EBA MREL QUANTITATIVE MONITORING REPORT AND IMPACT ASSESSMENT

(ARTICLE 45 BRRD II)

AS OF 31 DECEMBER 2021

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EBA EUROPEAN BANKING AUTHORITY

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Abbreviations

BRRD	Bank Recovery and Resolution Directive
CRR	Capital Requirements Regulation
EU	European Union
FSB	Financial Stability Board
G-SII	global systemically important institution
MREL	minimum requirement for own funds and eligible liabilities
NCWO	no creditor worse off
NRA	national resolution authority
O-SII	other systemically important institution
RTS	regulatory technical standards
SPE	single point of entry
SRB	Single Resolution Board
TEM	total exposure measure
TLAC	total loss-absorbing capacity
TLOF	total liabilities and own funds
TREA	total risk exposure amount

Executive summary

This report is answering BRRD MREL quantitative monitoring mandates under BRRD Articles 45 l 1 and 2 jointly.

The former is the EBA MREL shortfall report that we have been publishing annually for the past three years. The latter is the first iteration of an impact assessment due every three years.

The EBA received 337 external MREL decisions that cover 81.2% of EU banking sector assets, with bail-in as the prominent strategy covering 77.3% of EU banking sector assets.

As of May 2022, 337 resolution groups or stand-alone institutions and 157 non-resolution entities had been set an external and internal MREL, respectively, above minimum own fund requirements. Based on the decisions reported by authorities to the EBA by the end of May 2022, the bail-in continues to be the prominent strategy for the largest banks, with a total of 144 decisions that represents 77.3% of total EU banking sector assets and 43% of resolution banks. Transfer strategies are the preferred strategy for 146 institutions that represent 3.5% of EU banking sector assets (43% of the resolution banks in the sample) and are mostly resolution groups or stand-alone resolution entities that are relatively limited in size. Finally, as now allowed under BRRD2, 47 banks with a liquidation strategy that represent 0.5% of EU banking sector assets were set an MREL above own funds.

The MREL requirement for the 245 banks subject to an external MREL requirement was on average 22.6% of TREA with a combined buffer requirement of 3.3% of TREA. The MREL requirement for the 133 non-resolution entities subject to an internal MREL was on average 20.2% of TREA with a combined buffer of 2.9%.

As a percentage of TEM, the MREL requirement was 6.98% (7.21% for G-SIIs, 6.96% for O-SIIs and 5.89% for other banks). The requirement based on TEM is higher than the requirement of TREA in 24 cases (2 G-SIIs, 9 O-SIIs and 13 other banks).

By resolution strategy, the MREL requirement for resolution groups under bail-in strategy is 22.8% TREA, with a combined buffer requirement of 3.3% of TREA and 18.46% with a combined buffer requirement of 2.65% for resolution groups under transfer strategies.

Subordination requirements, including CBR, were set at a level of 18.5% (17.6% of TREA for G-SIIs, 19.2% of TREA for top-tier banks and 21.3% of TREA for other pillar 1 banks). Out of the total sample of 245 banks subject to an external MREL, subordination requirements have been set for 169 resolution groups (9 G-SIIs, 26 top tier banks and 131 other pillar 1 banks).

The MREL requirement for the 133 non-resolution entities subject to an internal MREL was on average 20.2% of TREA (19.6% for G-SIIs, 21.1% for O-SIIs and 19.5% for other banks) with a combined buffer of 2.9% (2.7% for G-SIIs, 3.3% for O-SIIs and 2.6% for other banks).

70 banks out of a sample of 245 reported an MREL shortfall of EUR 33bn (down by 42% compared to last year's quantitative report on MREL)

As of 31 December 2021, the EBA estimates that the shortfall against the final MREL targets for the sample of 245 resolution groups with an external MREL decision was EUR 33bn (EUR 14.4bn for O-SIIs and EUR 18.6bn for other banks), attributable to 70 resolution groups (34 O-SIIs and 36 other banks). Aggregated shortfall decreased by 42% compared to last year's quantitative report on MREL, on a comparable basis, but at a lower rate for smaller banks: for a common sample compared to the previous report: 100% for G-SIIs, 50% for O-SIIs and only 27% for other banks.

Total MREL and shortfalls by type of banks subject to an external MREL

Subcategory of banks	No. of banks	No. of banks with shortfall	Total MREL + CBR (% TREA)	MREL shortfall (% TREA)	MREL shortfall 2021, sample 2021 (EUR mln)	MREL shortfall 2021, common sample 2020 (EUR mln)	MREL shortfall 2020, common sample 2020 (EUR mln)	Dif (EUR mln)
G-SII	9	0	26.58%	0.00%	-	-	3,831	-3,831
O-SII Top Tier	26	3	26.06%	0.11%	3,015	2,634	2,820	-186
O-SII 100-50bn	16	8	23.12%	1.49%	4,550	4,957	10,823	-5,866
O-SII 50-10bn	26	18	27.20%	2.78%	5,945	4,601	10,254	-5,653
O-SII 10-5bn	6	5	25.72%	4.65%	728	240	771	-531
O-SII <5bn	5	4	25.54%	2.02%	136	126	301	-175
Others >50bn	11	4	23.52%	2.73%	12,716	15,114	19,228	-4,114
Others 50-10bn	27	10	23.16%	2.19%	4,922	4,341	6,217	-1,877
Others 10-5bn	19	7	24.42%	1.45%	749	70	1,099	-1,029
Others <5bn	100	11	20.71%	0.77%	172	26	419	-392
Total	**245**	**70**	**25.93%**	**0.44%**	**32,935**	**32,110**	**55,764**	**-23,654**

Sources: EBA MREL decisions, MREL RESOURCES reporting as of Q4 2021 as of Q4 2021 and EBA calculations.

As of December 2021, we find that a limited 18 out of 245 institutions had a shortfall against their 1 January 2022 target amounting to EUR 3.4bn (EUR 2.2bn for 9 O-SIIs and EUR 1.2bn for 9 other banks). However, out of these 18 entities, only 6 breach MREL, while the rest present breach the CBR but not MREL. Out of the 6 that do not fulfil the intermediate MREL target, 2 of them have failed during 2022.

With regards to O-SIIs and other banks reporting shortfalls, the bigger banks account for most of the amount of the shortfall of each category but the smaller banks are the most affected (in terms of number of banks). More precisely, within the O-SII category, the first two sub-categories of banks (top-tier and banks with assets between EUR 50bn and 100bn) represent 58% of the total shortfall of the category but only 10% of the number of banks present a shortfall. However, 57% of the banks in the other three categories of small banks (those with consolidated assets below EUR 50bn) exhibit a shortfall.

The shortfall for the sample of 133 banks with internal MREL decisions was EUR 25.6bn (EUR 4.8bn for G-SIIs, EUR 4bn for O-SIIs and EUR 16.7bn for other banks), attributable to 61 banks (9 G-SIIs, 19 O-SIIs and 33 other banks).

Resolution entities made progress in complying with MREL by increasing the stock of eligible instruments rather than from deleveraging.

The amount of eligible instruments increased by 6% for the total sample in the period 2019Q4-2021Q4 (7% for G-SIIs, 4% for O-SIIs and 17% for other banks), while the amount of TREA has increased by 3%. The stock of eligible instruments stood at a level of 31% of TREA on average as of 2021Q4 (30% for G-SIIs, 33% for O-SIIs and 27% for other banks), up from a level of 30% as of 2019Q4.

Own funds instruments represent the main source to comply with MREL, while senior non-preferred has become the most important type of eligible debt.

Own funds represent 19.8% of TREA (19.4% for G-SIIs, 20.6% for O-SIIs and 18.1% for other banks), while eligible debt represents 11.6% of TREA (11.2% for G-SIIs, 12.7% for O-SIIs and 7.4% for other banks). The rest of the MREL stock is composed of deposits (0.3% of TREA) and structured notes (0.2% of TREA).

On an aggregated basis, senior non-preferred has become the most important type of eligible debt, representing 5.5% of TREA (6% for G-SIIs, 5.8% for O-SIIs and 1.2% for other banks), while senior preferred debt represents 4.5% of TREA (3% for G-SIIs, 5.8% for O-SIIs and 5.6% for other banks) – driven by the stock of larger banks.

Wholesale deposits remain limited apart for banks below EUR 10bn for which they reach up to 5% of TREA. The way of meeting MREL is not symmetrical across banks and reflects subordination requirement. G-SIIs rely on subordinated instruments (mainly senior non-preferred), O-SIIs rely on both senior non-preferred and senior debt and other banks rely almost entirely on senior debt.

Most resolution banks have shown high levels of issuance over 2021.

Based on data of issuances performed during 2021, the EBA does not observe material difficulties in issuing instruments for any of the categories of banks with both systemic and non-systemic banks issuing debt in markets. Out of the total sample of 245 resolution entities included in the 2021 MREL Report, 92 resolution entities from 17 EU countries issued MREL eligible debt in 2021.

Those resolution entities represent 92% of the assets of the sample and cover 66% of total EU banking sector assets. Issuances are mainly concentrated in three countries (DE, FR and NL) and in two groups of banks by systemic importance (G-SIIs and O-SIIs top tier). In percentage of TREA, G-SIIs have issued in 2021 3.1% of TREA (3.5% for O-SIIs and 1.4% for other banks).

O-SIIs with assets between EUR 50 and 10bn and between EUR 10 and 5bn and other banks with assets below EUR 5bn account with above average issuances in percentage of TREA, although in absolute amounts they show a limited issuance capacity. Issuances are observed for banks located in 21 EU member states, observing no issuances in EE, HU, LV, LI, MT, SI.

Cost of MREL issued so far is generally manageable for all banks but varies by type of banks

Estimated by the average of long-term unsecured debt, the impact of MREL on profitability appears manageable. With data obtained from COREP as of 2021Q4, the spread of unsecured funding stood at a level of 46bps (33bps for G-SIIs, 56bps for O-SIIs and 80bps for other banks), with spreads particularly significant for the group of small banks (O-SIIs and other banks with assets between EUR 50 and 10bn). However, recent high yield to maturity may imply a marginal negative result for MREL funds, only supported by the strength of the net financial results of the total balance sheet.

Limited impact on banks' profitability of closing MREL shortfalls overall, but some banks face difficulties

With data as of 2021Q4, the EBA considers that the costs needed to comply with MREL are manageable. The impact on banks' profitability is computed for a sample of 97 banks that cover 68% of EU banking sector assets. The **cost of the existing amount of eligible debt,** obtained for the 97 banks of the sample, is estimated at 1.22% of NII (0.96% for G-SIIs, 1.44% for O-SIIs and 1.70% for other banks).

The cost of closing the shortfall for the sector overall represents a limited **0.125% of NII** (nil for G-SIIs, 0.08% for O-SIIs and 1.28% for other banks). The **cost of closing the shortfall**, calculated only considering the 23 banks within this sample with a shortfall as of December 2021, represents 2% of NII (nothing for G-SIIs, 1.5% for O-SIIs and 2.34% for other banks). These banks represent 4% of EU banking sector assets. And, among these banks, 2 are loss-making, and 2 exhibited an estimated cost of closing the shortfall above their net earnings.

Still, the impact tends to be heterogeneous between types of banks and member states reflecting different funding conditions in different member states.

At aggregated level, banks facing difficulties to issue remain limited in terms of total assets, but they can represent a significant share of total assets in some member states.

These banks either seem to suffer from intrinsic financial health issues, as evidenced by below investment grade credit rating, or from more external factors such as their sovereign rating or from an apparent lack of market in their home jurisdiction. They reach 4% of total EU assets. Only one of these banks with apparent difficulties to issue reported total assets above EUR 100bn.

Out of the 70 banks with shortfalls as of December 2021, 43 have not increased their MREL over 1H2022. Out of these 43 banks, 14 are not publicly rated but are limited in size (below EUR 10bn), 2 have failed and one relinquished its banking license. Out of the 27 that are publicly rated, 12 are rated below investment grade by at least one rating agency. For the 15 out of the 27 publicly rated banks for which the rate is above investment grade, while the external MREL decisions remain relatively recent, the inability to increase MREL may be indicating difficulties accessing eligible debt markets.

Introduction

1. As for the last three years, this report responds to the mandate set in Article 45l(1) of Directive (EU) 2019/879 (BRRD) for the EBA to submit, in cooperation with the competent authorities and resolution authorities, an annual report to the Commission including an assessment of the requirement for own funds and eligible liabilities set in accordance with Article 45e or Article 45f, the exercise of the power referred to in Article 45b(4), (5) and (7), the aggregate level and composition of own funds and eligible liabilities of institutions and entities, and the amounts of instruments issued in the period. In addition, this year, this report also responds to the mandate set in Article 45l(2) of BRRD for EBA to submit an impact assessment of MREL.

2. One of the cornerstones of a credible resolution regime is the requirement for institutions to have, at all times, adequate levels of own funds and specific types of liabilities to ensure a credible and feasible resolution. This requirement ensures that a resolution, necessary for the continuation of critical functions and/or avoidance of adverse effects on the financial system, can be financed by placing the burden of losses on shareholders and creditors of the institution. This aims to minimise the impact of the failure of the institution on the wider economy and the financial system and to avoid the use of public funds.

3. In the European Union (EU), the Bank Recovery and Resolution Directive (BRRD, hereafter BRRD I) introduced back in 2015 the concept of a minimum requirement for own funds and eligible liabilities (MREL) to ensure that European banks have financial resources in sufficient quantity and quality to cover losses upon failure and to restore the viability of the institution. BRRD I was updated by the 2019 Banking Package, which introduced amendments to the EU Bank Recovery and Resolution Directive 2014/59/EU (BRRD), the Capital Requirements Regulation (CRR) and the Capital Requirements Directive (CRD).

4. The purpose of this report as mandated by Article 45l(1) of BRRD is to provide quantitative and qualitative information on the requirements and loss-absorbing capacity of the European banking sector. In particular, the report (i) provides an update on the resolution strategies specified for European banks, (ii) provides an update on the levels at which the requirements are set, both for an internal and external MREL, (iii) estimates shortfalls of eligible debt needed to fulfil the end-state and intermediate targets and (iv) provides an update on the amount of MREL eligible debt issued by EU institutions over the period.

5. This year, as mandated by Article 45l(2) of BRRD, the report also covers additional topics relating to the impact of MREL on banks and financial markets. Focusing on the impact of MREL on profitability funding profile, the report also looks in more detail the actions taken by banks to close MREL shortfalls.

6. The EBA has published quantitative analyses on MREL in the past. It published an interim report on the MREL in July 2016[1] (data as of June 2015), the final report on the MREL mandated by

[1] Interim report on MREL (June 2015 data).

BRRD I and published in December 2016[2] (data as of December 2015), a quantitative update of the EBA MREL report in December 2017 (data as of December 2016)[3], a quantitative MREL update in February 2020 (data as of December 2018)[4], a quantitative MREL report in May 2021 based on December 2019 data[5] and a quantitative MREL report in April 2022 based on December 2020 data[6], which was the first report that incorporates BRRD II decisions. In October 2021, EBA also responded to a call for advice regarding funding in resolution and insolvency as part of the review of the crisis management and deposit insurance framework.[7]

7. This report is based on data submitted to the EBA as of 31 December 2021, and all MREL decisions in force as of 1 May and communicated by 31 May 2022 have been considered. Compared to previous reports, this report is based on the mandatory reporting that should be submitted to the EBA on both MREL decisions[8] MREL/TLAC resources[9].

8. The EBA has received MREL decisions for 494 entities that have been set MREL above their own funds requirement, of which 337 are external MREL decisions and 157 internal MREL decisions. The overview of these decisions received – and the resolution strategies preferred for those entities – is provided in section 2.1 of the report relating to the progress of resolution strategy and MREL setting.

9. The rest of the quantitative analysis of the report (section 2 on the requirements and section 3 on the shortfalls), is done for those banks with available data on both decisions and resources at the cut-off date[10]. Therefore, the sample used in section 2 and section 3 of the report is composed by 378 resolution and non-resolution entities (of which, 245 resolution groups and 133 non-resolution entities) with available data of both MREL decisions and MREL/TLAC resources at the cut-off date of reporting.

[2] Final report on MREL. Report on the implementation and design of the MREL framework (December 2015 data).

[3] Quantitative update of the EBA MREL report (December 2016 data).

[4] EBA quantitative MREL report (as of 31 December 2018).

[5] EBA quantitative MREL report (as of 31 December 2019).

[6] EBA quantitative MREL report (as of 31 December 2020).

[7] EBA's response to the Call for Advice | Report - 21/10/2021

[8] EBA ITS on MREL decisions.

[9] EBA ITS on disclosure and reporting of MREL and TLAC

[10] Note that liquidation banks are not subject to MREL TLAC reporting, which is used as source for the resources, and thus are not included in section 2 on the requirements and section 3 on the shortfalls.

Scope of the report

1.1. Progress of the resolution strategy and MREL setting

10. This section of the report covers all the resolution groups or stand-alone institutions subject to MREL under Articles 45c and 45e or 45f of BRRD II (external and internal MREL), and for which the relevant resolution authority has reported the MREL to the EBA.

11. As of May 2022, for 337 resolution groups or stand-alone institutions and 157 non-resolution entities an external and internal MREL, respectively, had been set above minimum own fund requirements. The breakdown of the decisions received at the cut-off date by resolution strategy is provided in Table 1. The coverage of the decisions received is 81.2% of EU banking sector assets.

12. We note this year that for an increased number of banks (47) with liquidation as a strategy MREL had been set above own funds minimum requirements as is now possible under BRRD II. However, for these entities, MREL is usually limited to P1 + P2R + CBR.

Table 1: Total assets and number of resolution groups by strategy for entities subject to an external MREL, data as of December 2021.

Resolution strategy	No. of decisions	% Of decisions	Total assets (EUR bn)	Coverage*	% Of assets (of resolution banks in the sample)
Bail-in	144	43%	23,537	77.3%	95.19%
Transfer	146	43%	1,051	3.5%	4.25%
Liquidation	47	14%	139	0.5%	0.56%
Total	**337**	**100%**	**24,728**	**81.2%**	

Sources: EBA data collection as of Q4 2021. *The coverage is expressed as percentage points of EU banking sector assets.

13. Out of the total decisions received as of May 2022, 245 resolution groups or stand-alone institutions and 133 non-resolution entities had been set an MREL above minimum own fund requirements and reported eligible resources reporting to the EBA as of December 2021[11]. Out of the 245 banks subject to external MREL, 169 resolution groups are subject to subordination requirements.

14. This sample of banks is used for section 2 (MREL requirement) and section 3 (MREL eligible resources and shortfalls) of the report. This sample represent 77% EU banking sector's total asset. The breakdown of this sample by type of banks is provided in Table 2 (resolution groups) and Table 3 and 4 (non-resolution entities).

[11] The sample of 245 resolution entities and 133 non-resolution entities is composed by entities with available decisions in MREL DECISIONS template and with available resources in MREL TLAC resources. The merge is done with the LEI code, therefore if any entity reports data using different LEI codes in each reporting template, the entity may not be included in the sample.

15. The coverage of the sample of resolution entities for the purposes of Section 2 (MREL requirement) and Section 3 (MREL shortfalls) is 77% of EU banking sector assets, calculated on the basis of December 2021 data of banks' balance sheets. This lower coverage compared to the previous report reflects the difficulties by some authorities to transfer the MREL resources data to EBA in time.

16. This years' report also includes internal MREL decisions in accordance with BRRD II. The internal MREL is a key element of the resolution framework, in that it ensures that the externally issued resources are down-streamed and that losses are up-streamed within the resolution group.

17. EU resolution authorities have adopted 133 internal MREL decisions for institutions, totalling EUR 6.1tn in assets – or 20% of EU total domestic assets.

18. Resolution plans drawn up by the resolution authority may specify that the group should be kept together or split into different resulting entities. The former implies a single point of entry (SPE) strategy where losses will be up-streamed to the resolution entity – typically the top entity. The latter implies a multiple point of entry (MPE) where several entities are designated as resolution entities that issue an MREL externally and absorb the losses generated individually in each resolution entity.

19. In this report, resolution strategies are grouped into bail-in, transfer and liquidation (Table 1a). The first two categories are intended to capture the multiple combinations of resolution tools as defined by the BRRD: (i) open bank bail-in, (ii) a bridge institution, (iii) asset separation and (iv) sale of business. The bail-in strategy should be understood as a strategy that aims to resolve a bank on a stand-alone basis in order to restore its viability through the write-down and conversion of eligible instruments into equity, with the aim of absorbing the losses and, in a second stage, recapitalising the failing bank. Transfer strategies should be understood as resolution strategies based on the transfer of all or part of the failed bank to an acquirer or bridge bank (resolution tools (ii) to (iv)).

20. Based on the decisions reported by authorities to the EBA by end-May 2022, the bail-in continues to be the prominent strategy for the largest banks, with a total of 144 decisions covering EUR 23.5tn in assets, which represents 77.3% of total EU banking sector assets (43% of resolution banks). A single point of entry (SPE) strategy is currently the favoured approach chosen by resolution authorities (83% of EU domestic assets) with a multiple point of entry strategy applied to 16% of resolution banks (13% of EU domestic assets).

21. Transfer strategies are the preferred strategy for 146 institutions that represent 3.5% of EU banking sector assets (43% resolution banks in the sample) and are mostly resolution groups or stand-alone resolution entities that are relatively limited in size, with only six of them classified as O-SIIs (one with assets between EUR 50bn and 100bn, three with assets between EUR 10bn and 50bn, and two with assets below EUR 5bn) and 140 of them classified as other banks. Finally, 47 banks with a liquidation strategy were set MREL above own funds. EBA has received MREL decisions set at the level of own funds for another 1976 liquidation banks.

1.2. Scope of the MREL analysis (levels and shortfalls)

22. Section 2 (MREL requirement) and Section 3 (MREL shortfalls) of the report cover 245 external MREL decisions and 133 internal MREL decisions (in total 378 decisions) for which the EBA received both MREL decisions and data on resources at the cut-off date. These entities have higher MREL than their current regulatory minimum capital requirements to facilitate a resolution strategy in 27 EU Member States.

23. Resolution groups and stand-alone institutions are categorised in the report based on both the systemic importance (G-SIIs, other systemically important institutions and other banks that are neither G-SIIs nor O-SIIs) and the classification of banks under BRRD II (top-tier banks). For the purposes of the figures included in the charts, G-SIIs have been considered, at resolution group level (material subsidiaries of EU and non-EU G-SIIs included); while O-SIIs and other banks are also considered by size category. Throughout the report, numbers by category are weighted by TREA and TEM, as the MREL total requirement and total subordination requirement are also expressed as a percentage of TEM. The sample summary of each category of banks is set out in Table 2.

24. Resolution entities that are part of a G-SII have been categorised as G-SIIs themselves. This is to reflect the fact that these entities are subject to total loss-absorbing capacity (TLAC), even though on a stand-alone basis they may not be categorised as G-SIIs. This explains the total of nine G-SII resolution entities despite there being only eight EU-headquartered G-SIIs according to the latest Financial Stability Board (FSB) list[12].

25. Considering the classification of entities under BRRD II, out of the 245 resolution entities subject to external MREL, 9 are classified as G-SIIs, 28 are classified as top tier banks, 59 as other pillar 1 banks and 149 as other banks. Most top tier banks are O-SIIs (26 out of 28), but only a few other pillar 1 banks are O-SIIs (9 out of 59). Among the 149 other banks, 41 are O-SIIs.

	Type of banks	**of which: O-SII**
G-SIIs	9	
Top tier banks	28	26
Other pillar 1 banks	59	9
Other banks	149	41
Total	**245**	**76**

Sources: MREL DECISIONS template.

[12] https://www.fsb.org/2020/11/2020-list-of-global-systemically-important-banks-g-sibs/

Table 2: Number of banks with external MREL decisions included in the shortfall analysis, by type of bank, data as of Q4 2021.

Ctry	G-SII	O-SII Top Tier	O-SII 100-50bn	O-SII 50-10bn	O-SII 10-5bn	O-SII <5bn	Others >50bn	Others 50-10bn	Others 10-5bn	Others <5bn	Total
AT		1	2	2				6	8	3	**22**
BE		2		2							**4**
CY				2		2				1	**5**
CZ			1	1				1	3	1	**7**
DE	1	6	1				1	1		1	**11**
DK		1	1	2				2	3	37	**46**
ES	1	3					4	3			**11**
FI		2						2	2		**6**
FR	4	1									**5**
GR			4				0				**4**
HR				1	1	2					**4**
HU			1	2	2						**5**
IE		2						1			**3**
IT	1	3					5	1			**10**
LU			1	1				1		1	**4**
NL	1	2	1								**4**
PL			2	3	1			2		52	**60**
PT	1		2	1				2	1		**7**
RO				4						2	**6**
SE		3					1	4	1		**9**
SI				2						1	**3**
Other	0	0	0	4	2	1	0	0	1	1	9
Total	**9**	**26**	**16**	**27**	**6**	**5**	**11**	**26**	**19**	**100**	**245**

Sources: EBA data collection as of 2021-Q4. The category of others includes resolution groups from BG, EE, LT, LV, MT and SK.One bank from SI could not be included in the sample because of MREL DECISIONS template at the EBA at the cut-off date.

Table 3: Number of banks with internal MREL decisions included in the shortfall analysis, classified according to the systemic label of the parent entity, data as of Q4 2021.

Ctry	G-SII	O-SII Top Tier	O-SII 100-50bn	O-SII 50-10bn	O-SII 10-5bn	O-SII <5bn	Others >50bn	Others 50-10bn	Others 10-5bn	Others <5bn	Total
AT	1	5		8							**14**
BE	4	2		1							**7**
BG	1	1		2							**4**
CZ	2		1	1							**4**
DE	9	4									**13**
ES	2						1				**3**
FI	0	2								1	**3**
FR	3	1					1	2			**7**

Ctry	G-SII	O-SII Top Tier	O-SII 100-50bn	O-SII 50-10bn	O-SII 10-5bn	O-SII <5bn	Others >50bn	Others 50-10bn	Others 10-5bn	Others <5bn	Total
HR	1	1	1					1			**4**
HU	1				1						**2**
IE	2	6	2	1				1			**12**
IT	4						12				**16**
LU	5			1							**6**
NL	1	3									**4**
PL	3								1		**4**
PT	1	1	1					1			**4**
RO	2	2	1			1					**6**
SE	0	3					1	2			**6**
SI	1	1						1			**3**
Other	0	7	2	0	0	0	0	1	0	0	11
Total	**43**	**39**	**8**	**14**	**1**	**1**	**16**	**9**	**1**	**1**	**133**

Sources: EBA data collection as of 2021-Q4. For the purposes of this table, entities subject to internal MREL are classified according to the systemic label of the parent entity (e.g., if the parent entity is classified as G-SII, the entity is classified as G-SII). Standalone institutions are classified according to their own systemic label. The category of others includes non-resolution entities from CY, DK, EE, MT, LT, LV, SK.

Table 4: Number of banks with internal MREL decisions included in the shortfall analysis, classified the label applied to their size, data as of Q4 2021.

