30 bn. The response focuses on identifying the share of banks that are forced to change their funding structure to meet MREL, which excludes banks without a current MREL shortfall (including banks currently subject to a liquidation strategy, which by definition have no MREL shortfall).

72. The analysis focuses on difficulties faced by institutions to issue MREL eligible instruments rather than on the impact of the issuance on their profitability, with the objective of estimating the share of banks currently subject to a resolution strategy that do not issue MREL-eligible instruments and may have difficulty in accessing markets for long-term debt instruments due to their size, business model or the market where they operate.

73. The capacity of these banks to access the market for MREL eligible instruments is approximated by looking at whether they have issued MREL eligible instruments in the past and whether they have an investment grade rating, focusing on the elements below:

- **Senior and subordinated negotiated MREL instrument other than AT1 and T2:** (subordinated liabilities other than T2 instruments, senior non-preferred and senior unsecured liabilities): this would indicate the capacity of the bank to issue financial instruments.

- **T2 instrument**: in the absence of long-term eligible senior instruments, the presence of Tier 2 instruments on a bank's balance sheet is considered an indication of the capacity of the bank to issue financial instruments.

- **AT1 instrument**: the presence of AT1 instruments on a bank's balance sheet is considered an indication of the capacity of the bank to issue financial instruments.

- **Investment grade credit rating**: in the absence of any of the parameters above, an investment grade credit rating is seen as an indication of the capacity of the bank to issue MREL eligible instruments.

74. The approach applied in this part of the response has shortcomings. In particular, it only considers institutions that are resolution entities, for which an MREL requirement has been set. Therefore, the analysis does not consider entities with current strategy liquidation or entities that have no MREL shortfall. However, in cases where liquidation entities were subject to a resolution strategy following a wider interpretation of PIA and to an MREL requirement set accordingly, they might present an MREL shortfall and would likely be forced to change their funding structure.

75. In addition, neither the investor base nor the potential cost of funding MREL-eligible instruments and the potential impact on banks' profitability and business models are considered in the analysis, which could impact small- and medium- sized entities. This simplification implies that the response does not conclude on the impact on profitability, especially for entities that are located in smaller Member States that may face higher issuance costs.

4. Main findings

4.1 Descriptive statistical analysis (static analysis)

76. This section of the response provides the results obtained using the descriptive statistical approach. The results of this analysis draw conclusions regarding the frequency with which banks satisfy the 8% TLOF requirement to access RFA by assessing whether such a requirement can be met solely through the use of available bail-in capacities[30] and, if not, which additional class(es) of liabilities would need to be bailed in to meet the requirement. The section is structured to present, firstly, the impact under the baseline scenario, followed by the impact under the alternative scenarios for depositor preference and capital depletions.

77. In a second step, the potential DGS intervention is analysed under the baseline scenario and the different scenarios for depositor preference and capital depletions. A sensitivity analysis is carried out, showing how the results change when moving from an 85% to a 50% recovery rate in insolvency.

78. The section concludes with the combined scenarios, which show the impact of combining selected scenarios of depositor preference and CET1 depletion.

79. The descriptive statistical analysis was also conducted under the assumption that banks reached their steady-state bail-in capacity, considering the final MREL requirement that banks need to comply with by the end of the transitional period. However, based on the data available, only one entity (out of 368) has a bail-inable capacity (including deposits) based on the 2019 balance sheet data that is currently lower than its estimated MREL target by the end of the transitional period. The results for this scenario are not shown in the report. Any build-up of MREL liabilities that can suffer losses before the layers of preferred and covered deposits would be affected, would facilitate that the access conditions for RFA are met without having to bail-in vulnerable deposits.

4.1.1 Assessing the capacity of institutions to access resolution financing arrangements

80. This section aims to understand the extent to which institutions could access RFA, considering the requirements to access these funds, and to what extent deposits would be impacted to reach the 8% TLOF requirement.

81. The assessment is based on a descriptive statistical approach across different scenarios and assumptions as presented in section 3.1 and impacting the following dimensions: available CET1 to absorb losses, the creditor hierarchy with respect to depositor preference and bail-

[30] See section 3.1.3 for definition of bail-in capacity.

inable capacity. The outcome is an estimate of the number of institutions that would be able to meet the 8% TLOF threshold without impacting deposits under the different scenarios and assumptions.

82. In a first step, the baseline scenario is presented. The baseline scenario is then stressed by gradually adjusting the calibration of the level of CET1 depletion, all other things remaining equal. In a third step, four assumptions regarding depositor preference are analysed against the baseline scenario. This approach allows to analyse the independent effect of each scenario on the ability to reach the 8% TLOF threshold.

a. Baseline scenario

Table 11 Overview of baseline scenario

	CET1 depletion	Creditor hierarchy	Bail-inable capacity
Baseline analysis	All CET1 available	Scenario 1 (baseline): applicable creditor hierarchy in the Member State	All bail-inable liabilities (except those with a maturity below 1 month) with the gradual inclusion of deposits

83. Under the baseline scenario and considering all institutions, (regardless of whether a liquidation or resolution strategy is assigned to the institution as at end-2019) the majority of institutions (272 out of 368, 73.9% of the sample) have sufficient bail-in capacity to reach the 8% TLOF threshold required to access RFA without using deposits of any type. Around a quarter of the institutions would incur losses on (mainly non-preferred) deposits (96 institutions, 26.1%). Only 5 entities (1.4% of institutions) would not be able to reach the 8% TLOF threshold with all the considered available liabilities on their balance sheet (Table 12).

84. When only considering institutions with a resolution strategy, 44 entities would need to bail-in deposits (23.5% of entities with a resolution strategy) to reach the 8% TLOF threshold and only two entities would not be able to reach the threshold even after bailing in deposits, including covered deposits.

85. In terms of size, mainly medium-sized (41) and small-sized institutions (47) would incur losses on deposits. In most cases, institutions would be required to bail in non-preferred, non-covered deposits (81 institutions), whereas a few, mainly small, institutions would need to bail in preferred, non-covered deposits as well (eight institutions). Only two institutions would also bear additional losses on covered deposits and five institutions are not able to reach the 8% TLOF threshold even with all types of deposits bail-ed in.

86. In terms of materiality, at the aggregated EU level approximately EUR 18.3 bn in deposits would be impacted based on the entire sample (EUR 14.2 bn for banks with resolution strategies), of which EUR 17.2 bn (0.6% of TLOF of impacted institutions), EUR 0.9 bn (2.0%) and EUR 0.3 bn (4.4%) of non-preferred, preferred and covered deposits, respectively. The aggregate covered deposits in the whole sample amounts to EUR 2,699 bn. Medium-sized institutions would bear the majority of these deposits losses (EUR 15.1 bn). In this regard,

it should be borne in mind that the analysis aims to measure the capacity to reach 8% TLOF rather than actual losses in a crisis and that institutions earmarked for liquidation would likely increase their loss-absorbing capacity if they were set an MREL requirement.

Table 12 Number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by size and resolution strategy

Size	Obs	Institutions reaching 8% TLOF								Institutions not reaching 8% TLOF with deposits/ additional amounts	
		Without deposits	With deposits	of which: non-preferred deposits		of which: preferred deposits		of which: covered deposits			
		Count	*Count*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
Large	**49**	**41**	**6**	**6**	**0.1**	**0**	**0.0**	**0**	**0.0**	**2**	**0.2**
of which: Resolution	***44***	*39*	*4*	*4*	*0.1*	*0*	*0.0*	*0*	*0.0*	*1*	*0.2*
of which: Liquidation	***5***	*2*	*2*	*2*	*0.4*	*0*	*0.0*	*0*	*0.0*	*1*	*0.3*
Medium	**124**	**83**	**39**	**37**	**1.3**	**1**	**1.9**	**1**	**4.5**	**2**	**0.5**
of which: Resolution	***87***	*58*	*28*	*26*	*1.3*	*1*	*1.9*	*1*	*4.5*	*1*	*0.5*
of which: Liquidation	***37***	*25*	*11*	*11*	*1.6*	*0*	*0.0*	*0*	*0.0*	*1*	*0.5*
Small	**195**	**148**	**46**	**38**	**1.5**	**7**	**2.0**	**1**	**1.1**	**1**	**0.4**
of which: Resolution	***56***	*46*	*10*	*9*	*1.1*	*0*	*0.2*	*1*	*1.1*	*0*	*0.0*
of which: Liquidation	***139***	*102*	*36*	*29*	*1.6*	*7*	*2.0*	*0*	*0.0*	*1*	*0.4*
Total	**368**	**272**	**91**	**81**	**0.6**	**8**	**2.0**	**2**	**4.4**	**5**	**0.3**
of which: Resolution	***187***	*143*	*42*	*39*	*0.6*	*1*	*1.9*	*2*	*4.4*	*2*	*0.3*
of which: Liquidation	***181***	*129*	*49*	*42*	*1.0*	*7*	*2.0*	*0*	*0.0*	*3*	*0.4*

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

87. Table 13 shows the result of the baseline scenario in terms of funding structure. The majority of banks that would need to bail in deposits to reach the 8% TLOF threshold have a high reliance on deposits (more than 80% of their balance sheets are deposits), with 52 out of the 96 entities falling under this category. Institutions with high depositors reliance are also more likely to bail in preferred and covered deposits compared to institutions with lower levels of deposits on their balance sheet. Entities with a lower depositor reliance may still require to bail in depositors where the share of non-bail-inable liabilities or of liabilities with a maturity of less than one month on the balance sheet is high.

Table 13 Number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by despositor reliance and resolution strategy

Depositor reliance	Obs	Institutions reaching 8% TLOF								Institutions not reaching 8% TLOF with deposits/ additional amounts	
		Without deposits	With deposits	of which: non-preferred deposits		of which: preferred deposits		of which: covered deposits			
		Count	*Count*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
Low	**107**	**86**	**16**	**15**	**0.5**	**1**	**1.9**	**0**	**0.0**	**5**	**0.3**
of which: Resolution	***63***	*50*	*11*	*11*	*0.5*	*0*	*0.0*	*0*	*0.0*	*2*	*0.3*
of which: Liquidation	***44***	*36*	*5*	*4*	*0.5*	*1*	*1.9*	*0*	*0.0*	*3*	*0.4*
Mid	**44**	**32**	**12**	**12**	**0.7**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
of which: Resolution	***25***	*20*	*5*	*5*	*0.6*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
of which: Liquidation	***19***	*12*	*7*	*7*	*1.7*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
Mid-high	**63**	**52**	**11**	**11**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
of which: Resolution	***39***	*31*	*8*	*8*	*0.5*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
of which: Liquidation	***24***	*21*	*3*	*3*	*0.8*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
High	**154**	**102**	**52**	**43**	**1.7**	**7**	**2.0**	**2**	**4.4**	**0**	**0.0**
of which: Resolution	***60***	*42*	*18*	*15*	*1.6*	*1*	*1.9*	*2*	*4.4*	*0*	*0.0*
of which: Liquidation	***94***	*60*	*34*	*28*	*1.8*	*6*	*2.0*	*0*	*0.0*	*0*	*0.0*
Total	**368**	**272**	**91**	**81**	**0.6**	**8**	**2.0**	**2**	**4.4**	**5**	**0.3**
of which: Resolution	***187***	*143*	*42*	*39*	*0.6*	*1*	*1.9*	*2*	*4.4*	*2*	*0.3*
of which: Liquidation	***181***	*0*	*0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

b. Baseline scenario vs more severe CET1 depletion scenarios

88. The baseline scenario does not take into account any losses that institutions may have suffered in the run-up to resolution. The following sections aims to set out how different levels of CET1 depletion will impact the need to use deposits (non-preferred, preferred or covered) to reach the 8% TLOF threshold.

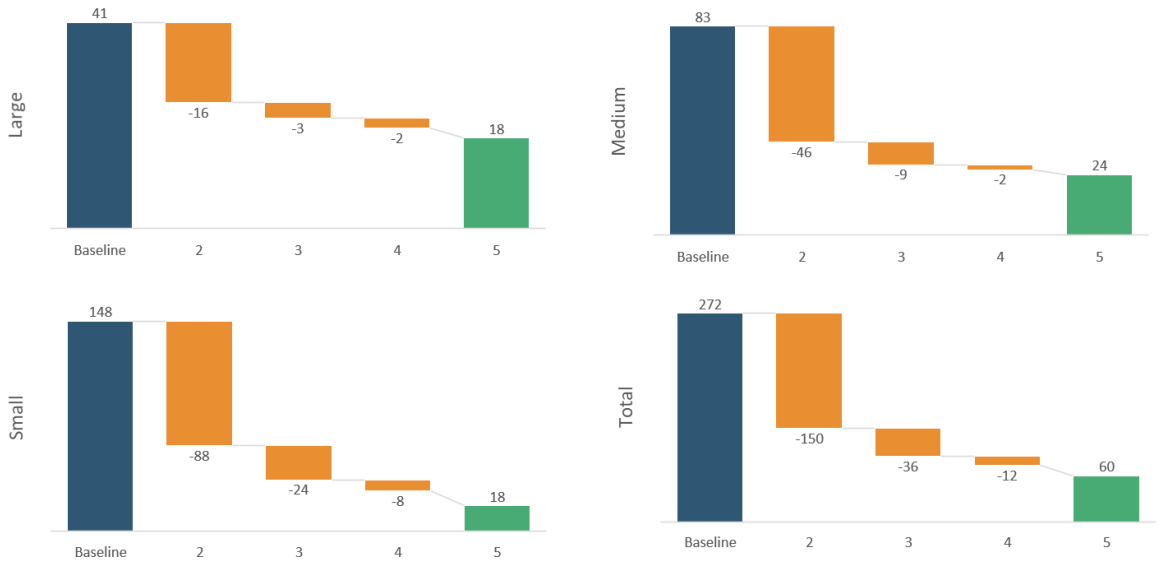
89. The impact of more severe CET1 scenarios is linear. Figure 3 shows the number of institutions that can access the 8% TLOF threshold without hitting any form of deposits in each of the CET1 depletion scenarios. Assuming a 75% depletion of capital buffers would lower this number from 272 to 122. It further decreases as less CET1 becomes available, reaching 60 entities under the assumption that only Pillar 1 CET1 capital remains. When considering only entities with a resolution strategy, the number of banks able to reach the

8% TLOF threshold without the bail-in of deposits decreases from 143 to 70 under scenario 2, and to 39 under scenario 5 compared to the baseline scenario (Table 34 in Annex 4).

90. In turn, assuming a 75% depletion of capital buffers increases the number of institutions requiring deposits to reach the 8% TLOF threshold to 198 (+117 institutions), 36 (+28) and five (+three) for non-preferred, preferred and covered deposits compared to the baseline scenario, respectively. Two more institutions would not be able to reach the 8% TLOF threshold even when bailing-in all deposits. Assuming that only Pillar 1 CET1 remains available, the number of banks requiring deposits increases further to 236 (+155), 55 (+47) and eight (+six) compared to the baseline scenario for non-preferred, preferred and covered deposits, respectively (Table 34 in Annex 4). In total 12 institutions would not be able to reach the 8% TLOF threshold after bailing-in all deposits.

91. For entities with a strategy resolution as at end-2019 and under the assumption that 75% of capital buffer are depleted, the number of institutions requiring deposits to reach the 8% TLOF threshold increases to 107 (+65 institutions) and five (+four) for non-preferred and preferred deposits, respectively, compared to the baseline scenario. The number of entities with losses on covered depositors remains constant. Assuming that only Pillar 1 CET1 remains available, the number of banks with strategy resolution as at end-2019 that require deposits increases further to 130 (+91), 13 (+12) and three (+one) compared to the baseline scenario for non-preferred, preferred and covered deposits, respectively.

Figure 3 Institutions able to reach 8% TLOF without deposits – comparison of CET1 depletion scenarios, by size



Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195).

c. Baseline scenario vs creditor hierarchy scenarios

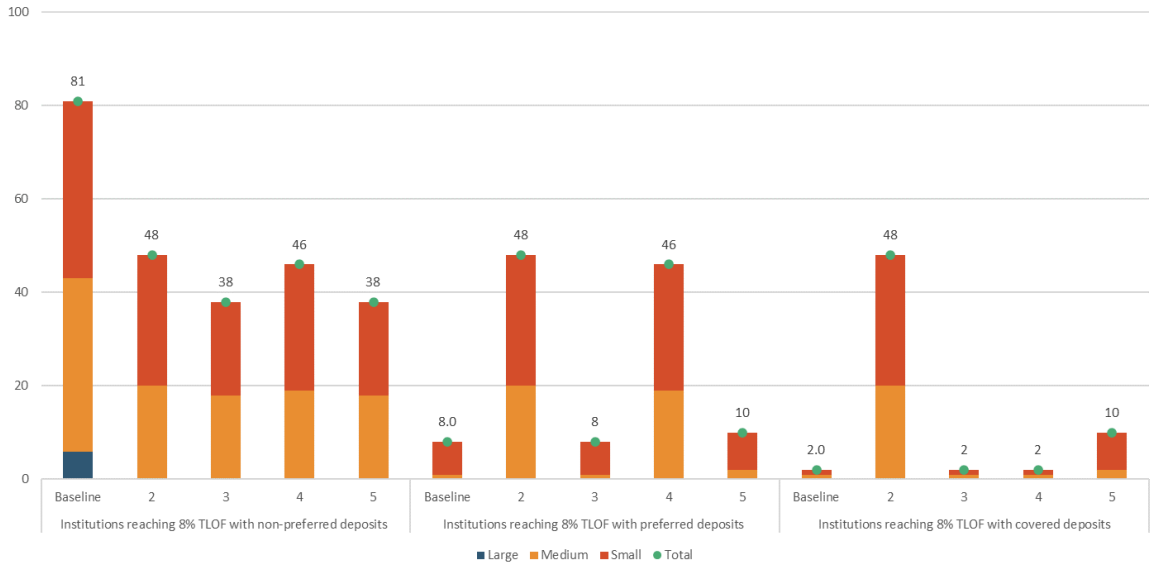
92. The following section presents the impact of changes to the creditor hierarchy under the scenarios set out in section 3.1.2. It shows that preferring deposits to ordinary unsecured claims significantly increases the number of institutions that are able to reach the 8% TLOF threshold without touching deposits. It also shows that the single-tier depositor preference results in the largest impact on covered deposits. Under the current creditor hierarchy, covered deposits are protected by the fact that non-eligible and non-preferred deposits will be exposed to suffering losses first. Under a single-tier preference, non-covered deposits benefit from a lesser exposure to losses, while the loss exposure of covered deposits is greater. These conclusions should, however, be considered together with how the different depositor hierarchies change the DGS funding availability in resolution (section 4.1.2). The single-tier depositor preference may allow a more extensive use of the DGS funds in resolution and therefore a greater participation of the entire financial system in the absorption of the losses – via the mandatory contributions of the banking sector that fund DGS. However, it is not within the scope of this exercise to assess the costs that the wider industry may have to cover to restore the DGS funds in the different scenarios tested.[31] In addition, the impact on covered deposits should not be interpreted as a dilution of their protected status but rather as an increase in the DGS ability to provide funding in a crisis.

93. Under the baseline scenario, in some Member States ordinary unsecured claims rank in pari-passu to different types of deposits. Changing this ranking (in each of the four alternative creditor hierarchy scenarios) to always prefer deposits to ordinary unsecured claims increases the number of institutions that are able to reach the 8% TLOF threshold without impacting deposits from 272 to 317 compared to the baseline scenario.

94. Figure 4 further shows the impact of changes in the creditor hierarchy on deposits (for the different types of deposits) under each scenario. The number of entities with losses for non-preferred depositors is similar across each of the four scenarios. Under scenario 2 and scenario 4, the number of institutions with additional losses on preferred deposits increases from 10 entities under the baseline scenario to 48 and 48 entities, respectively. This is because under both scenarios, preferred deposits rank pari-passu with non-preferred deposits. In addition, under scenario 2, the single-tier depositor preference, the number of institutions with additional losses on covered deposits increases from 2 in the baseline scenario to 48, assuming that all types of deposits rank pari-passu.

[31] Another potential consequence of ranking all deposits the same is the possibility of increasing the risk of no creditor worse off (NCWO) claims. This could happen if some deposits ended up being bailed-in while others were not.

