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Measures of banks' capital buffer usability under prudential and resolution requirements in the Banking Union

Riccardo DE BOSIO, Giuseppe LOIACONO

Abstract

This paper estimates banking sector's capital buffer usability taking into account how the solvency framework, the leverage ratio (LR) framework and the resolution requirements interact to ensure that banks meet adequate levels of capital instruments at all times. A number of estimates are provided in this paper. The sample of banks assessed covers the resolution groups among the significant institutions of the banking union under the remit of the Single Resolution Board (SRB). The methodology that we describe and apply aims at enriching and fostering the debate on capital buffers usability, also taking stock from the work recently carried out by a number of European and national authorities with a mandate to ensure financial stability. Our contribution provides measures that also take into account both prudential and resolution requirements. The analysis finds that, on aggregate, usability of buffers based on risk-weighted assets is limited by the combined application of the prudential leverage ratio and MREL requirements. The overall capital buffer usability grows substantially when the different risk-weighted and leverage requirements for resolution and prudential purposes are taken into account, as per the comprehensive approach that we present.

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Author's E-mail Address:	Riccardo.DEBOSIO@srb.europa.eu, Giuseppe.LOIACONO@srb.europa.eu

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1. Background

During the economic shock caused by the Covid-19 pandemic, the EU banking system proved resilient and continued to provide lending to the real economy. In addition to the support provided to the economy by the public interventions, the strengthened macroprudential and microprudential frameworks put in place post-2008 crisis played a crucial role.

A capital buffer refers to extra capital required by regulators for financial institutions to ensure a more resilient global banking system. Capital buffers play an important role for financial stability. Their increase in good times and their release in a negative economic cycle should allow banks to continue financing the real economy, thus avoiding that a recession becomes a depression. However, during the Covid-19 pandemic, empirical evidence suggests that many banks did not use the capital buffers¹ as allowed by the macroprudential rules, possibly also because of the ample fiscal, monetary and prudential support already provided to the real economy by European and national authorities. It is difficult to ascertain what would have happened without this support, and whether capital buffers would have performed their shock-absorbing role. In addition, banks might have been unwilling to dip into the usable buffers in the aftermath of the start of the pandemic because of fear of stigma or of enhanced supervisory scrutiny and measures. In general, it is difficult to estimate how banks may react in a crisis and to which extent they are willing to use their capital buffers.

According to Article 128(6) of Directive 2013/36/EU, five risk-weighted capital buffers constitute the combined buffer requirement (CBR). All capital buffers are aimed at strengthening the going-concern loss absorbency of the banking system, although each having specific objectives. The capital conservation buffer (CCoB) of 2.5% of risk-weighted assets (RWAs) is a constant capital cushion above risk-weighted minimum requirements. The buffers for G-SIIs and other systemically important institutions (O-SIIs) target structural systemic risk by reducing the externalities associated with the "too big to fail" status of systemically important institutions. The highest currently populated G-SII buffer bucket is 2.5% of RWAs and the O-SII buffer in the remit of national authorities can be up to 3% of RWAs or higher.²⁶ The systemic risk buffer (SyRB) addresses systemic risks not already covered by macroprudential requirements in the CRR or by CCoB, CCyB and the G-SII/O-SII buffers. In addition to being applicable to either the entire or a subset of the banking sector, SyRB can now be applied to total RWAs or to a subset of risk-weighted exposures. The CCyB targets cyclical systemic risks associated with credit growth and is designed to be released when the credit cycle turns. The capital buffers forming the CBR have to be met with CET1 and are cumulative. Exceptions are the G-SII and O-SII buffers, where the higher-of-the-two principle applies.

A lively debate has started among regulators and other stakeholders on the degree of the so-called buffer usability – that is, the ability of banks to use their capital buffers to keep lending to the economy. Importantly for bank resolution, this

¹ See, for example, G. Fusi, D. Siklós, R. Strauch Unlocking banks' capacity to fund the recovery, ESM blog.

discussion may also have an impact on one of the key tools to ensure that failing banks can be resolved without adversely affecting financial stability – the Minimum Requirement for own funds and Eligible Liabilities (MREL). Against this background, the implementation of a robust methodology providing estimations of banks' buffer usability taking into account the specificities and the functioning of all the relevant frameworks, ie. the solvency (risk-based) framework, the leverage framework and the resolution framework, can enrich the ongoing debate on how to measure the actual usability of capital buffers in the banking union and thus support the work of authorities with the mandate and the tools to safeguard financial stability and ensure crisis readiness.