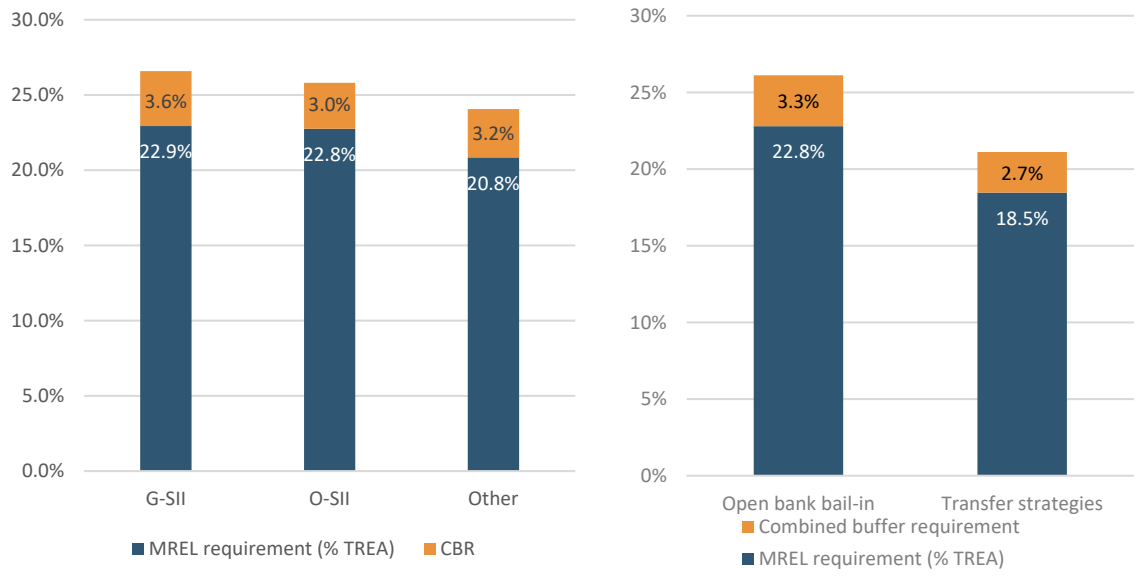
Ctry	G-SII >100bn	G-SII 100-50bn	G-SII 50-10bn	G-SII <10bn	O-SII >100bn	O-SII 100-50bn	O-SII 50-10bn	O-SII 10-5bn	O-SII <5bn	Others 50-10bn	Others 10-5bn	Others <5bn	Others >50bn	Total
AT						1				3	2	8		14
BE					3		1			3				7
BG							2	2						4
CZ							1					3		4
DE	3	1	5							1			3	13
ES	1		1							1				3
FI										1		2		3
FR	1	1	1		1					2			1	7
HR							2	1				1		4
IE		1				3	1			5			2	12
IT		2	1	1						2	4	6		16
LT							2							2
LU		1	2			1	2							6
NL					1					1		1	1	4
PL							2				1	1		4
PT		1					1					2		4

Ctry	G-SII >100bn	G-SII 100-50bn	G-SII 50-10bn	G-SII <10bn	O-SII >100bn	O-SII 100-50bn	O-SII 50-10bn	O-SII 10-5bn	O-SII <5bn	Others 50-10bn	Others 10-5bn	Others <5bn	Others >50bn	Total
RO							2		2			2		6
SE										2		2	2	6
SI									2			1		3
Other	0	0	0	0	0	0	3	5	2	1	0	0	0	11
Total	**5**	**7**	**10**	**1**	**5**	**5**	**19**	**8**	**7**	**22**	**7**	**29**	**9**	**133**

Sources: EBA data collection as of 2021-Q4. For the purposes of this table, entities subject to internal MREL are classified according to their own systemic label, independently of the classification of the parent entity. The category of others includes non-resolution entities from CY, DK, EE, HU, LV, MT, SK.

MREL levels and subordination

Figure 1: MREL requirement (% of TREA) for G-SIIs, O-SIIs and other banks.



Sources: MREL decisions data as of Q4 2021.

26. The MREL requirement for the 245 banks subject to an external MREL requirement was on average 22.6% of TREA (22.9% for G-SIIs, 22.8% for O-SIIs and 20.8% for other banks) with a combined buffer requirement of 3.3% of TREA (3.6% for G-SIIs, 3.1% for O-SIIs and 2.5% for other banks) that is applicable on top of the MREL requirement[13]. It essentially reflects the going concern requirements. As a percentage of TEM, the MREL requirement was 6.98% (7.21% for G-SIIs, 6.96% for O-SIIs and 5.89% for other banks). Other banks exhibit a lower MREL requirement than O-SIIs because most of them have been set a transfer strategy, which can mean a lower recapitalisation amount and thus a lower overall MREL. The lower requirement observed for other banks compared to O-SIIs is because they have lower buffer requirements and most of them have been set a transfer strategy. Thus, although the TSCR[14] is higher for other banks than O-SIIs, the resolution strategy and the lower level of buffer requirements are driving down the MREL requirement for them. The requirement based on TEM is higher than the requirement of TREA in 24 cases (2 G-SIIs, 9 O-SIIs and 13 other banks).

27. By resolution strategy, the MREL requirement for resolution groups under bail-in strategy is 22.8% TREA, with a combined buffer requirement of 3.3% of TREA. For resolution groups under transfer strategies, the requirement is 18.46% of TREA, with a combined buffer requirement of 2.65% of TREA.

[13] In the previous EBA quantitative report on MREL, the MREL requirement for the 260 banks subject to an external MREL requirement was on average 22.9% of TREA (22.8% for G-SIIs, 23.1% for O-SIIs and 21.7% for other banks) with a combined buffer requirement of 3.4% of TREA (3.6% for G-SIIs, 3.2% for O-SIIs and 3.0% for other banks) that is applicable on top of the MREL requirement.

[14] TSCR refers to Total SREP capital requirements, which is the sum of Pillar 1 and Pillar 2 requirements.

28. The breakdown of the MREL requirement by country can be found in the Annex.

29. The MREL requirement for the 133 non-resolution entities subject to an internal MREL was on average 20.2% of TREA (19.6% for G-SIIs, 21.1% for O-SIIs and 19.5% for other banks) with a combined buffer of 2.9% (2.7% for G-SIIs, 3.3% for O-SIIs and 2.6% for other banks). This is in line with the calibration, essentially mirroring the going concern requirements.

30. Subordination requirements, including CBR, were set at a level of 18.5% (17.6% of TREA for G-SIIs, 19.2% of TREA for top-tier banks and 21.3% of TREA for other pillar 1 banks). Out of the total sample of 245 banks subject to an external MREL, subordination requirements have been set for 169 resolution groups (9 G-SIIs, 26 top tier banks and 131 other pillar 1 banks).

31. Most banks in the sample were set an end-state date in January 2024, as specified in Article 45m of BRRD II. A small proportion of the banks of the sample (14 banks out of 245) had a compliance date beyond 2024.

2.1. Calibration of the total, subordinated and internal MREL for G-SIIs

32. On a weighted average basis, the total MREL for G-SIIs reaches 22.9% of TREA, of which 17.6% subordinated. On top of this requirement comes the combined buffer requirement of 3.6% on a weighted average basis to be met with CET1. As a percentage of total exposure, the total MREL and subordination requirement reached 7.21% and 5.9%, respectively. Data in Figure 1 shows the total MREL targets (as a percentage of TREA and of TEM).

33. Resolution entities that are part of G-SIIs are subject to TLAC. This was introduced into the EU framework through the Capital Requirement Regulation (CRR), which came into force in July 2019. Article 92a CRR require G-SIIs to meet at all times a risk-based minimum requirement of 18% of the total risk exposure amount (TREA) and a non-risk-based metric of 6.75% of the total exposure measure (TEM), in line with the TLAC standard as defined by the TLAC Term Sheet[15]. TLAC must be met with subordinated instruments, with the possibility of resolution authorities granting an allowance for senior debt of up to 3.5% of TREA. In addition, Article 72e CRR introduced a deduction regime for eligible liabilities items for G-SII.

34. BRRD II harmonised the subordination requirements in Article 45b(4), (5) and (7) of BRRD II, which relates to the level of the subordination requirement for G-SIIs, top-tier banks and other pillar 1 banks[16] [17].

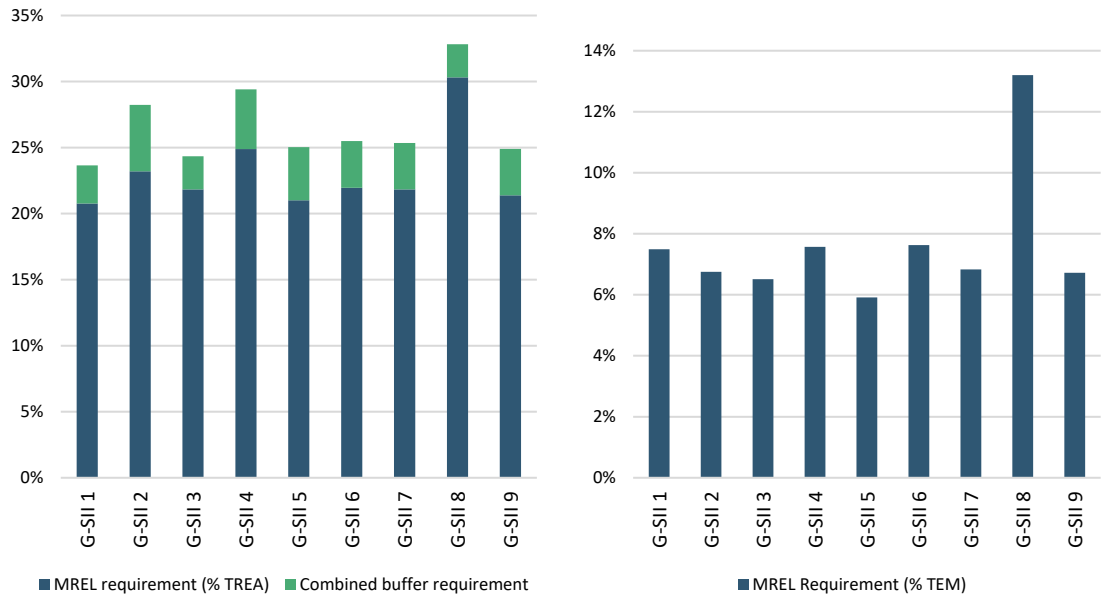
[15] https://www.fsb.org/wp-content/uploads/TLAC-Principles-and-Term-Sheet-for-publication-final.pdf

[16] According to Article 45b(8) BRRD II, for 'other pillar 1 banks' (i.e. those assessed as likely to pose a systemic risk in the event of failure), these increases would be applicable for a maximum of 30% of resolution entities of this type, where: (a) substantive impediments to resolvability have been identified in the preceding resolvability assessment; (b) the credibility and feasibility of the resolution strategy is limited; or (c) the bank is among the top 20% in terms of riskiness (measured by the level of the P2R).

[17] See Annex 1 for full details about MREL calibration under BRRD II.

35. Transitional arrangements were introduced in Article 45m of BRRD II, which specifies that current MREL decisions of G-SIIs have an intermediate target that should be met by 1 January 2022 and a final target to be met as of 1 January 2024. GSIIs are also subject to TLAC deadlines and thus, the targets of 18% TREA + CBR and 6.75% TEM should be met from 1 January 2022.

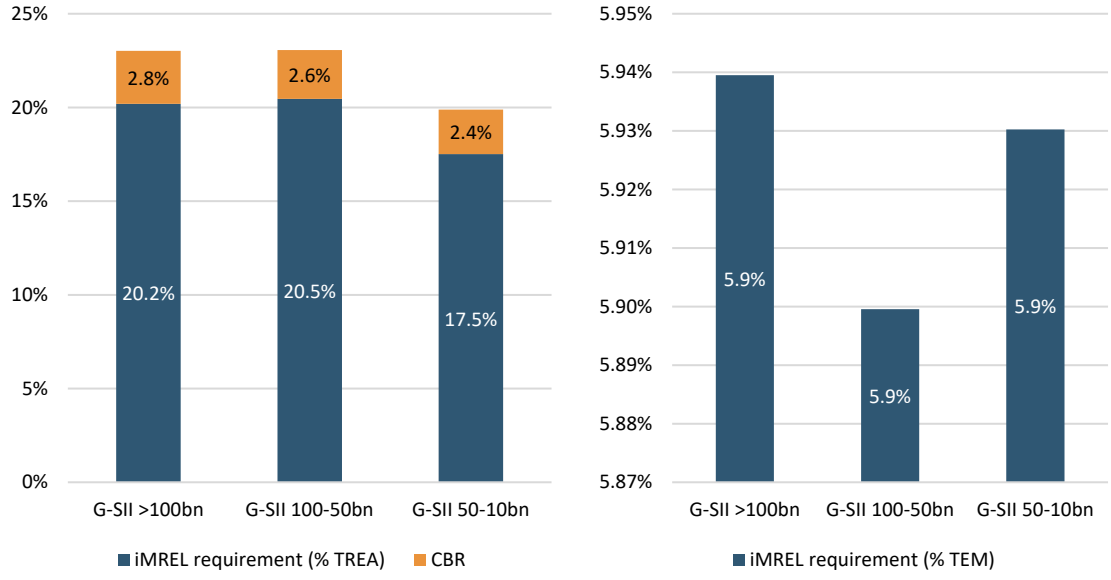
Figure 2: Max of the MREL and TLAC requirements for G-SIIs as a % of TREA (left) and of TEM (right), data as of Q4 2021.



Sources: MREL decisions data as of Q4 2021.

36. The requirement for subsidiaries that are part of a G-SII resolution group subject to an internal MREL was on average 19.6% of TREA (5.93% of TEM), below the average of the sample of O-SIIs but above the level for other banks. The combined buffer requirement (CBR) for non-resolution entities that are part of a G-SII resolution group subject to an internal MREL was on average 2.65%. This is in line with expectations in that these requirements mirror the going concern requirements. Although most of the assets of the resolution group are covered by the resolution entity, non-resolution entities represent a non-negligible part of the group, as non-resolution entities subject to an internal MREL cover 27% of the assets of the resolution groups.

Figure 3: Internal MREL requirement for G-SIIs as a percentage of TREA (left) and of TEM (right), data as of Q4 2021.



Sources: MREL decisions data as of Q4 2021. Internal MREL requirement for G-SIIs with assets below EUR 10bn is not disclosed because there is only 1 in the sample.

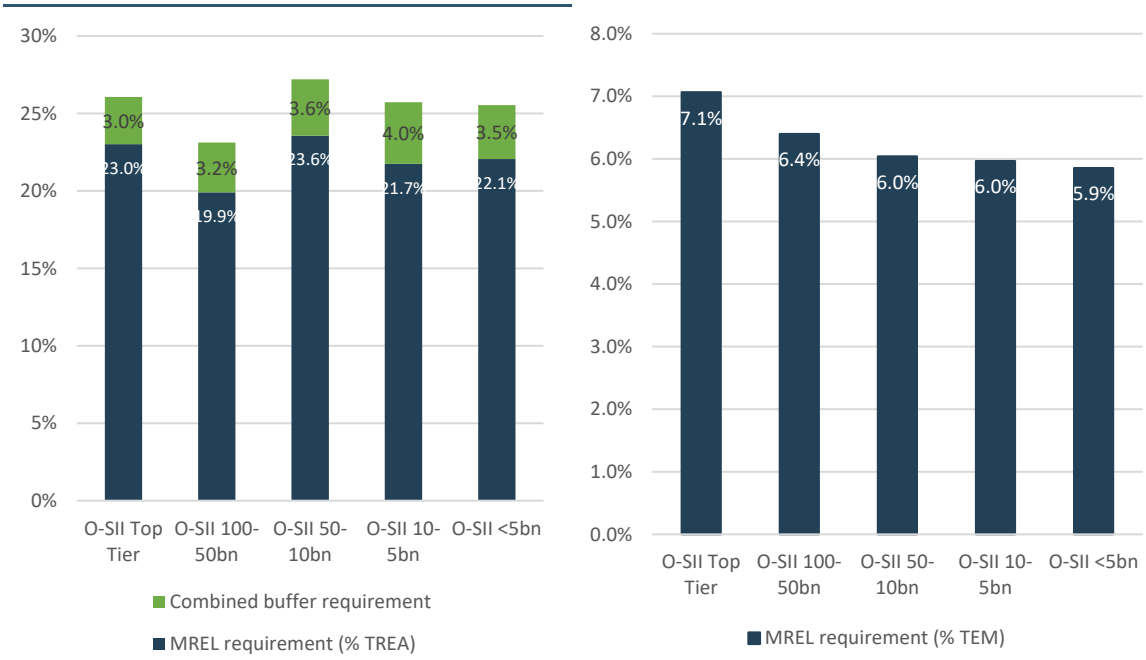
2.2 Calibration of total, subordinated and internal MREL for O-SIIs

37. The total MREL requirements for O-SIIs were 22.8% of TREA (6.96% of TEM). On top of this requirement, one should consider additional resources (CET1) to meet the combined buffer requirement of 3.1% on a weighted average basis. Even if O-SIIs are not subject to TLAC, they present a similar level of MREL requirement than G-SIIs because of higher capital requirements[18] (9.96% vs 9.65%, on a weighted average basis).

38. BRRD II has increased harmonisation for the end-state date. In terms of the deadline to meet the full MREL target, 80% of the O-SIIs of the sample report 1 January 2024 as the date of compliance with the total MREL requirement, with a few banks reporting 1 January 2025 and 1 January 2026.

[18] Total SREP capital requirements are the sum of pillar 1 requirements and pillar 2 requirements.

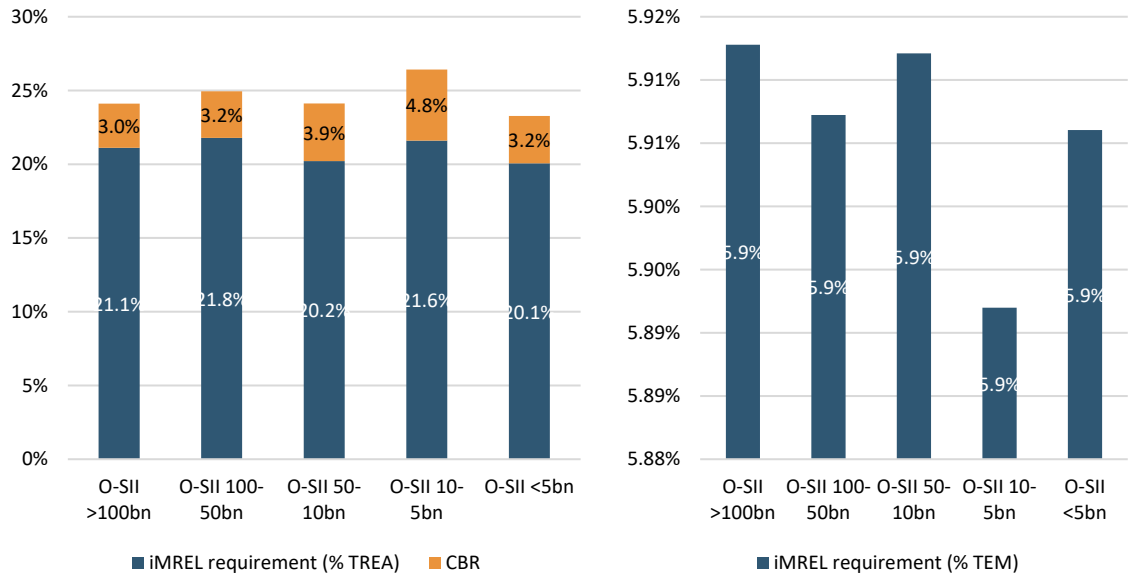
Figure 4: MREL requirement for O-SIIs, as a percentage of TREA (left) and TEM (right), data as of Q4 2021.



Sources: MREL decisions data as of Q4 2021.

39. The requirement for the O-SIIs subject to an internal MREL was on average 21.1% of TREA (5.91% of TEM), above the level observed for G-SIIs and for other banks, explained by higher pillar 2 requirements for O-SIIs than for G-SIIs and other banks (2.00% for O-SIIs, 1.50% for G-SIIs and 1.26% for other banks). The combined buffer requirement for O-SIIs subject to an internal MREL was on average 3.26%, above the level observed for G-SIIs and other banks. The IMREL was set in line with expectations, mirroring the going concern requirements. For O-SIIs, the internal MREL covers 58% of the assets of the resolution groups.

Figure 5: Internal MREL requirement for O-SIIs as a percentage of TREA (left) and of TEM (right), data as of Q4 2021.



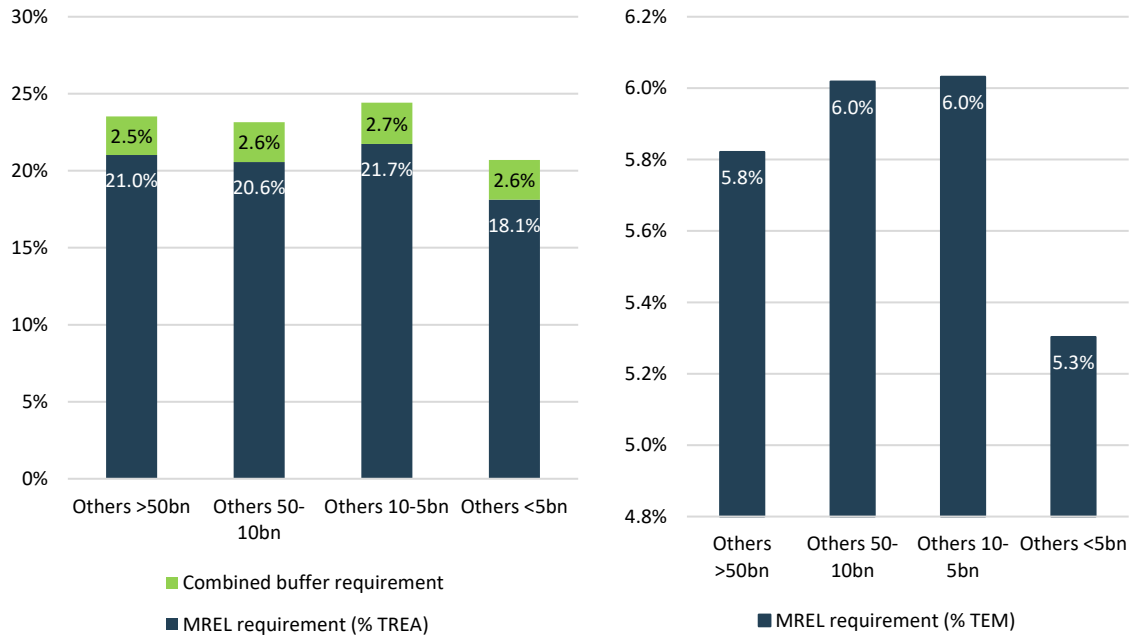
Sources: MREL decisions data as of Q4 2021.

2.3 Calibration of the total, subordinated and internal MREL for other banks

40. The total MREL for other banks was 20.8% of TREA (5.89% of TEM). Compared to systemic entities, other banks were set a lower MREL as a percentage of TREA. On top of this requirement, one should consider additional resources (CET1) to meet the combined buffer requirement of 2.5% on a weighted average basis, below the level observed for G-SIIs and O-SIIs.

41. Other banks presented a lower MREL calibration than systemic entities, driven by a lower recapitalisation amount (RCA). Resolution authorities may adjust the RCA to reflect the transfer of assets when the preferred resolution strategy is based on a transfer tool (sale of a business, a bridge institution or asset separation). In the sample of other banks, the resolution strategy is based on a transfer tool for 123 banks (out of a total of 160 other banks in the sample). Figure 5 shows the MREL calibration for other banks in percentage of TREA and in percentage of TEM.

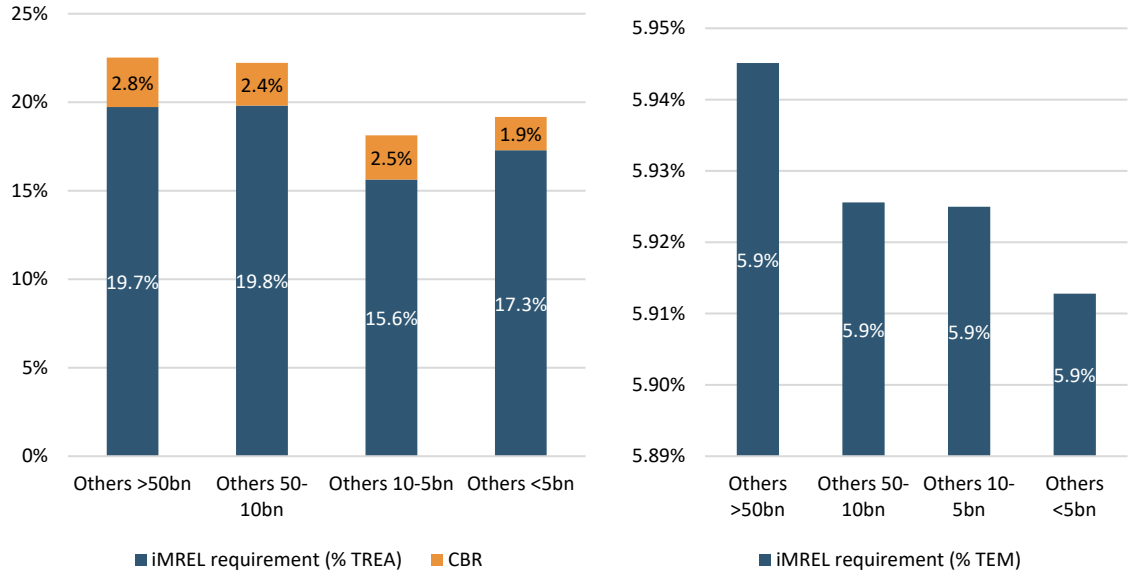
Figure 6: MREL requirement for other banks by type of bank (left) and by resolution strategy (right), data as of Q4 2021.



Sources: MREL decisions data as of Q4 2021.

42. The requirement for other non-resolution entities subject to an internal MREL was, on a weighted average basis, 19.5% of TREA (5.94% of TEM). This was below the average of the sample and below the levels for G-SIIs and O-SIIs, explained by a lower pillar 2 requirement for other non-resolution entities compared to G-SIIs and O-SIIs (1.26% vs 1.50% for G-SIIs and 2.00% for O-SIIs). The combined buffer requirement for other non-resolution entities subject to an internal MREL was on average 2.63%, which was lower than the level observed for G-SIIs and O-SIIs. For other banks, the internal MREL covers 22% of the assets of the resolution groups.

Figure 7: Internal MREL requirement for other banks as a percentage of TREA (left) and of TEM (right), data as of Q4 2021.



Sources: MREL decisions data as of Q4 2021.

MREL resources and shortfalls

43. This section provides the composition of eligible liabilities and shortfalls to cover the total end-state MREL requirement, obtained as the difference between the requirement (determined as the maximum between the requirement in TREA and in TEM) and the amount of MREL-eligible resources as of December 2021.

44. These shortfalls do not mirror the actual issuance needs of EU resolution groups, as they do not consider, among other things: (i) the roll-over needs of maturing MREL-eligible instruments and (ii) potential changes in the balance sheet size and TREA e.g. due to restructuring or due to Basel III impact.

45. For each category, the shortfall is calculated as the difference between the requirement, determined as the maximum as a percentage of TREA (plus CBR) and TEM, and the total MREL resources. Shortfalls are presented as an amount (EUR bn) and as a percentage of TREA. Moreover, the number of banks with a shortfall is presented. The distribution of the shortfall across each category of banks is also presented.

46. As of 31 December 2021, the EBA estimates that the shortfall against the final MREL targets for the sample of 245 resolution groups with an external MREL decision was EUR 33bn (EUR 14.4bn for O-SIIs and EUR 18.6bn for other banks), attributable to 70 resolution groups (34 O-SIIs and 36 other banks).

47. As of December 2021, we find that a limited 18 out of 245 institutions had a shortfall against their 1 January 2022 target amounting to EUR 3.4bn (EUR 2.2bn for 9 O-SIIs and EUR 1.2bn for 9 other banks). However, out of these 18 entities, only 6 breach MREL, while the rest present breach the CBR but not MREL. Out of the 6 that do not fulfil the intermediate MREL target, 2 of them have failed during 2022.