Figure 4 Number of institutions needing non-preferred, preferred or covered deposits to reach 8% TLOF threshold – comparison creditor hierarchy scenarios, by size



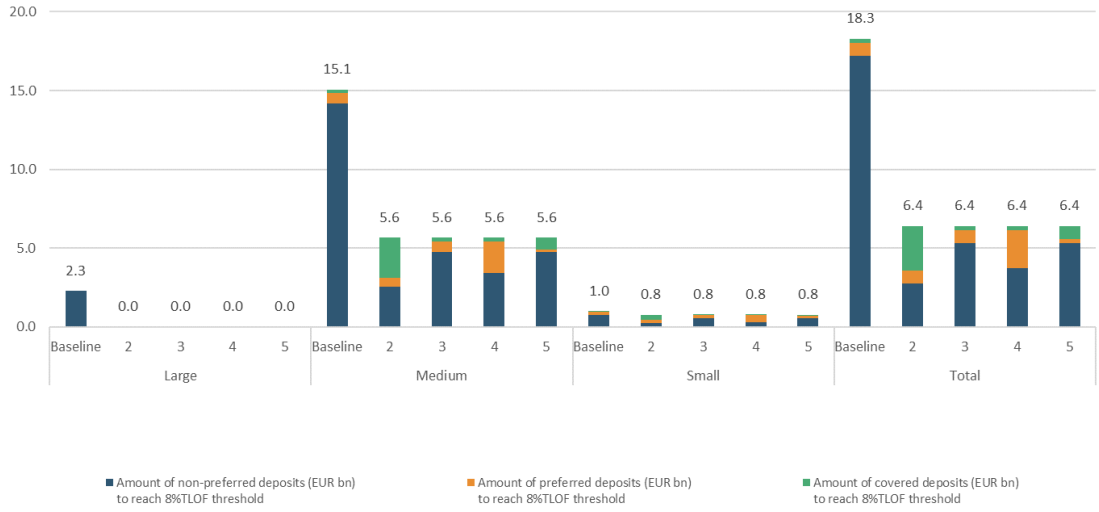
Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195).

95. Overall, and as shown in Figure 5, the aggregate amount of deposits used to cover losses varies significantly between the baseline and the four alternative scenarios, dropping from EUR 18.3 bn to EUR 6.4 bn. Considering only banks with a resolution strategy, the impact decreases from EUR 14.2 bn under the baseline to EUR 4.6 bn under each of the four depositor hierarchy scenarios (Table 38 in Annex 4).

96. The highest impact on covered deposits is under scenario 2, with aggregate amounts increasing from EUR 0.3 bn to EUR 2.8 bn.

97. Finally, the bulk of the impact stems from medium-sized banks. In particular, this reflects the relative weight of these banks in the sample combined with a greater reliance on deposits compared to large institutions.

Figure 5 Amount of non-preferred, preferred or covered deposits needed to reach 8% TLOF threshold – comparison of creditor hierarchy scenarios, by size



Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195).

4.1.2 Least-cost test and DGS interventions

98. This section presents the analysis relating to the ability of DGS to intervene in resolution to limit the bail-in of any type of depositors and substitute possible losses they may incur. The DGS intervention is here assumed to support banks to reach the 8% TLOF threshold after a bail-in of eligible liabilities, excluding all types of deposits. The possible DGS contribution is subject to two thresholds. First, the contribution is capped by the LCT amount. The LCT amount is defined as the losses for the DGS under an insolvency counterfactual.[32] Second the DGS contribution is capped at half the size of the DGS, equal to 0.4% of covered deposits in the Member State where the respective institution is located. Indirect costs are not considered in the LCT (see section 3.1.5).

99. The recovery rate in an insolvency scenario is crucial in determining the amount of expected losses of the DGS in the event of a payout (i.e. the insolvency counterfactual in the LCT calculation). The assessments in this response are primarily based on an 85% recovery rate in the LCT insolvency counterfactual. However, results for a 50% recovery rate are also discussed in this section in order to illustrate the sensitivity of the results to this parameter. Lowering the recovery rate for covered depositors would increase the amount of expected losses in insolvency for the DGS and, consequently through the LCT, make available more DGS funds to absorb losses in resolution.

[32] Not limited to the amount set out in Article 109(1)a of the BRRD2.

a. Baseline scenario

100. Table 14 shows that under the baseline scenario 91 entities out of 368 need to bail-in deposits to reach the 8% TLOF threshold. However, under the current creditor hierarchy, losses in insolvency would allow the use of DGS funds in resolution (hereafter 'positive LCT') for only three institutions. Out of those three institutions, two entities may receive a DGS contribution that is high enough to reach the 8% TLOF threshold and access the RFA.

Table 14 Number of institutions with potential DGS intervention, by size, resolution strategy and depositor reliance

	Obs	Institutions reaching 8% TLOF with deposits	*of which: Institutions for which DGS can intervene (positive LCT)*	*of which: Institutions for which DGS intervention are sufficient to reach 8% TLOF*
			Count	
Large	**49**	6	*0*	*0*
Medium	**124**	39	*1*	*1*
Small	**195**	46	*2*	*1*
Resolution	**187**	42	*1*	*1*
Liquidation	**181**	49	*2*	*1*
Low	**107**	16	*1*	*0*
Mid	**44**	12	*0*	*0*
Mid-high	**63**	11	*0*	*0*
High	**154**	52	*2*	*2*
Total	**368**	**91**	***3***	***2***

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

b. Baseline vs more severe CET1 depletion scenarios

101. As shown in Table 15, increasing the severity of the CET1 depletion scenarios does not significantly impact the capacity of DGS to intervene. The overall number of banks for which the DGS can intervene increases from three under the baseline to a maximum of six, even though increasing the severity of the CET1 depletion scenario increases the number of banks for which a DGS intervention would be necessary to avoid imposing losses on depositors.

Table 15 CET1 depletion scenarios – number of institutions to reach 8% of TLOF threshold, by resolution strategy

		Institutions reaching 8% TLOF with deposits	*of which: Institutions for which DGS can intervene (positive LCT)*	*of which: Institutions for which DGS intervention are sufficient to reach 8% TLOF*
			Count	
CET1 depletion 5	Resolution	146	*2*	*1*
	Liquidation	153	*4*	*1*
	Total	**299**	***6***	***2***
CET1 depletion 4	Resolution	136	*2*	*1*
	Liquidation	150	*4*	*1*
	Total	**286**	***6***	***2***
CET1 depletion 3	Resolution	131	*2*	*2*
	Liquidation	142	*4*	*1*
	Total	**273**	***6***	***3***
CET1 depletion 2	Resolution	114	*2*	*1*
	Liquidation	125	*3*	*1*
	Total	**239**	***5***	***2***

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Strategy resolution (187), Strategy liquidation (181).

c. Baseline vs creditor hierarchy scenarios

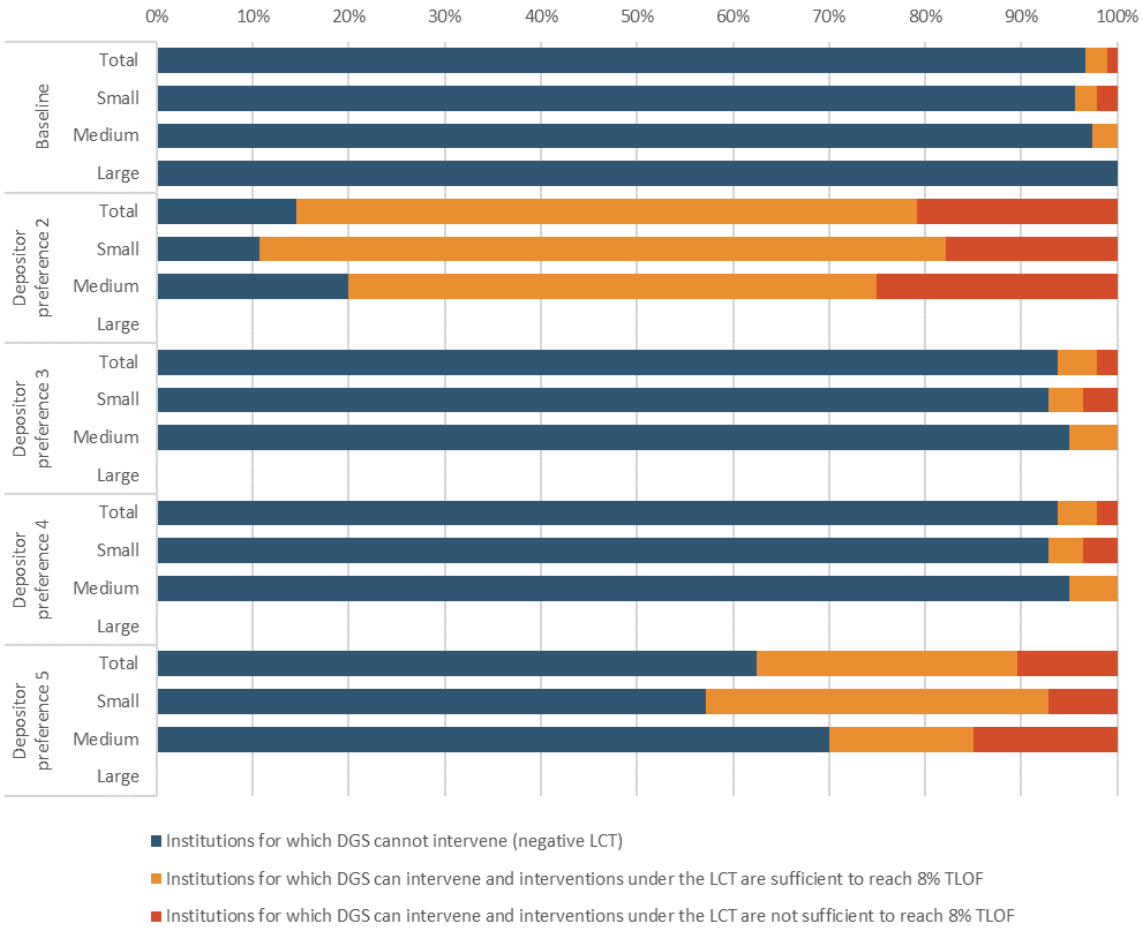
102. Figure 6 highlights the relative impact of changing the depositor preference on the ability of DGS to intervene against the baseline scenario. The dark-blue bars represent the percentage of banks for which deposits would need to be bailed in to reach 8% TLOF, but where banks would suffer higher losses on covered deposits under resolution than under the insolvency counterfactual (negative LCT), preventing a DGS intervention.

103. Out of the 48 institutions that suffer deposit losses under scenarios 2 to 5, 41 entities are able to receive a DGS contribution under scenario 2, 18 entities under scenario 5 and three entities under scenarios 3 and 4. The number of entities that could receive DGS contributions is the highest under scenario 2 because under the assumption of a single-tier depositor preference, covered depositors rank pari-passu to all other deposits and therefore incur the highest losses under the counterfactual, which in turn allows for the

highest DGS contribution. The proportion of banks for which DGS interventions would be possible but insufficient to reach the 8% TLOF threshold is particularly concentrated in one Member State (75% of banks in that Member State for which deposits would need to be bailed in), accounting for two-thirds of the total cases in the sample where DGS interventions under the LCT are insufficient.

104. When only considering entities with a resolution strategy, the DGS could contribute for 16 out of 20 entities with losses on deposits under scenario 2. For 14 out of those 16 entities, a DGS contribution would be sufficient to reach the 8% TLOF threshold.

Figure 6 LCT and DGS contribution – baseline scenario vs depositor preference scenarios



Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195). Under scenarios 2 to 5, no large institution would suffer losses on deposits – no DGS contribution would be required.

105. Table 16 shows the maximum amount of DGS funds available under each of the 5 creditor hierarchy scenarios, considering the two thresholds assumed for DGS contributions. In particular, the single-tier depositor preference scenario allows the maximum amount of funds pursuant to the LCT. A total amount of EUR 0.98 bn could be contributed under scenario 2, compared to only EUR 0.05 bn under the baseline scenario, scenario 3 and scenario 4. Under scenario 5, EUR 0.21 bn could be contributed by the DGS.

Table 16 LCT and DGS contribution – baseline scenario vs depositor preference scenarios – maximum amount of DGS intervention under the LCT (in EUR bn)

		Maximum amount of DGS funds (EUR bn)				
Creditor hierarchy	**Obs**	**Baseline**	**2**	**3**	**4**	**5**
Large	**49**	0.00	0.12	0.00	0.00	0.00
Medium	**124**	0.03	0.74	0.03	0.03	0.18
Small	**195**	0.02	0.12	0.02	0.02	0.03
Resolution	**187**	0.03	0.75	0.03	0.03	0.06
Liquidation	**181**	0.02	0.23	0.02	0.02	0.16
Low	**107**	0.00	0.01	0.00	0.00	0.00
Mid	**44**	0.00	0.15	0.00	0.00	0.00
Mid-high	**63**	0.00	0.31	0.00	0.00	0.01
High	**154**	0.05	0.51	0.05	0.05	0.21
Total	**368**	**0.05**	**0.98**	**0.05**	**0.05**	**0.21**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

106. The impact of changing the relative ranking of covered deposits vis-à-vis other deposits by ensuring a single ranking does not affect or decrease in any way the protection of the covered deposits. This is because (i) covered deposits continue to be excluded from bail-in as per Article 44(2) of the BRRD; (ii) the protection of covered deposits is not defined by their ranking, but by the fact that they are defined as eligible deposits (i.e. they are not excluded from DGS protection) up to the coverage amount whose repayment is guaranteed by the DGS (generally, EUR 100,000); and finally, (iii) the protection of covered deposits can be ensured by the DGS through alternative interventions such as contributions to resolution (to bridge the gap to 8% TLOF in order to gain access to the RFA or independently from using the RFA, e.g. when transferring deposits to an acquirer as part of resolution action) or to alternative measures in insolvency (e.g. when transferring deposits of a bank with negative PIA to an acquirer as part of insolvency proceedings). However, a more frequent involvement of DGS in the financial support for the resolution of banks will have a cost for the banking industry (and banking customers) due to the payment of contributions until the DGS target level is reached again. The extent to which the scope of the DGS fund and the appropriate bank levies to fill the fund may need to be re-calibrated, in order to maintain a credible DGS system to accompany an insolvency creditor hierarchy with a single-tier depositor rank, is beyond the scope of the present report.

d. Sensitivity analysis of the recovery rates in insolvency

107. The recovery rates in insolvency are heterogeneous across banks and Member States and are impacted by many factors, such as the bank's individual characteristics (asset quality, other financial fundamentals), the market situation, the national insolvency laws and national judicial regimes as well as the severity of the crisis. This makes them highly difficult to estimate.

108. In this context, the results of the analyses are sensitive to the value of the haircuts and corresponding recovery rates applied to the assets in insolvency that serves as a basis for the calculation of the LCT. Lower recovery rates (i.e. higher haircuts) lead to comparatively larger losses in insolvency due to the inability to recover all proceeds from the liquidation of the assets and would result in a higher probability of reaching covered deposits in the hierarchy of claims in the insolvency counterfactual. As a consequence, more banks may face a positive LCT on the basis of low recovery rates on assets.

109. Different recovery rates affect the magnitude of the impact of the different options tested in the quantitative analysis, but do not alter the conclusions relating to the banks' ability to reach 8% TLOF without DGS interventions, nor to the comparison between the various scenarios of depositor preference.

110. In fact, changing the level of haircuts does not affect the liability structure and, as a result, the capacity of institutions to access the 8% TLOF without deposits, or to what extent certain forms of deposits would have to bear losses in order to reach that threshold. However, higher haircuts impact the frequency with which DGS could intervene under the LCT, as well as the ability of the DGS's intervention to help reaching 8% of TLOF. The number of banks with a positive LCT and the maximum amount of available DGS funds increases significantly with a recovery rate of 50% compared to the primary assumption of 85%.

111. Table 17 shows the number of institutions with a positive LCT, regardless of whether those banks need DGS support to reach the 8% TLOF threshold or not. The results in this sensitivity analysis are therefore not comparable with other results shown in this report. More specifically, assuming a 50% recovery rate, the currently applicable creditor hierarchies and no CET1 depletion, 245 institutions would have a positive LCT irrespective of their ability to reach the 8% TLOF threshold, against six when considering an 85% recovery rate. Considering only entities with a resolution strategy, the number of entities that could receive a DGS intervention increases from 2 under the 85% recovery rate to 139 under the 50% recovery rate.

112. Under a single-tier depositor preference, the number of banks with a positive LCT would increase from 156 assuming a recovery rate of 85% to 321 with a recovery rate of 50% (out of a total sample of 368 institutions). Under this scenario, 84.6% of the small banks, 92.0% of the medium-sized and 85.7% of the large banks would have a positive LCT.

113. In terms of the amounts of DGS funds available under the LCT, lowering the recovery rate in insolvency increases the maximum amount for DGS intervention to EUR 15.4 bn assuming a 50% recovery rate, the currently applicable creditor hierarchies and no CET1 depletion, compared to EUR 0.05 bn with a recovery rate of 85%. Results are similar for scenarios 3 and 4 of the depositor preference scenarios. This amount increases from EUR 0.98 bn to EUR 21.1 bn when considering a single-tier depositor preference. While the magnitude of the increase is higher for all other scenarios, the single-tier depositor preference remains the option under which the maximum amounts of DGS funds are available under the LCT, also when assuming a 50% recovery rate. This result shows that the recovery rate in insolvency is a key parameter in assessing the capability of a DGS to intervene in resolution. However, it is quite difficult to forecast this recovery rate, even at a point of failure.

Table 17 Number of institutions with positive LCT and maximum amount of DGS contribution, by recovery rate scenario, by size, resolution strategy and depositor reliance

		85% recovery rate		50% recovery rate	
	Obs	Number of institutions with positive LCT	Maximum amount of DGS funds based on LCT (EUR bn)	Number of institutions with positive LCT	Maximum amount of DGS funds based on LCT (EUR bn)
Large	**49**	0	0.00	31	10.89
Medium	**124**	2	0.03	93	4.02
Small	**195**	4	0.02	121	0.44
Resolution	**187**	2	0.03	139	13.79
Liquidation	**181**	4	0.02	106	1.56
Low	**107**	1	0.00	61	8.97
Mid	**44**	0	0.00	34	3.31
Mid-high	**63**	0	0.00	40	1.36
High	**154**	5	0.05	110	1.71
Total	**368**	**6**	**0.05**	**245**	**15.35**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

4.1.3 Combined scenarios

114. The following section of the response combines various scenarios to estimate the impact of the policy options. It allows to compare the relative impact on deposits of reaching the 8% TLOF thresholds under different CET1 depletion scenarios and considering different depositor preferences. Only three possible combinations of scenarios have been selected out of 25 combinations of CET1 depletion and depositor preference.

Table 18 Overview of combined scenarios

Combined scenario	CET1 depletion	Creditor hierarchy	Bail-inable capacity
Combined scenario 1	Scenario 1: no depletion	Scenario 2: single-tier depositor preference	All bail-inable liabilities (except those with a maturity below 1 month) with the gradual inclusion of deposits
Combined scenario 2	Scenario 3: CET1 depleted down to the level of Pillar 1 and P2R	Scenario 2: single-tier depositor preference	
Combined scenario 3	Scenario 3: CET1 depleted down to the level of Pillar 1 and P2R	Scenario 3: three-tier depositor preference	

115. Combined scenario 1 reflects a situation without CET1 depletion, a single-tier depositor preference and all bail-inable liabilities reported as of end-2019 (except short-term liabilities) with the gradual inclusion of deposits. The design of this combined scenario is relevant insofar as it allows measuring the ability to access 8% TLOF by considering all CET1 that could account for historical losses and relies on the depositor preference scenario that maximises the equal treatment of depositors (pari-passu across all depositor categories), without lowering the level of protection and therefore creating space for DGS interventions under the LCT.

116. Combined scenario 2 reflects a situation where part of the CET1 is depleted and the bank would enter resolution after all buffers have been sued to absorb losses. It assumes the same single-tier depositor preference and bail-inable capacity as in the combined scenario 1. The design of this combined scenario is relevant insofar as it allows a direct comparison with the first combined scenario to measure the effect of further CET1 depletion, featuring larger losses or a different timing for FOLF determination at the point where solvency conditions for authorisation are at risk.

117. Combined scenario 3 reflects the same depletion of CET1 as above, but it considers a three-tier depositor preference and applies the same bail-in capacity as the other combined scenarios. It is relevant insofar as it shows the effect, compared to combined scenario 2, of preserving more discrimination in the depositor preference and retaining the super-preference for covered deposits, which lowers the possible use of DGS via the LCT.

118. The analysis of the three combined scenarios enables a comparative view of the DGS ability to intervene and the bank's ability to reach the 8% TLOF threshold when different severities of CET1 depletion are combined with different depositor preference

scenarios, under an assumption of an 85% recovery rate and a DGS contribution cap of 50% of the DGS target level.