48. In the period from January 2021 to December 2021, EBA identified, for banks in the sample, public issuances totalling[19] EUR 206.9bn in MREL-eligible debt, of which EUR 130.6bn in senior non-preferred debt, EUR 58.2bn in subordinated debt[20] and EUR 18.1bn in senior preferred debt. However, banks reporting a shortfall only issued EUR 7.3bn (EUR 2.2bn in senior non-preferred debt, EUR 4.8bn in subordinated debt and EUR 0.4bn in senior preferred debt). Limited MREL-eligible debt has been issued by O-SIIs reporting a shortfall (EUR 3.1 bn, of which EUR 1.2bn in senior non-preferred debt, EUR 0.1bn in senior preferred debt and EUR 1.8bn in subordinated debt). Regarding other banks, as for O-SIIs, those with shortfalls issued few MREL-eligible instruments EUR 1.8bn (of which EUR 1.5bn in subordinated debt and EUR 0.2bn in senior preferred debt).

[19] To note that these estimates are based on Bloomberg data and thus exclude private placements.

[20] Including structurally subordinated if reported as such by banks under CIR 2021/763

49. With regards to O-SIIs and other banks which present shortfalls, the bigger banks account for most of the amount of the shortfall of each category but the smaller banks are the most affected (in terms of number of banks). More precisely, within the O-SII category, the first two sub-categories of banks (top-tier and banks with assets between EUR 50bn and 100bn) represent 58% of the total shortfall of the category but only 10% of the number of banks present a shortfall. However, 57% of the banks in the other three categories of small banks (those with consolidated assets below EUR 50bn) exhibit a shortfall.

50. Aggregated shortfall decreased by 42% compared to last year's quantitative report on MREL, on a comparable basis, but at a lower rate for smaller banks: for a common sample compared to the previous report: 100% for G-SIIs, 50% for O-SIIs and only 27% for other banks.

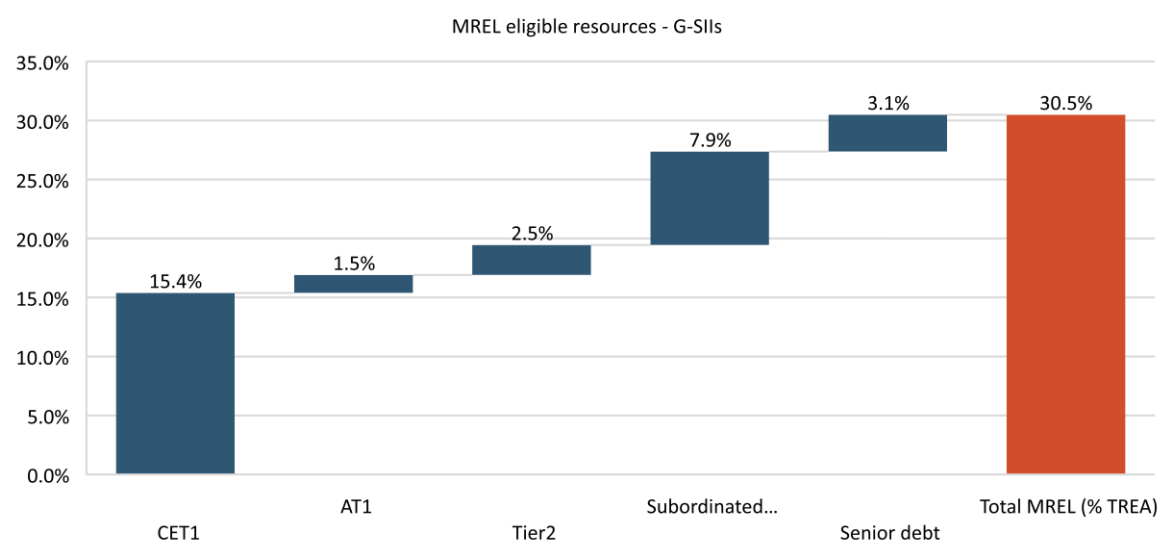
51. More than half of the non-resolution entities that were set an iMREL decision were already complying with it. The shortfall for the sample of 133 banks with internal MREL decisions was EUR 25.6bn (EUR 4.8bn for G-SIIs, EUR 4bn for O-SIIs and EUR 16.7bn for other banks), attributable to 61 banks (9 G-SIIs, 19 O-SIIs and 33 other banks). This shortfall would be affected if deductions were applied to the amount of eligible instruments of intermediate parents in cases of indirect subscription of instruments by the resolution entity ('daisy chains').

52. The shortfall in subordinated debt was EUR 7bn (0.11% of TREA), attributable to 17 banks (2 top-tier banks and 15 other pillar 1 banks). The subordinated debt shortfall for top-tier banks, it was EUR 3.2bn (0.11% of TREA) and for other pillar 1 banks, it was EUR 3.9bn (0.96% of TREA).

3.1 MREL shortfalls for G-SIIs

53. GSIIs comply with their end state targets. On an average basis, weighted by TREA, and as per Figure 7, resolution groups that are part of G-SIIs report total MREL resources reaching 30.5% of TREA. G-SIIs do not present shortfall with data as of December 2021.

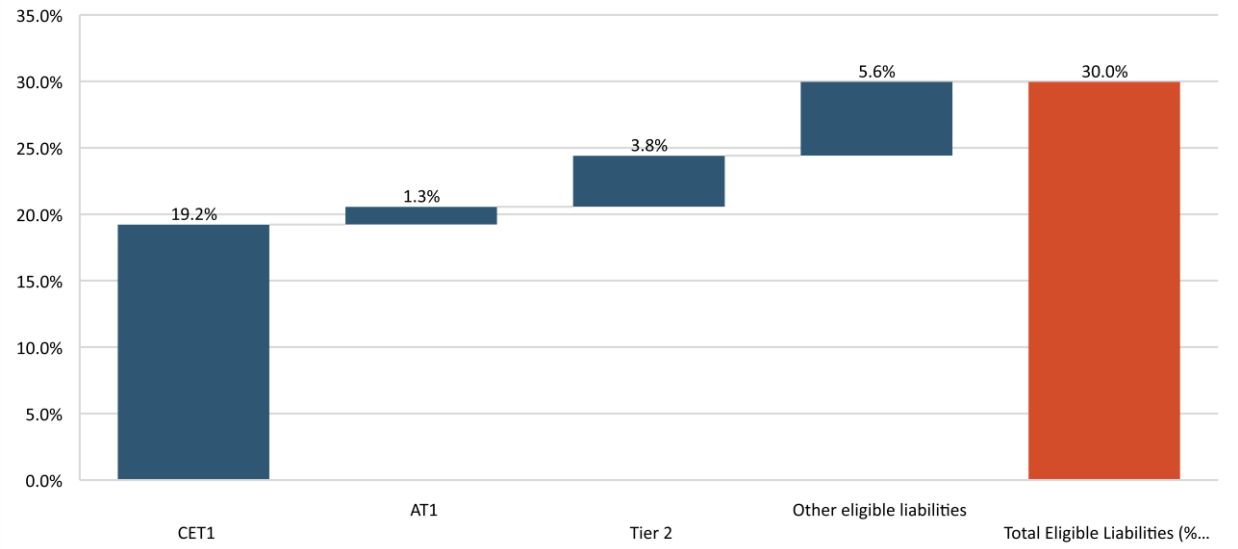
Figure 8: MREL resources of G-SIIs (% of TREA) subject to an external MREL, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations. Subordinated instruments include subordinated debt and senior-non preferred debt.

54. The shortfall of internal MREL for non-resolution entities within G-SII resolution groups was EUR 4.8bn (0.6% of TREA), attributable to 9 institutions subject to an internal MREL (out of a total of 24). Regarding the number of institutions with a shortfall it should be remembered that the first internal MREL decisions were only taken in 2020. MREL-eligible resources for non-resolution entities within G-SII resolution groups amounted to 30% of TREA (see charts below). iMREL resources should be subordinated to excluded liabilities and to operational liabilities as per Article 45f(2)(a)(i)-(iii) of BRRD II. Some authorities have reported senior preferred debt as iMREL eligible.

Figure 9: MREL resources (% of TREA) of non-resolution entities within a G-SII resolution group subject to an internal MREL, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations.

3.2 MREL resources and shortfalls for O-SIIs

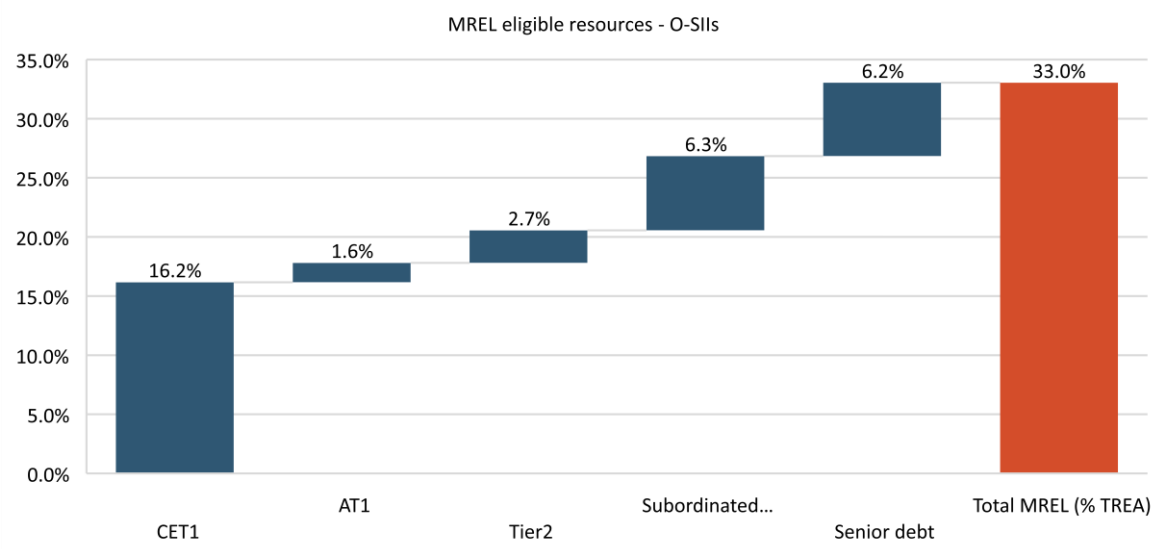
55. MREL shortfalls against the final MREL targets for O-SIIs reached EUR 14.4bn (0.4% of TREA), attributable to 34 banks. This was down by 50% against the last report on a comparable sample.

56. The shortfall against intermediate targets for O-SIIs was EUR 2.2bn (0.1% of TREA), attributable to 9 banks. However, limited MREL-eligible debt has been issued by O-SIIs reporting a shortfall (EUR 4.5 bn, of which EUR 2.2bn in senior non-preferred debt, EUR 0.2bn in senior preferred debt and EUR 2bn in subordinated debt).

57. On average, O-SIIs reported MREL-eligible resources at a level of 33% of TREA, above the level reported by G-SIIs, mainly driven by O-SIIs with consolidated assets above EUR 100bn (classified as top-tier), which reported a level of eligible resources of 34.1% of TREA. The rest of the O-SIIs reported eligible resources below the average of the total sample – 31.2% of TREA (Figure 10).

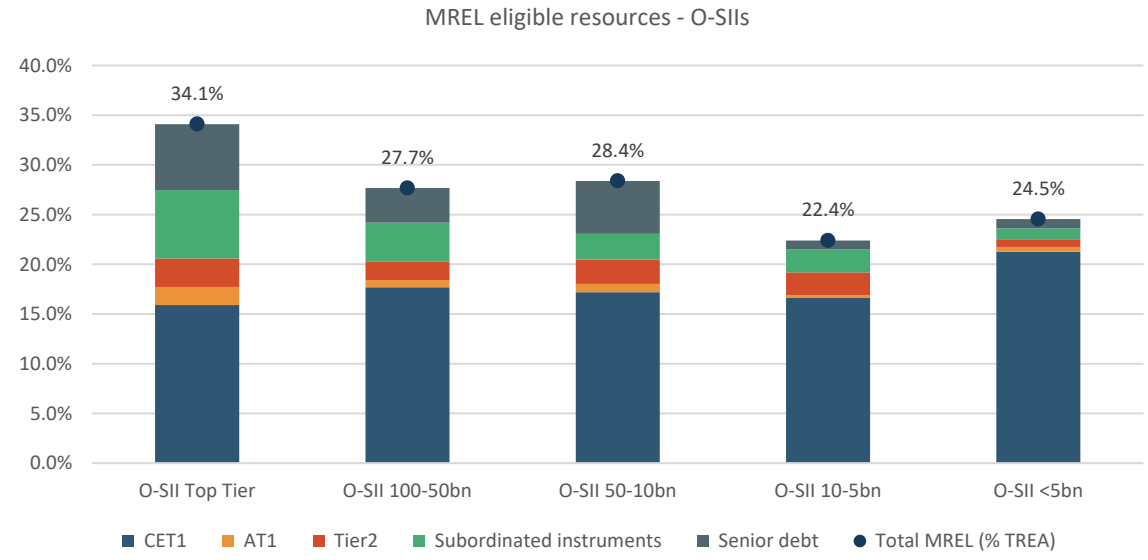
58. The level of MREL-eligible resources was higher for larger O-SIIs, particularly top-tier O-SIIs than for smaller banks. Apart from the overall level, there was a high divergency in the distribution of eligible resources. While larger O-SIIs exhibit a lower level of common equity Tier 1 compared to smaller banks, they hold a higher level of senior debt, which was scarcer in the group of O-SIIs with assets between EUR 10bn and 5bn and in the group of O-SIIs with assets below EUR 5bn.

Figure 10: MREL resources of O-SIIs (% of TREA) subject to an external MREL, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations. Subordinated instruments include subordinated debt and senior-non preferred debt.

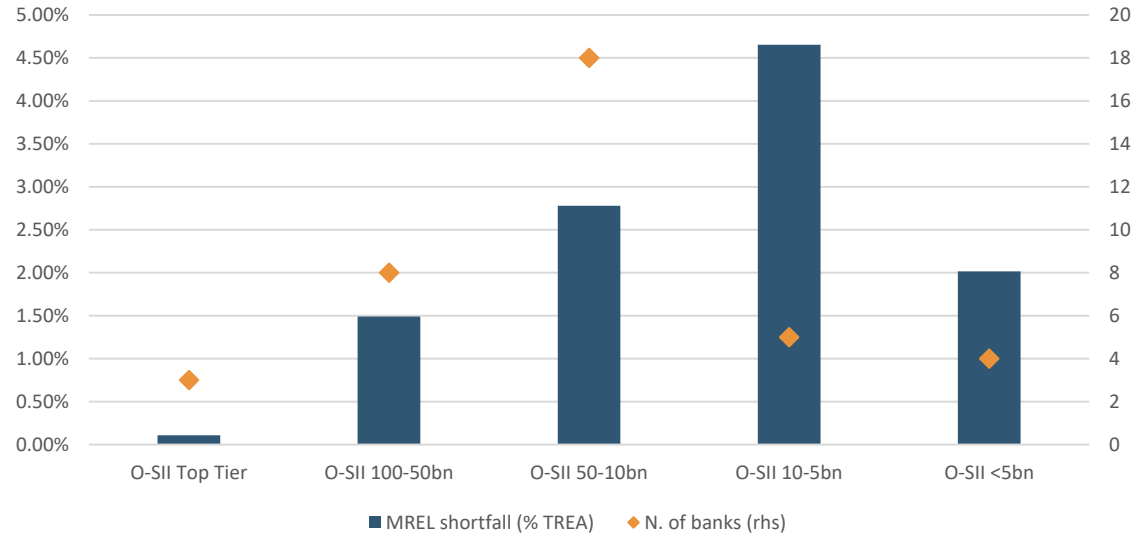
Figure 11: MREL resources of O-SIIs (% of TREA), breakdown by size, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations. Subordinated instruments include subordinated debt and senior-non preferred debt.

59. The shortfall of EUR 14.4bn of O-SIIs, which represented 0.4% of TREA, was attributable to 34 banks (3 classified as top-tier, 4 with assets between EUR 50bn and 100bn, 18 with assets between EUR 10bn and 50bn, 5 with assets between EUR 5bn and 10bn and 4 with assets below EUR 5bn). The shortfall was mainly attributable to top-tier banks and banks with assets between EUR 50bn and 100bn, with 53% of the shortfall (EUR 7.5bn), but only 18% of them presented a shortfall (7 out of 39). On the other hand, the group of banks that were most affected in number were those with assets below EUR 50bn, as 73% of them have a shortfall (27 small banks out of a total of 37 small banks in the sample[21]), but the total shortfall for this group of small O-SIIs only amounted to EUR 6.8bn. Moreover, on average as a percentage of TREA, small banks were well above the average (Figure 11).

Figure 12: MREL shortfalls of O-SIIs weighted by TREA (left) and the distribution of MREL shortfalls of O-SIIs (right), December 2021 data

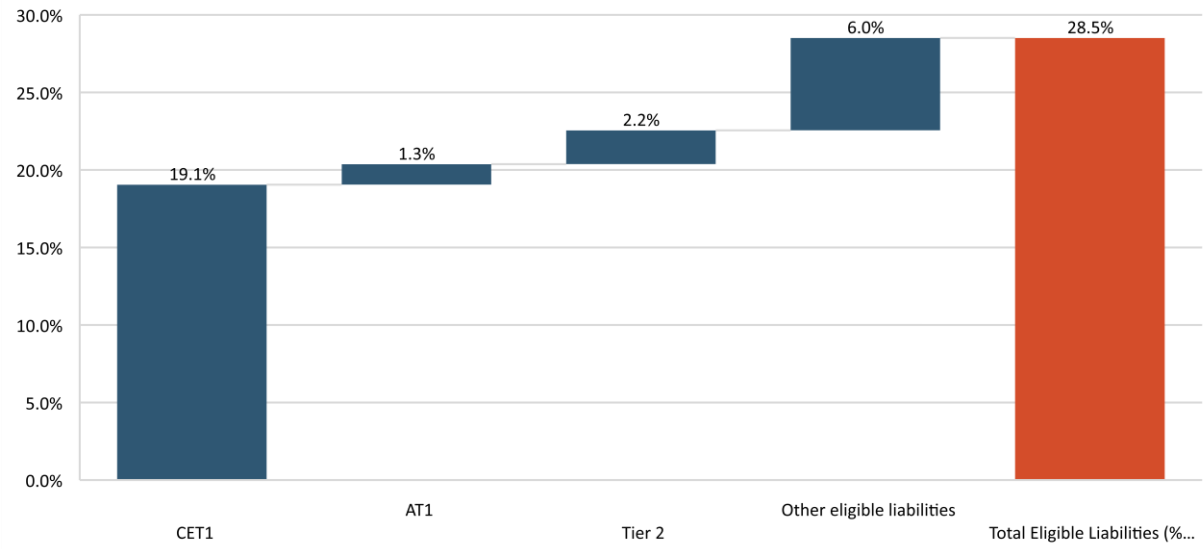


Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations.

60. More than half of the O-SIIs with an internal MREL decision were already meeting the requirement. The internal MREL shortfall for O-SIIs was EUR 4bn (0.5% of TREA), attributable to 19 O-SIIs subject to an internal MREL (out of a total of 42). MREL-eligible resources for non-resolution entities of O-SII resolution groups subject to an internal MREL amount to 28.5% of TREA (see charts below).

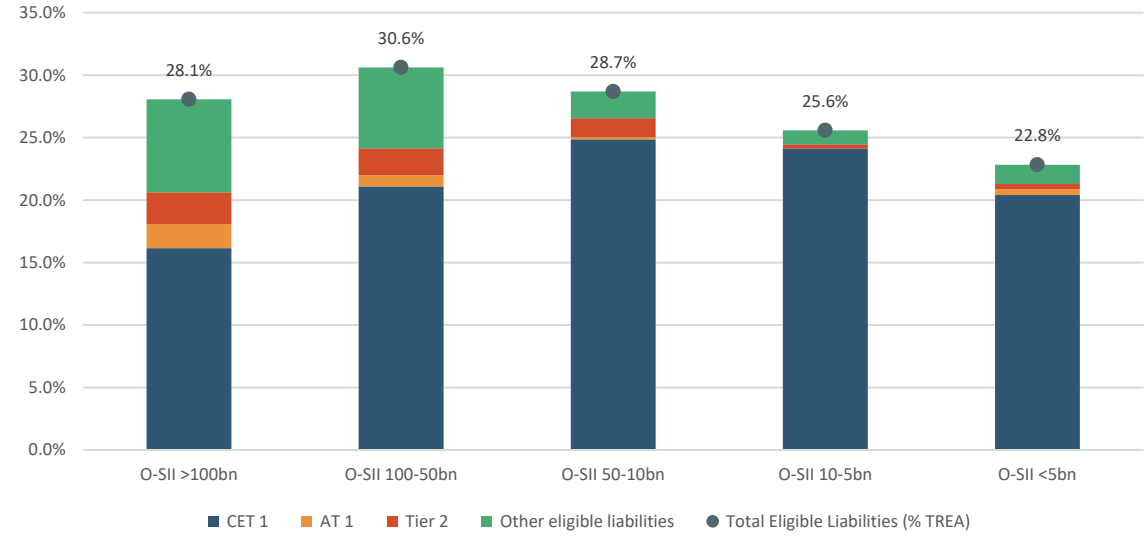
[21] The 43 banks classified as O-SIIs with assets below EUR 50bn are 26 banks classified as O-SIIs with assets between EUR 50bn and 10bn, 10 banks classified as O-SIIs with assets between EUR 10bn and 5bn and 11 banks classified as O-SIIs with assets below EUR 5bn.

Figure 13: MREL resources of O-SIIs (% of TREA) subject to an internal MREL, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations.

Figure 14: MREL resources of O-SIIs (% of TREA) subject to an internal MREL, breakdown by size, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations.

3.3 MREL shortfalls for other banks

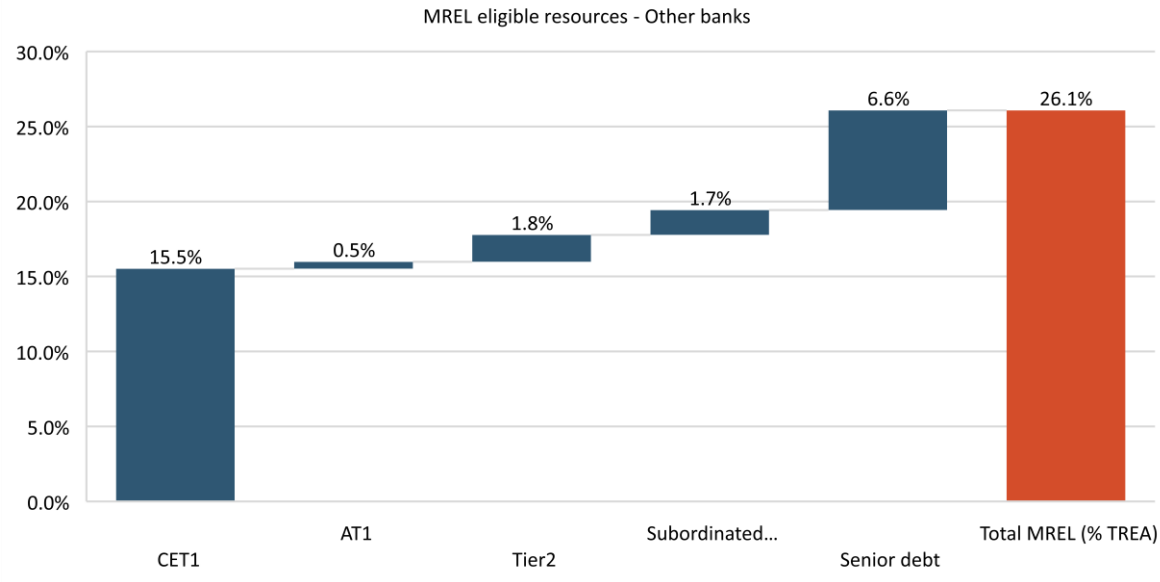
61. MREL shortfalls against final MREL targets for other banks total EUR 18.6bn (2.4% of TREA), attributable to 36 banks. This was down by 27% compared to the last report on a comparable basis. Regarding other banks, as for O-SIIs, those with shortfalls issued few MREL-eligible instruments EUR 2.9bn (of which EUR 2.7bn in subordinated debt and EUR 0.2bn in senior preferred debt).

62. The shortfall against intermediate targets for other banks was EUR 1.2bn (0.1% of TREA), attributable to 9 banks.

63. On average, other banks reported MREL-eligible resources at a level of 26.1% of TREA, which was below the total sample average (31.2%). The two groups of other banks below the sample average were those with assets above EUR 50bn and those with assets below EUR 5bn. As the first group included the biggest banks of the total sample of other banks, the average MREL resources for the total sample of other banks was pushed downward. The remaining two groups in the total sample of other banks exhibited MREL-eligible resources above the total sample average (Figure 15).

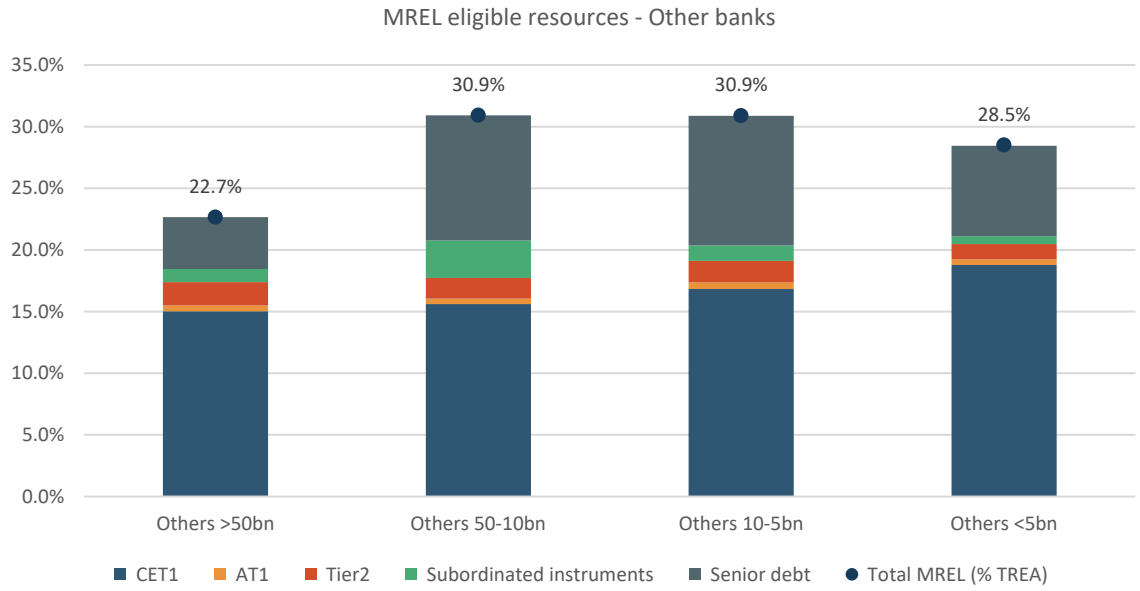
64. Compared to systemic institutions, other banks held a higher level of senior debt and common equity Tier 1 capital, but lower level of AT 1, Tier 2 and subordinated instruments (Figure 15).

Figure 15: MREL resources of other banks (% of TREA), weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations. Subordinated instruments include subordinated debt and senior-non preferred debt.

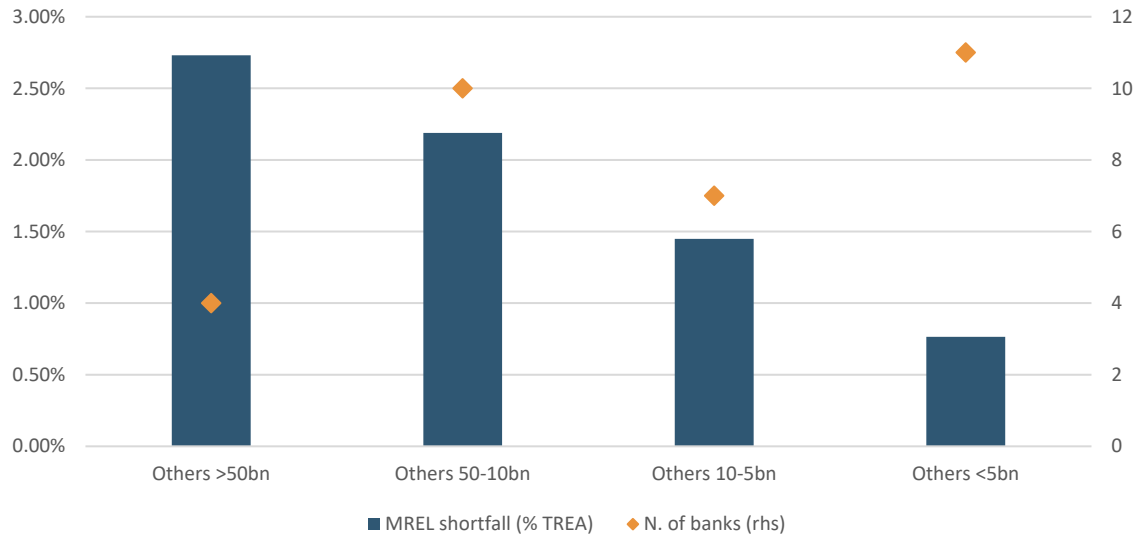
Figure 16: MREL resources of other banks (% of TREA), breakdown by size, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources data as of Q4 2021 and EBA calculations. Subordinated instruments include subordinated debt and senior-non preferred debt.

65. The external MREL shortfall of EUR 18.6bn of other banks, which represented 2.4% of TREA, was attributable to 36 banks (8 with assets above EUR 50bn, 10 with assets between EUR 10 and 50bn, 7 with assets between EUR 5bn and 10bn and 11 with assets below EUR 5bn). Most of the shortfall is explained by the biggest banks in the group of other banks, as 95% of the EUR 18.6bn shortfall was explained by the biggest banks of the group of other banks, which are those banks with assets above EUR 10bn, but only 44% of the banks with assets above EUR 10bn exhibit an MREL shortfall. On average as a percentage of TREA, small banks were above the average (Figure 16). Compared to last year, the shortfall for all categories of other banks decreased.

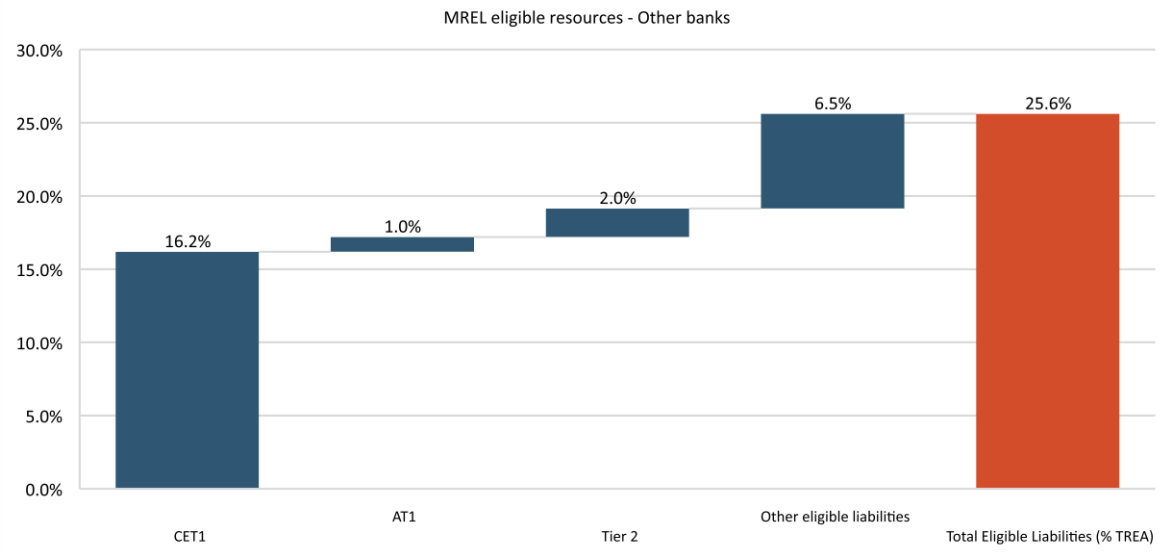
Figure 17: MREL shortfalls of other banks weighted by TREA (left) and distribution of MREL shortfalls of other banks (right), December 2021 data



Sources: MREL decisions and MREL/TLAC resources as of Q4 2021 and EBA calculations.

66. The shortfall against internal MREL for other banks was EUR 16.7bn (2.8% of TREA), attributable to 32 other non-resolution entities subject to an internal MREL (out of a total of 67). MREL-eligible resources for other non-resolution entities subject to an internal MREL amounted to 25.6% of TREA (see charts below).

Figure 18: MREL resources of other banks (% of TREA) subject to an internal MREL, weighted by TREA, December 2021 data



Sources: MREL/TLAC resources as of Q4 2021 and EBA calculations.

Impact assessment

Introduction

67. This section responds to the mandate set in Article 45l(2) of Directive (EU) 2019/879 (BRRD) for the EBA to submit, in cooperation with the competent authorities and resolution authorities, a report to the Commission including an impact assessment of the requirement for own funds and eligible liabilities, on the following: (i) financial markets, (ii) balance sheet structure of institutions, (iii) profitability of institutions, (iv) actions taken by institutions, capacity of banks to issue and prevalence of own funds and subordinated eligible instruments and (v) level of lending.

68. Aspects related to financial innovation, the level of asset encumbrance and the risk-taking behaviour of institutions have been tackled in other EBA publications. Financial innovation related to the eligibility of instruments is studied in the EBA report on the monitoring of TLAC/MREL eligible instruments of EU institutions[22] and the level of asset encumbrance and its interaction with MREL is tackled in the EBA report on asset encumbrance[23]. Furthermore, the interaction of bank-risk indicators and the cost of MREL-eligible debt is analysed in the EBA staff paper published in 2020[24]. This paper, which constitutes an academic study and is therefore not necessarily an official EBA view, concludes that MREL-eligible debt is risk sensitive, as MREL-eligible debt yields are highly determined by indicators related to individual banks, the characteristics of issuances, market risk variables and banking system aggregated indicators. Therefore, a deterioration in any of the bank-risk indicators, entails higher cost of issuing MREL-eligible debt[25]. The indicators related to cost-to-income ratio and the share of deposits in banks' balance sheets appear with statistically significant coefficients in all the estimates. These results suggest that banks with higher inefficiency levels and with high reliability on customer deposits as a source of funding − mainly retail banks − suffer a higher cost of MREL-eligible debt. Also, NPL ratio appears significant in one of the specifications, meaning that it positively influences MREL-eligible debt yields. Thus, a lower level of asset quality, proxied by a high NPL ratio, is associated with higher cost of MREL-eligible debt.

[22] https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2022/1040363/TLAC-MREL%20instruments%202nd%20Monitoring%20Report.pdf

[23] https://www.eba.europa.eu/sites/default/documents/files/document_library/Risk%20Analysis%20and%20Data/Risk%20Assessment%20Reports/2022/1036110/Report%20on%20Asset%20Encumbrance%202022.pdf

[24] Rocamora M., Monjas M., Suarez N. (2020): What are the determinants of MREL-eligible debt yields? EBA Staff Papers series.

[25] For this, a multiple regression model is performed using as a dependent variable is the yield to maturity (YTM). The independent variables are composed by: (i) *ISS* is a vector including the variables relating to issuance characteristics (e.g. maturity and bid−ask spread), (ii) *BKRISK* contains bank-specific variables related to profitability, asset quality, capital and business model, (iii) *CTRYCOND* refers to macroeconomic variables (e.g. real GDP growth), (iv) variables related to financial system conditions in order to capture the influence of aggregate banking system conditions on bank issued debt (e.g. market share of total assets in percentage points of the five largest banks, the NPL ratio for the system and return on assets (ROA) for the system) and (v) MKTCOND is a vector that contains indicators of the general conditions of the European equity markets.

69. This section should be considered in a specific context, where overall funding conditions are deteriorating, and the commission is envisaging changes to the crisis management framework.

70. The analysis is constrained in terms of availability of data. First, FINREP is only available on a consolidated basis, therefore the sections that rely on FINREP data (impact on liability structure, impact in banks' profitability, impact in lending) contains only resolution groups but no stand-alone banks. Second, the first BRRD2 decisions have been submitted on 31 May 2021 and the first submission of "BRRD 2 resources" has 30 June 2021 as reference date. Since 31 December 2018, the EBA has been collecting ad-hoc data on MREL resources. The samples across the different reference dates are not comparable. Therefore, for the section of actions taken by institutions, which shows the evolution of total eligible liabilities over the last three years and the composition of eligible liabilities, a comparable sample for the reference years 2019, 2020 and 2021 was used. Yet, in the section on capacity of banks to issue, the focus is on the actual population of banks with a shortfall as of 2021Q4.

4.1 Samples

71. For each section of the report, a different sample was used depending on the availability of underlying data:

- Evolution of main liability items in the period 2014-2021 (EUR bn): The sample is constrained by the availability of FINREP data in the period 2014-2021. Therefore, the sample is composed by 119 EU banks covering 82% of EU banking sector assets.

- Actions taken by institutions to comply: The analysis is based on a common sample with available data on resources in the period 2019-2021. Thus, the sample is composed by 185 resolution entities that cover 75% of EU banking sector assets.

- Analysis of the flow of eligible liabilities: This sample is composed by the resolution entities of the 2021 Quantitative report on MREL that issued eligible debt during 2021, which is composed by 92 resolution entities (out of a total 245 resolution entities included in the report) that cover 66% of total EU banking sector assets.

- Impact on banks' profitability: This sample is composed by resolution entities with available data on spreads of existing unsecured debt in COREP 69, on data on cost of issuance during 2021 in Bloomberg and on FINREP data. Thus, the analysis is based on a sample of 97 banks that cover 68% of EU banking sector assets.

- Impact on the level of lending: This sample is composed by resolution entities with available MREL requirement in a three-year period, and available data on FINREP. The sample is composed by 159 resolution entities from 27 EU countries covering 79% of EU banking sector assets.

- When possible, the evolution of the metrics shown in the report are also obtained for the control group of banks, which are those without MREL requirement submitted to the EBA.

This is included to know if the level observed of those metrics are only applicable for banks subject to MREL or for more banks in the EU. The control group is not always composed by the same number of banks, depending on the data source it differs (FINREP/COREP), and it ranges from 49 to 214 banks.

Table: Overview of the different samples, data sources and coverages of each of the points of the report.

Section	Title of the section	Time coverage	Number of banks	Coverage	Data source
5.3	Evolution of main liability items	2014Q4-2021Q4	119 banking groups	82% of EU banking sector assets	FINREP
5.4	Actions taken by institutions to comply	2019Q4-2021Q4	185 resolution entities/groups	75% of EU banking sector assets	MREL/TLAC reporting as of 2021Q4 and ad-hoc data collections as of 2020Q4 and as of 2019Q4
5.5	Analysis of the flow of eligible liabilities	2021	92 resolution entities/groups	66% of EU banking sector assets	Bloomberg
5.7	Impact on banks' profitability	2021	97 resolution groups	68% of EU banking sector assets	FINREP, COREP and Bloomberg
5.8	Impact on the level of lending	2019Q4-2021Q4	159 resolution groups	79% of EU banking sector assets	FINREP, COREP and MREL DECISIONS

Sources: EBA based on FINREP, COREP, MREL DECISIONS, MREL TLAC reporting and ad-hoc data collections. The coverages for sections 5.3 and 5.7 of the report are based on consolidated FINREP which is based on the accounting perimeter, while the coverage of sections 5.4 and 5.4.5 and 5.5 is based on MREL TLAC reporting which is based on resolution perimeter (i.e., point of entry).

MREL impact assessment

5.1. Overview of the main benefits of MREL

72. MREL is the cornerstone of the EU resolution regime in that it allows resolution authorities to use a bank's own resources to recapitalise it in case of failure.

73. Until the introduction of the resolution regime, banks deemed to be too big to fail would benefit from an implicit subsidy in the form of an assumption of sovereign support in case of failure. This led to unfair advantages between banks and EU members states via notched up credit ratings, increased risk-taking behaviour driven by moral hazard, and high risks to EU public finances via the socialisation of losses in case of failure[26].

74. Following the implementation of a resolution regime in the EU and the build-up of MREL resources by banks, credit rating agencies have updated their methodologies and removed

[26] According to ECB Economic Bulletin 6/2015, gross financial sector assistance amounted to 8% of Euro Area GDP and had as a direct consequence a deterioration of Euro area debt by 4.8% of GDP.

implicit sovereign support from ratings. Investors should now reflect risk of resolution into their pricing of MREL eligible debt. This has been evidenced by recent literature on the topic.

75. The effective pricing of MREL eligible debt should continue to improve as transparency increases in the framework – in particular, with the entry into force of the Commission Implementing Regulation on MREL and TLAC disclosure. The enhanced transparency may also imply additional costs for debt issued by institutions with more inherent risk. But these impacts should be considered in light of better framed risk taking by banks and assurance of the privatisation of losses - not just assessed in terms of reduced earnings.

76. The introduction of MREL also entailed benefits for EU financial stability. The enhanced market discipline that is exercised by bail-in debt investors contributes to reduce moral hazard mentioned above, curtail excessive risk-taking behaviour and the likelihood of systemic crises. The enhanced market discipline exercised by MREL-eligible debt has been evidenced by literature on the topic[27].

77. Moreover, until the introduction of MREL, losses coming from past banking crises that could not be absorbed by the banking system were covered with public funds, deteriorating public finances and debt-to-GDP ratios in the EU. MREL was introduced to avoid the excessive cost of crises for taxpayers and to ensure that losses are fully absorbed by the banking system.

5.2. Impact of MREL on financial markets and marketability of own funds

Impact on volumes

78. This section aims to give a sense of how MREL impacted the overall volumes and prices of the various key financial instruments for banks. MREL has given way to a new type of debt instruments – senior non preferred debt.

79. The main impact observed on volumes is the rapid growth of senior non-preferred since it was introduced in 2017 by the Creditor Hierarchy Directive in 2017[28] (Figure 19). The volume of senior non-preferred debt and senior debt have increased by 63% and 23%, respectively becoming among the most important type of bank debt instrument in the market on average. As can be observed in section 5.4 of the report, G-SIIs and O-SIIs top tier are behind the increase in senior non-preferred debt in markets, while smaller banks have issued mostly senior preferred debt. This reflects the fact the largest banks are required to meet subordination requirements by using subordinated instruments.

80. Similarly, on an aggregated basis, we observe a decreased reliance on wholesale long term funding (i.e., secured funding). The decline in the volumes of non-eligible debt is also explained

[27] Rocamora M., Monjas M., Suarez N. (2020): What are the determinants of MREL-eligible debt yields? EBA Staff Papers series.

[28] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32017L2399&rid=3

by the increase of deposits from households and non-financial corporations, which reduced the need from banks to issue debt in markets. This aspect is analysed in the next section of the report on the balance sheet structure.

81. The share of MREL eligible debt has increased in line with expectations. The expected impact of the entry into force of BRRD was for an increase in volumes of eligible debt and the parallel decrease in volumes of non-eligible debt. In the period 2019Q2-2022Q2, the volume of covered bonds and debt eligible for Tier 2 has declined by 18% and 22%, respectively. Senior non-preferred debt has become the prominent type of eligible debt driven by the stock of the largest banks with higher subordination requirement. Please see section 0 that provides an overview of the breakdown of eligible liabilities by type of banks.

Impact on prices

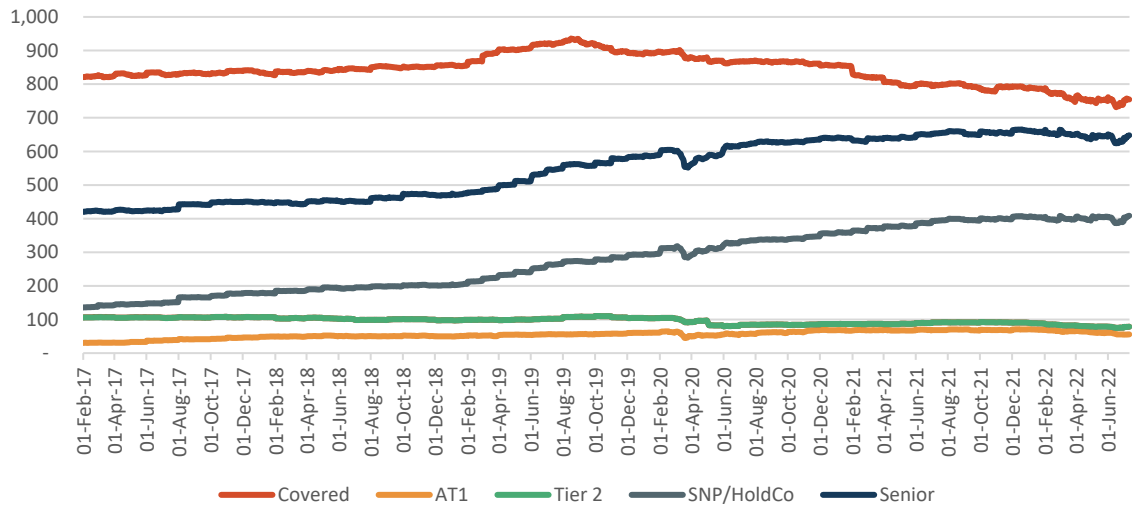
82. This section finds no direct impact between the entry into force of BRRD and the yields of eligible debts as their evolution is influenced by many variables, such as the monetary policy stance and the volatility in markets (Figure 20). Literature on the topic concludes that banks' unsecured funding costs are instead determined by bank-specific characteristics such as an institution's credit worthiness and the return on its market value, and importantly, on the level and quality of capital.[29]

83. Existing literature tends to comfort these findings by showing that the risk sensitivity of long term unsecured debt increased with the introduction of BRRD but also during central banks long term targeted operations[30].

[29] Babihuga R., Spaltro M. (2014): Banks funding costs for international banks. IMF Working Paper.

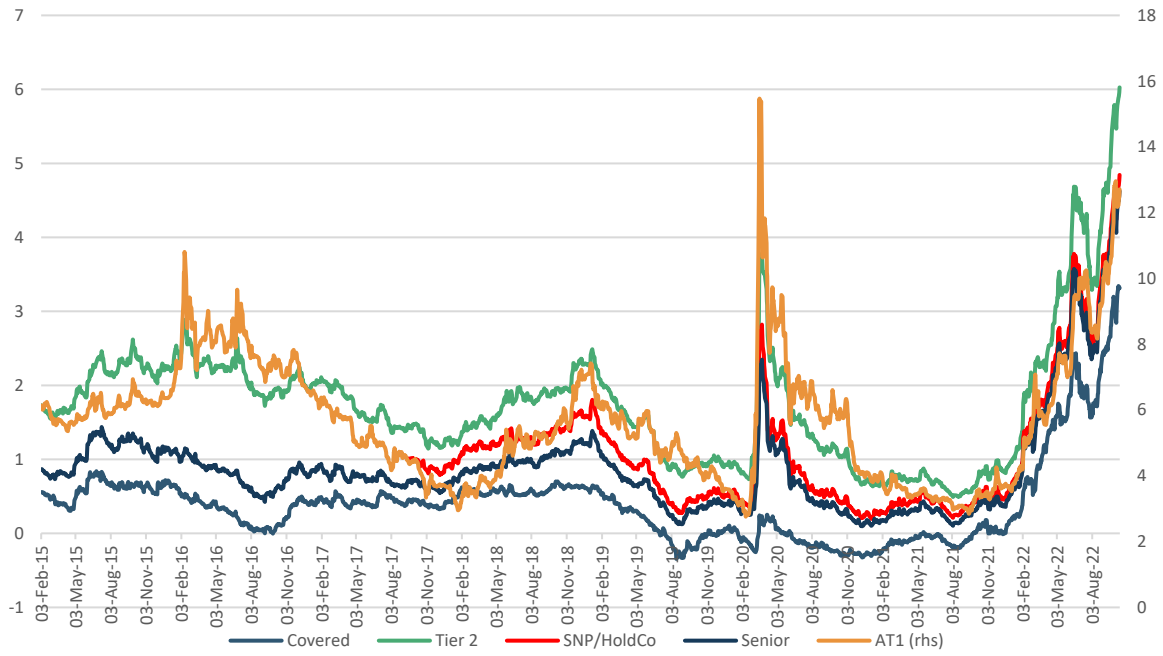
[30] Rocamora M., Monjas M., Suarez N. (2020): What are the determinants of MREL-eligible debt yields? EBA Staff Papers series.

Figure 19: Market value of bank-issued debt in markets, EUR billion



Sources: Markit and EBA calculations. SNP/HoldCo refers to the Markit index of bail-in debt.

Figure 20: Yield to maturity of bank-issued debt in markets, EUR billion

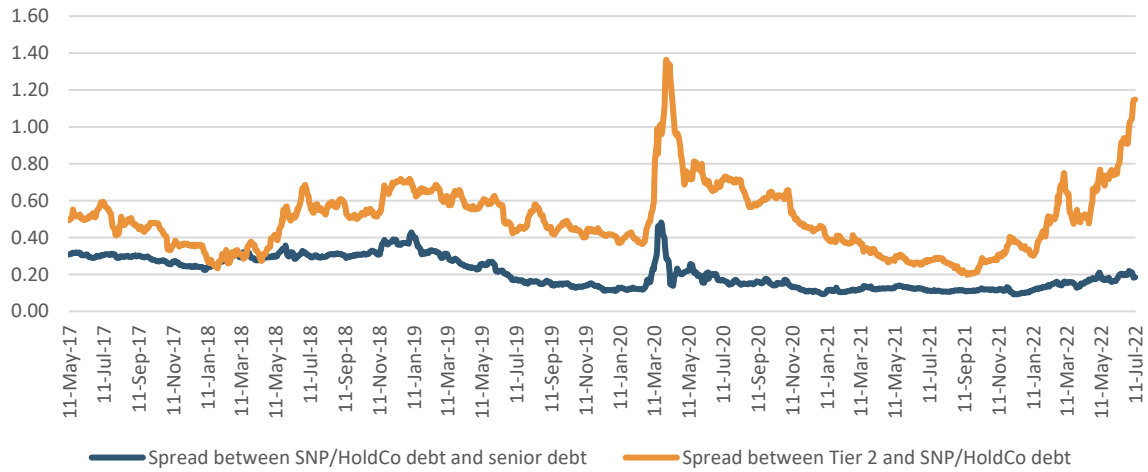


Sources: Markit and EBA calculations. Tier 2, bail-in senior and senior preferred are showed in the right-hand scale.

84. Senior non-preferred presents a higher yield than senior preferred debt, which tend to increase in time of stress, in which the likelihood of suffer losses by investors increases. This reflects the additional risk sensitivity of senior non-preferred compared to senior preferred debt due to its lower ranking in the creditor hierarchy. This additional risk is translated on an additional compensation in the form of higher yields (Figure 22). Equally, the spread between Tier 2 and senior non-preferred reflects the fact that Tier 2 absorbs losses before senior non-preferred

debt, a spread that also widens in times of stress and high market volatility. Thus, senior non-preferred is a cheaper alternative to Tier 2 instruments to meet MREL subordination requirements.

Figure 21: Spread between SNP/HoldCo debt and senior debt, percentage points.



Sources: Markit and EBA calculations.

5.3. Impact on balance sheet structure

5.3.1. Evolution of liability structure in the period 2014-2021 (EUR bn)

85. This section provides the evolution of the liability structure – beyond MREL – of resolution banks over 2014-2021 and shows that overall long term unsecured debt was compensated by own funds and deposits. Analysis of a control group showed the same results for liquidation banks.

86. The sample is composed by 119 banks that cover 82% of EU banking sector assets[31]. As expected, resolution banks increased their equity over the period, while liquidation banks issued less debt securities. For the two groups of banks, a strong increase in deposits is shown. Also, the evolution of liability structure is shown for banks without MREL requirement reported to the EBA, 49 banks that cover 19% of EU banking sector assets.

87. EBA observed a greater weight of deposits and equity in 2021Q4 compared to 2014Q4, against lower weight of derivatives and debt securities issued (Figure 22). The decrease in debt securities issued in banks' balance sheets is explained by the decline of covered bonds (non-MREL eligible), which was not fully compensated by the increase of SNP debt in banks' balance sheets. The increase of deposits reduced the need to issue covered bonds in the markets.

88. The decline in covered bonds is mainly explained because of the lower need from banks for wholesale funding explained by the increase of customer deposits. In accordance with the ECB Financial Stability Review as of November 2021, between the fourth quarter of 2019 and the second quarter of 2021, the volume of household and corporate deposits at euro area significant

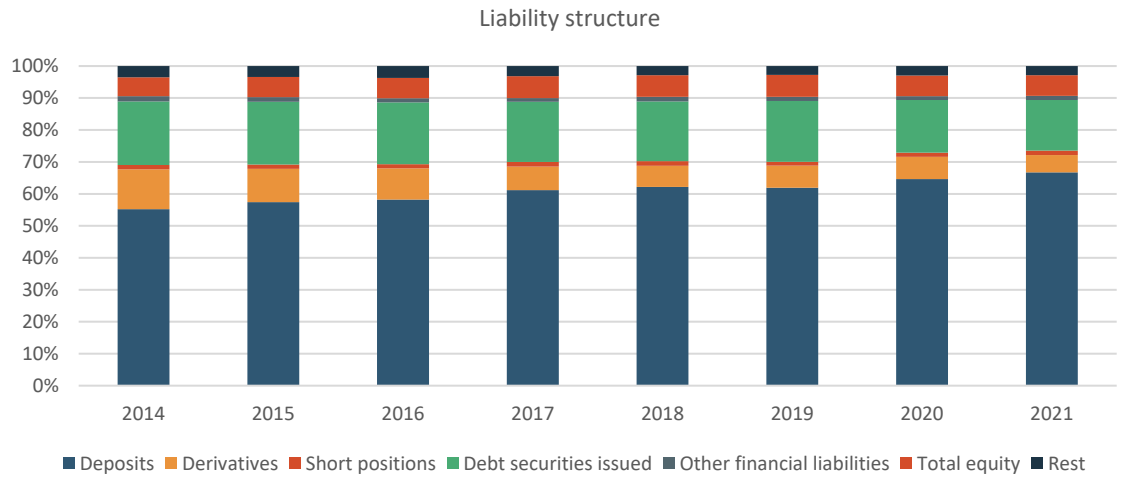
[31] This coverage has been calculated based on consolidated FINREP, which is based on the accounting perimeter.

institutions increased by €600 billion (+9%) and €500 billion (+18%) respectively, which contributed to a lower need for wholesale funding[32]. Thus, the increase in customer deposits (from both households and non-financial corporations) during the period of accommodative monetary policy reduced the need to get funding by issuing debt securities in the markets. Second, the efforts made by banks in increasing eligible debt in their balance sheets in order to build their MREL buffers, which was also showed in the section 3 of the 2021 Risk assessment report[33] related to funding and liquidity.

89. Although deposits increased to high levels, the increase is particularly relevant since 2016, and likely driven by the negative interest rate policy introduced by the ECB that deepened the rates further into negative territory. Also, the ECB Financial Stability Review of November 2021 pointed out that the deposits inflows in EU banks were even more extraordinary since the pandemic started, mainly explained by precautionary saving motives.

90. Liquidation banks issued less debt securities in favour of deposits. The liability structure of 49 banks out of the total sample of 119 banks for which MREL were set above own funds as of end May 2022 (i.e. control group) followed the same pattern as resolution banks. The share of deposits and equity increased over the period, while the share of derivatives and debt securities issued decreased. The share of debt securities as of 2021Q4 for the control group is above the share for the total sample.