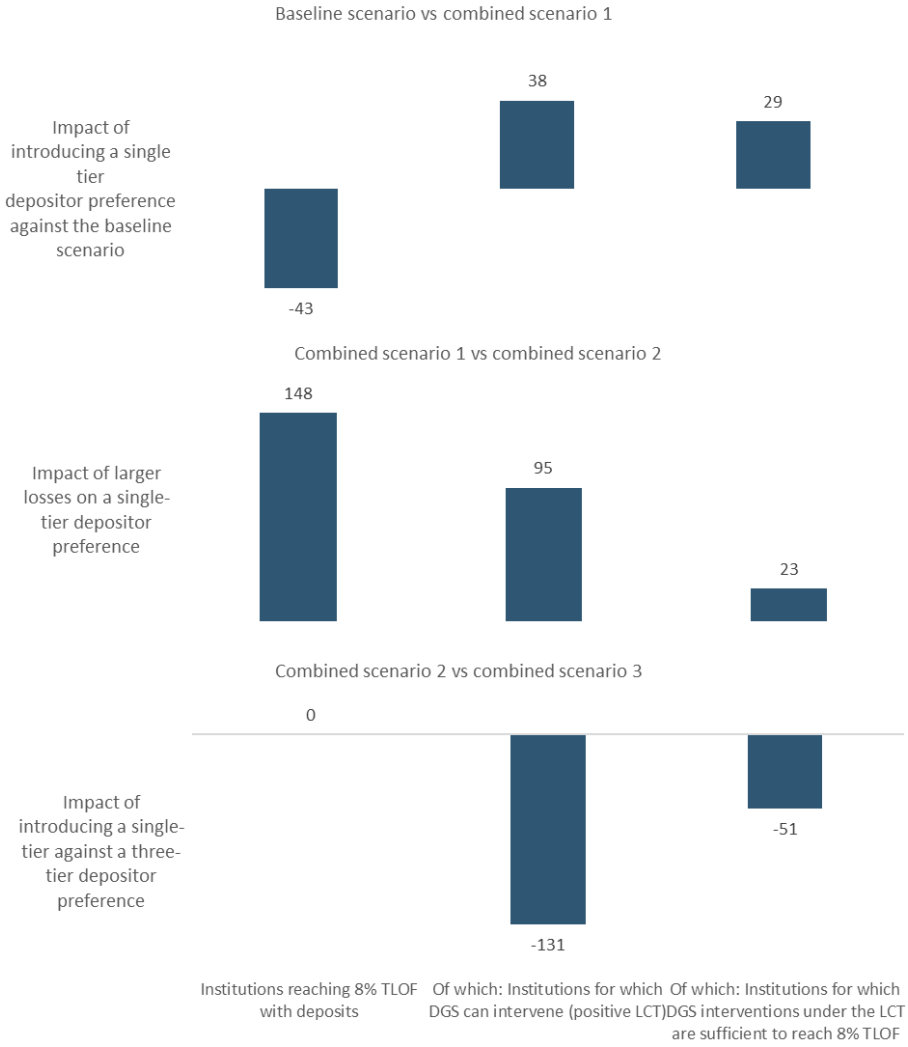
119. Figure 7 shows, first, that the introduction of a single-tier depositor preference reduces the number of banks that require the bail-in of deposits and could reach the 8% TLOF threshold with deposits by 43 banks compared to the baseline scenario. This reduction results from preferring all types of deposits vis-à-vis unsecured ordinary liabilities, which in the current creditor hierarchy rank pari-passu with non-preferred depositors in some Member States.

120. Second, the number of institutions, for which a DGS intervention is possible increases by 38 entities in comparison to the baseline scenario. This additional DGS intervention results from the fact that under a single-tier depositor preference, losses for covered depositors are higher, which means that the LCT is less binding.

121. The conclusions remain stable under combined scenario 2, where banks depleted their capital buffers prior to entering resolution. In comparison, under combined scenario 1, 148 more entities would have losses on deposits, for which 95 more banks could receive DGS intervention, which in turn increases the number of banks for which DGS intervention is sufficient by 23 entities.

122. Comparing combined scenario 2 with combined scenario 3 (third bar chart in Figure 7) shows that 131 fewer entities would be able to receive DGS support under a three-tier depositor preference compared to a single-tier depositor preference. Consequently, the number of entities for which the DGS intervention may sufficiently support banks to reach the 8% TLOF threshold decreases by 51 under the three-tier depositor preference. Maintaining the super-preference of covered deposits would prevent the DGS from intervening due to the LCT, in particular under more severe loss scenarios.

Figure 7 Combined scenarios



Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

4.2 Simulation model analysis (dynamic analysis)

123. This section of the response provides the results obtained using the modelling approach. The modelling approach provides additional benefits to the analysis. First, it uses actual loss simulations based on bank-specific characteristics to obtain statistical distributions of outcomes for the banking sector as a whole. Here the analysis concentrates on the tail of this distribution, which can be compared with the severity of the GFC in 2008. Second, by adding a resolution group perspective, it makes the analysis closer to the effective implementation of the strategy defined for the resolution group.

124. Under the baseline scenario, the analysis shows the impact under the current creditor hierarchy of each Member State in an economic crisis as severe as the 2008 GFC.[33] In a next step, the robustness of the results is tested by showing how results change under a more severe economic crisis scenario and a less severe economic crises scenario. In line with the descriptive statistical analysis, this section then compares the change in impact of introducing a three-tier depositor preference (creditor hierarchy scenario 3) and a single-tier depositor preference (creditor hierarchy scenario 2) in comparison to the baseline scenario.

4.2.1 Baseline scenario

125. The baseline scenario presents the results for a banking crisis as severe as the 2008 GFC and using the current creditor hierarchy applied in each Member State. The analysis focuses on the results for entities with the need for a potential DGS contribution to access RFA. This section first presents a scenario where the SPE strategy holds, i.e. losses of subsidiaries that are higher than the pre-positioned iMREL position are covered by the parent entity. The section then shows the results assuming that the SPE strategy breaks and subsidiaries need to cover all their losses above the pre-positioned iMREL themselves.

a. SPE strategy holds

126. Table 19 shows that during a crisis similar to the GFC and under the assumption that the SPE strategy holds, on average 18 institutions that would require a DGS contribution are unable to reach the 8% TLOF threshold. The model approach looks at the resolution dynamics as a whole, i.e. the results presented in Table 19 include a potential bail-in of deposits and potential DGS intervention. Banks may have different reasons for why they are unable to reach the 8% TLOF threshold such as an insufficient amount of bail-inable liabilities (including deposits) on their balance sheet, negative LCT or insufficient DGS contributions due to the limited maximum contribution. Out of the 18 entities, the majority of entities are small (10), followed by medium-sized (7) and large entities (2).[34] In terms of depositor reliance, the majority of entities that are unable to reach the 8% threshold are entities with a high reliance on depositors (>80 of TLOF). When considering only entities with resolution strategy, on average 10 entities that would require a DGS contribution would not be able to reach the 8% TLOF threshold in a scenario such as the GFC.

127. Article 44(5)(b) of the BRRD states that the contribution of the RFA should not exceed 5% of TLOF of the institution under resolution, measured at the time of the resolution action. For those entities that are able to reach the 8% TLOF threshold with or without DGS support, the resolution funds would contribute, on average, an aggregate amount of EUR 1.5 bn. Entities with a resolution strategy would likely be the main

[33] The severity of the GFC is estimated as the 99.95 percentile of the statistical distributions of loss simulation outcomes for the banking sector as a whole. The 'less severe' economic crisis scenario corresponds to the 99.90 percentile, whereas the 'more severe' economic crisis scenario corresponds to the 99.99 percentile.
[34] Results show average results per category, i.e. the sum of each category does not necessarily add up to the total average amount.

beneficiary of the RFA contribution (EUR 2.0 bn) compared to entities with a liquidation strategy (EUR 0.1 bn). Also, larger entities (EUR 5.0 bn) would likely receive higher contributions on average than small (EUR 0.1 bn) and medium-sized (EUR 0.4 bn) entities. In terms of depositor reliance, banks with a low depositor reliance would benefit the most from RFA (EUR 1.4 bn), whereas banks with a mid-high and high depositor reliance would only receive, on average, EUR 0.1 bn and EUR 0.2 bn, respectively.

Table 19 Average number of banks (not) able to reach 8%TLOF threshold and RFA contribution, SPE strategy holds, by size, resolution strategy and depositor reliance

	Average number of banks able to reach the 8% TLOF threshold	Average number of banks not able to reach the 8% TLOF threshold	Average amount of resolution funding arrangement used
	count		*EUR bn*
Large	1	2	5.0
Medium	1	7	0.4
Small	3	10	0.1
Resolution	2	10	2.0
Liquidation	3	9	0.1
Low	2	3	1.4
Mid	1	3	0.8
Mid-high	1	4	0.1
High	2	11	0.2
Total	**4**	**18**	**1.5**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). 'Total' does not add-up to the sum of the categories. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

128. The distribution of losses in the banking sector is simulated considering only loss scenarios, in which at least one entity requires a DGS intervention. Table 20 shows that, on average, 19 entities require a DGS intervention under the baseline scenario. Small-sized entities (11 entities), entities with resolution strategy (11) and entities with a high depositor reliance are more likely to require a DGS intervention compared to banks with other characteristics.

129. However, the actual average amount of DGS contribution varies depending on the type of entity that requires the intervention. On average, the DGS would need to contribute EUR 3.9 bn under the baseline scenario, whereas the average contribution to large (EUR 2.1 bn) and medium-sized entities (EUR 1.6 bn) and entities with a low depositor reliance are higher than for small entities and entities with a high depositor reliance. The average contribution to entities with a resolution strategy is EUR 2.4 bn.

130. Under the baseline scenario, the DGS contribution would only be sufficient for one entity to reach the 8% TLOF threshold. The DGS intervention might not be enough because the possible contribution amount is capped at 0.4% of covered deposits in the respective Member State or, as in most cases, the LCT counterfactual does not allow a contribution

sufficient to reach the 8% of TLOF requirement. On average, the balance sheet level of deposits would be enough for most of the entities to reach the threshold if fully bailed-in.

Table 20 DGS intervention, SPE strategy holds, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits	Average amount of losses on deposits*	Average number of banks for which DGS intervention is not enough to reach 8% of TLOF	Average amount of losses on deposits that cannot be covered by DGS intervention	Average number of banks with insufficient deposits to reach 8% of TLOF
	count	*EUR bn*	*count*	*EUR bn*	*count*
Large	2	2.5	2	2.5	0
Medium	7	2.2	7	2.1	1
Small	11	0.3	10	0.2	1
Resolution	11	3.6	10	3.5	1
Liquidation	9	0.4	9	0.4	1
Low	3	1.6	2	1.6	1
Mid	3	1.7	3	1.7	0
Mid-high	4	0.7	4	0.7	0
High	12	0.7	11	0.6	0
Total	**19**	**3.9**	**18**	**3.8**	**1**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). 'Total' does not add-up to the sum of the categories. The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

b. SPE strategy breaks

131. This section shows the results assuming that the SPE strategy of resolution groups breaks, i.e. individual subsidiaries are unable to pass on their losses to the resolution entity beyond the pre-positioned iMREL and need to cover all the other losses themselves. Here, the loss allocation follows the waterfall of claims at each individual entity level until all losses are covered and no transfer of losses takes place from subsidiaries to the resolution entity. However, there are second -round effects on the parent entity through the revaluation of claims on the subsidiary, which are not further assessed in this analysis. The sample of the analysis now includes subsidiaries of resolution groups at an individual level rather than presenting their impact via the parent entity. In line with the results assuming that the SPE strategy holds, the loss simulation considers only scenarios, in which at least one entity requires a DGS intervention and results are only shown for institutions that need a DGS contribution.

132. In comparison to the assumption that the SPE holds, more entities would be placed in resolution, which in turn increases the number of banks that would potentially need to access RFA. In this scenario, the average number of banks unable to reach the 8% TLOF

threshold would increase by 16 entities and the average amount of RFA used would increase by EUR 0.4 bn to EUR 1.9 bn (Table 21).

133. The entities with insufficient capacity to reach the 8% threshold are mainly small- and medium-sized banks.

Table 21 Average number of banks (not) able to reach 8%TLOF threshold and resolution funds contribution, SPE strategy breaks, by size, resolution strategy and depositor reliance

	Obs	Average number of banks able to reach the 8% TLOF threshold	Average number of banks not able to reach the 8% TLOF threshold	Average amount of resolution funding arrangement used
		count		*EUR bn*
Large	**58**	1	2	4.6
Medium	**304**	2	15	0.8
Small	**499**	5	18	0.1
Resolution	**591**	4	20	1.8
Liquidation	**270**	4	14	0.3
Low	**236**	3	6	1.3
Mid	**112**	1	5	1.2
Mid-high	**224**	2	7	0.3
High	**289**	3	17	0.2
Total	**861**	**7**	**34**	**1.9**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks. 'Total' does not add-up to the sum of the categories. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

134. In line with the increase in the number of banks that are potentially placed into resolution, on average 18 additional entities would require DGS intervention to either cover deposit losses and for potential support to reach the 8% TLOF requirement. The average amount of DGS intervention needed would increase by 93% to EUR 7.6 bn. In line with the result under the assumption that the SPE strategy holds, 96% of the DGS intervention required is not available under the current creditor hierarchy (Table 22).

Table 22 DGS intervention, SPE strategy breaks, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits	Average amount of losses on deposits*	Average number of banks for which DGS intervention is not enough to reach 8% of TLOF	Average amount of losses on deposits that cannot be covered by DGS intervention	Average number of banks with insufficient deposits to reach 8% of TLOF
	count	*EUR bn*	*count*	*EUR bn*	*count*
Large	2	3.0	2	3.0	0
Medium	16	4.9	15	4.8	1
Small	20	0.6	17	0.5	1
Resolution	22	6.3	20	6.1	1
Liquidation	15	1.3	14	1.3	1
Low	6	2.2	6	2.2	1

Mid	5	2.2	5	2.2	0
Mid-high	7	2.2	7	2.2	0
High	20	1.5	17	1.2	0
Total	**37**	**7.6**	**34**	**7.3**	**1**

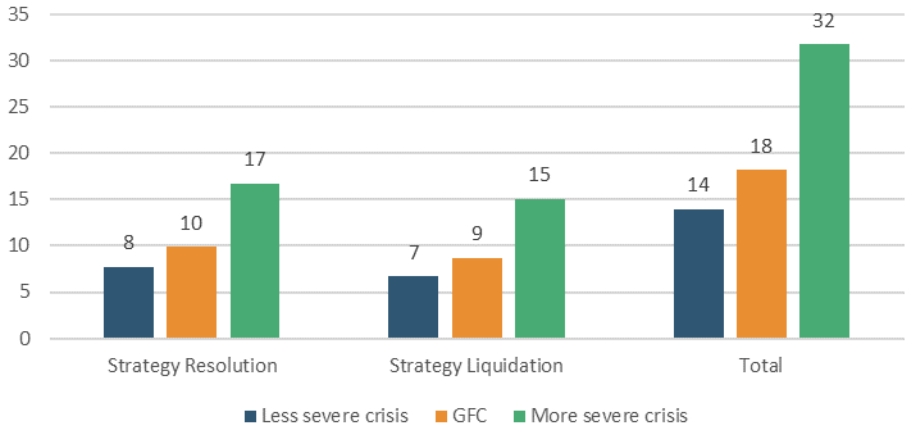
Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). 'Total' does not add-up to the sum of the categories. The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

4.2.2 Alternative economic crisis scenarios

135. This section provides a detailed view on the access to RFA and the possible intervention of DGS under two additional scenarios of economic crisis intensity. In comparison to the 2008 GFC, this section shows how the results change under a more severe and less severe economic crisis scenario.[33]

136. The average number of banks that are unable to reach the 8% TLOF threshold decreases by four to 14 entities under the less intense economic crisis scenario compared to the severity of the 2008 GFC (Figure 8). Again, the dynamic analysis shows the whole potential dynamic in resolution including a potential DGS intervention. To that end, the results are presented for a sub-set of entities whose depositors would suffer losses. Looking at a more severe crisis than the GFC, the average number of banks unable to reach the 8% TLOF threshold almost doubles, increasing from 18 to 32 entities. The magnitude of the change is similar for entities with a strategy resolution compared to entities with a strategy liquidation.

Figure 8 Average number of banks unable to reach 8% TLOF threshold, SPE strategy holds, by resolution strategy and crisis scenario



Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: Strategy resolution (186); Strategy liquidation (181). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

137. The severity of an economic crisis impacts the losses on deposits, which in turn, impacts a potential DGS intervention. The average number of banks for which the DGS

would potentially intervene to cover deposit losses or support a bank to reach the 8% TLOF threshold to receive RFA, decreases by four entities and increases by 15 entities in a less or more severe economic crisis compared to the GFC, respectively. The DGS contribution needed decreases by EUR 1.2 bn in a less severe economic crisis and increases by EUR 4.1 bn in a more severe crisis.

138. The DGS interventions are in most cases not sufficient to reach the 8% TLOF threshold in each of the economic crisis scenarios (around 97% of average DGS funds needed are not provided). The results are similar in a situation where the SPE strategy breaks (see Annex 4).

Table 23 DGS intervention, SPE strategy holds, by crisis scenario

Loss simulation scenario	Less severe crisis	GFC	More severe crisis
Average number of banks with losses on deposits *(count)*	15	19	34
Average amount of losses on deposits* *(EUR bn)*	2.8	3.9	8.0
Average number of banks for which DGS intervention is not enough to reach 8% of TLOF *(count)*	14	18	31
Average amount of losses on deposits that cannot be covered by DGS intervention *(EUR bn)*	2.7	3.8	7.7
Average number of banks with insufficient deposits to reach 8% of TLOF *(count)*	1	1	1

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks. The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

4.2.3 Creditor hierarchy scenarios

139. This section shows how the results of the simulation model change under different assumptions regarding the depositor preference. The single-tier depositor preference (scenario 2) and three-tier depositor preference (scenario 3) are assessed.

140. The results are consistent with the conclusions from the descriptive statistical analysis. First, under the assumption that deposits rank above ordinary unsecured liabilities, as reflected in scenario 2 and scenario 3 of the creditor hierarchy scenarios, banks require fewer deposits to absorb losses, resulting in a decrease in the average number of banks requiring DGS intervention by eight banks. In terms of the DGS funds needed, the average, aggregate DGS intervention required decreases by EUR 2.8 bn to EUR 1.2 bn under the single-tier depositor preference and the three-tier depositor preference scenarios. In particular, banks with a strategy resolution as well as large and mid-sized banks with a lower depositor reliance would need fewer DGS funds under the alternative scenarios (Table 24).

141. Second, under the assumption that all deposits rank pari-passu (scenario 2), the possible contribution of the DGS is higher than under the baseline scenario and the three-

tier depositor preference scenario. On average, only two banks would be unable to reach the 8% TLOF threshold under the single-tier depositor preference scenario, down from 18 under the current creditor hierarchy applied in each Member State, and 10 under the assumption of a three-tier depositor preference. In turn, this means that under the baseline scenario and scenario 3, on average, the DGS contribution is only sufficient for one entity to reach its 8% TLOF threshold, whereas under scenario 2 this number increases to nine banks. Under scenario 2, on average, banks are short of an aggregate amount of EUR 0.3 bn to reach the 8% TLOF requirement after a DGS contribution, compared to EUR 3.8 bn and EUR 1.1 bn under the baseline scenario and scenario 3, respectively.