Figure 22: Evolution of liability structure, 2014Q4 – 2021Q4, total sample, percentage

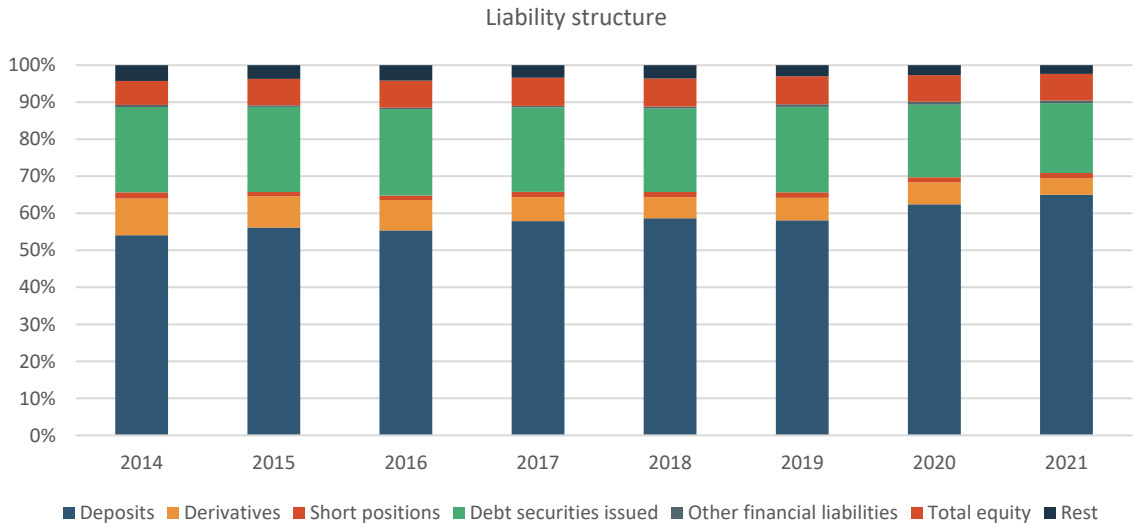


Sources: FINREP data and EBA calculations. Results for the total sample of 119 banks.

[32] ECB Financial Stability Review. November 2021.

[33] 2021 EBA Risk assessment report of the EU banking sector.

Figure 23: Evolution of liability structure, 2014Q4 – 2021Q4, control group, percentage.



Sources: FINREP data and EBA calculations. Results for the control group of 49 banks.

5.3.2. Evolution of main liability items in the period 2014-2021 (EUR bn)

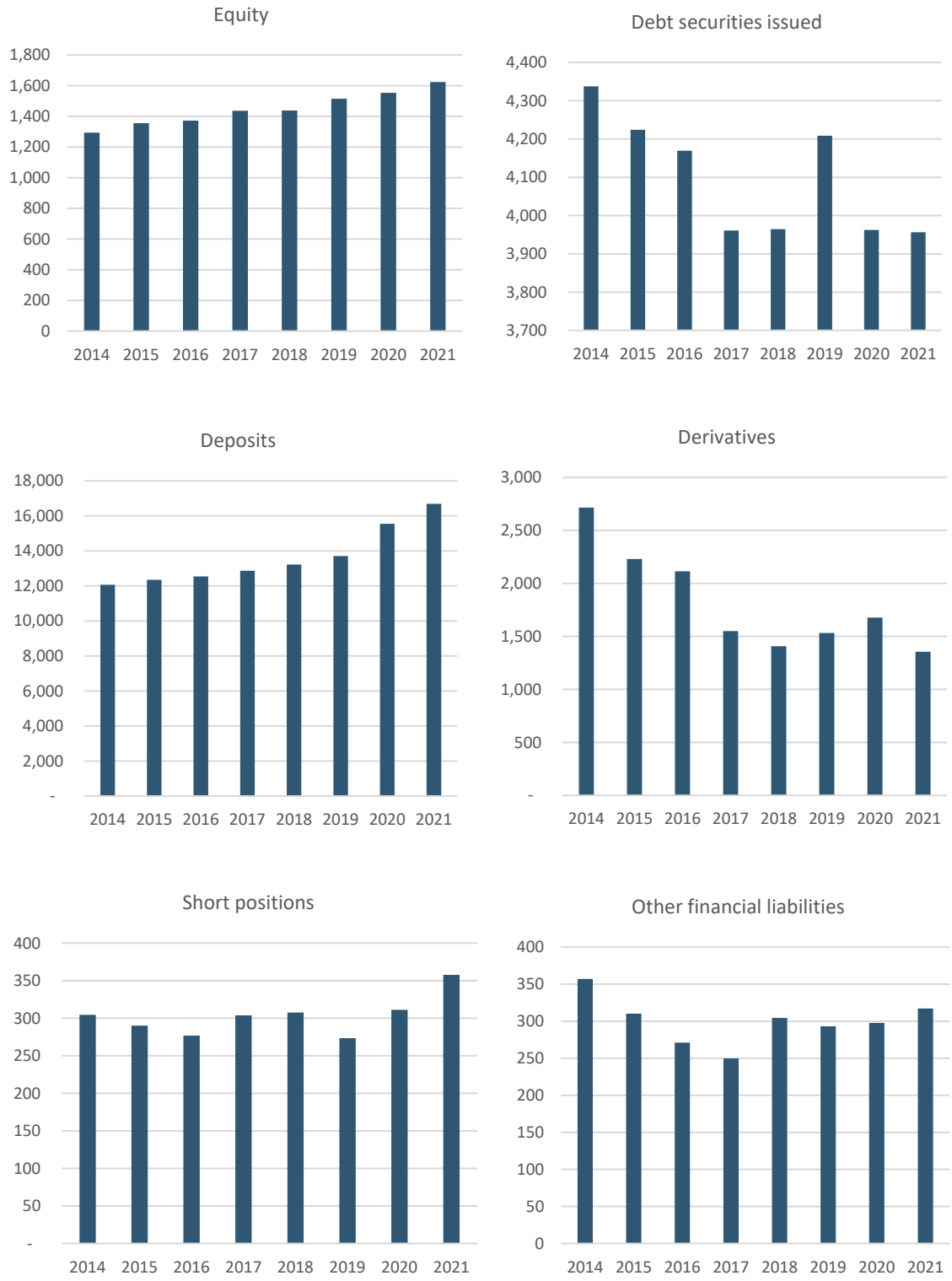
91. This section analyses the evolution of the main liability items in absolute terms (EUR bn) over 2014-2021 for a sample of 119 EU banks covering 82% of EU banking sector assets and shows that the monetary policy stance and the macroeconomic environment explain a significant part of the evolution of the other items.

92. EU banks have increased the absolute amounts of equity in the balance sheet since 2014 mainly because of the entry into force of Capital Requirements Regulation[34] (Figure 24). With regards to the evolution of debt securities, it is observed a decline in the period 2014-2021, in line what was explained above about the decline in covered bonds because of the reduced need of wholesale funding due to increased evolution of deposits. In parallel, the increase in deposits, which is more remarkable since the pandemic started, is explained by the reduced spending during the lock-down measures put in place during 2020. Also, due to the high economic uncertainty, households may hold additional savings for precautionary reasons. Thus, as evidenced by the ECB Financial Stability Review as of November 2021[35], households had record savings that were mainly held in the form of deposits and cash.

[34] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 Text with EEA relevance.

[35] ECB Financial Stability Review. November 2021.

Figure 24: Evolution of main liability items of the balance sheet, EUR billion.



Sources: FINREP data and EBA calculations.

5.4. Actions taken by institutions to comply

93. This section looks at how institutions have closed their shortfalls and shows that resolution banks closed their MREL shortfall by issuing own funds and eligible debt rather than deleveraging. The analysis covers the period 2019Q4-2021Q4.

5.4.1. Evolution of eligible liabilities for a common sample in the period 2019Q4-2021Q4

94. The analysis in this section shows the evolution of total eligible liabilities of resolution banks over the last three years and the composition of eligible liabilities, in order to identify potential dependencies to specific instruments for certain types of banks or in specific member states.

95. The results are presented by systemic importance, by country and by business model. The analysis is based on a common sample of 185 resolution entities that cover 75% of EU banking sector assets. The data as of 2021Q4 is based on MREL/TLAC reporting and the data as of 2020Q4 and 2019Q4 is based on ad-hoc data collections on eligible liabilities.

96. The analysis shows that all banks increased their MREL resources by increasing both own funds and eligible debt instruments. In the period 2019-2021, both systemic and non-systemic banks both with and without shortfall as of 2021Q4 increased eligible liabilities in absolute amounts and in percentage points of TREA. Only a negligible number of banks that still reported shortfall as of 2021Q4 have decreased eligible liabilities in the period (11 banks that represent 0.6% of EU banking sector assets) – see section XX on capacity to issue for a closer look.

97. The way of meeting MREL is not symmetrical across banks, while the stock of G-SIIs rely on subordinated instruments (mainly senior non-preferred), O-SIIs rely on both senior non-preferred and senior debt and other banks rely almost entirely on senior debt. The detailed dependency of certain categories of banks to certain instruments in shown in the specific subsection of the reliance to specific instruments to comply with MREL.

98. Most banks closed their shortfall between 2019Q4 and 2021Q4 (65% in number of banks and 85% in percentage of assets). They increased their stock of eligible liabilities in absolute amounts and in percentage points of TREA. One category of banks (O-SIIs with assets between EUR 100 and 50bn) decreased eligible liabilities in absolute amounts, but none of these banks did report a shortfall as of 2021Q4. Most banks that reported lower MREL levels in 2021 compared to 2019 were already meeting their MREL target (only 11 banks that decreased eligible liabilities reported shortfall as of 2021Q4, but they only represent 0.9% of the assets of the sample and 0.6% of EU banking sector assets).

Overall evolution of MREL composition in the period 2019-2021

99. Banks increased their stock of eligible liabilities in absolute amounts and in percentage points of TREA. In the period 2019Q4-2021Q4, eligible liabilities in absolute amount have increased by 6%

for the total sample (7% for G-SIIs, 4% for O-SIIs and 17% for other banks), which doubles the increase observed for TREA.

100. The increase in the amount of eligible liabilities is mainly explained by the higher level of subordinated debt that had an increase of 2% of TREA, and the higher level of CET 1 capital, with an increase of 1% of TREA in the period.

101. However, by type of banks, the build-up of the stock of eligible instruments in the period 2019-2021 has not been symmetrical, with G-SIIs mainly building the stock with subordinated instruments, O-SIIs building the stock equally with subordinated instruments and CET 1 capital and other banks do it mainly with senior debt, as eligible deposits remained stable for all categories of other banks except for other banks with assets below EUR 5 bn for which an increase in 1% of TREA is observed. Thus, the increase in the stock of eligible liabilities in percentage of TREA is explained by an increase in eligible liabilities in absolute amount at a rate that is twice the rate observed for TREA (6% and 3% of growth rate, respectively).

102. By systemic importance, all categories of banks increased the stock of eligible liabilities in percentage points of TREA except two, as only O-SIIs with assets between EUR 100 and 50bn and O-SIIs with assets below EUR 5bn decreased eligible liabilities in percentage points of TREA and O-SIIs top tier maintained it in the period 2019-2021.

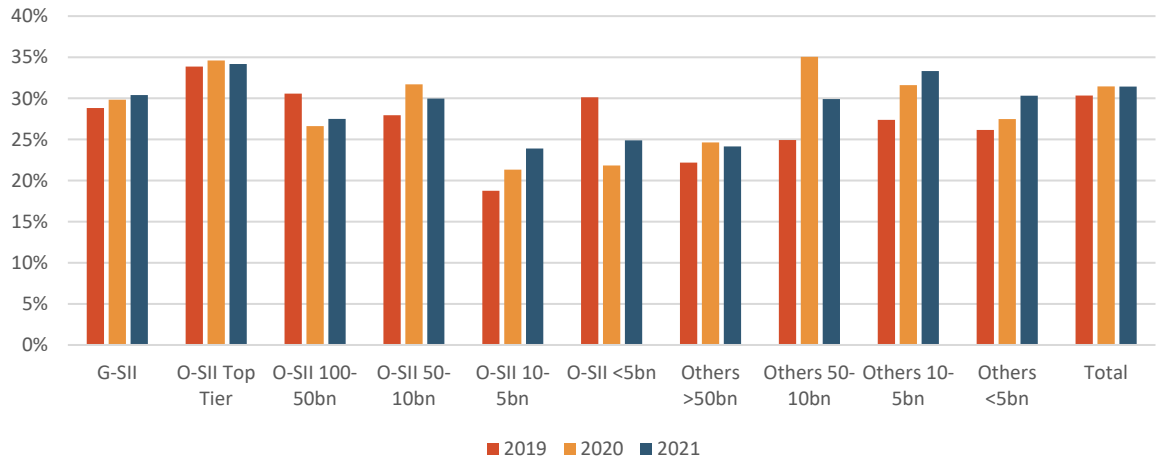
103. Only O-SIIs with assets between EUR 100 and 50bn decreased eligible liabilities in absolute amounts and the decline was explained by banks that did not report a shortfall as of 2021Q4. For this category, the decline of eligible liabilities in percentage of TREA is explained by the decline of the numerator. In the other two categories (O-SIIs with assets below EUR 5bn and O-SIIs top tier), the decrease observed in O-SIIs with assets below EUR 5bn and the maintained value of O-SII top tier is explained by an increase in TREA (denominator) well above the increase observed in eligible liabilities in absolute amount (numerator). The decrease in eligible liabilities in absolute amounts observed for O-SIIs with assets between EUR 100 and 50bn is mainly explained by the decrease in subordinated instruments (subordinated debt and senior non-preferred). In particular, the decline is explained by 3 banks that do not present shortfall as of 2021Q4.

104. Some banks decreased their level of eligible liabilities in 2021 compared to 2019 but those were already meeting their MREL target. In number of banks, 48 banks that represent 32% of the assets of the sample and 22% of EU banking sector assets decreased eligible liabilities in percentage of TREA in the period 2019-2021. However, only 11 of those banks reported shortfall as of 2021Q4. These 11 banks represent 0.9% of the assets of the sample and 0.6% of EU banking sector assets.

105. The most significant increases of eligible liabilities in percentage of TREA have been observed in O-SIIs with assets between EUR 10 and 5bn and other banks with assets below EUR 50bn, explained by the build-up of CET 1 and subordinated instruments in the case of O-SIIs with

assets between EUR 10 and 5bn and by the build-up of senior debt and, to a lesser extent, eligible deposits[36] for other banks with assets below EUR 50bn.

Figure 25: Evolution of total MREL resources of resolution entities, percentage points of TREA, breakdown by systemic importance



Summary statistics of total MREL resources in percentage of TREA.

	2021	2020	2019
Avg	31%	31%	30%
Min	9%	10%	0%
Max	95%	86%	94%
St. Deviation	13%	13%	14%
P(25)	21%	19%	19%
P(75)	32%	31%	28%

Sources: EBA data collection as of 2019-Q4 and 2020-Q4 and MREL TLAC reporting as of 2021-Q4.

Evolution of MREL composition in the period 2019-2021 by country

106. Some Member state saw a decrease in eligible liabilities but from banks already meeting their MREL target. As per

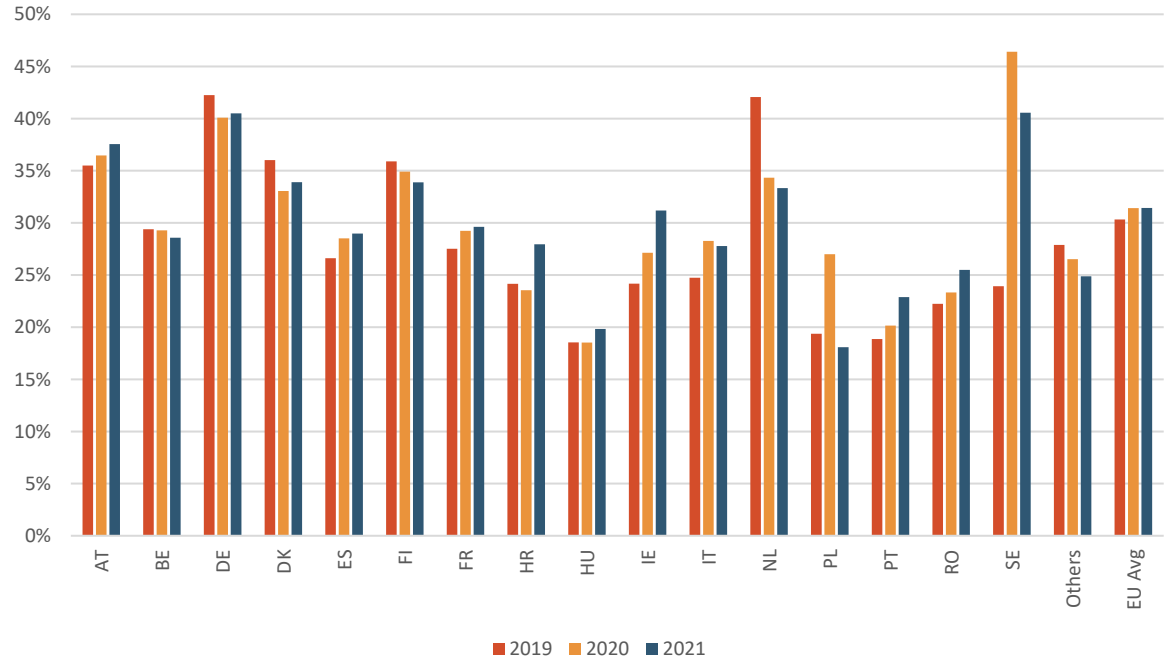
107. Figure *26*, the countries that increased the eligible liabilities in percentage of TREA well above the average of the sample in the period 2019-2021 were SE[37], IE, PT, IT and RO. Some other countries decreased eligible liabilities in percentage points of TREA in the period, such as

[36] For other banks with assets below EUR 50bn, senior debt had an increase of 4.1% of TREA in the period 2019-2021 while deposits had an increase of 1.4% of TREA.

[37] The increase in eligible liabilities for SE is driven by the legislative change (from BRRD1 towards BRRD2), and subsequent change in the MREL policy. Previously, only subordinated liabilities were eligible, while under BRRD2, banks may meet a part of the requirement with senior liabilities.

BE, DE, DK, FI and NL. However, banks from those countries that decreased eligible liabilities did not report a shortfall as of 2021Q4.

Figure 26: Evolution of total MREL resources of resolution entities, percentage points of TREA, breakdown by country



Sources: EBA data collection as of 2019-Q4 and 2020-Q4 and MREL TLAC reporting as of 2021-Q4. The category of 'others' includes CY, EE, GR, LU, LV, MT, SI, SK that have less than 3 banks in the sample.

Evolution of MREL composition in the period 2019-2021 by business model

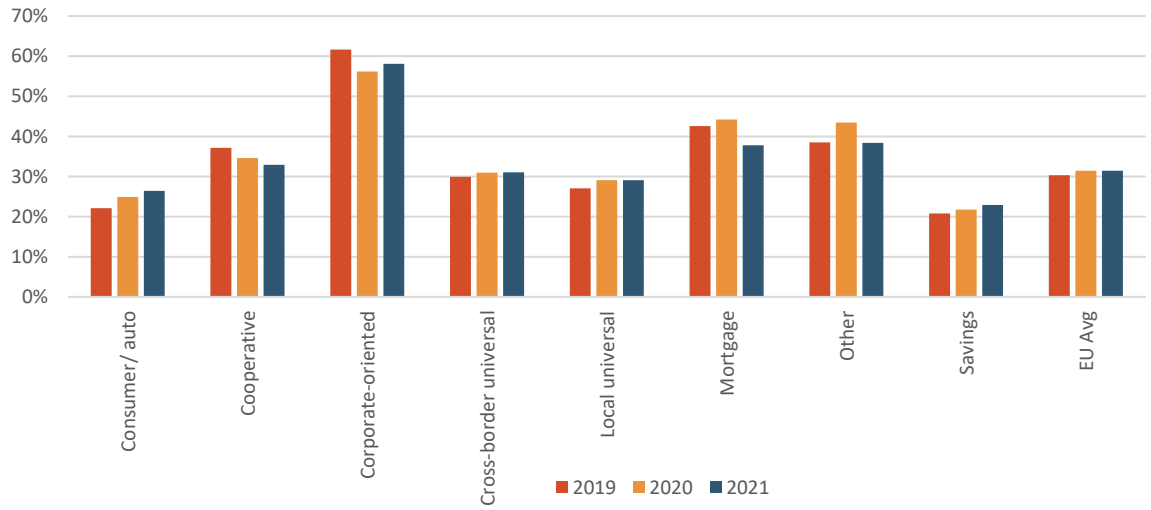
108. For the purposes of this section, the EBA business model classification used for the purposes of the EBA Cost of Compliance study[38] was used.

109. Cooperative, corporate and mortgage banks saw a decrease in eligible liabilities in percentage points of TREA. For cooperative and mortgage banks this was explained by an increase in TREA (denominator) above the increase observed for eligible liabilities (numerator). For corporate-oriented banks, the decrease is explained by the decrease in eligible liabilities (numerator), but this decrease was driven by banks meeting their MREL as of 2021Q4.

110. Consumer/auto, cross-border universal, local universal and savings models increased eligible liabilities in percentage points of TREA and the residual category of 'other' maintained the stock.

[38] https://www.eba.europa.eu/regulation-and-policy/supervisory-reporting/cost-compliance-supervisory-reporting

Figure 27: Evolution of total MREL resources of resolution entities, percentage points of TREA, breakdown by business model



Sources: EBA data collection as of 2019-Q4 and 2020-Q4 and MREL TLAC reporting as of 2021-Q4.

5.4.2. Have banks use asset deleveraging to meet MREL?

111. EU banks have not deleveraged to comply with MREL. In the period 2019Q4-2021Q4, TREA for the sample has increased by 2.5% (2% for G-SIIs, 3% for O-SIIs and 2% for other banks). We have compared the evolution of TREA for the sample against the evolution of TREA for the control group (all banks in EU). And all categories increased TREA except two (O-SIIs with assets between EUR 100 and 50bn and O-SIIs with assets between EUR 50 and 10bn).

112. The evolution of TREA is similar to the one observed for the control group, which is the total population of banks that submitted supervisory reporting to EBA, as risk weighted assets increased by 2% for a sample of 154 banks that report COREP on a consolidated basis.

113. Overall, the total exposure measure (TEM) for the total sample slightly increased by 1%. The situation between types of banks varies, as G-SIIs decreased TEM by 3%, while O-SIIs and other banks increased TEM by 5% and by 2%, respectively. Thus, all categories increased TEM except G-SIIs and other banks with assets below EUR 10bn. Therefore, it is not observed any generalised strategy of deleveraging as a priority in order to comply with MREL.

5.4.3. Do banks rely on specific instruments to meet their MREL?

114. EU banks mainly rely on own funds instruments (19.8% of TREA) and eligible debt instruments (11.6% of TREA) to comply with MREL. In the period 2019-2021, EU banks' have increased both own funds and eligible debt instruments. Other banks show an above average reliance on own funds instruments, while systemic entities show an above average reliance on debt instruments.

115. This section aims at showing the dependence of banks and countries to certain instruments in order to comply with MREL. The composition of the MREL stack essentially reflects the minimum subordination requirement imposed on banks. As per Figure 28, as expected, the composition of eligible liabilities differs between G-SIIs, O-SIIs and other banks.

116. Own funds is the main instrument used to comply with MREL, especially for other banks (Figure 28). Own funds instruments represent 62% of the stock (63% for G-SIIs, 61% for O-SIIs and 66% for other banks). Eligible debt represents 33% of the stock on average (30% for G-SIIs, 36% for O-SIIs and 26% for other banks). Own funds represent 19.8% of TREA (19.4% for G-SIIs, 20.6% for O-SIIs and 18.1% for other banks), while eligible debt represents 11.6% of TREA (11.2% for G-SIIs, 12.7% for O-SIIs and 7.4% for other banks). The rest of the MREL stock is composed by deposits (0.3% of TREA) and structured notes (0.2% of TREA).

Descriptive statistics, eligible liabilities in percentage points of TREA for the total sample, December 2021

2021	Deposits	Senior preferred	SNP	Structured notes	Subordinated
Avg	0.3%	4.5%	5.5%	0.2%	0.4%
Min	0%	0%	0%	0%	0%
Max	30%	68%	38%	6%	9%
St. Deviation	4%	8%	5%	1%	1%
P(25)	0%	0%	0%	0%	0%
P(75)	0%	5%	3%	0%	0%

Sources: MREL TLAC reporting as of 2021-Q4.

117. The composition of eligible debt is divergent among banks. While G-SIIs rely on subordinated instruments (mainly senior non-preferred), O-SIIs rely on both senior non-preferred and senior debt and other banks rely almost entirely on senior debt. Thus, senior non-preferred represents 5.5% TREA (6% for G-SIIs, 5.8% for O-SIIs and 1.2% for other banks, while senior preferred debt represents 4.5% TREA (3% for G-SIIs, 5.8% for O-SIIs and 5.6% for other banks).

118. Senior non-preferred has become the most important type of eligible debt, representing 5.5% of TREA (vs 4.5% of TREA of senior preferred). The importance of senior non-preferred is also visible by the evolution of the market value (section 77). By type of banks, G-SIIs and O-SIIs top tier report a level of senior non-preferred debt above sample average (6% and 6.2% of TREA, respectively), while the rest of categories of banks remain below average. However, O-SIIs with assets between EUR 100 and 50bn report a level of 4% of TREA of senior non-preferred because 'other pillar 1 banks', which are those that are neither G-SIIs nor top tiers but are likely to pose a systemic risk in the event of failure, are also subject to subordination requirements.

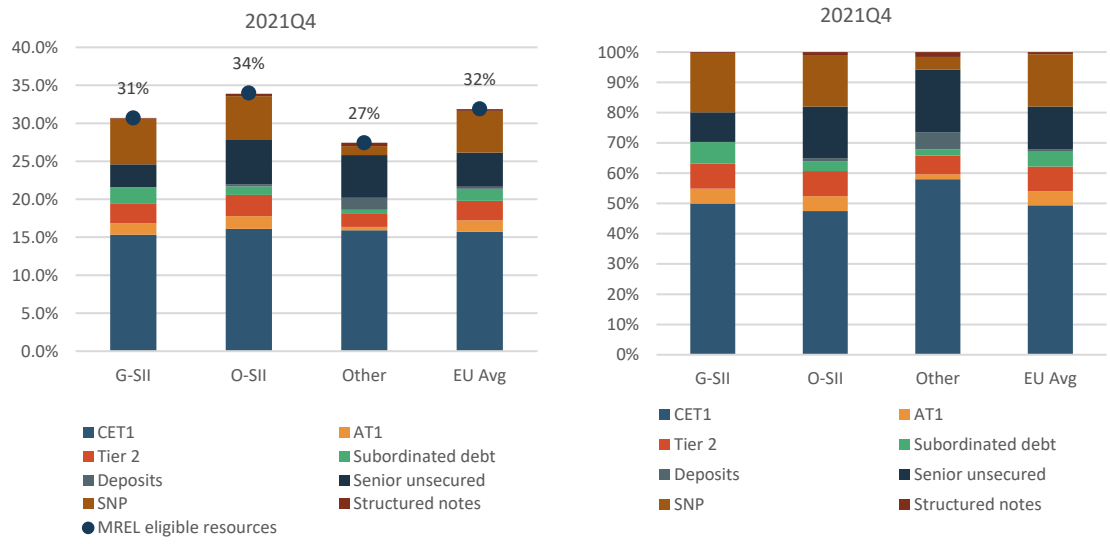
119. Finally, eligible deposits represent 0.3% of TREA on average, a negligible part of eligible liabilities for systemic entities but well-above average amount for other banks (0.02% for G-SIIs, 0.3% for O-SIIs and 1.6% for other banks). The level of deposits has declined compared to

2019Q4, in which the amount was 0.02% of TREA for G-SIIs, 0.8% of TREA for O-SIIs and 1.5% of TREA for other banks.