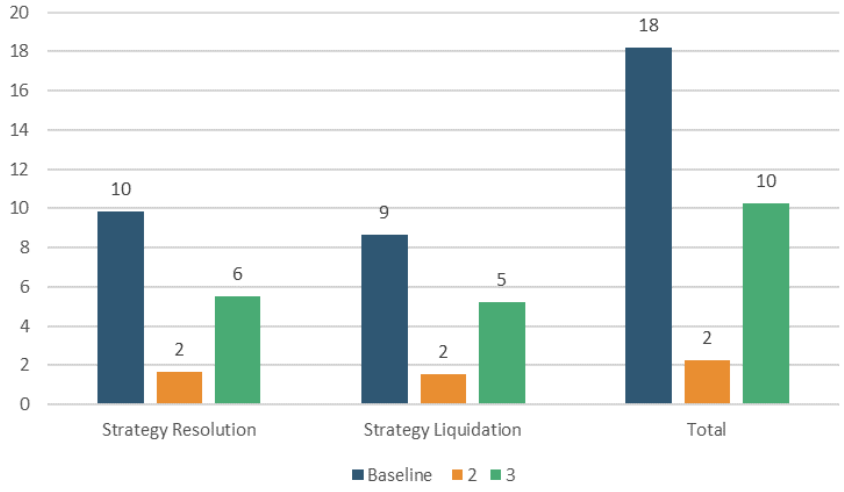
Table 24 DGS intervention, SPE strategy holds, by size, resolution strategy and depositor reliance, comparison of creditor hierarchy scenarios

	Obs	Average number of banks with losses on deposits			Average amount of losses on deposits*			Average number of banks for which DGS intervention is not enough to reach 8% of TLOF			Average amount of losses on deposits that cannot be covered by DGS intervention		
Creditor hierarchy		**Base line**	**2**	**3**	**Base line**	**2**	**3**	**Base line**	**2**	**3**	**Base line**	**2**	**3**
		count			*EUR bn*			*count*			*EUR bn*		
Large	**49**	2	1	1	2.5	0.6	0.6	2	1	1	2.5	0.5	0.6
Medium	**124**	7	3	3	2.2	1.0	1.0	7	1	3	2.1	0.4	0.9
Small	**194**	11	8	8	0.3	0.2	0.2	10	2	7	0.2	0.0	0.1
Resolution	**186**	11	6	6	3.6	0.9	0.9	10	2	5	3.5	0.4	0.9
Liquidation	**181**	9	6	6	0.4	0.3	0.3	9	1	5	0.4	0.1	0.2
Low	**106**	3	1	1	1.6	0.3	0.3	2	1	1	1.6	0.6	0.4
Mid	**44**	3	2	2	1.7	0.7	0.7	3	1	2	1.7	0.2	0.7
Mid-high	**63**	4	2	2	0.7	0.5	0.5	4	1	2	0.7	0.2	0.5
High	**154**	12	8	8	0.7	0.4	0.4	11	2	7	0.6	0.2	0.3
Total	**367**	**19**	**11**	**11**	**3.9**	**1.2**	**1.2**	**18**	**2**	**10**	**3.8**	**0.3**	**1.1**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks. 'Total' does not add-up to the sum of the categories. The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

142. Figure 9 shows the number of banks, on average, that are unable to access RFA in resolution. Under scenario 2, the average number of banks that are unable to access RFA decreases from 18 banks to two banks compared to the baseline scenario. Under scenario 3, the number of banks not able to access RFA decreases from 18 to 10 entities compared to the baseline scenario.

Figure 9 Average number of banks not able to access RFA, SPE strategy holds, by resolution strategy



Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: Strategy resolution (186); Strategy liquidation (181). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

4.3 Reported difficulty for some small and medium-sized banks to issue sufficient loss-absorbing financial instruments

143. This section aims to provide a sense of the share of institutions that may still face difficulties to issue MREL eligible instruments.

144. The scope of the analysis is limited to small and medium-sized entities that currently have an MREL shortfall against their end-state MREL. This is because it aims to take into account the impact on institutions of setting the requirement by resolution authorities.

145. This is also due to the fact that data used in this section is only available for resolution institutions. This analysis is based on the data collected for the purpose of the EBA quantitative MREL report.[35] This data provides the EBA with the effective level of MREL resources as reported by resolution authorities to the EBA. Such data is not available for liquidation institutions.

146. In any future review of the framework as well as in the event of any change in its implementation – see the mentioned broadening of the PIA – more small- and medium-sized entities may become subject to higher MREL requirements that are greater than own funds, which could potentially require some institutions to change their funding structure

[35] https://www.eba.europa.eu/eba-shows-good-progress-reduction-mrel-shortfall-largest-banks

were they to face a shortfall. For some, this could mean accessing new markets. The impact of such scenario is not analysed in this part of the response.

147. Further, this analysis does not assess the impact on profitability stemming from the issuance of eligible instruments. A number of factors can drive the cost of issuance of MREL eligible instruments (e.g. less expansive monetary policy, deepening of the capital markets union). And while some authorities have reported concerns over higher costs of issuance for smaller institutions, this section of the response does not perform such an analysis nor assess the possible impact on the business model. Similarly, the analysis does not consider the fact that institutions may reduce MREL shortfalls using retained earnings. Also, notably, it does not cover the period after end-2019 and the issuances made by banks since then.

148. On the basis of the EBA quantitative MREL report as of December 2019, there are 161 institutions or resolution groups (EUR 985.3 bn in total assets, or 3.6% of EU total domestic assets) with total assets equal to or below EUR 30 bn in the scope of resolution, i.e. institutions that have been set a MREL requirement above their own fund requirement.

149. Out of those banks, 73 institutions or resolution groups (EUR 514.6 bn in total assets or 1.9% of EU total domestic assets) had an MREL shortfall as of December 2019 (Figure 10). From this subset of entities in the scope of the analysis, 39 entities (40.7% in terms of total assets, or 1.5% of total EU domestic assets) have MREL instruments other than own funds on their balance sheet. In turn, 34 entities do not have MREL eligible instruments other than own funds on their balance sheet, representing 11.6% of all small- and medium-sized entities in the sample in terms of total assets, or 0.4% of EU total domestic assets.

150. In terms of the materiality of issued senior MREL instruments, Table 25 shows the distribution of the share of eligible liabilities compared to total assets. For the median bank, the share of senior MREL instruments compared to total assets represents only 0.6%, which increases to 3.0% for the top 5% of banks with the highest share of senior MREL instruments as a proportion of total assets. On the one hand for some institutions the limited materiality may hint at the fact that in some situations the issuance of MREL instruments is more a matter of a friends and family financing than of true open access to the market. On the other hand, as of December 2019 many of the smaller institutions had only recently been communicated an MREL requirement, and thus may have not yet started to issue.

151. Out of the 34 banks without MREL instruments other than own funds on their balance sheet, 22 entities (EUR 59.1 bn in total assets) report T2 or AT1 on their balance sheet, which may indicate further access to MREL eligible instruments. Those 22 entities represent 6.0% of small- and medium-sized banks (in terms of total assets), or 0.2% of EU total domestic assets.

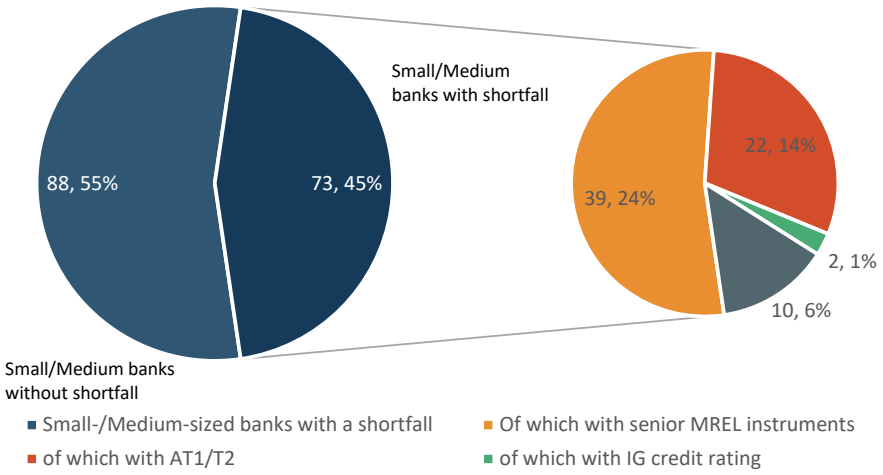
152. In terms of materiality, for all small- and medium-sized banks with an MREL shortfall that hold AT1 and T2 instruments, the share of AT1 and T2 of the median bank is around 1.1% of its total assets. For the top 5% of banks with the highest share of AT1 and T2 instruments as a proportion of total assets, this share increases to 2.9%.

153. For the remaining 12 entities, the last proxy to analyse the difficulties of small- and medium-sized banks in issuing MREL is considered. Only four out of the 12 entities have a public credit rating, of which two are rated investment grade by at least one rating agency (2.0% of all small- and medium sized entities in terms of total assets).

154. It should be noted that in some jurisdictions long-term debt and AT1/T2 instruments may only be partly a sign of access to MREL eligible instruments as these may have been sold to retail investors in the past.[36] Under BRRD2, retail holdings of MREL instruments, other than own funds, are restricted, however, the data used in the analysis pre-date the entry into force of BRRD2.

155. Section 3.3. provides relevant caveats of the analysis, which may lead to an underestimation (or overestimation in some cases) of the difficulty for some small- and medium-sized banks to issue sufficient loss-absorbing financial instruments. The results of this part of the response should therefore be interpreted with caution. The EBA aims to work on the cost of issuance of MREL eligible instruments in its MREL monitoring activity.

Figure 10 Number of tesolution insitutions with total assets below EUR 30 bn, by type of proxy



Sources: EBA 2019-Q4 MREL report data and EBA calculations.

[36] Please refer to the EBA and ESMA joint statement on the topic from 2018.

Table 25 Distribution of share of senior MREL instruments or AT1/T2 (in % of total assets)

	Senior MREL instruments/ total assets (entities with senior MREL instruments only, in %)	AT1 and T2/ total assets (entities with AT1 and T2 only, in %)
5th percentile	0.0	0.2
25th percentile	0.2	0.6
Median	0.6	1.1
75th percentile	1.2	1.7
95th percentile	3.0	2.9
Obs	39	54

Sources: EBA 2019-Q4 MREL report data and EBA calculations.

Annex 1 - SYMBOL

156. The SYMBOL has been developed by the Joint Research Centre (JRC) in cooperation with members of academia and representatives of DG FISMA. The original article describing the working of the model appeared in the peer-reviewed Journal of Financial Services Research.[37]

157. The core of the model is the Fundamental Internal Risk Based formula from the Basel III regulatory framework.

158. The Basel III Fundamental Internal Risk Based formula works on the idea that credit assets outcomes fundamentally depend on a single factor.[38] This allows modelling and simulations to be carried out very easily.

159. The formula has two additional useful characteristics in terms of modelling: (a) it uses a very limited number of parameters expressing the riskiness of credit assets and their correlation; (b) it gives comparable results when used on a set of sub-portfolios of assets, each with its own parameters, and then summing up results, or when directly considering the whole portfolio using average parameters values.

160. The model thus assumes that: (a) the Basel III regulatory model for credit risk is correct; (b) banks report risks accurately and in line with this model;[39] (c) all risks in the bank can be represented as a single portfolio of credit risks.[40]

161. Once parameters are obtained for all banks, a set of loss scenarios are simulated. In each scenario, a number representing a realisation of the single risk factor is randomly generated for each bank. To represent the fact that banks all operate in the same economy, the risk factors are correlated between themselves.

162. Given the realisation of the risk factors and the parameters above, it is possible to obtain from the model a simulated loss for each bank in each loss scenario.[41] These losses can then be applied to bank capital to see which banks 'default' (i.e. exhaust or severely

[37] R. De Lisa, S. Zedda, F. Vallascas, F. Campolongo, M. Marchesi; 'Modelling Deposit Insurance Scheme Losses in a Basel 2 Framework'; Journal of Financial Services Research; December 2011, Volume 40, Issue 3, pp 123-141; first online November 2010. Please note that at the time of submission the acronym SYMBOL was not yet employed.

[38] In a very simplified way: given the general situation of the economy, each asset will have a certain probability of defaulting. By considering such probabilities of default as the expected loss conditional on the economic situation and summing across assets it is possible to obtain an expected loss of the portfolio conditional on any economic scenario. The capital requirement is then the loss on a particularly adverse scenario. (See also footnote 7).

[39] When this is not the case, we need to rely on self-reported or supervisory assessments of the correction that would be needed when moving from the current system to a Basel III compatible system. It should be noted that the original framework of the model employed Basel II (and not III) compatible data, as this was the regulatory framework of reference at the time.

[40] This does not mean that other risks are not considered, simply that they can be 'mapped' in credit risk terms and modelled using the same framework.

[41] It should be noted that SYMBOL is a 'purely static' model. Losses are all realised (or known) at the same point in time for all systems' participants and banks do not dynamically react to events.

deplete regulatory capital) in the simulated scenario. If the policy set-up allows for any other loss-absorbing or re-capitalisation tool (e.g. bail-in) these can also be applied at individual bank level. Losses, interventions of other tools and counts of defaults can then be calculated.[42]

163. Given a sufficient number of loss scenario simulations (hundreds of thousands to millions), it is possible to obtain statistical distributions of outcomes for the banking sector as a whole.

164. It is finally possible to use such distribution to estimate the probability of events such as the probability that losses in excess of capital will be above a certain threshold (i.e. the statistical distribution of losses for resolution tools and/or public interventions), or the probability that banks holding more than a certain amount of covered deposits will be in default (i.e. the statistical distribution of intervention needs for the DGS).[43]

165. The probabilities obtained from the model cannot, however, be interpreted as 'real world' probabilities.[44] This is because the regulatory assumption is that if a bank holds the level of capital prescribed by the formula it should have a probability of default lower than 0.1%, while markets regularly assess the real probability to be much higher. As SYMBOL makes use of the regulatory model, its estimates suffer from the same kind of distortion.

166. This limitation can be overcome in two ways: (a) by using comparisons between banking systems or scenarios rather than absolute values; (b) by focusing on parts of the distribution of aggregate outcomes which reproduce events of a magnitude observed in the real world, e.g. by looking at scenarios which produce outcomes similar to those observed in real banking crisis events.

[42] It is important to stress that, though the model simulates losses at individual bank level, individual bank results are not deemed to be usable per se.
[43] Technically, what is obtained is the Value at Risk (VaR), or the loss which should not be exceeded under a certain confidence level. The confidence is given by the probability of observing a realisation of the risk factor which is more extreme than the one corresponding to the reference scenario.
[44] These are therefore a form of 'pseudo-probabilities': they can be treated as probabilities for all mathematical purposes, but they do not correspond to observable probabilities of the events.

Annex 2 – creditor hierarchy assumptions

Table 26 Assumption on current creditor hierarchy, by country

	Simplified current creditor hierarchy																				
	CET1	T1	T2	Sub - ord	Senior non-pref	Senior unsec; Struct; Derivatives	Non - financial	Residual	Other MREL	Uncoll sec	Deposits, not-pref	Deposits, pref	Cov deposits	Sec - coll part	Client	Fiduciary	Institution	System	Employee	Operational	Tax / soc sec	DGS
AT	1	2	3	4	5	6	6	6	6	6	6	7	8	10	10	10	6	6	9	9	6	6
BE	1	2	3	4	5	6	6	6	6		6	7	8	11	8	6	6	6	10	6	9	
BG*	1	2	3	4	5	6	6	6	6	6	10	11	12	13	13	13	9	6	8	6	7	6
CY	1	2	3	4	5	6	6	6	6		7	8	9	10	7		6	6	11	6	11	
CZ	1	2	3	4	5	6	6	6	6	6	6	7	8				6	6	10	10	10	6
DE	1	2	3	4	5	6	6	6	6	6	6	7	8	9	10	10	6	6	6	6	6	6
DK	1	2	3	4	5	6	6	6	6	6	6	7	8	11	11	11	6	6	10	6	9	6
EE	1	2	3	4	5	6	6	6	6		6	7	8		6		6	6	6	6	6	
ES	1	2	3	4	5	6	6	6	4	4	6	7	8	10	11	11	6	6	9	6	9	6
FI	1	2	3	4	5	6	6	6		6	6	7	8	9	10		6	6	6	6	6	6
FR	1	2	3	4	5	6	6	9	4	9	6	7	8	9	6	6	6	6	6	6	9	7
GR	1	2	3	4	5	6	6	6	6	6	7	8	9	11	12	6	7	6	10	6	10	12
HR	1	2	3	4	5	6	6	6	6	6	7	8	9	11	12	11	6	6	10	6	10	6
HU	1	2	3	4	5	6	6	6	6		8	9	10	11	13	13	6	6	12	6	7	7
IE	1	2	3	4	5	6	6	6	6		6	7	8	10			11	11	8	9	8	
IT	1	2	3	4	5	6	6	6	6	6	7	8	9	10	11	11	7	7	10	6	10	6
LT	1	2	3	4	5	6	6	6	2	6	6	7	9	6	6		6	6	10	6	8	6
LU	1	2	3	4	5	6	6	6	6	7	6	8	10	7	5	12	6	6	9	6	11	
LV	1	2	3	4	5	6	6	6	6		6	8	9	6	10	10	6	6	7	6	7	7
MT	1	2	3	4	5	6	6	6	6		6	7	8	6	7		6	6	6	6	6	
NL	1	2	3	4	5	6	6	6	6	10	6	7	8	10			6	6	9	6	9	9
PL	1	2	3	4	5	6	6	6	6	6	6	7	8	9	9	9	6	6	8	6	6	8
PT	1	2	3	4	5	6	6	6	4		7	8	9	12	6	6	6	6	11	6	10	
RO	1	2	3	4	5	6	6	6	6	6	6	9	10	11	11	11	8	8	10	8	7	7
SE	1	2	3	4	5	6	6	6	6	6	6	7	8	10			6	6	10	6	6	6

SI	1	2	3	4	5	6	7	7	8	6	8	9	11	6	10	11	10	10	12	11	12	11
SK	1	2	3	4	5	6	6	6	6		6	7	8	9			6		6	6	6	6

Note: Subord = Subordinated liabilities: Senior non-pref =Senior non-preferred liabilities; Senior unsec = Senior unsecured liabilities; Struct = Structured notes; Non-fincial = Non-financial liabilities; Residual = Residual liabilities; Other MREL = Other MREL eligible liabilities; Uncoll sec = Uncollateralized secured liabilities; Deposits, non-pref = Deposits, not covered and not preferential; Deposits, pref = Deposits, not covered but preferential; Cov deposits = Covered deposits ; Sec - coll part = Secured liabilities - collateralized part; Client = Client liabilities, if protected in insolvency; Fiduciary = Fiduciary liabilities, if protected in insolvency; Insitution = Institution liabilities < 7 days; System = System (operator) liabilities < 7 days; Employee = Employee liabilities; Operational = Liabilities critical to operational daily functioning; Tax/ Soc Sec = Tax and social security authorities liabilities, if preferred; DGS = DGS liabilities.

* Under the BG ranking “client’ and ‘fiduciary’ liabilities are excluded from bank insolvency proceedings.

Annex 3 – composition of the liability structure

167. The liability structure of the institutions in the sample varies substantially, in particular depending on their size. Table 27 shows the breakdown of the liability structure for the resolution entities covered in the analysis. The results are based on aggregate amounts per instrument type shown as a percentage of aggregate TLOF.

168. The proportion of deposits represents up to 71.3% of the aggregate total liabilities and own funds of the small and non-complex institutions and decreases to 46.8% for the large institutions. This difference is sizeable with respect to covered and non-covered but preferred deposits, highlighting the prevalence of retail-based funding structures for the smallest banks, compared to non-preferred deposits that have a comparable share across the population of banks.

169. The composition of own funds also differs based on the size classification. In particular, CET1 represents 94% and 73% of the own funds for the small and non-complex and the large institutions, respectively. The use of other own funds instruments also varies across institutions. AT1 instruments only represent a small share of the small and medium-sized institutions' total liabilities (0.2%, 0.3%), around four times lower than that of large institutions. T2 instruments also appear more frequently in medium and large institutions than in small ones.

170. The composition of the liability structure also differs, though to a lesser extent, depending on whether the strategy is resolution or liquidation. On average, institutions earmarked for resolution tend to have a higher share of deposits, in particular non-covered non-preferred, in their balance sheet compared to institutions earmarked for liquidation. AT1 and T2 instruments also represent a higher proportion of TLOF for banks with resolution strategies.

Table 27 Composition of the liability structure (% of TLOF)

	Own funds	*of which: CET1*	*of which: T1*	*of which: T2*	**Deposits**	*of which: Deposit non-preferred*	*of which: Deposits preferred*	*of which: Covered deposits*	**Other liabilities**
					(% of TLOF)				
Large	8.3	*6.1*	*0.8*	*1.5*	46.5	*19.7*	*7.7*	*19.2*	45.1
Medium	7.9	*6.6*	*0.3*	*1.0*	57.0	*18.4*	*10.5*	*28.1*	35.2
Small	13.2	*12.4*	*0.2*	*0.6*	71.2	*18.9*	*13.8*	*38.5*	15.6
High	8.6	*7.8*	*0.2*	*0.6*	86.0	*27.6*	*15.2*	*43.2*	5.4
Mid-high	9.7	*8.7*	*0.2*	*0.8*	75.1	*16.1*	*12.9*	*46.0*	15.2
Mid	8.6	*6.9*	*0.5*	*1.2*	64.8	*19.6*	*13.2*	*32.0*	26.6

Low	8.1	*5.8*	*0.8*	*1.5*	38.9	*19.0*	*5.9*	*13.9*	53.1
Liquidation	8.1	*6.9*	*0.2*	*0.9*	44.3	*15.7*	*9.2*	*19.3*	47.6
Resolution	8.4	*6.3*	*0.7*	*1.4*	49.9	*19.8*	*8.3*	*21.8*	41.7
Total	**8.3**	***6.4***	***0.6***	***1.3***	**49.4**	***19.4***	***8.4***	***21.6***	**42.3**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

171. Table 28 and Table 29 provide information about the share of liabilities that is excluded from bail-in and the contribution of each type of excluded liabilities. On average across the EU, exactly 43.0% of TLOF is excluded from bail-in (Table 28). A large amount of excluded liabilities are covered deposits (50.2%) and secured liabilities (41.2%), whereas for small institutions the share of covered deposits is the highest (81.5%) while for large institutions the share of covered deposits (47.3%) almost equals the share of secured liabilities (43.2%) (Table 29).