120. By group of banks, deposits represent an important part of the MREL stock for other banks with assets between EUR 10 and 5bn (4.6% of TREA) and other banks with assets below EUR 5bn (5.5% of TREA). O-SIIs and other banks with assets between EUR 50 and 10bn also have an above average share of deposits (1.66% and 2.05% of TREA, respectively).

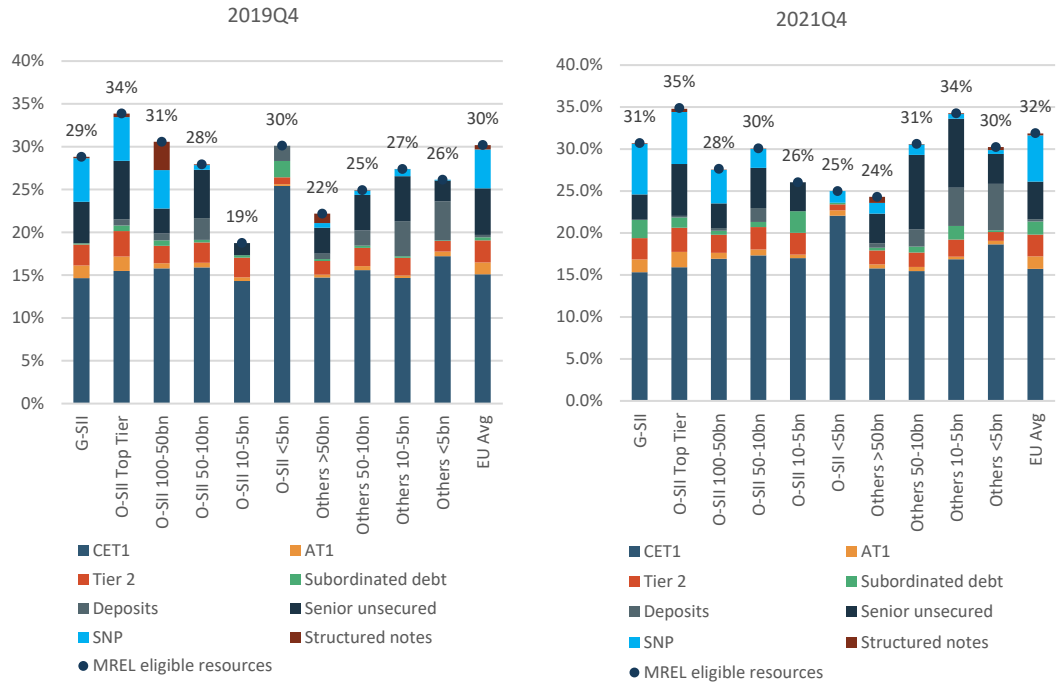
121. Small banks did progress to comply with MREL. In the period 2019-2021, other banks with assets below EUR 50bn have increased their eligible resources in percentage points of TREA through the issuance of senior preferred debt. Own funds and senior preferred debt represent 86% of the stock of eligible liabilities as of 2021Q4 for this group of banks.

Figure 28: Eligible liabilities by type (left) and composition of eligible liabilities (right), percentage points of TREA, breakdown by systemic importance, 2021Q4 data.



Sources: EBA data collection as of 2019-Q4 and MREL TLAC reporting as of 2021-Q4.

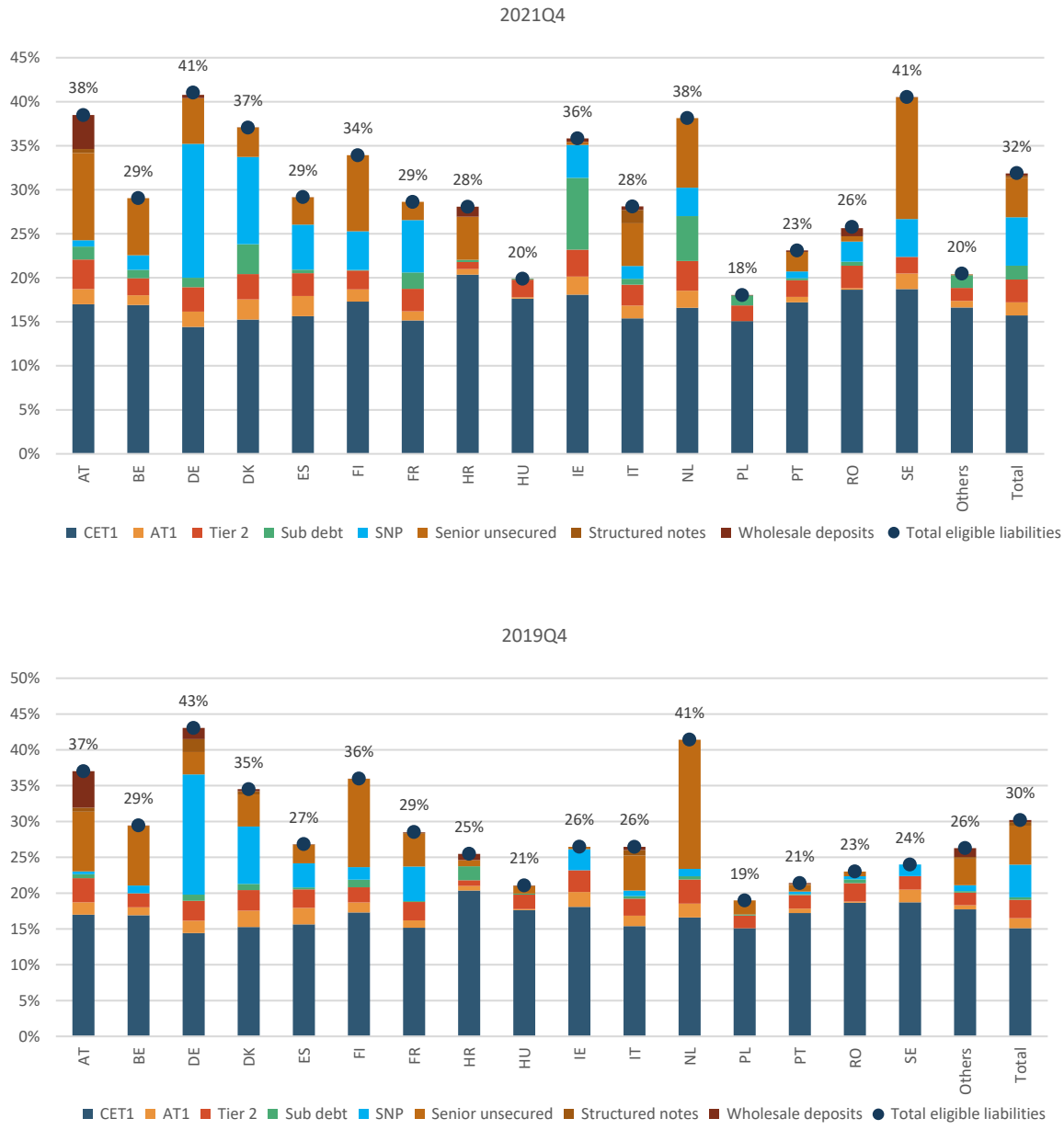
Figure 29: Evolution of eligible liabilities of resolution entities, percentage points of TREA, breakdown by systemic importance



Sources: EBA data collection as of 2019-Q4 and MREL TLAC reporting as of 2021-Q4.

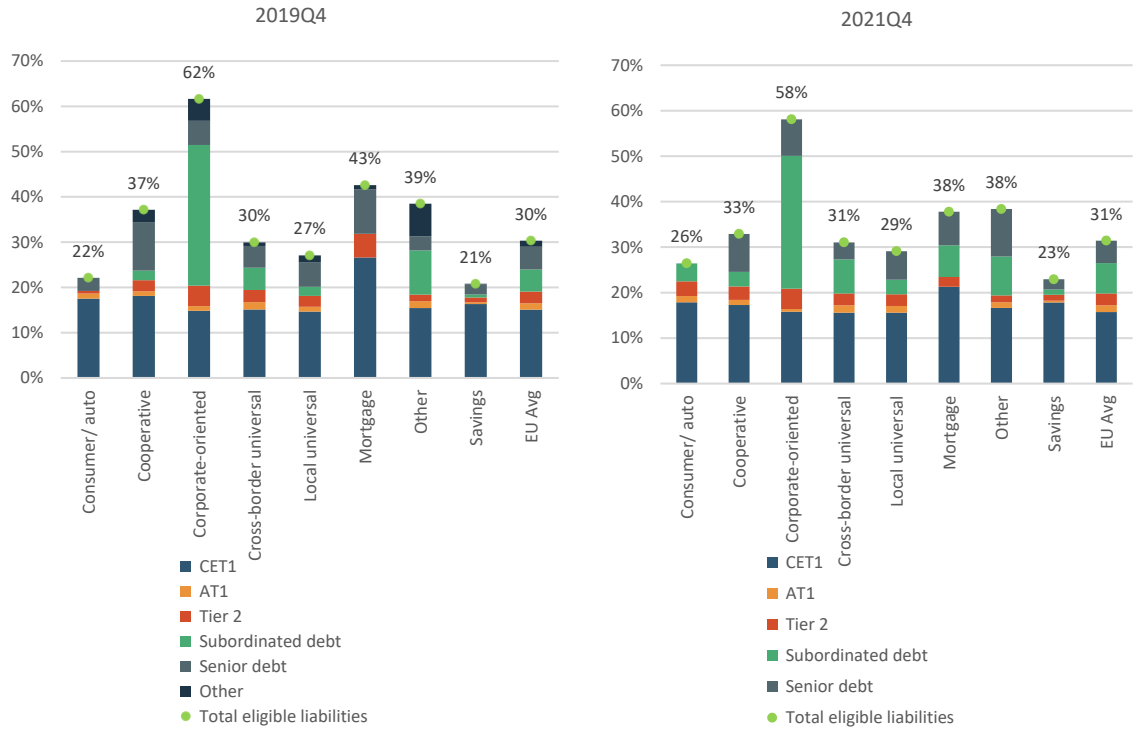
122. By country, the countries with a level of subordinated instruments above average as of 2021Q4 are DE, DK, FR, IE and NL. On the contrary, a low level of subordinated debt is observed for AT, HR, HU, PL, PT and other countries (Figure 30). Senior debt above average is observed in AT, BE, DE, FI, HR, IT and SE and low levels of senior debt are observed for DK, ES, FR, HU, IE, PL, PT, RO and other countries. Wholesale deposits are above average in AT, LU, HR, RO, SI, IE, IT and DE.

Figure 30: Evolution of eligible liabilities of resolution entities, percentage points of TREA, breakdown by country and by type of instrument



Sources: EBA data collection as of 2019-Q4 and MREL TLAC reporting as of 2021-Q4.

Figure 31: Evolution of eligible liabilities of resolution entities, percentage points of TREA, breakdown by business model and by type of instrument



Sources: EBA data collection as of 2019-Q4 and MREL TLAC reporting as of 2021-Q4.

5.4.4. How did the EL of banks with shortfall in 2019Q4 evolve?

123. Most banks closed the shortfall in the period 2019-2021[39] by issuing eligible liabilities. Both banks that closed the shortfall in the period 2019-2021 and those that still present a shortfall as of 2021Q4 have increased eligible liabilities. However, the increase in the period 2019-2021 is stronger for those that closed the shortfall (6% percentage points of TREA) compared to those that still present a shortfall (2% percentage points of TREA). Both large banks and small banks within the two groups of banks have increased their stock.

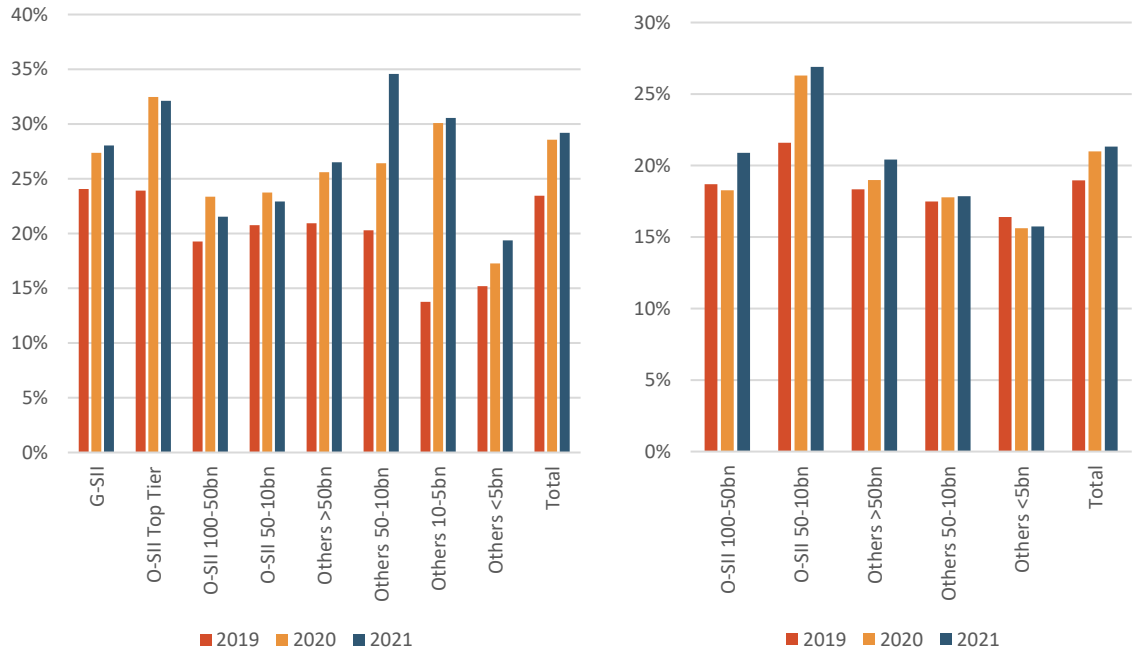
124. Within the group of 56 banks that closed the shortfall in the period 2019-2021, the stock of eligible liabilities increased from 23% of TREA as of 2019Q4 to 29% of TREA as of 2021Q4, with all the subcategories increasing the stock and with above average increases observed for O-SII top tier and other banks with assets between EUR 50 and 10bn and EUR 10 and 5bn.

125. Regarding the group of 30 banks that reported shortfall as of 2019Q4 and still present a shortfall as of 2021Q4, the progress in building up the stock of eligible liabilities has been more limited, increasing from a level of 19% of TREA as of 2019Q4 up to a level of 21% of TREA as of

[39] Only 30 banks that represent 5% of the assets of the sample and 3.55% of EU banking sector assets report shortfall as of 2021Q4. These 30 banks are 16 O-SIIs and 14 other banks. These 30 banks are not all small banks (7 report assets above EUR 50bn, 17 between EUR 50 and 10bn and 6 below EUR 10bn). Therefore, the difficulties observed in meeting MREL targets are not only restricted to small banks.

2021Q4, with all subcategories increasing the stock except other banks with assets below EUR 5bn. In number of banks, almost all increased eligible liabilities, with only 8 banks that represent 9% of the assets of the 30 banks with shortfall as of 2021Q4 and 0.3% of EU banking sector assets have decreased eligible liabilities in percentage points of TREA. Out of those 8 banks, 3 are O-SIIs with assets between EUR 50 and 10bn and the other 5 are other banks (3 with assets between EUR 50 and 10bn and 2 with assets below EUR 5bn).

Figure 32: Evolution of total eligible liabilities of resolution entities that presented shortfall in 2019 but did not present shortfall with data as of 2021 (left) and evolution of total eligible liabilities of resolution entities that presented shortfall in 2019 and in 2021 (right), percentage points of TREA, breakdown by systemic importance



Sources: Left chart: EBA data collection as of 2019-Q4 and MREL TLAC reporting as of 2021-Q4. Data for O-SIIs with total assets below EUR 5bn and with total assets between EUR 10 and 5bn is not shown because there is only one bank in each category. Right chart: EBA data collection as of 2019-Q4 and MREL TLAC reporting as of 2021-Q4. Data for top tiers, O-SIIs with total assets below EUR 5bn and with total assets between EUR 10 and 5bn is not shown because there is only one bank in each category.

5.5. Eligible debt market

5.5.1. Analysis of the flow of eligible liabilities: issuances performed in 2021

126. This section includes data on issuances obtained from Bloomberg, which is based on market data and thus private placements are not considered[40]. The issuances analysed are senior non-preferred, senior preferred and subordinated debt. This section looks at issuances and seeks to identify potential specificities by types of banks, business model, or member states. For the purposes of this analysis, the EBA considers the sample of the 2021 EBA quantitative report on

[40] Primary market issuances are not included in the sample. Thus, the amount of issuances in certain cases may be underestimated (particularly for banks that are still in shortfall).

MREL (composed by 245 resolution entities that cover 77% of EU banking sector assets) and analyses the number of banks of that sample that issued MREL eligible instruments during 2021.

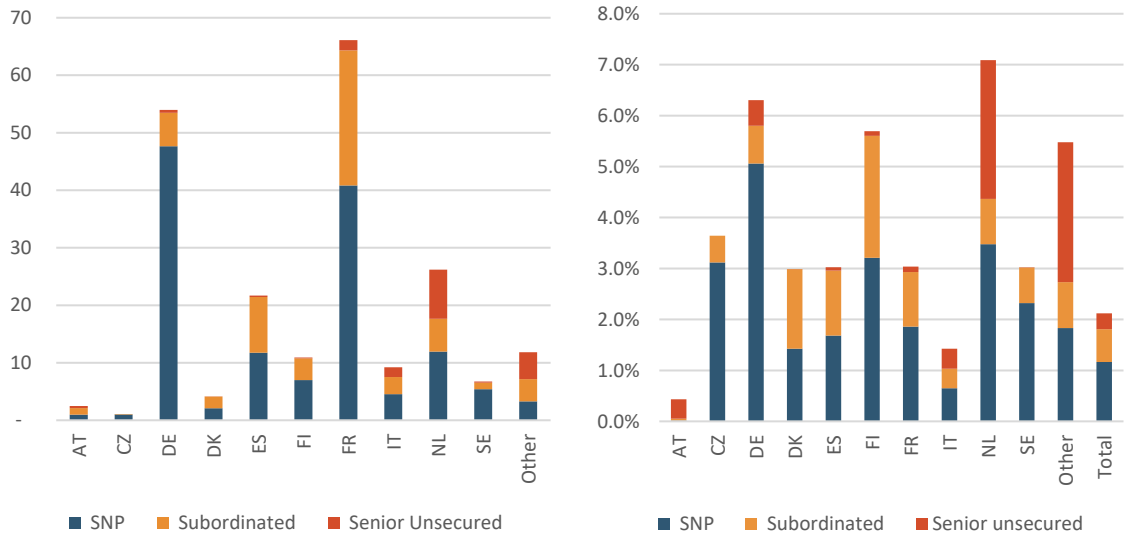
127. Small banks are lagging in terms of issuances. During 2021, the EBA has observed that both systemic and non-systemic entities that represent two thirds of the EU banking sector assets have issued debt in markets, although the level of issuances for smaller banks are below the average in percentage points of TREA. Over 2021, EU banks issued in 2021 3.1% of TREA (3% for G-SIIs, 3.5% for O-SIIs and 1.4% for other banks). Out the total sample of 245 resolution entities included in the EBA 2021 quantitative report on MREL, 92 resolution entities from 17 EU countries issued MREL eligible debt in 2021. Those resolution entities represent 92% of the assets of the sample and cover 66% of total EU banking sector assets.

128. The market of eligible debt in the EU is highly concentrated in a few countries, while some member states do not present any issuance. Issuances are mainly concentrated in three countries (68% of the amount issued made from banks located in DE, FR and NL) and among the more systemically important banks (94% of the amount issued is performed by G-SIIs and O-SIIs top tier). Issuances are observed for banks located in 21 EU member states, observing no issuances in EE, HU, LV, LI, MT, SI. Less than 3 banks issued debt in BE, BG, CY, GR, HR, IE, LU, PL, PT, RO, SK.

129. The market of eligible debt in the EU is highly concentrated in senior non-preferred debt. Senior non-preferred debt is the most issued in the markets in 2021, representing 64% of total issuances, while subordinated and senior debt represent 28% and 8% of total issuances, respectively[41]. The main issuers of senior non-preferred debt are banks located in FR and DE, which altogether issue almost two thirds of the total senior non-preferred debt issued in 2021 (Figure 33). By systemic importance, G-SIIs and O-SII top tier issue 95% of total senior non-preferred issued in 2021. This in part reflects the fact that BRRD2 clarified subordination rules for EU GSIIs, Top Tier and fished out banks, including an interim deadline at 1 January 2022.

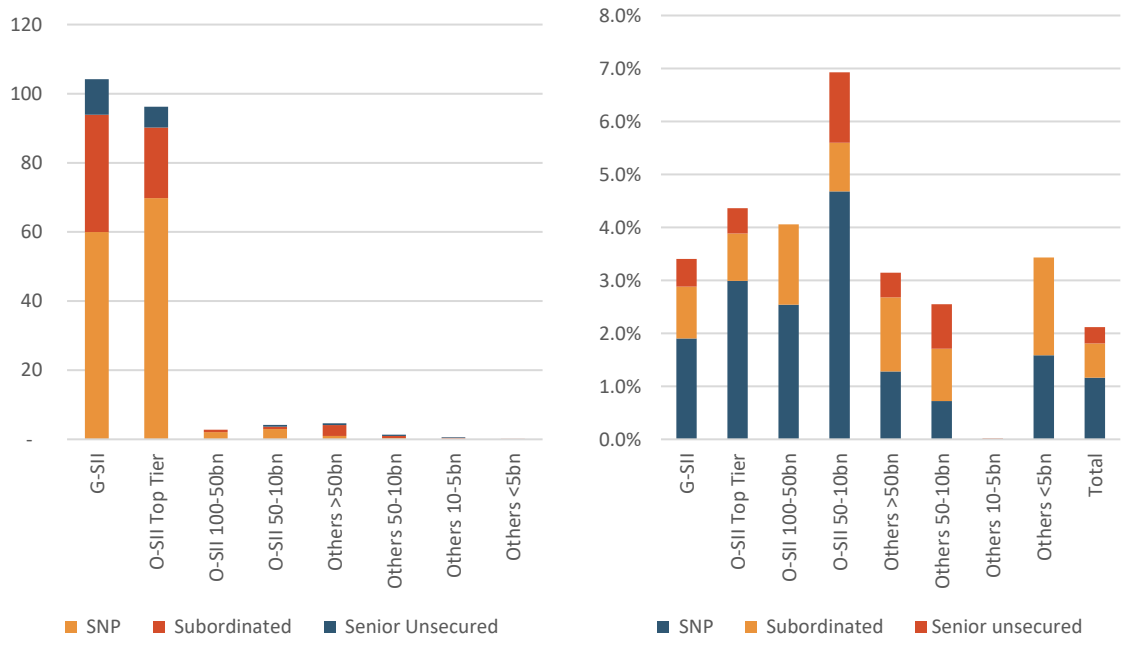
[41] Total issuances of the sample amount to EUR 214bn (EUR 136bn of senior non-preferred debt, EUR 59bn of subordinated debt and EUR 18bn of senior preferred debt).

Figure 33: Issuances of MREL-eligible data performed in 2021, breakdown by country in EUR bn (left) and in percentage points of TREA (right)



Sources: Bloomberg and EBA calculations. The category of other includes countries with less than three banks in the sample (BE, BG, CY, GR, HR, IE, LU, PL, PT, RO, SK).

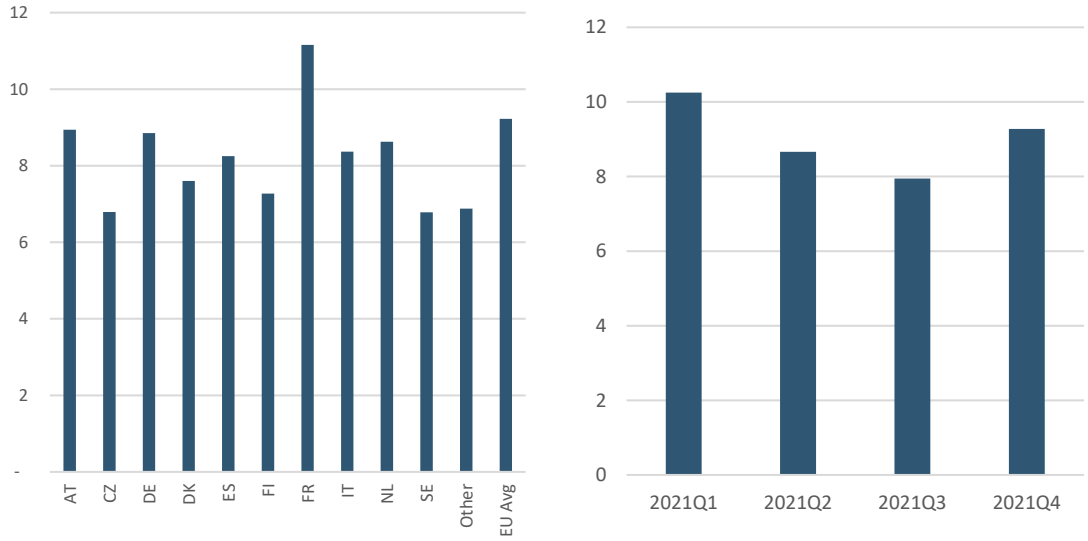
Figure 34: Issuances of MREL-eligible data performed in 2021, breakdown by systemic importance in EUR bn (left) and in percentage points of TREA (right)



Sources: Bloomberg and EBA calculations. The category of O-SIIs with total assets between EUR 10 and 5bn is not disclosed because includes less than three banks of the sample.

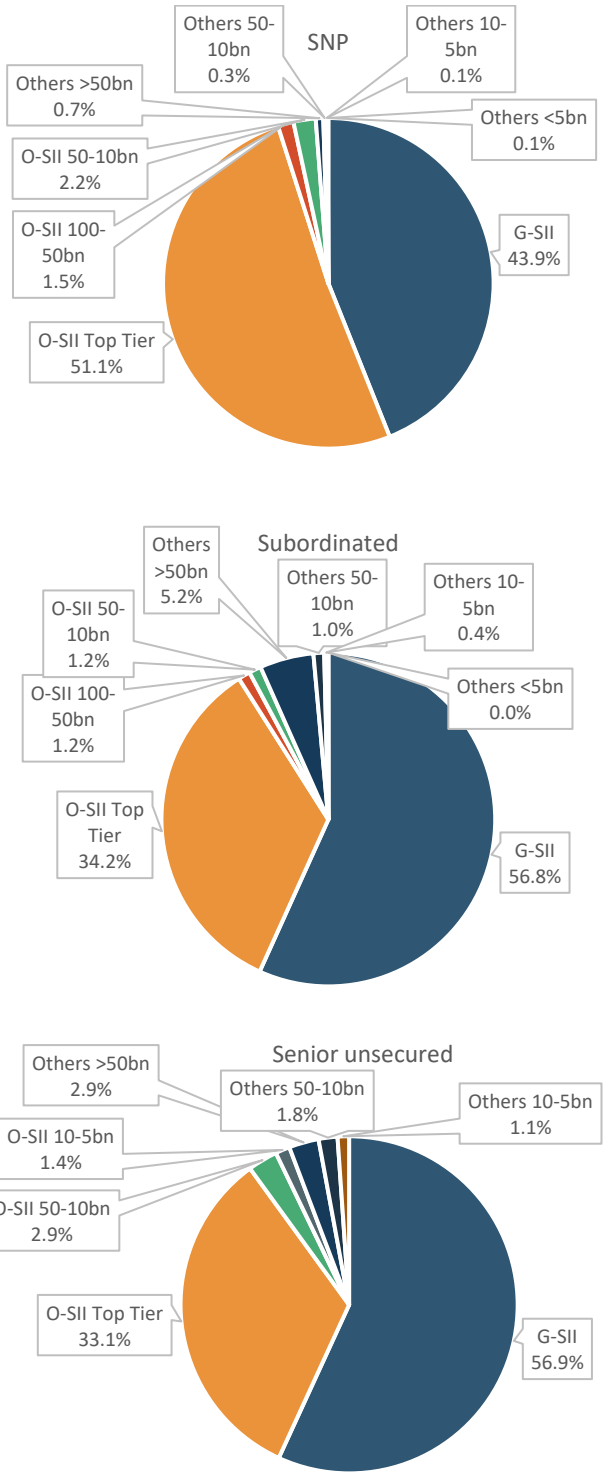
130. On average, EU banks issued with a maturity of 9 years. Regarding the evolution, maturity has decreased from the end of the first quarter of 2021, when the conditions to issue started to tighten as yields started to increase, but still remaining at low levels.