Table 28 Share of mandatory exclusions (% of TLOF), by size, resolution strategy and depositor reliance

		of which:									
	Mandatory exclusion	*Covered deposits*	*Secured liabilities*	*Liability to institutions <7 days*	*Client liabilities*	*Fiduciary liabilities*	*System liabilities*	*Employee liabilities*	*Critical services liabilities*	*Tax liabilities*	*DGS liabilities*
		(% of TLOF)									
Large	40.5	*19.2*	*17.5*	*2.1*	*0.2*	*0.7*	*0.1*	*0.4*	*0.1*	*0.2*	*0.1*
Medium	51.2	*28.1*	*19.7*	*1.1*	*1.6*	*0.2*	*0.1*	*0.3*	*0.1*	*0.2*	*0.0*
Small	47.2	*38.5*	*6.3*	*0.9*	*0.3*	*0.3*	*0.1*	*0.2*	*0.2*	*0.2*	*0.1*
High	46.1	*43.2*	*1.0*	*1.1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.0*
Mid-high	56.6	*46.0*	*8.1*	*1.0*	*0.4*	*0.1*	*0.2*	*0.3*	*0.2*	*0.2*	*0.2*
Mid	50.3	*32.0*	*16.3*	*0.6*	*0.2*	*0.1*	*0.1*	*0.4*	*0.2*	*0.3*	*0.1*
Low	39.2	*13.9*	*20.7*	*2.4*	*0.6*	*0.8*	*0.1*	*0.4*	*0.0*	*0.1*	*0.0*
Liquidation	38.2	*19.3*	*16.7*	*1.0*	*0.7*	*0.0*	*0.1*	*0.2*	*0.1*	*0.1*	*0.0*
Resolution	43.5	*21.8*	*17.8*	*2.0*	*0.5*	*0.6*	*0.1*	*0.4*	*0.1*	*0.2*	*0.1*
Total	**43.0**	***21.6***	***17.7***	***1.9***	***0.5***	***0.6***	***0.1***	***0.4***	***0.1***	***0.2***	***0.0***

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 29 Share of each type of mandatory exclusion out of total excluded, by size, resolution strategy, depositor reliance

	Covered deposits	Secured liabilities	Liability to institutions <7 days	Client liabilities	Fiduciary liabilities	System liabilities	Employee liabilities	Critical services liabilities	Tax liabilities	DGS liabilities
	(% of total excluded liabilities)									
Large	47.3	43.2	5.3	0.4	1.7	0.3	0.9	0.2	0.5	0.1
Medium	54.8	38.4	2.1	3.1	0.4	0.1	0.5	0.1	0.3	0.0
Small	81.5	13.4	2.0	0.7	0.7	0.3	0.5	0.3	0.4	0.1
High	93.7	2.2	2.3	0.4	0.1	0.2	0.3	0.3	0.4	0.1
Mid-high	81.3	14.2	1.7	0.7	0.1	0.3	0.5	0.3	0.4	0.3
Mid	63.6	32.5	1.2	0.3	0.3	0.2	0.7	0.4	0.6	0.2
Low	35.6	52.9	6.2	1.6	2.0	0.2	1.0	0.1	0.4	0.0
Liquidation	50.6	43.6	2.5	1.9	0.1	0.2	0.6	0.2	0.3	0.0
Resolution	50.1	41.0	4.5	1.1	1.4	0.3	0.8	0.2	0.4	0.1
Total	**50.2**	**41.2**	**4.4**	**1.2**	**1.3**	**0.2**	**0.8**	**0.2**	**0.4**	**0.1**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 30 Share of mandatory exclusions (% of TLOF), by country

Country	Mandatory exclusion (% of TLOF)
AT	42.1
BE	46.4
BG	64.2
CY	51.4
CZ	73.2
DE	39.3
EE	41.8
ES	55.7
FI	30.8
FR	36.2
GR	63.3
HR	53.4
IE	13.1
IT	51.6
LT	64.7
LU	15.5
LV	56.5
MT	58.4
NL	36.6
PL	52.4
PT	58.2
RO	58.3
SE	32.7
SI	64.6
SK	73.9

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LU (37), L (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown.

172. Table 31 shows the amount of liabilities excluded from bail-in that rank senior to senior non-preferred and junior to non-preferred deposits (or preferred deposits in jurisdictions with a single-tier depositor preference) as a share of the total liabilities of those ranks in insolvency pursuant to the applicable hierarchy in each Member State.[45] This perspective does not consider excluded liabilities ranking at the high end of the hierarchy of claims as it focuses on those ranks that are likely to be impacted by the bail-in.

173. On average, these mandatory exclusions represent less than 6% of the respective liability classes, with a widely spread distribution around the average, as 25% of the resolution entities (first quartile) have a portion of excluded liabilities equal to 0.1% or 1.6% for small and large institutions, respectively. These results are not indicative of actual no-creditor-worse-off (NCWO) risks, which remain a case-by-case assessment based on each bank's liability structure. They provide, however, an overview of the magnitude of the exclusions in those layers more prone to generating NCWO risks.

Table 31 Mandatory exclusions from bail-in (exclusions ranking between senior non-preferred and non-preferred or preferred deposits depending on the applicable depositor preference, % of liabilities with a similar ranking)

	5th percentile	25th percentile	Median	75th percentile	95th percentile
Large	0.0	1.6	5.8	8.2	30.6
Medium	0.0	0.5	4.4	6.2	95.6
Small	0.0	0.1	5.2	4.0	100.0
High	0.0	0.2	3.3	3.6	49.6
Mid-high	0.0	0.2	5.0	5.1	32.4
Mid	0.0	0.6	2.4	3.9	51.8
Low	0.0	0.5	6.5	11.1	100.0
Liquidation	0.0	0.0	4.1	4.0	100.0
Resolution	0.0	0.7	5.7	6.5	75.5
Total	**0.0**	**0.3**	**5.5**	**5.6**	**100.0**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

[45] With one exception covering liabilities pari-passu with senior non-preferred due to the presence of excluded liabilities at this level of the hierarchy of claims.

Annex 4 – statistical annex

Descriptive statistical analysis

Assessing the capacity of institution to access resolution financing arrangements

Baseline scenario

Table 32 Baseline scenario – amount of deposits used to reach 8% TLOF (in EUR bn), resolution strategy, size and depositor reliance

	Obs	Amount used to reach 8% TLOF				Additional amount needed to reach 8% TLOF (in EUR bn)
		Deposits (in EUR bn)	of which: non-preferred deposits (in EUR bn)	of which: preferred deposits (in EUR bn)	of which: covered deposits (in EUR bn)	
Large	**49**	**2.3**	2.3	0.0	0.0	0.2
Medium	**124**	**15.1**	14.2	0.6	0.3	0.2
Small	**195**	**1.0**	0.8	0.2	0.0	0.0
Resolution	**187**	**14.2**	13.3	0.6	0.3	0.2
Liquidation	**181**	**4.1**	3.9	0.2	0.0	0.2
Low	**107**	**8.9**	8.9	0.0	0.0	0.4
Mid	**44**	**2.2**	2.2	0.0	0.0	0.0
Mid-High	**63**	**1.3**	1.3	0.0	0.0	0.0
High	**154**	**5.9**	4.8	0.8	0.3	0.0
Total	**368**	**18.3**	**17.2**	**0.9**	**0.3**	**0.0**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 33 Baseline scenario - number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by country

Country	Obs	Institution reaching 8% TLOF							Institutions not reaching 8% TLOF with deposits and additional amount	
		Without deposits	of which: with non-preferred deposits		of which: preferred deposits		of which: with covered deposits			
		Count	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
AT	24	20	4	1.3	0	0.0	0	0.0	0	0.0
BE	12	7	4	0.9	1	1.2	0	0.0	0	0.0
BG	12	10	2	1.4	0	0.0	0	0.0	0	0.0
CY	8	7	1	0.2	0	0.0	0	0.0	0	0.0
CZ	4	2	1	1.7	0	1.1	1	4.5	0	0.0
DE	34	29	4	1.9	0	0.0	0	0.0	1	0.5
EE	5	5	0	0.0	0	0.0	0	0.0	0	0.0
ES	63	37	24	0.7	2	0.9	0	0.0	0	0.0

FI	8	2	4	1.1	0	0.0	0	0.0	2	0.3
FR	9	6	2	0.4	0	0.0	0	0.0	1	0.5
GR	15	12	2	1.1	0	0.2	1	1.1	0	0.0
HR	4	4	0	0.0	0	0.0	0	0.0	0	0.0
HU	0	0	0	0.0	0	0.0	0	0.0	0	0.0
IE	8	7	1	2.0	0	0.0	0	0.0	0	0.0
IT	24	21	2	0.9	1	2.1	0	0.0	0	0.0
LT	4	4	0	0.0	0	0.0	0	0.0	0	0.0
LU	37	23	12	1.8	2	3.4	0	0.0	0	0.0
LV	3	3	0	0.0	0	0.0	0	0.0	0	0.0
MT	9	8	1	0.1	0	0.0	0	0.0	0	0.0
NL	6	2	4	0.3	0	0.0	0	0.0	0	0.0
PL	13	10	3	3.2	0	0.0	0	0.0	0	0.0
PT	24	20	4	2.1	0	0.0	0	0.0	0	0.0
RO	12	12	0	0.0	0	0.0	0	0.0	0	0.0
SE	19	13	4	0.6	1	0.4	0	0.0	1	0.2
SI	6	4	1	0.6	1	2.6	0	0.0	0	0.0
SK	4	3	1	0.2	0	0.0	0	0.0	0	0.0

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LU (37), L (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown.

Baseline scenario vs more severe CET1 depletion scenarios

Table 34 CET1 depletion scenarios - number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by size, depositor preference and resolution strategy

		Institutions reaching 8% TLOF							Institutions not reaching 8% TLOF with deposits and additional amount	
		without deposits	with non-preferred deposits		with preferred deposits		with covered deposits			
		Count	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
CET1 depletion 5	**Large**	18	28	1.3	1	0.7	0	0.0	2	0.6
	Medium	24	87	3.2	9	2.1	2	3.4	4	0.4
	Small	18	121	3.6	45	2.7	6	3.2	6	0.5
	Resolution	39	130	1.9	13	1.7	3	3.4	4	0.4
	Liquidation	21	106	2.2	42	2.4	5	3.2	8	0.6
	Low	43	52	1.2	1	4.4	1	2.6	12	0.5
	Mid	9	31	2.4	4	0.4	0	0.0	0	0.0
	Mid-high	4	50	2.8	9	0.8	1	3.5	0	0.0
	High	4	103	4.0	41	2.7	6	3.4	0	0.0
	Total	**60**	**236**	**1.9**	**55**	**1.9**	**8**	**3.4**	**12**	**0.5**
CET1 depletion 4	**Large**	20	26	1.3	1	0.5	0	0.0	2	0.5
	Medium	26	86	3.0	7	2.1	2	2.9	4	0.4
	Small	28	113	3.4	44	2.4	7	3.0	4	0.6
	Resolution	49	122	1.8	11	1.6	3	2.9	3	0.4
	Liquidation	25	103	2.1	41	2.2	6	3.0	7	0.6
	Low	48	48	1.2	1	4.1	2	1.7	10	0.5

	Mid	10	31	2.2	3	0.9	0	0.0	0	0.0
	Mid-high	9	46	2.6	7	0.6	1	3.5	0	0.0
	High	7	100	3.8	41	2.5	6	2.9	0	0.0
	Total	**74**	**225**	**1.9**	**52**	**1.7**	**9**	**2.9**	**10**	**0.5**
CET1 depletion 3	**Large**	22	24	1.2	1	0.3	0	0.0	2	0.5
	Medium	28	83	2.9	8	1.9	1	5.7	4	0.4
	Small	36	109	3.2	41	2.5	6	2.8	4	0.6
	Resolution	53	117	1.7	12	1.3	2	5.6	3	0.4
	Liquidation	33	99	2.2	38	2.2	5	2.8	7	0.5
	Low	51	45	1.2	1	4.0	1	1.7	10	0.5
	Mid	10	32	2.0	2	2.0	0	0.0	0	0.0
	Mid-high	12	43	2.4	7	0.4	1	3.5	0	0.0
	High	13	96	3.6	40	2.4	5	4.4	0	0.0
	Total	**86**	**216**	**1.7**	**50**	**1.5**	**7**	**4.4**	**10**	**0.5**
CET1 depletion 2	**Large**	25	25	0.7	0	0.0	0	0.0	2	0.4
	Medium	37	78	2.4	4	1.7	1	5.4	4	0.4
	Small	60	98	2.3	32	1.8	4	1.2	1	0.5
	Resolution	70	107	1.2	5	2.3	2	5.3	3	0.4
	Liquidation	**52**	91	1.8	31	1.4	3	1.2	4	0.5
	Low	62	37	0.8	1	3.5	0	0.0	7	0.4
	Mid	14	29	1.4	1	0.6	0	0.0	0	0.0
	Mid-high	22	40	1.7	1	0.3	0	0.0	0	0.0
	High	24	92	2.8	33	1.7	5	3.5	0	0.0
	Total	**122**	**198**	**1.2**	**36**	**1.7**	**5**	**3.5**	**7**	**0.4**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 35 CET1 depletion scenarios - amount of deposits used to reach 8% TLOF (in EUR bn), resolution strategy, size and depositor reliance

		Amount used to reach 8% TLOF					
		Deposits		**of which: non-preferred**	**of which: preferred**	**of which: covered deposits**	**Additional amount needed to reach 8% TLOF**
		EUR bn	*% of covered deposits*	*EUR bn*	*EUR bn*	*EUR bn*	*EUR bn*
CET1 depletion 5	**Large**	70.6	1.6	70.2	0.4	0.0	0.4
	Medium	68.0	1.5	64.1	3.4	0.4	0.4
	Small	9.3	0.2	7.7	1.4	0.2	0.0
	Resolution	129.7	3.0	126.3	3.0	0.4	0.4
	Liquidation	18.1	0.4	15.7	2.2	0.2	0.4
	Low	50.4	1.1	50.3	0.1	0.0	0.8
	Mid	39.7	0.9	39.7	0.0	0.0	0.0
	Mid-High	25.5	0.6	24.7	0.8	0.0	0.0
	High	32.2	0.7	27.3	4.3	0.6	0.0
	Total	**147.8**	**3.4**	**142.0**	**5.2**	**0.6**	**0.8**
CET1 depletion 4	**Large**	63.1	1.4	62.8	0.3	0.0	0.3
	Medium	63.6	1.5	60.1	3.2	0.4	0.4
	Small	8.2	0.2	6.9	1.2	0.1	0.0

	Resolution	118.0	2.7	115.0	2.6	0.4	0.4
	Liquidation	17.0	0.4	14.8	2.1	0.1	0.4
	Low	46.5	1.1	46.4	0.1	0.0	0.8
	Mid	36.0	0.8	36.0	0.0	0.0	0.0
	Mid-High	22.6	0.5	22.0	0.6	0.0	0.0
	High	29.9	0.7	25.4	4.0	0.5	0.0
	Total	**135.0**	**3.1**	**129.8**	**4.7**	**0.5**	**0.8**
CET1 depletion 3	**Large**	56.8	1.3	56.5	0.2	0.0	0.3
	Medium	59.7	1.4	56.5	2.9	0.3	0.4
	Small	7.3	0.2	6.1	1.1	0.1	0.0
	Resolution	107.6	2.5	105.1	2.3	0.3	0.3
	Liquidation	16.1	0.4	14.1	1.9	0.1	0.4
	Low	43.5	1.0	43.4	0.1	0.0	0.7
	Mid	32.6	0.7	32.6	0.0	0.0	0.0
	Mid-High	19.8	0.5	19.4	0.4	0.0	0.0
	High	27.8	0.6	23.7	3.7	0.5	0.0
	Total	**123.7**	**2.8**	**119.1**	**4.2**	**0.5**	**0.7**
CET1 depletion 2	**Large**	33.8	0.77	33.8	0.0	0.0	0.3
	Medium	44.7	1.02	42.7	1.7	0.3	0.3
	Small	4.6	0.10	3.9	0.7	0.1	0.0
	Resolution	71.6	1.63	70.1	1.2	0.3	0.3
	Liquidation	11.5	0.26	10.3	1.1	0.1	0.4
	Low	30.8	0.70	30.8	0.1	0.0	0.6
	Mid	21.4	0.49	21.4	0.0	0.0	0.0
	Mid-High	11.1	0.25	11.1	0.0	0.0	0.0
	High	19.8	0.45	17.1	2.3	0.4	0.0
	Total	**83.1**	**1.89**	**80.4**	**2.4**	**0.4**	**0.6**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 36 CET1 depletion scenarios - number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by country

Country	Entities able to reach 8% TLOF/ Amount needed																									
	without deposits (number of entities)				with non-preferential deposits (number of entities)				with non-preferential deposits (amount as % of TLOF)				with preferential deposits (number of entities)				with preferential deposits (amount as % of TLOF)				with covered deposits (number of entities)				with covered deposits (amount as % of TLOF)			
	CET1 depletion scenario																									
	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
AT	7	5	3	3	17	18	20	20	1.2	1.9	2.0	2.3	0	1	0	0	0.0	1.0	1.6	1.6	0	0	1	1	0.0	0.0	0.1	0.9
BE	0	0	0	0	9	7	7	7	1.6	2.2	2.4	2.6	3	5	5	5	1.3	2.2	2.4	2.6	0	0	0	0	0.0	0.0	0.0	0.0
BG	5	3	2	1	6	8	9	10	3.3	4.1	3.0	3.4	1	1	1	1	0.2	1.4	1.7	2.0	0	0	0	0	0.0	0.0	0.0	0.0
CY	3	2	2	1	5	6	6	7	2.9	3.9	4.2	4.5	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
CZ	1	0	0	0	1	2	2	2	1.7	1.3	2.0	2.7	1	1	1	1	0.9	1.2	1.4	1.6	1	1	1	1	5.4	5.7	6.0	6.3
DE	22	19	19	17	10	12	13	14	2.6	3.1	2.8	2.8	1	2	2	2	1.6	2.2	2.5	2.8	0	0	0	0	0.0	0.0	0.0	0.0
EE	4	3	0	0	1	2	5	5	2.1	3.6	3.8	4.3	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
ES	3	2	2	1	43	38	35	35	1.7	2.6	2.7	2.1	17	22	25	27	1.9	1.1	1.2	1.2	0	1	1	0	0.0	1.7	2.5	3.3
FI	0	0	0	0	6	6	6	6	0.6	1.1	1.3	1.5	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0

FR	3	3	3	3	5	5	5	5	0.6	0.8	0.8	0.9	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
GR	10	6	5	2	4	8	9	12	0.3	0.8	1.9	2.5	0	0	0	0	0.2	0.2	0.2	0.2	1	1	1	1	2.2	2.6	2.8	3.0
HR	3	3	3	1	1	1	1	3	0.6	2.0	2.8	1.2	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
HU	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
IE	6	5	3	2	2	3	5	6	3.5	3.9	2.2	2.8	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
IT	18	16	16	16	5	7	7	7	1.1	1.8	1.8	1.8	1	1	1	1	3.3	3.6	3.6	3.6	0	0	0	0	0.0	0.0	0.0	0.0
LT	1	1	1	1	3	3	3	3	1.5	3.0	3.5	4.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
LU	5	1	0	0	25	27	27	27	3.4	4.6	4.8	5.1	6	7	7	7	1.2	2.0	2.1	2.3	0	0	1	1	0.0	0.0	0.9	1.9
LV	1	0	0	0	2	3	3	3	1.1	2.3	3.0	3.6	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
MT	3	3	2	1	5	4	5	6	2.5	3.4	3.1	3.7	1	2	2	2	0.3	2.0	2.0	2.0	0	0	0	0	0.0	0.0	0.0	0.0
NL	0	0	0	0	5	4	4	4	0.6	1.0	1.2	1.4	1	2	2	2	2.7	0.5	0.7	0.9	0	0	0	0	0.0	0.0	0.0	0.0
PL	2	2	2	2	11	11	11	11	1.6	3.1	3.1	3.2	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
PT	13	6	6	5	9	12	12	13	3.4	1.9	1.9	1.9	1	3	3	3	1.4	2.0	2.3	2.6	1	2	2	2	1.3	3.8	3.8	3.8
RO	5	3	2	1	7	9	10	10	1.2	2.1	2.6	3.2	0	0	0	1	0.0	0.0	0.0	0.4	0	0	0	0	0.0	0.0	0.0	0.0
SE	3	1	1	1	12	14	14	14	1.7	2.2	2.3	2.4	2	2	2	2	0.5	2.3	2.3	2.3	1	1	1	1	0.5	1.8	1.8	1.8
SI	4	2	2	2	1	3	3	3	0.8	1.1	1.2	1.2	1	1	1	1	3.9	4.3	4.8	5.3	0	0	0	0	0.0	0.0	0.0	0.0
SK	0	0	0	0	3	3	3	3	2.3	3.1	3.4	3.7	0	0	0	0	0.7	0.7	0.7	0.7	1	1	1	1	1.2	2.3	2.7	3.0

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LU (37), L (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown.