Figure 35b: Average maturity of Issuances of MREL-eligible data performed in 2021, breakdown by country (left) and by quarter of issuance (right)



Sources: Bloomberg and EBA calculations.

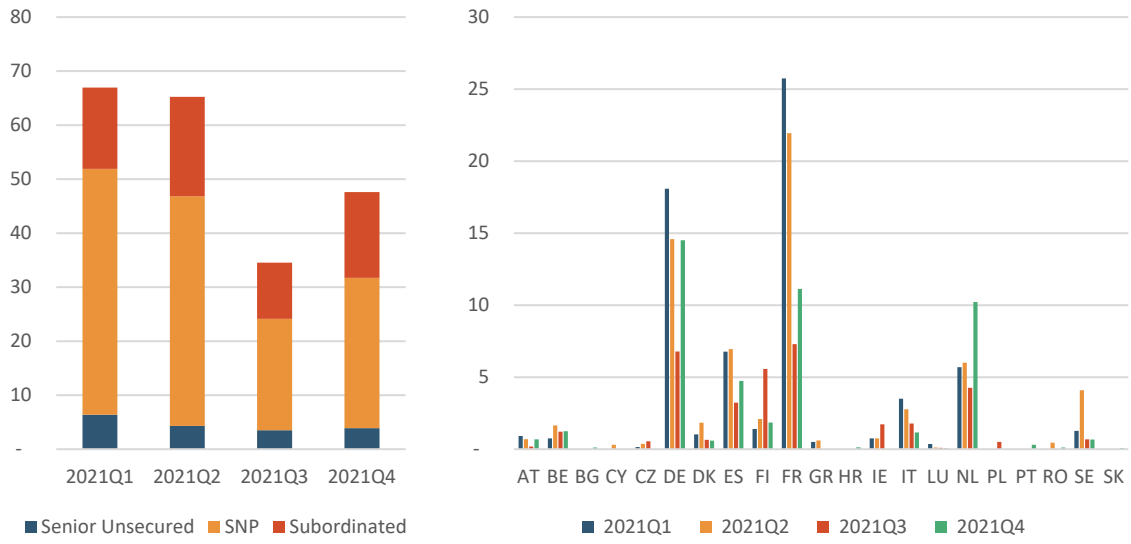
Figure 36: Issuances in 2021 performed by type of banks, 2021 data.



Sources: Bloomberg and EBA calculations.

131. In terms of the evolution, issuances were at strong levels during the first and the second quarter of 2021, when financial conditions for banks were at historical low levels (Figure 37). However, during the third quarter and more remarkably during the fourth quarter, funding costs started to increase (see Figure 20) and thus the level of issuances declined significantly. By country of domiciliation of the issuer, the same tendency is observed in all member states except FI and NL, in which the level of issuances in the fourth quarter was above the level of issuances observed in the first quarter of 2021.

Figure 37: Evolution of issuances of MREL-eligible data performed in 2021, total (left) and breakdown by country (right)



Sources: Bloomberg and EBA calculations.

5.5.2. Cost of debt

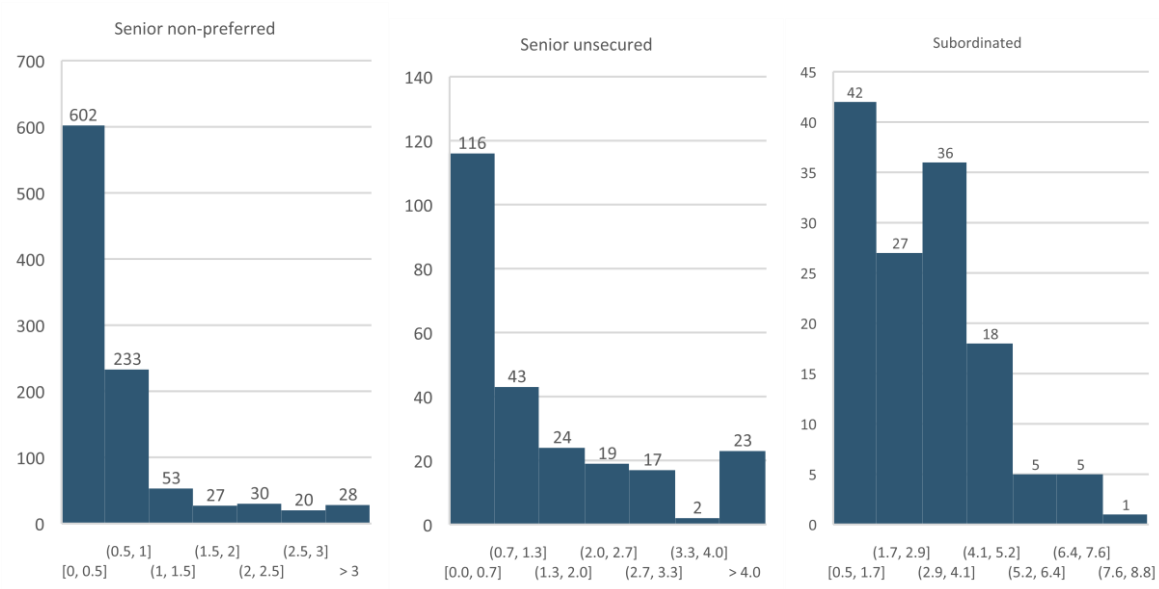
132. From the distribution of the coupon payments performed by type of debt, it can be observed that banks are not dealing with significant costs, and the issuances with higher coupons are those referenced to other currencies than EUR, subject to other monetary policy rates (Figure 38). This can also be confirmed in the first section of the impact assessment, in which the evolution of the yield to maturity over time is shown.

133. 84% of the issuances of senior non-preferred debt account with a coupon below 1%, which is expected given the period of accommodative monetary policy stance. The issuances that provide coupons above 1% are mainly issuances made in other currencies than EUR (77% of the issuances with coupons above 1% are done in other currencies than EUR), with different monetary policy interest rates.

134. 75% of senior preferred debt issuance present a coupon below 2%. Those that present a coupon above that level are issuances referenced to other currencies than EUR (90% of the issuances with coupon above 2% are references to other currencies than EUR).

Lastly, 78% of the issuances of subordinated debt account with a coupon below 4%, the higher level of coupons being explained by the lower position in the creditor hierarchy of such instruments.

Figure 38: Number of issuances in each interval of coupon payment.



Sources: Bloomberg and EBA calculations based on issuances performed during 2021.

5.6. Capacity of banks to issue

135. At an aggregated level, banks facing difficulties to issue remain limited in terms of total assets, but they can represent a significant share of total assets in some member states. Banks appearing effectively limited in their capacity to issue – those still reporting a shortfall as of December 2021 and that have not increased their MREL resources over 1H2022 - seem to suffer intrinsic financial health issues, as evidenced by below investment grade credit rating, or from more external factors such as their sovereign rating or the apparent lack of market in their home jurisdiction. They reach 4% of total EU assets. Only one of these banks with apparent difficulties to issue reported total asset above EUR100bn.

136. The starting point of the analysis is the sample of the 2021 EBA quantitative report on MREL, composed of 245 resolution entities that cover 77% of EU banking sector assets. Out of the 245 resolution entities, 175 comply with final MREL requirement and 70 report shortfalls.

137. According to the 2021 EBA quantitative report on MREL, resolution banks representing 69% of EU total assets are currently meeting their MREL requirement. In this section we will seek to identify the banks that are facing effective difficulty in issuing, determine their weight, and try and identify potential drivers for their difficulty to issue.

138. Looking at the section of this report on shortfall we see that 70 resolution entities that cover 8% of EU banking sector assets presented a shortfall of EUR 32bn.

139. Out of the 70 resolution entities that reported shortfall as of 2021Q4, 26 increased eligible liabilities (senior and subordinated debt) during the first half of 2022 (14 O-SIIs and 12 other banks) – which tends to support their capacity to issue, and one saw a reduction of its requirement.

140. However, other 23 entities maintained their stock of eligible liabilities reported in 2021Q4 (9 O-SIIs and 14 other banks) and other 20 entities decreased it (10 O-SIIs and 10 other banks). Out of those 44 banks that either decreased or maintained their stock of eligible liabilities, 8 of them did manage to increase own funds.

What can we say about these 44 banks with apparent effective difficulties to issue?

141. Those 43 banks that either decreased or just maintained their EL represent 4% of EU banking sector assets. Those banks are from 15 different member states.

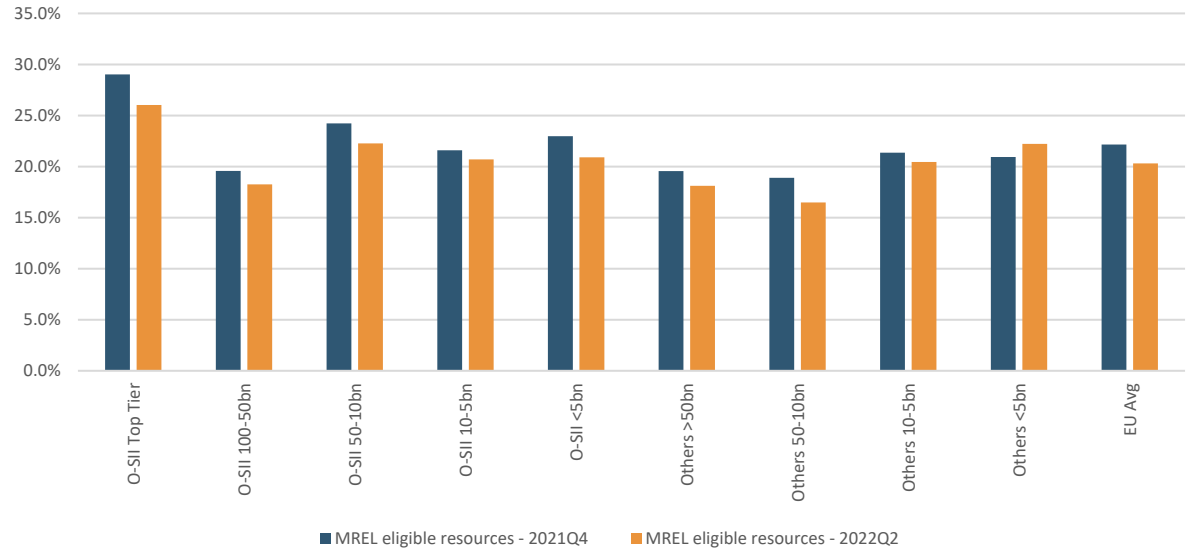
142. Out of these 43 banks, only 27 are publicly rated and those that are not publicly rated are all below EUR 10bn in total assets. Out of the 27 that are publicly rated, 12 are rated below investment grade by at least one rating agency, 2 have failed and one relinquished its banking license. Therefore, 15 banks out of those 44 have difficult financial conditions and their non-compliance with MREL is unrelated to the coherence of the regulatory framework.

143. Out of those 12 banks rated below investment grade, 6 are based in 4 member states with a sovereign rating above investment grade – which indicates idiosyncratic difficulties limiting their capacity to issue. Those report shortfalls between 4.4% and 9.7% and 5 of them are classified as O-SIIs. Altogether they represent less than 1% of EU total assets but 1 is above 10% of their home jurisdiction domestic assets. 4 are below EUR25bn and 2 at close or above EUR100bn in total assets.

144. Out of those 12 banks rated below investment grade, 6 are based in 2 member states with sovereign ratings below investment grade. Altogether they represent 1.1.% of EU total assets but individually up to 40% of their country's total assets, 3 are OSIIs, with assets of up to EUR80bn.

145. Out of the 15 banks with credit rating above investment grade, we find that 6 are subsidiaries of larger groups for which an MPE resolution strategy has been adopted. While the external MREL decisions remain relatively recent, this may be indicating of difficulties accessing eligible debt markets.

Figure 39: Evolution of total eligible liabilities of resolution entities that presented shortfall in 2021Q4, percentage points of TREA.



Sources: MREL TLAC reporting and EBA calculations.

5.7 Impact on banks' profitability

146. The impact of MREL on banks' profitability is twofold (i) the impact of closing the shortfall to the final target and (ii) the cost of running the existing stock of MREL eligible debt. With data as of 2021Q4, the EBA considers that the additional annual costs that banks should absorb in order to comply with MREL are manageable, as the cost of fulfilling MREL shortfall, which would be the main new cost banks should absorb, only represents **0.125% of NII and 0.2% of interest expense.** However, costs are well above average for certain groups of banks and certain jurisdictions, which may pose challenges.

147. The **cost of existing amount of eligible debt** is estimated at **1.22% of NII** (0.96% for G-SIIs, 1.44% for O-SIIs and 1.70% for other banks). The cost of the existing amount of eligible debt as of 2021Q4, which is already absorbed in banks' profit and loss account as of 2021Q4 and do not represent a new interest expense that banks should recognize, amounts to **2% of interest expense** (1.3% for G-SIIs, 2.7% for O-SIIs and 6.1% for other banks).

5.7.1. Methodological assumptions

148. The impact of closing the shortfall against MREL + CBR is based on the methodology used in the existing literature[42], i.e. the least cost approach. This assumes that institutions replace their non-MREL eligible liabilities with MREL eligible liabilities. The cost of MREL is thus the differential between the two. Typically, for banks closing a subordinated shortfall the cost will

42 https://www.fsb.org/wp-content/uploads/TLAC-Summary-of-Findings-from-the-Impact-Assessment-Studies-for-publication-final.pdf

be the difference between the z-spread[43] for SNP debt and the z-spread for senior debt. The costs of debt are obtained by the yield of the last issuance made in 2021 in each kind of debt.

149. For banks for which the SNP or senior spread is not available, and in line with the 2015 BIS report assessing the economic cost of TLAC implementation[44], it is assumed that these were priced at the relevant risk-free curve. (i.e. the 10-year sovereign yield). Therefore, the cost of replacement of the current non-MREL eligible liabilities is the difference between the yield of the last issuance and the 10-year sovereign yield. This spread is multiplied by the shortfall of each bank, in order to obtain the costs that issuing that amount of MREL-eligible debt would have in a given year.

150. In line with the Methodological note of the 2021 EU-wide stress test, this methodology relies on the static balance sheet assumption[45] (i.e. we assume that banks do not expand their balance sheet when closing their shortfall.

151. The cost of the existing eligible debt of the balance sheet is estimated by the cost of long-term unsecured funding (long term subordinated and senior) multiplied by the volumes and the spreads for each of the maturities.

152. In order to estimate and size the impact in banks' profitability of MREL, the cost of closing the shortfall is expressed in % of the bank's Net Interest Income.

153. The impact shown in this section is calculated under conservative assumptions in order to obtain the maximum impact of MREL, considering both the costs of closing the shortfall and the cost of existing amount of debt. The methodology overestimates the actual costs because it does not consider that subordinated and non-preferred debt would reduce the risk premia for senior preferred debt which would have a positive effect on interest expenses. Moreover, on the impact on the cost of existing amount of debt, it is assumed that the total amount of debt is rolled-over in a given year.

154. The sample is composed of those resolution entities with data on shortfalls and eligible debt as of 2021Q4. Therefore, the starting point is the sample of the 2021 EBA quantitative report on MREL. Of those, the sample is restricted to resolution entities that issued debt in 2021, with available data on spreads in COREP 69 and with available data of net interest income (NII) as of 2021Q4, which is obtained from FINREP, which is only available on a consolidated basis. As FINREP is only available on a consolidated basis in EUCLID, the sample is restricted to those resolution groups that report consolidated FINREP to the EBA. Therefore, the sample is composed by 97 resolution entities that cover 68% of the EU banking sector assets. The sample

[43] The z-spread measures the difference between the yields of a bond and the yield of a (risk-free) government bond with the same maturity (Assessing the economic costs and benefits of TLAC implementation, BIS 2015).

[44] https://www.bis.org/publ/othp24.pdf

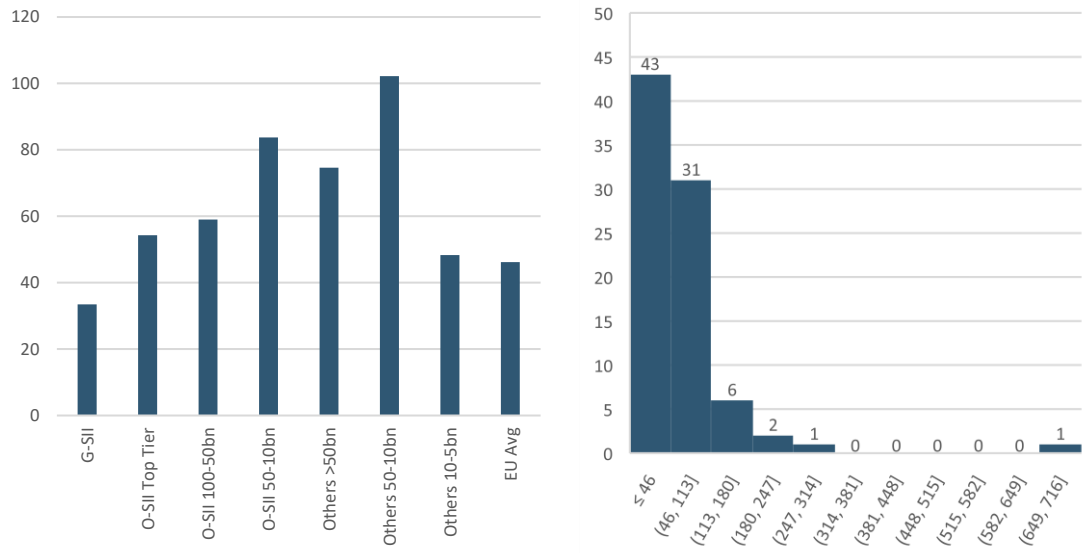
[45] 2021 EU-wide stress tests (Methodological Note): Under the static balance sheet assumption of the 2021 EU-wide stress test, with respect to the P&L revenues and costs, assumptions made by banks should be in line with the constraints of zero growth and a stable business mix.

covers 95% of the assets of the sample included in the 2021 Quantitative MREL report (100% for G-SIIs, 94% for O-SIIs and 72% for other banks).

5.7.2. Cost of unsecured funding in the balance sheet as of 2021Q4

155. As of 2021Q4, the average spread of unsecured funding stood at **46bps** but with higher cost for smaller banks (33bps for G-SIIs, 56bps for O-SIIs and 80bps for other banks). Spreads particularly significant for the group of small banks (O-SIIs and other banks with assets between EUR 50 and 10bn).

Figure 40: Spread on unsecured wholesale funding and senior preferred by systemic importance (left) and distribution of results (right)



Sources: COREP 69 data as of 2021-Q4 and EBA calculations.

5.7.3. Impact on banks' profitability: Results

156. With data as of 2021Q4, the EBA considers that the additional annual costs that banks should absorb in order to comply with MREL are manageable, as the cost of fulfilling MREL shortfall, which would be the main new cost banks should absorb, only represents **0.125% of NII and 0.2% of interest expense.** However, costs are well above average for certain groups of banks and certain jurisdictions, which may pose challenges. This section presents the impact of MREL in banks' profitability for a sample of 97 banks that cover 68% of EU banking sector assets. The 97 banks are 9 G-SIIs, 54 O-SIIs and 34 other banks. By size, the 97 banks are top tiers (34), banks with assets between EUR 100 and 50bn (22), banks with assets between EUR 50 and 10bn (31), banks with assets between EUR 10 and 5bn (7) and banks with assets below EUR 5bn (3). The impact will be shown using two metrics, in percentage points of net interest income (NII) and in percentage points of interest expense in order to provide an overview of the additional net income and interest income that banks should generate in order to keep their profitability ratios constant. As mentioned in the methodological assumptions, the cost of closing the shortfall would represent the only impact to be recognized in profit and loss account. This cost of closing

the shortfall is deducted from the NII, a new NII is recalculated, and the impact is expressed in bps. However, for illustration, also the cost of the existing amount of debt as of 2021Q4 is shown.

157. The annual cost of **closing the shortfall** only represents **0.2% of interest expense (0.2% for O-SIIs and 4.5% for other banks)**, with only four groups of banks (other banks with assets above EUR 50bn, other banks with assets between EUR 50 and 10bn, O-SIIs with assets between EUR 100-50bn and O-SIIs between EUR 50 and 10bn) with an additional cost of closing the shortfall above 0.5%.

158. The **cost of closing the shortfall**, calculated only considering shortfall banks, represents **8.7% of interest expense** (6.5% for O-SIIs and 10.2% for other banks). The higher cost observed for shortfall banks compared to the average of the sample is explained by higher cost of issuances observed during the year 2021, in particular for other banks.

159. In number of banks, only 23% of the sample (22 banks from 12 different countries) would have an additional cost of **closing the shortfall** above 0.5% of interest expense. Therefore, the additional interest expense that would be needed to comply with MREL is manageable for EU banks, both in terms of the average and in terms of the number of banks that would be affected.

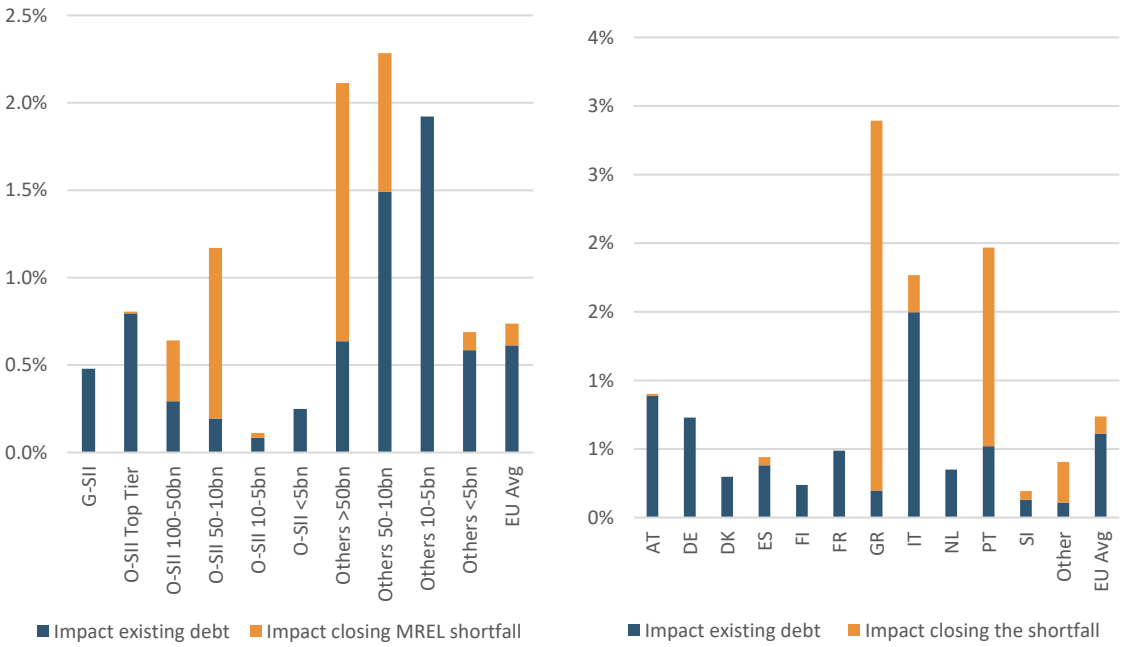
160. The annual **cost of closing the shortfall**, which would be the main new cost that banks should absorb, only represents **0.125% of NII** (nothing for G-SIIs, 0.08% for O-SIIs and 1.28% for other banks), considering the total sample of 97 banks. The impact tends to be heterogeneous between types of banks and between member states this reflects divergent funding conditions in different members states.

161. The **cost of closing the shortfall**, calculated only considering shortfall banks and not all the sample, represents 2% of NII (1.5% for O-SIIs and 2.34% for other banks).

162. The 23 shortfall banks represent a limited 4% of EU banking sector assets. Among these 23 banks, 2 are loss making as of December 2021 and an additional 2 reported net earnings below their estimated cost of closing the shortfall.

163. The **cost of the existing amount of eligible debt** as of 2021Q4, which is already absorbed in banks' profit and loss account as of 2021Q4 and do not represent a new interest expense that banks should recognize, is estimated at **1.22% of NII** (0.96% for G-SIIs, 1.44% for O-SIIs and 1.70% for other banks), considering the total sample of 97 banks. In percentage of interest expense, the cost amounts to **2% of interest expense** (1.3% for G-SIIs, 2.7% for O-SIIs and 6.1% for other banks).

Figure 41: Annual impact in banks' profitability of MREL in percentage points of NII, breakdown by systemic importance (left) and breakdown by country (right), December 2021 data



Sources: FINREP as of 2021Q4, COREP as of 2021Q4, Bloomberg data and EBA calculations. The category of 'Others' includes countries with less than three banks in the sample (BE, BG, CY, CZ, EE, HR, HU, IE, LT, LU, MT, PL, RO and SK). Data for SE is excluded due to data quality issues.

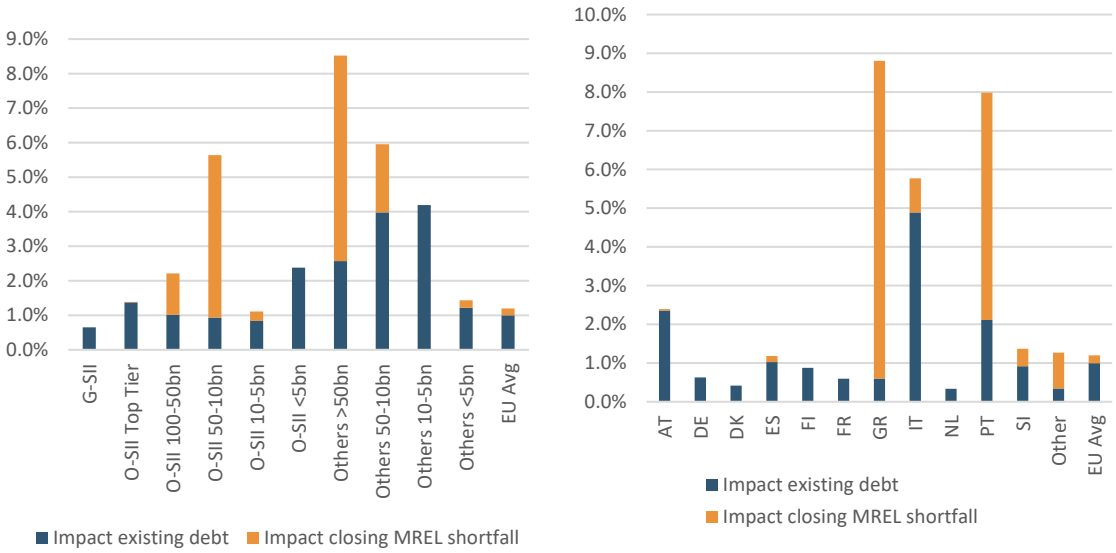
Descriptive statistics of cost of closing the shortfall, total sample, percentage of NII

Min	Max	St. Dev	P(25)	P(75)
0	10.02%	1.44%	0	0

Descriptive statistics of cost of existing debt, total sample, percentage of NII

Min	Max	St. Dev	P(25)	P(75)
-	11.18%	1.47%	0.09%	1.04%

Figure 42: Annual impact in banks' profitability of MREL in percentage points of interest expense, breakdown by systemic importance (left) and breakdown by country (right), December 2021 data



Sources: FINREP as of 2021Q4, COREP as of 2021Q4, Bloomberg data and EBA calculations. The category of 'Others' includes countries with less than three banks in the sample (BE, BG, CY, CZ, EE, HR, HU, IE, LT, LU, MT, PL, RO and SK). Data for SE is excluded due to data quality issues.