Baseline scenario vs creditor hierarchy scenarios

Table 37 Creditor hierachy scenarios - number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by resolution strategy, size and depositor reliance

		Institutions reaching 8% TLOF							Institutions not reaching 8% TLOF with deposits and additional amount	
		without deposits	with non-preferred deposits		with preferred non-covered deposits		with covered deposits			
		Count	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
Depositor preference 5	**Large**	49	0	0.0	0	0.0	0	0.0	0	0.0
	Medium	102	18	1.2	2	0.5	2	2.2	2	0.4
	Small	166	20	1.8	8	1.2	8	0.8	1	0.2
	Resolution	166	18	1.2	18	0.5	2	2.2	1	0.4
	Liquidation	151	28	1.2	28	1.3	0	0.8	2	0.4
	Low	102	1	1.0	1	0.3	1	1.6	3	0.4
	Mid	38	6	1.8	0	0.0	0	0.0	0	0.0
	Mid-high	60	3	2.5	0	0.0	0	0.0	0	0.0
	High	117	28	1.1	9	0.7	9	1.9	0	0
	Total	**317**	**38**	**1.2**	**10**	**0.6**	**10**	**1.9**	**3**	**0.4**
Depositor preference 4	**Large**	49	0	0.0	0	0.0	0	0.0	0	0.0
	Medium	102	19	0.8	19	0.9	1	4.5	2	0.4
	Small	166	27	1.0	27	1.4	1	1.1	1	0.2
	Resolution	166	17	0.9	1	1.1	2	4.4	1	0.4
	Liquidation	151	21	0.7	7	0.8	0	0.0	2	0.4
	Low	102	2	1.0	2	2.6	0	0.0	3	0.4

	Mid	38	6	0.0	6	0.9	0	0.0	0	0.0
	Mid-high	60	3	2.0	3	1.1	0	0.0	0	0.0
	High	117	35	0.7	35	0.9	2	4.4	0	0
	Total	**317**	**46**	**0.8**	**46**	**0.9**	**2**	**4.4**	**3**	**0.4**
Depositor preference 3	**Large**	49	0	0.0	0	0.0	0	0.0	0	0.0
	Medium	102	18	1.2	1	1.9	1	4.5	2	0.4
	Small	166	20	1.8	7	2.0	1	1.1	1	0.2
	Resolution	166	20	1.2	20	1.9	20	4.4	1	0.4
	Liquidation	151	28	1.2	28	2.0	28	0.0	2	0.4
	Low	102	1	1.0	1	1.9	0	0.0	3	0.4
	Mid	38	6	1.8	0	0.0	0	0.0	0	0.0
	Mid-high	60	3	2.5	0	0.0	0	0.0	0	0.0
	High	117	28	1.1	7	2.0	2	4.4	0	0
	Total	**317**	**38**	**1.2**	**8**	**2.0**	**2**	**4.4**	**3**	**0.4**
Depositor preference 2	**Large**	49	0	0.0	0	0.0	0	0.0	0	0.0
	Medium	102	20	0.6	20	0.3	20	0.8	2	0.4
	Small	166	28	0.7	28	0.8	28	0.9	1	0.2
	Resolution	166	39	0.6	1	0.3	2	1.1	2	0.4
	Liquidation	151	42	0.6	7	0.4	0	0.4	3	0.4
	Low	102	2	1.0	2	0.5	2	2.5	3	0.4
	Mid	38	6	0.3	6	0.3	6	1.3	0	0.0
	Mid-high	60	3	1.8	3	0.3	3	0.6	0	0.0
	High	117	37	0.5	37	0.4	37	0.7	0	0
	Total	**317**	**48**	**0.6**	**48**	**0.3**	**48**	**0.8**	**3**	**0.4**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 38 Creditor hierarchy scenarios - amount of deposits used to reach 8% TLOF (in EUR bn), resolution strategy, size and depositor reliance

		Amount used to reach 8% TLOF					**Additional amount needed to reach 8% TLOF**
		Deposits		**of which: non-preferred deposits**	**of which: preferred deposits**	**of which: covered deposits**	
		EUR bn	*% of covered deposits*	*EUR bn*	*EUR bn*	*EUR bn*	*EUR bn*
Depositor preference 5	**Large**	0.0	0.0	0.0	0.0	0.0	0.0
	Medium	5.6	0.1	4.7	0.2	0.7	0.2
	Small	0.8	0.0	0.5	0.1	0.1	0.0
	Resolution	4.6	0.1	3.7	0.2	0.8	0.1
	Liquidation	1.8	0.0	1.6	0.1	0.1	0.1
	Low	1.1	0.0	1.1	0.0	0.0	0.2
	Mid	1.3	0.0	1.3	0.0	0.0	0.0
	Mid-high	0.3	0.0	0.3	0.0	0.0	0.0
	High	3.7	0.1	2.6	0.3	0.8	0.0
	Total	**6.4**	**0.1**	**5.3**	**0.3**	**0.8**	**0.2**
Depositor	**Large**	0.0	0.0	0.0	0.0	0.0	0.0

	Medium	5.6	0.1	3.4	2.0	0.3	0.2
	Small	0.8	0.0	0.3	0.5	0.0	0.0
	Resolution	4.6	0.1	2.7	1.6	0.3	0.1
	Liquidation	1.8	0.0	1.0	0.8	0.0	0.1
	Low	1.1	0.0	1.1	0.0	0.0	0.2
	Mid	1.3	0.0	0.7	0.6	0.0	0.0
	Mid-high	0.3	0.0	0.2	0.1	0.0	0.0
	High	3.7	0.0	1.7	1.7	0.3	0.0
	Total	**6.4**	**0.1**	**3.7**	**2.4**	**0.3**	**0.2**
Depositor preference 3	**Large**	0.0	0.0	0.0	0.0	0.0	0.0
	Medium	5.6	0.1	4.7	0.6	0.3	0.2
	Small	0.8	0.0	0.5	0.2	0.0	0.0
	Resolution	4.6	0.1	3.7	0.6	0.3	0.1
	Liquidation	1.8	0.0	1.6	0.2	0.0	0.1
	Low	1.1	0.0	1.1	0.0	0.0	0.2
	Mid	1.3	0.0	1.3	0.0	0.0	0.0
	Mid-high	0.3	0.0	0.3	0.0	0.0	0.0
	High	3.7	0.0	2.6	0.8	0.3	0.0
	Total	**6.4**	**0.1**	**5.3**	**0.9**	**0.3**	**0.2**
Depositor preference 2	**Large**	0.0	0.0	0.0	0.0	0.0	0.0
	Medium	5.6	0.1	2.5	0.6	2.5	0.2
	Small	0.8	0.0	0.2	0.2	0.3	0.0
	Resolution	4.6	0.1	1.9	0.4	2.3	0.1
	Liquidation	1.8	0.0	0.8	0.4	0.5	0.1
	Low	1.1	0.0	1.1	0.0	0.0	0.2
	Mid	1.3	0.0	0.2	0.2	0.9	0.0
	Mid-high	0.3	0.0	0.2	0.0	0.1	0.0
	High	3.7	0.1	1.3	0.7	1.8	0.0
	Total	**6.4**	**0.1**	**2.7**	**0.9**	**2.8**	**0.2**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 39 Creditor hierarchy scenarios - numbers of institution and amount (% of TLOF) to reach 8% of TLOF threshold, by country

Country	Entities able to reach 8% TLOF/ Amount needed																									
	without deposits (number of entities)				with non-preferential deposits (number of entities)				with non-preferential deposits (amount as % of TLOF)				with preferential deposits (number of entities)				with preferential deposits (amount as % of TLOF)				with covered deposits (number of entities)				with covered deposits (amount as % of TLOF)			
	Depositor preference																									
	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
AT	24	24	24	24	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
BE	9	9	9	9	3	2	3	2	0.0	0.3	0.1	0.3	3	1	3	1	0.1	1.2	0.3	0.9	3	0	0	1	0.2	0.0	0.0	0.3
BG	10	10	10	10	2	2	2	2	0.2	1.4	0.6	1.4	2	0	2	0	0.3	0.0	0.8	0.0	2	0	0	0	0.9	0.0	0.0	0.0
CY	7	7	7	7	1	1	1	1	0.0	0.2	0.1	0.2	1	0	1	0	0.0	0.0	0.2	0.0	1	0	0	0	0.2	0.0	0.0	0.0
CZ	2	2	2	2	2	1	1	1	0.1	0.4	0.2	0.4	2	0	1	1	0.1	1.1	0.6	0.1	2	1	1	1	2.5	4.5	4.5	5.5

DE	31	31	31	31	2	2	2	2	0.7	1.5	1.3	1.5	2	0	2	0	0.1	0.0	0.7	0.0	2	0	0	0	0.8	0.0	0.0	0.0
EE	5	5	5	5	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
ES	52	52	52	52	11	9	11	9	0.3	2	0.9	2.0	11	2	11	2	0.3	0.9	1.1	0.2	11	0	0	2	1.4	0.0	0.0	0.8
FI	6	6	6	6	1	1	1	1	0.0	0.1	0.0	0.1	1	0	1	0	0.0	0.0	0.1	0.0	1	0	0	0	0.1	0.0	0.0	0.0
FR	8	8	8	8	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
GR	12	12	12	12	3	2	2	2	0.2	1.1	0.7	1.1	3	0	2	1	0.1	0.2	0.3	0.0	3	1	1	1	1.0	1.1	1.1	1.3
HR	4	4	4	4	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
HU	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
IE	8	8	8	8	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
IT	21	21	21	21	3	2	3	2	0.0	0.9	0.1	0.9	3	1	3	1	0.6	2.1	2.1	0.5	3	0	0	1	1.6	0.0	0.0	1.6
LT	4	4	4	4	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
LU	27	27	27	27	10	8	10	8	0.8	1.2	0.9	1.2	10	2	10	2	1.0	3.4	1.1	3.1	10	0	0	2	0.1	0.0	0.0	0.3
LV	3	3	3	3	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
MT	9	9	9	9	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
NL	6	6	6	6	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
PL	11	11	11	11	2	2	2	2	3.4	3.5	3.5	3.5	2	0	2	0	0.0	0.0	0.0	0.0	2	0	0	0	0.1	0.0	0.0	0.0
PT	20	20	20	20	4	4	4	4	1.3	2.1	1.6	2.1	4	0	4	0	0.2	0.0	0.5	0.0	4	0	0	0	0.6	0.0	0.0	0.0
RO	12	12	12	12	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0
SE	17	17	17	17	2	1	2	1	1.0	1	1.0	1.0	2	1	2	1	0.1	0.4	1.0	0.0	2	0	0	1	1.2	0.0	0.0	0.4
SI	4	4	4	4	2	1	2	1	0.0	0.6	0.2	0.6	2	1	2	1	0.3	2.6	2.6	0.3	2	0	0	1	2.4	0.0	0.0	2.3
SK	4	4	4	4	0	0	0	0	0.0	0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LU (37), L (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). *Countries with less than 3 entities in the sample are not shown.

Least cost test and DGS intervention

Baseline scenario vs more severe CET1 depletion scenarios

Table 40 CET1 depletion scenarios - number of institutions of potential DGS intervention, by size, resolution strategy and deposit prevalence

		Institutions reaching 8% TLOF with deposits	Institutions for which DGS can intervene (positive LCT)	Institutions for which DGS can intervene and interventions under the LCT are sufficient to reach 8% TLOF
CET1 depletion 5	**Large**	29	0	0
	Medium	98	2	1
	Small	172	4	1
	Resolution	145	2	1
	Liquidation	154	4	1
	Low	55	1	0
	Mid	35	0	0
	Mid-high	59	0	0
	High	150	5	2
	Total	**299**	**6**	**2**
CET1 depletion 4	**Large**	27	0	0
	Medium	95	2	1
	Small	164	4	1
	Resolution	136	2	1
	Liquidation	150	4	1

	Low	51	1	0
	Mid	34	0	0
	Mid-high	54	0	0
	High	147	5	2
	Total	**286**	**6**	**2**
CET1 depletion 3	**Large**	25	0	0
	Medium	92	2	2
	Small	156	4	1
	Resolution	131	2	2
	Liquidation	142	4	1
	Low	47	1	0
	Mid	34	0	0
	Mid-high	51	0	0
	High	141	5	3
	Total	**273**	**6**	**3**
CET1 depletion 2	**Large**	22	0	0
	Medium	83	2	1
	Small	134	3	1
	Resolution	114	2	1
	Liquidation	125	3	1
	Low	38	1	0
	Mid	30	0	0
	Mid-high	41	0	0
	High	130	4	2
	Total	**239**	**5**	**2**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Baseline scenario vs creditor hierarchy scenarios

Table 41 Creditor hierarchy scenarios - number of institutions for potential DGS intervention, by size, resolution strategy and deposit prevalence

		Institutions reaching 8% TLOF with deposits	Institutions for which DGS can intervene (positive LCT)	Institutions for which DGS can intervene and interventions under the LCT are sufficient to reach 8% TLOF
Depositor preference 5	**Large**	0	0	0
	Medium	20	6	3
	Small	28	12	10
	Resolution	20	4	2
	Liquidation	28	14	11
	Low	2	1	13
	Mid	6	1	0
	Mid-high	3	1	0
	High	37	15	0
	Total	**48**	**18**	**13**
De po :	**Large**	0	0	0

	Medium	20	1	1
	Small	28	2	1
	Resolution	20	1	1
	Liquidation	28	2	1
	Low	2	1	0
	Mid	6	0	0
	Mid-high	3	0	0
	High	6	2	2
	Total	**48**	**3**	**2**
Depositor preference 3	**Large**	0	0	0
	Medium	20	1	1
	Small	28	2	1
	Resolution	20	1	1
	Liquidation	28	2	1
	Low	2	1	0
	Mid	6	0	0
	Mid-high	3	0	0
	High	37	2	2
	Total	**48**	**3**	**2**
Depositor preference 2	**Large**	0	0	0
	Medium	20	16	11
	Small	28	25	20
	Resolution	20	16	14
	Liquidation	28	25	17
	Low	2	1	1
	Mid	6	5	5
	Mid-high	3	2	2
	High	37	33	23
	Total	**48**	**41**	**31**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 42 Creditor hierarchy scenarios - DGS amount (EUR bn) available under LCT , by size, resolution strategy and depositor prevelance

	DGS amount available under LCT (EUR bn)				
Creditor hierarchy scenarios	**Baseline**	**2**	**3**	**4**	**5**
Large	0.0	0.1	0.0	0.0	0.0
Medium	0.0	0.7	0.0	0.0	0.2
Small	0.0	0.1	0.0	0.0	0.0
Resolution	0.0	0.8	0.0	0.0	0.1
Liquidation	0.0	0.2	0.0	0.0	0.2
Low	0.0	0.0	0.0	0.0	0.0
Mid	0.0	0.2	0.0	0.0	0.0
Mid-High	0.0	0.3	0.0	0.0	0.0
High	0.0	0.5	0.0	0.0	0.2
Total	0.0	1.0	0.0	0.0	0.2

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: Large (49); Medium (124); Small and non-complex (195); Strategy resolution (189), Strategy liquidation (181); Low (107); Mid (44); Mid-High (63); High (154).

Table 43 Creditor hierarchy scenarios - amount (EUR bn) needed and DGS amount available to reach 8% of TLOF threshold, by country

Country	Amount of deposits needed (EUR bn)					DGS amount available under LCT (EUR bn)				
Creditor hierarchy scenarios	Baseline	2	3	4	5	Baseline	2	3	4	5
AT	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BE	0.5	0.2	0.2	0.2	0.2	0.0	0.1	0.0	0.0	0.1
BG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CZ	0.4	0.3	0.3	0.3	0.3	0.0	0.1	0.0	0.0	0.0
DE	2.1	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
EE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ES	2.7	1.3	1.3	1.3	1.3	0.0	0.1	0.0	0.0	0.0
FI	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FR	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IE	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IT	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
LT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LU	1.6	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
LV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NL	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PL	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
PT	0.6	0.6	0.6	0.6	0.6	0.0	0.1	0.0	0.0	0.0
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
SE	3.4	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
SI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SK	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total	**18.3**	**6.4**	**6.4**	**6.4**	**6.4**	**0.0**	**1.0**	**0.0**	**0.0**	**0.2**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LU (37), L (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown.

Combined scenarios

Ability to reach 8% TLOF threshold

Table 44 Combined scenario 1 - number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by resolution strategy, size and depositor reliance

	Obs	Institutions reaching 8% TLOF							Institutions not reaching 8% TLOF with deposits and additional amount	
		without deposits	with non-preferred deposits		with preferred deposits		with covered deposits			
		Count	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
RESOLUTION										
Large	**44**	44	0	0.0	0	0.0	0	0.0	0	0.0
Medium	**87**	73	13	0.6	13	0.3	13	1.1	1	0.4
Small	**56**	49	7	1.3	7	0.1	7	0.4	0	0.0
Low	**63**	61	1	0.0	1	0.0	1	0.0	1	0.0
Mid	**25**	22	3	0.7	3	0.8	3	0.9	0	0.2
Mid-high	**39**	37	2	1.0	2	0.7	2	0.7	0	0.0
High	**60**	46	14	0.1	14	0.4	14	1.4	0	0.0
Total	**187**	166	20	0.6	20	0.3	20	1.1	1	0.4
LIQUIDATION										
Large	**5**	5	0	0.0	0	0.0	0	0.0	0	0.0
Medium	**37**	29	7	0.6	7	0.2	7	0.2	1	0.5
Small	**139**	117	21	0.5	21	1.0	21	1.1	1	0.2
Low	**44**	41	1	2.7	1	0.1	1	0.1	2	0.0
Mid	**19**	16	3	0.6	3	0.3	3	0.8	0	0.4
Mid-high	**24**	23	1	0.6	1	0.3	1	0.9	0	0.4
High	**94**	71	23	1.8	23	0.3	23	0.6	0	0.0
Total	**181**	151	28	0.6	28	0.4	28	0.4	2	0.4
Total	**368**	**317**	**48**	**0.6**	**48**	**0.3**	**48**	**0.8**	**3**	**0.4**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 45 Combined scenario 1 – amount of deposits used to reach 8% TLOF (in EUR bn), resolution strategy, size and depositor reliance

	Obs	Amount used to reach the 8% TLOF				Additional amount needed to reach 8% TLOF
		Deposits	of which: non-preferred deposits	of which: preferred deposits	of which: covered deposits	
				(in EUR bn)		
Large	**49**	0.0	0.0	0.0	0.0	0.0
Medium	**124**	5.6	2.5	0.6	2.5	0.2
Small	**195**	0.8	0.2	0.2	0.3	0.0
Resolution	**187**	4.6	1.9	0.4	2.3	0.1
Liquidation	**181**	1.8	0.8	0.4	0.5	0.1

Low	**107**	1.1	1.1	0.0	0.0	0.2
Mid	**44**	0.0	0.0	0.0	0.0	0.0
Mid-high	**63**	0.0	0.0	0.0	0.0	0.0
High	**154**	3.7	1.3	0.7	1.8	0.0
Total	**368**	**6.4**	**2.7**	**0.9**	**2.8**	**0.2**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 46 Combined scenario 2 - number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by resolution strategy, size and depositor reliance

	Obs	Institutions reaching 8% TLOF							Institutions not reaching 8% TLOF with deposits and additional amount	
		Without deposits	with non-preferred deposits		with non-preferred deposits		with covered deposits			
		Count	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
RESOLUTION										
Large	**44**	36	8	0.7	8	0.2	8	0.6	0	0.0
Medium	**87**	45	40	1.0	40	0.4	40	1.7	2	0.3
Small	**56**	20	36	1.2	36	0.5	36	1.4	0	0.0
Low	**63**	55	6	0.7	6	0.2	6	0.6	2	0.0
Mid	**25**	15	10	1.0	10	0.8	10	1.8	0	0.3
Mid-high	**39**	19	20	1.9	20	0.9	20	1.5	0	0.1
High	**60**	55	6	0.5	6	0.5	6	1.6	2	0.0
Total	**187**	101	84	0.9	84	0.4	84	1.4	2	0.3
LIQUIDATION										
Large	**5**	5	0	0.0	0	0.0	0	0.0	0	0.0
Medium	**37**	20	15	1.5	15	0.6	15	1.2	2	0.5
Small	**139**	40	97	0.9	97	0.9	97	2.1	2	0.3
Low	**44**	35	5	0.3	5	0.3	5	1.2	4	0.0
Mid	**19**	8	11	1.1	11	0.5	11	1.6	0	0.4
Mid-high	**24**	10	14	0.9	14	0.4	14	1.4	0	0.4
High	**94**	12	82	0.3	82	0.3	82	1.3	0	0.0
Total	**181**	65	112	1.3	112	0.7	112	1.5	4	0.5
Total	**368**	**166**	**196**	**1.0**	**196**	**0.4**	**196**	**1.4**	**6**	**0.4**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 47 Combined scenario 2 – amount of deposits used to reach 8% TLOF (in EUR bn), resolution strategy, size and depositor reliance

	Obs	Amount used to reach the 8% TLOF				Additional amount needed to reach 8% TLOF (in EUR bn)
		Deposits (in EUR bn)	of which: non-preferred deposits (in EUR bn)	of which: preferred deposits (in EUR bn)	of which: covered deposits (in EUR bn)	
Large	**49**	6.5	2.9	1.0	2.6	0.0
Medium	**124**	35.2	13.1	4.7	17.5	0.3
Small	**195**	5.7	1.5	1.2	2.9	0.0
Resolution	**187**	36.6	13.5	4.8	18.4	0.2
Liquidation	**181**	10.8	4.0	2.1	4.7	0.2
Low	**107**	5.3	4.9	0.1	0.3	0.3
Mid	**44**	0.0	0.0	0.0	0.0	0.0
Mid-high	**63**	0.0	0.0	0.0	0.0	0.0
High	**154**	20.6	9.0	3.5	8.1	0.0
Total	**368**	**47.4**	**17.5**	**6.9**	**23.1**	**0.3**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 48 Combined scenario 3 - number of institutions and amount (% of TLOF) to reach 8% of TLOF threshold, by resolution strategy, size and depositor reliance

	Obs	Institutions reaching 8% TLOF							Institutions not reaching 8% TLOF with deposits and additional amount	
		without deposits	With deposits of which: non-preferred		With deposits of which: preferred		With deposits of which: covered			
		Count	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*	*Count*	*Amount used (%TLOF)*
RESOLUTION										
Large	**44**	36	7	1.4	1	0.3	0	0.0	0	0.0
Medium	**87**	45	33	2.7	6	1.9	1	5.7	2	0.3
Small	**56**	20	30	2.8	5	1.6	1	2.6	0	0.0
Low	**63**	55	6	1.4	0	0.3	0	0.0	2	0.0
Mid	**25**	15	10	2.9	0	2.5	0	2.8	0	0.3
Mid-high	**39**	19	16	3.5	4	2.1	0	4.4	0	0.1
High	**60**	12	38	2.6	8	0.7	2	3.5	0	0.0
Total	**187**	101	70	2.3	12	1.3	2	5.6	2	0.3
LIQUIDATION										
Large	**5**	5	0	0.0	0	0.0	0	0.0	0	0.0
Medium	**37**	20	13	2.7	2	1.8	0	0.0	2	0.5
Small	**139**	40	56	3.0	36	2.7	5	2.8	2	0.3
Low	**44**	35	3	1.7	1	0.4	1	0.0	4	0.0
Mid	**19**	8	9	2.7	2	1.9	0	5.7	0	0.4
Mid-high	**24**	10	10	2.3	3	1.5	1	3.8	0	0.4

High	**94**	12	47	1.8	32	0.4	3	3.5	0	0.0
Total	**181**	65	69	2.8	38	2.2	5	2.8	4	0.5
Total	**368**	**166**	**139**	**2.4**	**50**	**1.6**	**7**	**4.4**	**6**	**0.4**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 49 Combined scenario 3 – amount of deposits used to reach 8% TLOF (in EUR bn), resolution strategy, size and depositor reliance

	Obs	Amount used to reach 8% TLOF				Additional amount needed to reach 8% TLOF
		Deposits	of which: non-preferred deposits	of which: preferred deposits	of which: covered deposits	
		(in EUR bn)				
Large	**49**	6.5	6.3	0.2	0.0	0.0
Medium	**124**	35.2	32.0	2.9	0.3	0.3
Small	**195**	5.7	4.5	1.1	0.1	0.0
Resolution	**187**	36.6	34.0	2.3	0.3	0.2
Liquidation	**181**	10.8	8.8	1.9	0.1	0.2
Low	**107**	5.3	5.2	0.1	0.0	0.3
Mid	**44**	0.0	0.0	0.0	0.0	0.0
Mid-High	**63**	0.0	0.0	0.0	0.0	0.0
High	**154**	20.6	16.5	3.7	0.5	0.0
Total	**368**	**47.4**	**42.8**	**4.2**	**0.5**	**0.3**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

DGS intervention

Table 50 Combined scenario 1 - number of institutions for potential DGS intervention, by size, resolution strategy and deposit prevalence

	Obs	Institutions reaching 8% TLOF with deposits	Of which: institutions for which DGS can intervene (positive LCT)	Of which: institutions for which DGS interventions under the LCT are sufficient to reach 8% TLOF
		Count		
		RESOLUTION		
Large	**44**	**0**	**0**	**0**
Medium	**87**	**13**	**10**	**9**
Small	**56**	**7**	**6**	**5**
Low	**63**	**1**	**0**	**0**
Mid	**25**	**3**	**3**	**3**
Mid-high	**39**	**2**	**1**	**1**
High	**60**	**14**	**12**	**10**
Total	**187**	**20**	**16**	**14**
		LIQUIDATION		
Large	**5**	**0**	**0**	**0**

Medium	**37**	**7**	**6**	**2**
Small	**139**	**21**	**19**	**15**
Low	**44**	**1**	**1**	**1**
Mid	**19**	**3**	**2**	**2**
Mid-high	**24**	**1**	**1**	**1**
High	**94**	**23**	**21**	**13**
Total	**181**	**28**	**25**	**17**
Total	**368**	**48**	**41**	**31**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 51 Combined scenario 2 - number of institutions for potential DGS intervention, by size, resolution strategy and deposit prevalence

	Obs	Institutions reaching 8% TLOF with deposits	Of which: institutions for which DGS can intervene (positive LCT)	Of which: institutions for which DGS interventions under the LCT are sufficient to reach 8% TLOF
		Count		
		RESOLUTION		
Large	**44**	8	2	1
Medium	**87**	40	31	14
Small	**56**	36	25	10
Low	**63**	6	1	0
Mid	**25**	10	7	3
Mid-high	**39**	20	10	5
High	**60**	48	40	17
Total	**187**	**84**	**58**	**25**
		LIQUIDATION		
Large	**5**	0	0	0
Medium	**37**	15	10	3
Small	**139**	97	68	26
Low	**44**	5	1	1
Mid	**19**	11	6	3
Mid-high	**24**	14	7	4
High	**94**	82	64	21
Total	**181**	**112**	**78**	**29**
Total	**368**	**196**	**136**	**54**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Table 52 Combined scenario 3 - number of institutions for potential DGS intervention, by size, resolution strategy and deposit prevalence

	Obs	Institutions reaching 8% TLOF with deposits	Of which: institutions for which DGS can intervene (positive LCT)	Of which: institutions for which DGS interventions under the LCT are sufficient to reach 8% TLOF
		Count		
		RESOLUTION		
Large	**44**	8	0	0
Medium	**87**	40	2	2
Small	**56**	36	0	0
Low	**63**	6	0	0
Mid	**25**	10	0	0
Mid-high	**39**	20	0	0
High	**60**	48	2	2
Total	**187**	**84**	**2**	**2**
		LIQUIDATION		
Large	**5**	0	0	0
Medium	**37**	15	0	0
Small	**139**	97	3	1
Low	**44**	5	1	0
Mid	**19**	11	0	0
Mid-high	**24**	14	0	0
High	**94**	82	2	1
Total	**181**	**112**	**3**	**1**
Total	**368**	**196**	**5**	**3**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 368 banks.

Simulation model analysis

Global financial crisis scenario

SPE holds

Table 53 DGS intervention, SPE strategy holds, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits			Average amount of losses on deposits*			Average number of banks for which DGS intervention is not enough to reach 8% of TLOF			Average amount of losses on deposits that cannot be covered by DGS intervention		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*EUR bn*			*count*			*EUR bn*		
Large	2	1	1	2.5	0.6	0.6	2	1	1	2.5	0.5	0.6
Medium	7	3	3	2.2	1.0	1.0	7	1	3	2.1	0.4	0.9
Small	11	8	8	0.3	0.2	0.2	10	2	7	0.2	0.0	0.1
Resolution	11	6	6	3.6	0.9	0.9	10	2	5	3.5	0.4	0.9
Liquidation	9	6	6	0.4	0.3	0.3	9	1	5	0.4	0.1	0.2
Low	3	1	1	1.6	0.3	0.3	2	1	1	1.6	0.6	0.4
Mid	3	2	2	1.7	0.7	0.7	3	1	2	1.7	0.2	0.7
Mid-high	4	2	2	0.7	0.5	0.5	4	1	2	0.7	0.2	0.5
High	12	8	8	0.7	0.4	0.4	11	2	7	0.6	0.2	0.3
Total	**19**	**11**	**11**	**3.9**	**1.2**	**1.2**	**18**	**2**	**10**	**3.8**	**0.3**	**1.1**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations. Notes: Based on a sample of 367 banks. The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

Table 54 Average number of banks able to reach 8%TLOF threshold and resolution funds contribution, SPE strategy holds, by size, resolution strategy and deposit reliance

	Average number of banks able to reach the 8% TLOF threshold			Average number of banks unable to reach the 8% TLOF threshold			Average amount of resolution funding arrangement used		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*count*			*EUR bn*		
Large	1	1	1	2	1	1	5.0	2.4	3.0
Medium	1	2	2	7	2	3	0.4	0.8	0.5
Small	3	4	2	10	2	7	0.1	0.1	0.1
Resolution	2	4	2	10	2	6	2.0	1.2	0.8
Liquidation	3	3	2	9	2	5	0.1	0.2	0.1
Low	2	1	1	3	1	1	1.4	0.9	0.9
Mid	1	1	1	3	1	2	0.8	1.5	1.6
Mid-high	1	2	2	4	1	2	0.1	0.6	0.2
High	2	4	2	11	2	7	0.2	0.3	0.2
Total	**4**	**6**	**3**	**18**	**2**	**10**	**1.5**	**1.3**	**0.8**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.

Notes: Based on a sample of 367 banks. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 55 Probability of DGS intervention and resolution funding, SPE strategy holds, by size, resolution strategy and depositor reliance

	Probability that DGS intervenes for at least one bank			Probability that DGS intervention is not sufficient for at least one bank			Probability that at least one bank would use the resolutions funds		
	Baseline	2	3	Baseline	2	3	Baseline	2	3
	%			%			%		
Large	63.2	28.9	28.9	63.2	9.9	28.9	23.0	25.1	11.3
Medium	96.3	85.2	85.2	95.6	39.1	83.7	36.9	66.0	43.0
Small	99.3	98.8	98.8	99.2	35.7	98.7	89.2	89.0	67.4
Resolution	99.3	98.4	98.4	99.3	44.9	98.4	66.4	88.6	65.4
Liquidation	96.2	91.0	91.0	95.8	32.8	89.9	85.7	75.2	57.0
Low	79.0	20.2	20.2	76.3	9.0	13.4	76.4	13.3	12.3
Mid	83.3	67.0	67.0	83.3	8.8	66.9	17.1	33.8	14.4
Mid-high	85.7	58.4	58.4	85.4	23.6	58.4	44.4	56.5	45.4
High	99.4	98.8	98.8	99.4	44.1	98.7	70.3	90.1	64.5
Total	**99.5**	**99.0**	**99.0**	**99.5**	**57.8**	**98.9**	**92.0**	**93.1**	**78.7**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 56 Average amount of DGS intervention needed, SPE strategy holds, by country

Country	Average amount of DGS intervention needed *(in EUR bn)*		
	Baseline	2	3
AT	0.3	0.2	0.2
BE	0.3	0.1	0.1
BG	0.0	0.0	0.0
CY	0.0	0.0	0.0
CZ	0.1	0.1	0.1
DE	0.3	0.2	0.2
EE	0.2	0.0	0.0
ES	1.3	0.6	0.6
FI	0.4	0.1	0.1
FR	2.6	0.0	0.0
GR	0.1	0.1	0.1
HR	0.0	0.0	0.0
HU	0.0	0.0	0.0
IE	0.1	0.0	0.0
IT	0.2	0.2	0.2
LT	0.0	0.0	0.0
LU	0.3	0.2	0.2
LV	0.0	0.0	0.0
MT	0.0	0.0	0.0
NL	2.3	0.1	0.1
PL	0.3	0.1	0.1
PT	0.3	0.3	0.3
RO	0.1	0.0	0.0

SE	0.7	0.3	0.3
SI	0.0	0.0	0.0
SK	0.1	0.2	0.2

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LT (3), LU (37), LV (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

SPE breaks

Table 57 DGS intervention, SPE strategy breaks, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits			Average amount of losses on deposits*			Average number of banks for which DGS intervention is not enough to reach 8% of TLOF			Average amount of losses on deposits that cannot be covered by DGS intervention		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*EUR bn*			*count*			*EUR bn*		
Large	2	1	1	3.0	0.8	0.8	2	1	1	3.0	0.0	0.0
Medium	16	6	6	4.9	2.1	2.1	15	2	5	4.8	0.0	0.0
Small	20	12	12	0.6	0.4	0.4	17	2	11	0.5	0.0	0.0
Resolution	22	10	10	6.3	2.0	2.0	20	2	9	6.1	0.0	0.0
Liquidation	15	8	8	1.3	0.8	0.8	14	2	7	1.3	0.0	0.0
Low	6	2	2	2.2	0.7	0.7	6	1	1	2.2	0.0	0.0
Mid	5	2	2	2.2	0.9	0.9	5	1	2	2.2	0.0	0.0
Mid-high	7	3	3	2.2	1.1	1.1	7	2	3	2.2	0.0	0.0
High	20	14	14	1.5	0.9	0.9	17	2	12	1.2	0.0	0.0
Total	**37**	**18**	**18**	**7.6**	**2.7**	**2.7**	**34**	**3**	**16**	**7.3**	**0.0**	**0.0**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

Table 58 Average number of banks able to reach 8% TLOF threshold and resolution funds contribution, SPE strategy breaks, by size, resolution strategy and deposit reliance

	Average number of banks able to reach the 8% TLOF threshold			Average number of banks unable to reach the 8% TLOF threshold*			Average amount of resolution funding arrangement used		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*count*			*EUR bn*		
Large	1	1	1	2	1	1	4.6	2.5	3.1
Medium	2	3	2	15	2	6	0.8	1.1	0.5
Small	5	6	3	18	2	11	0.1	0.2	0.1
Resolution	4	6	3	20	2	9	1.8	1.6	0.9
Liquidation	4	4	2	14	2	8	0.3	0.4	0.2
Low	3	1	1	6	2	2	1.3	0.5	0.5
Mid	1	2	1	5	1	2	1.2	1.6	1.6
Mid-high	2	2	2	7	2	3	0.3	0.8	0.4

High	3	6	3	17	2	12	0.2	0.5	0.3
Total	**7**	**9**	**5**	**34**	**4**	**16**	**1.9**	**1.9**	**1.0**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 59 Probability of DGS intervention and resolution funding, SPE strategy breaks, by size, resolution strategy and depositor reliance

Depositor reliance	Probability that DGS intervenes for at least one bank			Probability that DGS intervention is not sufficient for at least one bank			Probability that at least one bank would use the resolutions funds		
	Baseline	2	3	Baseline	2	3	Baseline	2	3
		%			%			%	
Large	73.1	36.0	36.0	73.1	16.8	35.8	24.6	26.1	12.7
Medium	98.1	92.4	92.4	97.9	66.1	91.4	80.4	87.6	78.2
Small	99.9	99.8	99.8	99.9	99.1	99.8	99.1	93.6	82.7
Resolution	99.6	99.2	99.2	99.5	65.3	98.8	93.8	95.0	88.5
Liquidation	99.7	99.5	99.5	99.7	99.2	99.5	98.6	83.4	70.4
Low	94.6	41.5	41.5	94.4	31.0	37.3	98.4	35.1	32.0
Mid	90.5	70.5	70.5	90.5	9.9	70.4	24.4	38.5	17.9
Mid-high	93.3	77.5	77.5	93.2	41.5	77.4	55.4	70.5	54.4
High	99.9	99.8	99.8	99.9	99.2	99.8	91.9	96.3	89.1
Total	**99.9**	**99.8**	**99.8**	**99.9**	**99.4**	**99.8**	**99.5**	**97.2**	**93.1**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 60 Average amount of DGS intervention needed, SPE strategy breaks, by country

Country	Average amount of DGS intervention needed *(in EUR bn)*		
	Baseline	2	3
AT	0.4	0.2	0.2
BE	0.7	0.1	0.1
BG	0.1	0.1	0.1
CY	0.0	0.0	0.0
CZ	0.3	0.2	0.2
DE	1.3	1.4	1.4
EE	0.1	0.1	0.1
ES	1.5	0.6	0.6
FI	0.2	0.1	0.1
FR	1.8	0.9	0.9
GR	0.2	0.2	0.2
HR	0.0	0.0	0.0
HU	0.1	0.1	0.1
IE	0.2	0.1	0.1
IT	0.4	0.4	0.4
LT	0.1	0.1	0.1
LU	0.4	0.2	0.2

LV	0.1	0.0	0.0
MT	0.0	0.0	0.0
NL	1.0	0.3	0.3
PL	0.3	0.1	0.1
PT	0.3	0.3	0.3
RO	0.1	0.1	0.1
SE	0.9	0.6	0.6
SI	0.0	0.0	0.0
SK	0.2	0.2	0.2

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LT (3), LU (37), LV (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Less severe economic crisis

SPE holds

Table 61 DGS intervention, SPE strategy holds, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits			Average amount of losses on deposits*			Average number of banks for which DGS intervention is not enough to reach 8% of TLOF			Average amount of losses on deposits that cannot be covered by DGS intervention		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*EUR bn*			*count*			*EUR bn*		
Large	2	1	1	2.1	0.5	0.5	2	1	1	2.1	0.5	0.5
Medium	6	3	3	1.6	0.8	0.8	5	1	3	1.6	0.3	0.7
Small	9	6	6	0.2	0.1	0.1	8	1	6	0.2	0.0	0.1
Resolution	8	5	5	2.5	0.7	0.7	8	2	4	2.4	0.3	0.6
Liquidation	7	4	4	0.3	0.2	0.2	7	1	4	0.3	0.1	0.2
Low	2	1	1	1.2	0.3	0.3	2	1	1	1.2	0.5	0.4
Mid	2	2	2	1.3	0.6	0.6	2	1	2	1.3	0.2	0.6
Mid-high	3	2	2	0.6	0.4	0.4	3	1	2	0.6	0.2	0.4
High	9	6	6	0.5	0.3	0.3	8	1	6	0.4	0.1	0.2
Total	**15**	**8**	**8**	**2.8**	**0.8**	**0.8**	**14**	**2**	**8**	**2.7**	**0.3**	**0.8**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

Table 62 Average number of banks able to reach 8%TLOF threshold and resolution funds contribution, SPE strategy holds, by size, resolution strategy and deposit reliance

	Average number of banks able to reach the 8% TLOF threshold			Average number of banks unable to reach the 8% TLOF threshold*			Average amount of resolution funding arrangement used		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*count*			*EUR bn*		
Large	1	1	1	2	1	1	4.2	2.1	2.6
Medium	1	2	1	5	1	3	0.4	0.6	0.4

Small	3	3	2	8	1	6	0.1	0.1	0.1
Resolution	2	3	2	8	2	4	1.4	0.9	0.7
Liquidation	2	2	2	7	1	4	0.1	0.1	0.1
Low	2	1	1	2	1	1	0.9	0.7	0.8
Mid	1	1	1	2	1	2	0.7	1.3	1.6
Mid-high	1	2	1	3	1	2	0.1	0.5	0.2
High	2	3	2	8	1	6	0.1	0.2	0.2
Total	**3**	**5**	**2**	**14**	**2**	**8**	**0.9**	**0.9**	**0.6**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 63 Probability of DGS intervention and resolution funding, SPE strategy holds, by size, resolution strategy and depositor reliance