Box 1 Impact in banks' profitability under a period of increasing spreads

In the period ranging from December 2021 to October 2022, spreads of unsecured debt have started to widen reaching levels well-above the historic maximums observed during the outbreak of the COVID-19 pandemic. This increase is driven by central bank increasing interest rates as did the ECB with its three key rates - by 50bps in July 2022 and by 50bps in September 2022. As the period of monetary policy normalisation is likely to be maintained in the medium term, banks are expected to face higher cost to refinance their stock of MREL eligible debt.

This marginal impact is the difference between the impact calculated with the conditions as of October 2022 and the impact calculated with the conditions as of December 2021.

The impact on banks profitability with the conditions as of October 2022 has been obtained by applying higher spreads to the eligible debt that matures in the following two years from December 2021, because banks that would need to roll-over this debt would face higher spreads that they faced when they initially issued that debt, and higher spreads than the ones observed as of December 2021. Banks with high proportion of debt maturing in the medium term will be the most impacted.

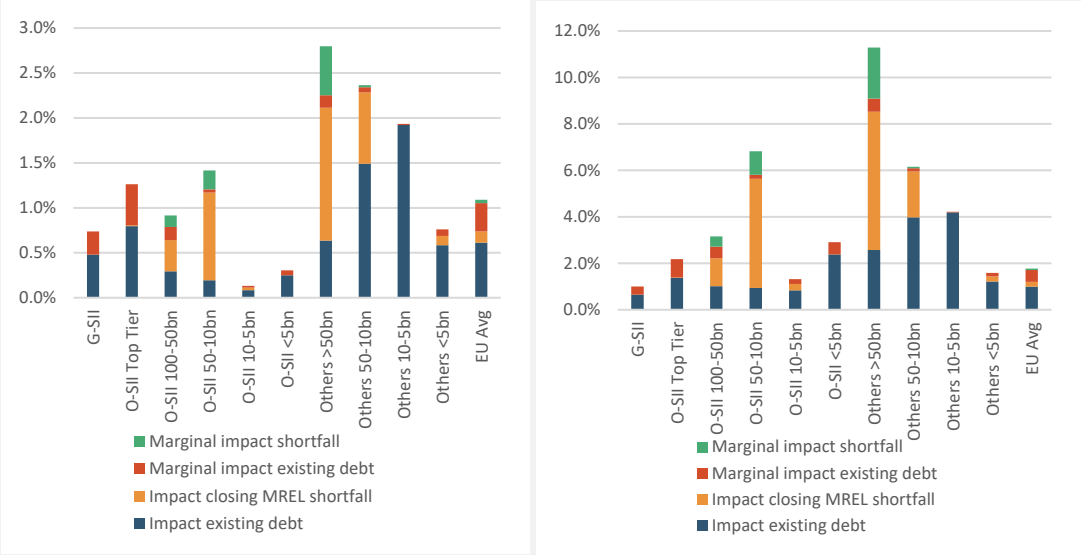
Assuming all banks need to comply by 1 January 2024, the annualized **cost of complying with MREL** would increase **0.038% of NII** (nothing for G-SIIs, 0.021% for O-SIIs and 0.42% for other banks). This would be come on top of the 0.125% of NII previously estimated on the basis of December 2021 data (nothing for G-SIIs, 0.083% for O-SIIs and 1.28% for other banks).

The **cost of the existing amount of debt** would increase **0.32% of NII** (0.26 for G-SIIs, 0.41% for O-SIIs and 0.12% for other banks). This would be come on top of the 1.22% of NII previously estimated on the basis of December 2021 data (0.96 for G-SIIs, 1.44% for O-SIIs and 1.70% for other banks).

All things being equal, the stressed funding conditions do not increase the number of loss-making banks.

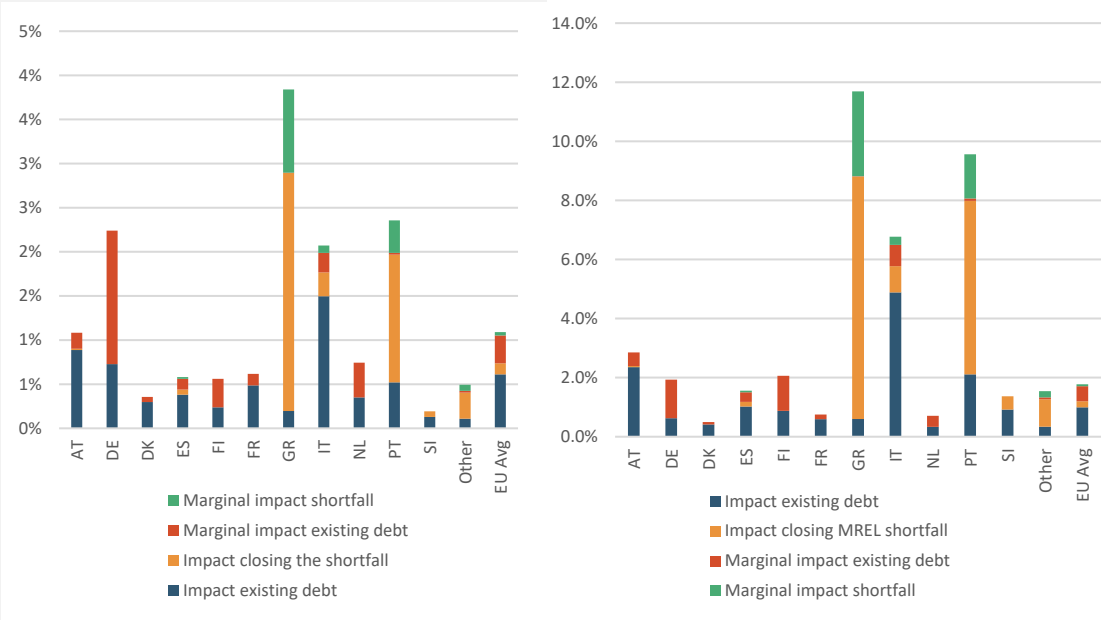
In terms of net income, the cost of closing the shortfall would increase **1.3 bps of ROE**, mainly explained by 7 banks of the sample. Excluding those banks from the sample, the impact on ROE would be reduced by 75%.

Annual marginal impact in banks' profitability of MREL in percentage points of NII (left) and interest expense (right) under increased spreads, breakdown by systemic importance.



Sources: FINREP as of 2021Q4, COREP as of 2021Q4, Bloomberg data and EBA calculations. Data for SE is excluded due to data quality issues.

Annual marginal impact in banks' profitability of MREL in percentage points of NII (left) and interest expense (right) under increased spreads, breakdown by country.



Sources: FINREP as of 2021Q4, COREP as of 2021Q4, Bloomberg data and EBA calculations. The category of 'Others' includes countries with less than three banks in the sample (BE, BG, CY, CZ, EE, HR, HU, IE, LT, LU, MT, PL, RO and SK). Data for SE is excluded due to data quality issues.

5.8. Impact of MREL in lending

Using linear regression, this section shows that the MREL requirement may influence lending standards, but on for MREL levels close or average or above the average.

169. The model is significant from an econometric point of view. However, the analysis has caveats related to the underlying data used for the independent variables that makes these conclusions preliminary and with further research needed in the future. First, the regression model covers a short period of time (2019, 2020 and 2021). Therefore, the results may be biased due to the fact that during the pandemic outbreak in 2020, 82% of the banks registered negative lending rates. For this, further research is needed in the future, considering variables for a prolonged period of time, to have a more comprehensive view of the impact of MREL in lending.

170. Also, the negative coefficient observed for the MREL requirement may also be related to a transitory reduction in lending, an effect that transitorily fades out until reaching a normalisation of lending growth rates. This finding is consistent with the macroeconomic impact

assessment of Basel III reforms[46], in which a transitional negative impact on lending is observed, but in the long term, the annual growth in lending becomes positive due to an increased profitability of banks that results from a sustainable reduction in funding costs linked to higher bank capitalisation.

Methodological assumptions

171. The methodology is based on a linear regression between the level of lending and the following independent variables lagged 1 year, the regression will be performed for all banks with available data and for resolution groups. In order to reduce the influence of the COVID-19 outbreak on the results, the observations of the variables are obtained for three different reference dates. The independent variables are obtained for three reference dates (2021Q4, 2020Q4 and 2019Q4) and the dependent variable of loans is obtained for four reference dates (2021Q4, 2020Q4, 2019Q4 and 2018Q4) in order to calculate the growth rates for the three reference dates of the independent variables.

172. The variables that will be used for the model are detailed below:

- Dependent variable: Annual lending growth rate.
- Independent variables:
    - Ln Total assets t-1: variable that captures banks' size.
    - ROE t-1: Return on Equity, variable that captures banks' profitability.
    - MREL ratio t-1: Variable that captures both the MREL requirement.
    - NPL ratio t-1: Variable that captures banks' asset quality.
    - Loan/Deposit t-1: Variable that captures banks' funding structure.
    - GDP growth t-1: Variable that captures macroeconomic conditions.

173. If the model appears significant, conclusions can be obtained about the influence of the variables in the level of lending. In particular, if the coefficient of the parameter of "MREL ratio t-1" is significant, conclusions can be obtained if the MREL capacity has a positive or a negative influence on the level of lending.

174. The data needed to compute the impact is:

- Lending volumes as of 2021Q4, 2020Q4, 2019Q4, 2018Q4 in order to compute the lending growth for the periods 2020-2021, 2019-2020 and 2018-2019 (source: FINREP 18).

[46] Basel III reforms - Impact study and key recommendations macroeconomic assessment credit valuation adjustment and market risk.pdf (europa.eu)

- FINREP data to obtain total assets, ROE, NPL ratio and loan-to-deposit ratio.
- MREL requirement from ad-hoc data collections performed in the past for the EBA quantitative reports on MREL.
- Other variables: GDP growth rate (source: Eurostat).

Impact on the level of lending: Results

175. For a sample of 159 resolution entities from 27 EU countries covering 79% of EU banking sector assets, we could obtain for a three-year period (2019Q4, 2020Q4 and 2021Q4) the following variables: volume of total loans and advances in the balance sheet, ratio of non-performing exposures, loan-to-deposit ratio, return-to-equity ratio, MREL requirement and GDP growth. December figures have been considered, because the MREL requirement is only available on an annual basis.

176. Overall, considering the observations that account with available data of all the dependent variables and the independent variables, the model is composed by 305 observations. Of those 305 observations, 115 account with negative loan growth (negative value of the dependent variable) and 190 appear with positive loan growth (positive value of the dependent variable).

177. The model appears significant, with three of the independent variables significant and with the expected sign. A positive sign is observed for ROE, meaning that high profitable banks are more willing to increase their lending activity. The coefficient associated to GDP growth appears positive and highly significant, meaning that under favourable macroeconomic conditions, banks grant more loans and increase their lending portfolios. Lastly, the third coefficient that appears highly significant and with the correct sign is the MREL requirement, which appears with a negative sign that suggests the possibility that banks with high requirements are more likely to decrease their lending. However, this is happening for banks with high MREL requirements. Thus, among the observations that account with a MREL requirement below 20%, 80% of them account with positive lending growth rates. However, those observations with MREL requirement above 20%, the proportion of those with positive lending growth rates goes down up to 59%. Therefore, those resolution entities with significant MREL requirements are less willing to increase their lending activities.

178. The regression model covers a short period of time (2019, 2020 and 2021). Therefore, the results may be biased due to the fact that during the pandemic outbreak in 2020, 82% of the banks registered negative lending rates. For this, further research is needed in the future, considering variables for a prolonged period of time, to have a more comprehensive view of the impact of MREL in lending.

179. However, this negative coefficient observed for the MREL requirement may also be related to a transitory reduction in lending, an effect that transitorily fades out until reaching a normalisation of lending growth rates. This finding is consistent with the macroeconomic impact

assessment of Basel III reforms[47], in which a transitional negative impact on lending is observed, but in the long term, the annual growth in lending becomes positive due to an increased profitability of banks that results from a sustainable reduction in funding costs linked to higher bank capitalisation.

Table 5: Linear regression, annual growth rate of loans (independent variable) and dependent variables.

	(1)
VARIABLES	Loans_Var_t
LnTotalassetst1	-0.4384
	(0.4419)
NPLratio_t1	-0.0879
	(0.1025)
LoantoDeposit_t1	0.0006
	(0.0009)
ROE_t1	0.2595***
	(0.0955)
MRELrequirement_t1	-0.5105***
	(0.1790)
GDPgrowth_t	0.8751***
	(0.1250)
Constant	22.1687**
	(11.2602)
Observations	305
R-squared	0.2421
Standard errors in parentheses	
**** p<0.01, ** p<0.05, * p<0.1*	

Sources: FINREP, MREL requirement obtained from ad-hoc data collection for the purposes of EBA quantitative report on MREL and EBA calculations.

[47] Basel III reforms - Impact study and key recommendations macroeconomic assessment credit valuation adjustment and market risk.pdf (europa.eu)

5.9. Impact of MREL on the legal structure of groups

180. A limited number of banks have opted to set up holding companies in order to facilitate MREL issuance. Out of the total sample of banks of the 2021 EBA quantitative report on MREL (composed by 245 resolution entities that cover 77% of EU banking sector assets), six resolution groups representing 6% of EU banking sector assets have created a holding company.

181. These groups are two G-SIIs, three O-SIIs top tier and one non-systemic bank with assets between EUR 50 and 10bn.

Conclusions

EU authorities have continued to make progress in implementing the MREL framework. **There are 337 Resolution groups representing 81% of EU total assets. Bail-in strategies cover 77.3% of total assets, transfer 3.5%.** On an aggregated basis, for a sample of 245 resolution entities that cover 77% of EU banking sector assets, MREL eligible resources reached 31.2% against an external MREL requirement of 22.6% of TREA with a combined buffer requirement of 3.3% of TREA. The MREL requirement for the 133 non-resolution entities subject to an internal MREL was on average 20.2% of TREA with a combined buffer of 2.9%.

Yet, as of December 2021, 70 banks still reported an aggregated shortfall reaching EUR 32.9bn. This is down from EUR 55.7bn among 207 banks as of December 2020. And some banks do appear to face difficulties to issue. However, those issues are not linked to their size or business model but to idiosyncratic issues – such as their financial health and their sovereign's rating. Still, some appear to be constrained by the lack of maturity of the debt market in their home market. And in effect, public EL instruments issuances are geographically concentrated, with no public issuances in some member states.

MREL has led to the emergence of a new **type of debt** (senior non-preferred) that has become the most important type of eligible debt with data as of 2021Q4 (5.5% of TREA on average), vs 4.5% of TREA for senior-preferred debt. Senior non-preferred debt has mostly been issued by G-SIIs and O-SIIs top tiers, while senior preferred debt has been issued by other banks. The new debt instrument appears to be risk sensitive supporting their role in market discipline.

On an aggregated basis, over the 2014-2021 period, European banks have decreased their reliance on long-term wholesale funding to the benefit of central bank funding, deposits, and own funds.

EU resolution banks have closed their shortfalls by issuing eligible instruments rather than deleveraging, demonstrating an absence of **difficulties in building up MREL in the period 2019-2021 for any specific type of bank.** MREL levels have increased for the three categories of banks (G-SIIs, O-SIIs and other banks) in the period 2019-2021, both in absolute amounts and in percentage points of TREA. Only a negligible part of the sample in percentage points of assets have decreased eligible liabilities, and most of them are already fulfilling their MREL targets as of 2021Q4.

EU banks mainly rely on own funds instruments (19.8% of TREA) and eligible debt instruments (11.6% of TREA) to comply with MREL. In the period 2019-2021, EU banks have increased both own funds and eligible debt instruments. Other banks show an above-average reliance on own funds instruments, while systemic entities show an above-average reliance on debt instruments.

The **way of meeting MREL is not symmetrical across banks**, while G-SIIs rely on subordinated instruments (mainly senior non-preferred), O-SIIs rely on both senior non-preferred and senior debt and other banks rely almost entirely on senior debt including wholesale deposits.

The cost of closing the shortfall is marginal at aggregated level given the limited share of banks still in shortfall and manageable for most banks in shortfall. Yet out of 94 banks, in profitability, 6 are loss-making and an additional 2 have an estimated cost of closing the shortfall greater than their net earnings.

The cost of long-term unsecured debt appears manageable albeit varying significantly between banks from 1.3% of interest expenses for GSIIs to 6.3% for other banks highlighting the greater impact on smaller banks. Funding conditions have started to normalise with increased spreads including on MREL eligible debt. But the estimated marginal impact of the increased cost of funding appears manageable for all banks in the sample, i.e. remaining below their net earnings.

Annex

Table 6: Annex 1: External MREL requirements, breakdown by country, data as of Q4 2021

Ctry	TSCR (% TREA)	Total MREL (% TREA)	Total MREL (% TEM)
AT	10.2%	25.2%	7.9%
BE	10.4%	23.4%	7.5%
BG	8.3%	21.4%	7.2%
CY	10.9%	23.5%	5.8%
CZ	9.9%	18.6%	5.7%
DE	10.1%	23.0%	7.4%
DK	11.6%	26.2%	6.2%
ES	9.6%	24.1%	8.5%
FI	9.9%	22.5%	6.9%
HR	11.0%	25.5%	5.9%
HU	10.3%	19.6%	5.9%
IE	10.7%	23.4%	7.5%
LU	9.2%	20.3%	5.9%
LV	10.3%	20.1%	5.2%
MT	11.3%	25.0%	7.6%
PL	8.7%	16.2%	4.5%
PT	10.3%	22.4%	6.4%
RO	10.9%	23.2%	5.7%
SE	10.0%	27.1%	6.0%
SI	10.9%	26.7%	7.6%
NL	9.8%	23.2%	7.4%
IT	9.8%	21.3%	6.3%
LT	9.4%	20.2%	7.1%
GR	11.1%	23.4%	5.9%
FR	9.5%	21.5%	6.6%
SK	9.5%	22.4%	5.9%
EE	10.0%	22.6%	5.9%
Total	**9.8%**	**22.6%**	**7.0%**

Sources: EBA data collection as of Q4 2021 and EBA calculations.

Annex 2: Subordination levels by Member States

Article 45l(1)(b) of BRRD mandates the EBA to annually report on 'how the power referred to in Article 45b(4), (5) and (7) has been exercised by resolution authorities and whether there have been divergences in the exercise of that power across Member States'.

The EBA does not find significant evidence of divergence in the setting of the subordination requirements between Member States.

BRRD II harmonises subordination levels for GSIIs, top-tier banks and other pillar 1 banks. It provides for a mandatory subordination level and a discretionary subordination level.

The data gathered shows that, as a percentage of TREA, the subordination requirement (including CBR) was, as a weighted average, 18.5% (17.6% for G-SIIs, 19.2% for top-tier banks and 21.3% for other pillar 1 banks). As a percentage of TEM, the subordination requirement was 6.3% (5.9% for G-SIIs, 6.4% for top-tier banks and 8.6% for other banks).

Subordination requirements in terms of TREA show a significant variance across Member States, which is in part the result of the varying RWA density of different banks, rather than diverging RA practices. The issue is to determine whether the option to (i) set subordination lower than the 8% TLOF subordination target level subordination level or (ii) the use of the discretionary subordination level has been applied consistently.

The level of mandatory subordination is set in the level 1 text via various formulas. Nevertheless, resolution authorities retain the possibility to reduce it. This can happen through two possible decisions from resolution authorities: (i) they could count up to 3.5% TREA of senior debt as TLAC eligible for G-SIIs and (ii) they could reduce the 8% TLOF part of the calibration of subordination for G-SIIs, top-tier banks and other banks by a factor of 1-(3.5% RWA/(18% RWA + CBR), provided that certain conditions are met.

This means that the mandatory component of the subordination requirements varies within a range delimited by an upper band and a lower band.

> **For G-SIIs,** the upper band is computed as the greater of 18% TREA + CBR, 6.75% TEM and 8% TLOF and the lower band as the greater of 14.5% TREA + CBR, 6.75% TEM (-3.5% TREA) and 1-(3.5% RWA/(18% RWA + CBR) * 8% TLOF.
>
> **For top-tier and other banks**, the upper band is computed as the greater of 13.5% TREA + CBR, 5% TEM and 8% TLOF and the lower band as the greater of 13.5% TREA + CBR, 5% TEM and 1-(3.5% RWA/(18% RWA + CBR) * 8% TLOF[48]

[48] A cap of 27% of TREA applies to top-tier banks.

A subordination level beyond the upper band should reflect the use by the resolution authority of Article 45b(7) BRRD II for setting 'discretionary subordination'.[49]

The table below shows the number of banks for which the subordination requirements have been set either (i) at the lower band, (ii) within the range[50], (iii) close to the upper band or above[51], or (iv) for which the upper and lower band are the same.

Not taking into account MS with only one bank, there were only five MS where the majority of institutions were set a subordination requirement at the lower band. On the other hand, we find that in seven MS, the majority of the banks were set a subordination requirement close to or above the upper band.

Out of the 169 resolution groups subject to subordination requirement, a full subordination is applied to 109 of them (101 from non-Euro area countries and 8 from Euro area countries). Therefore, out of the 129 resolution groups from non-Euro area countries with subordination requirements, 101 of them have been set a full subordination requirement.

The final subordination requirement is equal to the 27% cap Art. 45b(4) BRRD II in the case of two top-tier banks out of 29.

Setting a subordination level below 8% TLOF can be done under the condition that it does not generate NCWO risk. When used, it should reflect the relative progress towards resolvability. However, for banks with a large stock of subordinated debt, typically in MS where statutory subordination was introduced for senior debt, RAs seem to not consider reduced subordination levels. Similarly, where structural subordination has been introduced via the creation of holding companies, lower subordination requirements were not considered. Moreover, four G-SIIs from three Member States were granted the 3.5% TREA senior debt allowance.

[49] According to Article 45b(8) BRRD II, for other pillar 1 banks (i.e. those assessed as likely to pose a systemic risk in the event of failure), this increase would be applicable for a maximum of 30% of resolution entities of this type, where: (a) substantive impediments to resolvability have been identified in the preceding resolvability assessment; (b) the credibility and feasibility of the resolution strategy is limited; or (c) the bank is among the top 20% in terms of riskiness (measured by the level of the P2R).

[50] Within the range means banks with a subordination requirement above the lower band but below the upper band.

[51] Close to the upper band is defined as the difference between the final requirement and the upper band being below 10%.

Table 7: Annex 2: Subordination levels by Member States

Member State	AT	BE	BG	CZ	DE	DK	ES	FI	FR	HU	IE	IT	LT	MT	NL	PL	PT	RO	SE	Total
Number of banks at lower requirement	1	0	0	0	1	1	3	1	5	2	0	5	0	0	0	53	1	2	6	**81**
Number of banks at higher bound	1	3	0	2	6	39	0	1	0	0	1	0	0	1	3	5	1	4	3	**70**
Lower and upper bound equal	1	0	1	0	1	6	1	0	0	3	1	0	1	0	1	2	0	0	0	**18**
Total	**3**	**3**	**1**	**2**	**8**	**46**	**4**	**2**	**5**	**5**	**2**	**5**	**1**	**1**	**4**	**60**	**2**	**6**	**9**	**169**
% of banks at lower bound	33%	0%	0%	0%	13%	2%	75%	50%	100%	40%	0%	100%	0%	0%	0%	88%	50%	33%	100%	50%
% banks at upper bound or above	33%	100%	0%	100%	75%	85%	0%	50%	0%	0%	50%	0%	0%	100%	75%	8%	50%	67%	0%	40%

Table 8: Annex 3: Total MREL and shortfalls by type of banks subject to an external MREL

Subcategory of banks	No. of banks	No. of banks with shortfall	Total MREL + CBR (% TREA)	MREL shortfall (% TREA)	MREL shortfall 2021, sample 2021 (EUR mln)	MREL shortfall 2021, common sample 2020 (EUR mln)	MREL shortfall 2020, common sample 2020 (EUR mln)	Dif
G-SII	9	0	26.58%	0.00%	-	-	3,831	-3,831
O-SII Top Tier	26	3	26.06%	0.11%	3,015	2,634	2,820	-186
O-SII 100-50bn	16	8	23.12%	1.49%	4,550	4,957	10,823	-5,866
O-SII 50-10bn	26	18	27.20%	2.78%	5,945	4,601	10,254	-5,653
O-SII 10-5bn	6	5	25.72%	4.65%	728	240	771	-531
O-SII <5bn	5	4	25.54%	2.02%	136	126	301	-175
Others >50bn	11	4	23.52%	2.73%	12,716	15,114	19,228	-4,114
Others 50-10bn	27	10	23.16%	2.19%	4,922	4,341	6,217	-1,877
Others 10-5bn	19	7	24.42%	1.45%	749	70	1,099	-1,029
Others <5bn	100	11	20.71%	0.77%	172	26	419	-392
Total	**245**	**70**	**25.93%**	**0.44%**	**32,935**	**32,110**	**55,764**	**-23,654**

Sources: EBA MREL decisions, MREL RESOURCES reporting as of Q4 2021 as of Q4 2021 and EBA calculations.

Table 9: Annex 4: Total MREL and shortfalls by type of non-resolution entities subject to an internal MREL

Subcategory of banks	No. of banks	No. of banks with shortfall	Total MREL (% TREA)	MREL shortfall (% TREA)	MREL shortfall (EUR mln)
G-SII	24	9	19.6%	0.6%	4,814
O-SII >100bn	4	1	21.1%	0.1%	439
O-SII 100-50bn	5	2	21.8%	0.5%	828
O-SII 50-10bn	19	8	20.2%	1.2%	2,013
O-SII 10-5bn	7	5	21.6%	2.2%	442
O-SII <5bn	7	3	20.2%	2.4%	335
Others >50bn	10	6	19.7%	3.7%	13,417
Others 50-10bn	21	10	19.8%	1.7%	2,556
Others 10-5bn	7	2	15.6%	1.5%	272
Others <5bn	29	15	17.3%	1.5%	511
Total	**133**	**61**	**20.2%**	**1.2%**	**25,626**

Sources: EBA MREL decisions, MREL RESOURCES reporting as of Q4 2021 and EBA calculations.

Table 10: Annex 5: Number of decisions by member state, breakdown by resolution strategy, December 2021 data.

Country	Bail-in	Transfer	Liquidation	Total
AT	19	4	0	23
BE	3	1	8	12
BG	11	0	0	11
CY	2	3	3	8
CZ	2	5	0	7
DE	8	7	0	15
DK	6	42	5	53
EE	2	0	0	2
ES	4	7	0	11
FI	6	0	4	10
FR	6	0	0	6
GR	4	0	0	4
HR	4	0	0	4
HU	5	0	0	5
IE	2	1	0	3
IT	10	1	0	11
LT	1	0	0	1
LU	2	2	23	27
LV	0	1	0	1
MT	1	2	0	3
NL	3	1	0	4
NO	14	0	0	14
PL	8	63	0	71
PT	5	2	0	7
RO	3	3	0	6
SE	9	0	0	9
SI	2	1	4	7
SK	2	0	0	2
Total	**144**	**146**	**47**	**337**

Sources: EBA MREL decisions as of 2021-Q4.

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