	Probability that DGS intervenes for at least one bank			**Probability that DGS intervention is not sufficient for at least one bank**			**Probability that at least one bank would use the resolutions funds**		
Depositor reliance	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
		%			*%*			*%*	
Large	49.0	21.5	21.5	49.0	7.0	21.5	49.0	18.2	7.9
Medium	93.3	77.4	77.4	92.7	28.5	75.4	28.6	55.0	34.8
Small	98.2	97.4	97.4	98.0	27.2	97.3	82.0	80.9	55.9
Resolution	98.3	96.9	96.9	98.2	34.3	96.8	54.1	80.8	54.5
Liquidation	92.8	85.2	85.2	92.1	24.5	83.7	78.3	63.2	44.7
Low	67.6	14.2	14.2	64.7	6.2	9.0	67.2	8.7	8.1
Mid	76.3	57.4	57.4	76.3	6.0	57.3	11.8	24.8	9.9
Mid-high	77.0	46.8	46.8	76.5	16.7	46.7	34.8	45.3	35.7
High	98.3	97.5	97.5	98.2	34.4	97.4	59.6	82.5	54.1
Total	**98.8**	**97.9**	**97.9**	**98.8**	**46.2**	**97.8**	**85.7**	**86.9**	**68.5**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 64 Average amount of DGS intervention needed, SPE holds, by country

Country	**Average amount of DGS intervention needed** *(in EUR bn)*		
	Baseline	**2**	**3**
AT	0.2	0.2	0.2
BE	0.3	0.1	0.1
BG	0.0	0.0	0.0
CY	0.0	0.0	0.0
CZ	0.1	0.1	0.1
DE	0.2	0.2	0.2
EE	0.2	0.0	0.0
ES	1.0	0.5	0.5
FI	0.3	0.1	0.1

FR	2.2	0.0	0.0
GR	0.1	0.1	0.1
HR	0.0	0.0	0.0
HU	0.0	0.0	0.0
IE	0.1	0.0	0.0
IT	0.2	0.2	0.2
LT	0.0	0.0	0.0
LU	0.3	0.1	0.1
LV	0.0	0.0	0.0
MT	0.0	0.0	0.0
NL	2.4	0.1	0.1
PL	0.2	0.1	0.1
PT	0.2	0.2	0.2
RO	0.0	0.0	0.0
SE	0.6	0.3	0.3
SI	0.0	0.0	0.0
SK	0.1	0.1	0.1

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LT (3), LU (37), LV (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

SPE breaks

Table 65 DGS intervention, SPE strategy breaks, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits			Average amount of losses on deposits*			Average number of banks for which DGS intervention is not enough to reach 8% of TLOF			Average amount of losses on deposits that cannot be covered by DGS intervention		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*EUR bn*			*count*			*EUR bn*		
Large	2	1	1	2.5	0.8	0.8	2	1	1	2.4	0.0	0.0
Medium	12	5	5	3.6	1.6	1.6	12	2	4	3.5	0.0	0.0
Small	15	10	10	0.5	0.3	0.3	13	2	8	0.4	0.0	0.0
Resolution	17	8	8	4.4	1.4	1.4	15	2	7	4.3	0.0	0.0
Liquidation	11	6	6	1.0	0.6	0.6	11	2	6	1.0	0.0	0.0
Low	5	1	1	1.5	0.6	0.6	5	1	1	1.5	0.0	0.0
Mid	4	2	2	1.7	0.8	0.8	4	1	2	1.7	0.0	0.0
Mid-high	5	2	2	1.7	0.9	0.9	5	1	2	1.6	0.0	0.0
High	16	11	11	1.1	0.7	0.7	13	2	9	0.9	0.0	0.0
Total	**28**	**14**	**14**	**5.4**	**2.0**	**2.0**	**26**	**3**	**12**	**5.2**	**0.0**	**0.0**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

Table 66 Average number of banks able to reach 8%TLOF threshold and resolution funds contribution, SPE strategy breaks, by size, resolution strategy and deposit reliance

	Average number of banks able to reach the 8% TLOF threshold			Average number of banks unable to reach the 8% TLOF threshold*			Average amount of resolution funding arrangement used		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*count*			*EUR bn*		
Large	1	1	1	2	1	1	3.9	2.2	2.8
Medium	2	3	2	12	2	4	0.7	0.9	0.4
Small	4	5	3	13	2	8	0.1	0.1	0.1
Resolution	3	4	3	15	2	7	1.2	1.1	0.7
Liquidation	3	3	2	11	2	6	0.2	0.3	0.1
Low	3	1	1	5	1	2	0.8	0.4	0.4
Mid	1	1	1	4	1	2	1.0	1.4	1.5
Mid-high	2	2	2	5	1	2	0.2	0.7	0.3
High	3	5	3	13	2	9	0.2	0.4	0.3
Total	**6**	**7**	**4**	**26**	**3**	**12**	**1.2**	**1.3**	**0.7**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 67 Probability of DGS intervention and resolution funding, SPE strategy breaks, by size, resolution strategy and depositor reliance

	Probability that DGS intervenes for at least one bank			Probability that DGS intervention is not sufficient for at least one bank			Probability that at least one bank would use the resolutions funds		
	Baseline	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	%			*%*			*%*		
Large	58.0	27.5	27.5	58.0	12.0	27.4	58.0	18.9	8.9
Medium	96.2	87.2	87.2	96.0	54.2	85.8	71.8	79.5	69.5
Small	99.6	99.6	99.6	99.6	97.7	99.5	98.5	87.6	72.3
Resolution	99.1	98.4	98.4	98.8	53.7	97.6	89.3	90.3	80.9
Liquidation	99.2	98.8	98.8	99.2	97.8	98.8	97.5	73.2	58.1
Low	89.6	31.9	31.9	89.2	23.3	28.3	97.2	25.9	23.6
Mid	84.8	60.6	60.6	84.8	6.9	60.5	17.4	27.9	12.0
Mid-high	87.7	67.9	67.9	87.6	31.7	67.9	45.1	59.4	43.8
High	99.6	99.6	99.6	99.6	97.9	99.5	87.4	91.2	81.3
Total	**99.8**	**99.6**	**99.6**	**99.8**	**98.2**	**99.6**	**99.1**	**93.4**	**86.9**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 68 Average amount of DGS intervention needed, SPE breaks, by country

Country	Average amount of DGS intervention needed (in EUR bn)		
	Baseline	2	3
AT	0.3	0.1	0.1
BE	0.6	0.1	0.1
BG	0.1	0.1	0.1
CY	0.0	0.0	0.0
CZ	0.2	0.1	0.1
DE	1.1	1.2	1.2
EE	0.1	0.1	0.1
ES	1.1	0.5	0.5
FI	0.2	0.1	0.1
FR	1.3	0.8	0.8
GR	0.1	0.1	0.1
HR	0.0	0.0	0.0
HU	0.1	0.1	0.1
IE	0.1	0.1	0.1
IT	0.3	0.3	0.3
LT	0.1	0.1	0.1
LU	0.3	0.2	0.2
LV	0.1	0.1	0.1
MT	0.0	0.0	0.0
NL	0.9	0.3	0.3
PL	0.2	0.1	0.1
PT	0.2	0.2	0.2
RO	0.1	0.0	0.0
SE	0.8	0.6	0.6
SI	0.0	0.0	0.0
SK	0.2	0.2	0.2

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: AT (51), BE (23), BG (17), CY (11), CZ (8), DE (55), DK (1)*, EE (9), ES (75), FI (209), FR (98), GR (18), HR (10), HU(6), IE (20), IT (63), LT (5), LU (48), LV (5), MT (9), NL (10), PL (13), PT (35), RO (13), SE (30), SI (12), SK (7). * Countries with less than 3 entities in the sample are not shown. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

More severe economic scenario

SPE holds

Table 69 DGS intervention, SPE strategy holds, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits			Average amount of losses on deposits*			Average number of banks for which DGS intervention is not enough to reach 8% of TLOF			Average amount of losses on deposits that cannot be covered by DGS intervention		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*EUR bn*			*count*			*EUR bn*		
Large	3	1	1	3.9	0.7	0.7	3	1	1	3.9	0.5	0.7
Medium	13	5	5	4.1	1.8	1.8	12	2	5	3.9	0.5	1.6
Small	19	14	14	0.5	0.3	0.3	18	2	12	0.4	0.0	0.3
Resolution	18	10	10	7.2	1.9	1.9	17	2	9	7.0	0.6	1.8
Liquidation	16	10	10	0.8	0.5	0.5	15	2	9	0.7	0.1	0.4

Low	4	1	1	2.8	0.4	0.4	4	1	1	2.8	0.7	0.5
Mid	5	3	3	2.7	1.0	1.0	4	1	3	2.7	0.2	1.0
Mid-high	6	3	3	1.4	0.7	0.7	6	1	3	1.3	0.3	0.7
High	20	14	14	1.4	0.8	0.8	18	2	13	1.2	0.3	0.6
Total	**34**	**20**	**20**	**8.0**	**2.4**	**2.4**	**31**	**3**	**18**	**7.7**	**0.6**	**2.2**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

Table 70 Average number of banks able to reach 8%TLOF threshold and resolution funds contribution, SPE strategy holds, by size, resolution strategy and deposit reliance

	Average number of banks able to reach the 8% TLOF threshold			**Average number of banks not able to reach the 8% TLOF threshold***			**Average amount of resolution funding arrangement used**		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*count*			*EUR bn*		
Large	1	1	1	3	1	1	7.0	3.1	3.9
Medium	2	4	2	12	2	5	0.6	1.4	0.7
Small	5	7	4	18	2	12	0.1	0.2	0.2
Resolution	3	6	3	17	2	9	4.1	2.6	1.6
Liquidation	4	5	3	15	2	9	0.2	0.3	0.2
Low	3	1	1	4	1	1	3.4	1.5	1.6
Mid	1	2	1	4	1	3	1.2	2.0	2.0
Mid-high	2	3	2	6	1	3	0.1	0.9	0.4
High	3	7	3	18	2	13	0.3	0.6	0.4
Total	**7**	**11**	**5**	**32**	**3**	**18**	**3.9**	**3.0**	**1.6**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 71 Probability of DGS intervention and resolution funding, SPE strategy holds, by size, resolution strategy and depositor reliance

	Probability that DGS intervenes for at least one bank			**Probability that DGS intervention is not sufficient for at least one bank**			**Probability that at least one bank would use the resolutions funds**		
	Baseline	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	%			*%*			*%*		
Large	85.6	85.6	52.0	85.6	85.6	52.0	47.0	47.0	23.5
Medium	99.8	99.8	98.0	99.8	99.8	98.0	64.1	64.1	70.5
Small	100.0	100.0	100.0	100.0	100.0	100.0	97.3	97.3	88.9
Resolution	100.0	100.0	100.0	100.0	100.0	100.0	89.9	89.9	89.9
Liquidation	100.0	100.0	98.5	100.0	100.0	98.3	95.5	95.5	80.2
Low	94.8	94.8	38.6	93.8	93.8	27.2	92.1	92.1	27.0
Mid	96.5	96.5	88.1	96.5	96.5	87.9	32.4	32.4	28.2

Mid-high	96.0	96.0	82.7	96.0	96.0	82.7	68.6	68.6	71.3
High	100.0	100.0	100.0	100.0	100.0	100.0	88.6	88.6	86.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**99.3**	**99.3**	**94.8**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks Large (49); Medium (124); Small and non-complex (194); Strategy resolution (186), Strategy liquidation (181); Low (106); Mid (44); Mid-High (63); High (154). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 72 Average amount of DGS intervention needed, SPE holds, by country

Country	Average amount of DGS intervention needed *(in EUR bn)*		
	Baseline	**2**	**3**
AT	0.4	0.2	0.2
BE	0.4	0.1	0.1
BG	0.0	0.0	0.0
CY	0.1	0.1	0.1
CZ	0.2	0.1	0.1
DE	0.4	0.2	0.2
EE	0.2	0.0	0.0
ES	2.4	1.1	1.1
FI	0.5	0.1	0.1
FR	3.3	0.0	0.0
GR	0.2	0.2	0.2
HR	0.0	0.0	0.0
HU	0.0	0.0	0.0
IE	0.1	0.0	0.0
IT	0.2	0.2	0.2
LT	0.0	0.0	0.0
LU	0.6	0.2	0.2
LV	0.0	0.0	0.0
MT	0.1	0.0	0.0
NL	2.6	0.0	0.0
PL	0.5	0.1	0.1
PT	0.3	0.3	0.3
RO	0.1	0.1	0.1
SE	1.0	0.4	0.4
SI	0.0	0.0	0.0
SK	0.2	0.2	0.2

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 367 banks: AT (24), BE (12), BG (12), CY (8), CZ (4), DE (34), DK (1)*, EE (5), ES (63), FI (8), FR (9), GR (15), HR (4), IE (8), IT (24), LT (3), LU (37), LV (3), MT (9), NL (6), PL (13), PT (24), RO (12), SE (19), SI (6), SK (4). * Countries with less than 3 entities in the sample are not shown. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

SPE breaks

Table 73 DGS intervention, SPE strategy breaks, by size, resolution strategy and depositor reliance

	Average number of banks with losses on deposits			Average amount of losses on deposits*			Average number of banks for which DGS intervention is not enough to reach 8% of TLOF			Average amount of losses on deposits that cannot be covered by DGS intervention		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*EUR bn*			*count*			*EUR bn*		

Large	3	2	2	5.0	1.2	1.2	3	1	2	4.9	0.0	0.0
Medium	29	11	11	9.9	4.4	4.4	27	3	9	9.6	0.0	0.0
Small	34	21	21	1.1	0.8	0.8	30	3	18	0.9	0.0	0.0
Resolution	41	18	18	13.2	4.3	4.3	37	4	15	12.7	0.0	0.0
Liquidation	25	14	14	2.5	1.5	1.5	23	3	13	2.5	0.0	0.0
Low	12	2	2	4.4	1.0	1.0	12	2	2	4.4	0.0	0.0
Mid	8	3	3	3.9	1.4	1.4	8	1	3	3.9	0.0	0.0
Mid-high	13	5	5	4.6	2.2	2.2	13	2	5	4.5	0.0	0.0
High	33	24	24	2.8	1.8	1.8	29	4	20	2.4	0.0	0.0
Total	**66**	**33**	**33**	**15.7**	**5.8**	**5.8**	**61**	**6**	**28**	**15.1**	**0.0**	**0.0**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA. *Up to the amount needed to reach the 8% TLOF threshold.

Table 74 Average number of banks able to reach 8%TLOF threshold and resolution funds contribution, SPE strategy breaks, by size, resolution strategy and deposit reliance

	Average number of banks able to reach the 8% TLOF threshold			**Average number of banks unable to reach the 8% TLOF threshold***			**Average amount of resolution funding arrangement used**		
Creditor hierarchy	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
	count			*count*			*EUR bn*		
Large	1	1	1	3	1	2	6.5	3.2	4.0
Medium	3	5	3	27	4	10	1.5	2.4	1.0
Small	9	11	6	30	3	18	0.2	0.4	0.3
Resolution	6	10	5	37	4	15	4.2	3.6	2.0
Liquidation	6	7	4	24	3	13	0.6	0.8	0.3
Low	4	2	2	12	2	2	3.3	0.9	0.9
Mid	2	2	1	8	1	3	1.6	2.2	1.9
Mid-high	2	4	3	13	2	5	0.4	1.6	0.6
High	5	11	5	29	4	20	0.4	0.9	0.6
Total	**12**	**17**	**9**	**61**	**7**	**29**	**4.8**	**4.3**	**2.2**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 75 Probability of DGS intervention and resolution funding, SPE strategy breaks, by size, resolution strategy and depositor reliance

	Probability that DGS intervenes for at least one bank			**Probability that DGS intervention is not sufficient for at least one bank**			**Probability that at least one bank would use the resolutions funds**		
Depositor reliance	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**	**Baseline**	**2**	**3**
		%			*%*			*%*	
Large	94.8	85.6	62.6	94.8	85.6	62.6	48.3	47.0	26.5
Medium	100.0	99.8	99.3	100.0	99.8	99.3	93.6	64.1	90.8
Small	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.3	96.5

Resolution	100.0	100.0	100.0	100.0	100.0	100.0	99.3	89.9	97.3
Liquidation	100.0	100.0	99.8	100.0	100.0	99.8	100.0	95.5	89.6
Low	100.0	94.8	66.6	99.8	93.8	61.6	100.0	92.1	55.0
Mid	98.0	96.5	90.3	98.0	96.5	90.3	43.8	32.4	34.9
Mid-high	99.3	96.0	94.3	99.3	96.0	94.3	77.5	68.6	78.7
High	100.0	100.0	100.0	100.0	100.0	100.0	98.0	88.6	97.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**99.3**	**98.8**

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: Large (58); Medium (304); Small and non-complex (499); Strategy resolution (591), Strategy liquidation (270); Low (236); Mid (112); Mid-High (224); High (289). The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Table 76 Average amount of DGS intervention needed, SPE breaks, by country

Country	**Average amount of DGS intervention needed** *(in EUR bn)*		
	Baseline	**2**	**3**
AT	0.8	0.3	0.3
BE	1.3	0.2	0.2
BG	0.1	0.1	0.1
CY	0.1	0.1	0.1
CZ	0.4	0.3	0.3
DE	2.4	2.2	2.2
EE	0.2	0.1	0.1
ES	2.7	1.2	1.2
FI	0.4	0.1	0.1
FR	3.5	0.8	0.8
GR	0.3	0.3	0.3
HR	0.0	0.0	0.0
HU	0.1	0.1	0.1
IE	0.3	0.2	0.2
IT	0.5	0.5	0.5
LT	0.1	0.1	0.1
LU	0.8	0.3	0.3
LV	0.1	0.1	0.1
MT	0.1	0.0	0.0
NL	1.3	0.3	0.3
PL	0.5	0.1	0.1
PT	0.4	0.4	0.4
RO	0.1	0.1	0.1
SE	1.3	0.9	0.9
SI	0.0	0.0	0.0
SK	0.3	0.2	0.2

Sources: EBA 2019-Q4 ITS for resolution reporting data and EBA calculations.
Notes: Based on a sample of 861 banks: AT (51), BE (23), BG (17), CY (11), CZ (8), DE (55), DK (1)*, EE (9), ES (75), FI (209), FR (98), GR (18), HR (10), HU(6), IE (20), IT (63), LT (5), LU (48), LV (5), MT (9), NL (10), PL (13), PT (35), RO (13), SE (30), SI (12), SK (7). * Countries with less than 3 entities in the sample are not shown. The analysis shows results only for entities with need for potential DGS contribution to access RFA.

Annex 5 – sample coverage

174. The sample of the analysis presented in this report covers between approximately 55% and 74% of the total assets of EU resolution groups and stand-alone banks. The coverage lies between this range because the ITS resolution reporting data includes domestic institutions and EU-located subsidiaries of non-EU-controlled (e.g. US) groups, whereas data for total assets per country are only available for either total domestic assets only (i) or total domestic assets including subsidiaries and branches that are controlled by either an EU or a non-EU parent that is 'foreign' from the reporting country's point of view (ii) and therefore underestimates (ii) or overestimates (i) the coverage.

Table 77 ITS resolution reporting sample coverage in terms of individual banking assets, by country and total EU

Country	ITS resolution reporting assets as % of total domestic assets	ITS resolution reporting assets as % of total domestic and EU and non-EU controlled subsidiaries and branches assets
AT	65.1	53.7
BE	164.0	81.3
BG	371.9	83.0
CY	123.9	97.0
CZ	490.3	43.8
DE	58.5	51.0
DK	2.7	2.5
EE	194.8	96.5
ES	63.7	60.6
FI	94.6	83.2
FR	71.2	67.8
GR	118.1	116.6
HR	811.6	72.5
HU	44.1	25.2
IE	217.8	96.6
IT	94.2	87.7
LT	741.8	70.2
LU	387.3	49.6
LV	173.5	58.8
MT	52.8	28.3
NL	58.6	54.9
PL	85.1	45.9
PT	121.8	83.3
RO	208.3	55.0
SE	100.5	79.5
SI	140.4	71.6
SK	413.6	61.6
Total	**74.6**	**62.9**

Sources: EBA 2019-Q4 ITS resolution reporting data, ECB Statistical Data Warehouse and EBA calculations.
Notes: Total domestic assets are total assets of domestic banking groups/standalone entities or total assets of domestic banking groups/standalone entities and non-EU-controlled subsidiaries and branches. ITS resolution reporting assets includes individual level total assets of point-of-entry entities (group resolution entity and standalone entities) and individual level assets of subsidiaries per country.

EUROPEAN BANKING AUTHORITY

Tour Europlaza, 20 avenue André Prothin CS 30154
92927 Paris La Défense CEDEX, FRANCE

Tel. +33 1 86 52 70 00

E-mail: info@eba.europa.eu

https://eba.europa.eu