With this view, the methodological framework and results presented in this note provide estimates of:

- The usability of the CBR in the prudential framework, taking into account the parallel minimum resolution requirements.
- The overall usability of the CBR, considering both the CBR that stacks on top of the prudential RW framework, and the CBR that stacks on top of the MREL-RW framework (comprehensive approach).

In line with Article 88 of the Single Resolution Mechanism Regulation (SRMR), the results shown in this working paper have been anonymised and aggregated to remove any confidential, bank- or country-specific information.

2. Literature review

The review of the literature suggests that the interaction between the banking prudential and the resolution framework and its impact on the usability of capital buffers has been explored only recently by the economic research. Yet, since the Covid-19 pandemic a number of EU and national authorities have started to conduct analysis and release publications on what they generally see as a subject that deserves in-depth analysis in light of its relevance for banks' resilience.

Among the recent reviews on the subject of capital buffers usability, the Basel Committee on Banking Supervision (BCBS), in its capacity as the primary global standard setter for the prudential regulation of banks, released a report in July 2021 assessing early evidences on the effectiveness of capital buffers during the Covid-19 pandemic². This analysis concludes that during the pandemic most banks maintained capital ratios well above their minimum requirements and buffers. This was partly due to authorities reducing capital requirements and buffers and imposing restrictions on capital distributions, as well as due to the extensive fiscal and monetary support provided to borrowers. Given these circumstances, the report highlights that it was difficult to draw firm conclusions from the pandemic experience regarding banks' willingness to use capital buffers. The report also notes that there is a wide range of drivers that may restrict buffer usability. These sources are seen as difficult to rank in terms of impact on final buffer usability. They range from adverse market reactions, uncertainty about the global macroeconomic outlook, and potential supervisory responses to the use of buffers.

The BCBS (July 2022)³ further examined a number of questions regarding buffer usability and cyclicity for the existing Basel framework. As part of this comprehensive review, the analysis highlights the role that parallel minimum requirements may also play in limiting the effective availability of buffers and the banks' ability to dip into their buffers. The report reminds that the Basel III regulatory framework allows the multiple use of capital instruments to meet parallel regulatory minimum requirements, and that this set up may constrain the use of buffers when, for example, risk-based minimum capital requirements are lower than the capital requirements from the minimum leverage ratio.

In relation to the EU framework, the European Systemic Risk Board (ESRB) proposes a prominent measure to quantify the materiality of the overlap between different requirement and the buffer usability (2021)⁴. The empirical analysis conducted by the ESRB finds that buffer usability could be limited in some EU Member States by the leverage ratio and by the requirements from the MREL framework. The ESRB notes that the main computations presented in its report consider buffer usability only from the perspective of combined buffer Requirements (CBR) in the risk-

² See Basel Committee on Banking Supervision (2021): Early lessons from the Covid-19 pandemic on the Basel reforms (<https://www.bis.org/bcbs/publ/d521.pdf>) July 2021.

³ See Basel Committee on Banking Supervision (2022): Buffer usability and cyclicity in the Basel framework (<https://www.bis.org/bcbs/publ/d542.pdf>) October 2022.

⁴ See ESRB (2021): Report of the Analytical Task Force on the overlap between capital buffers and minimum requirements (https://www.esrb.europa.eu/pub/pdf/reports/esrb.ATReport211217_capitalbuffers~a1d4725ab0.en.pdf) December 2021.

weighted capital stack. Therefore, these estimates do not take into account the impact on buffer usability stemming from a more comprehensive approach that includes the CBR placed on top of the risk-weighted MREL. The analysis assesses the overlap with expected future MREL regulatory requirements based on end-2019 data. Thus, the report highlights that the actual buffer usability may evolve as banks adapt to the changing regulatory landscape and in particular to the progressive phasing-in of MREL and of relevant remaining elements of the Basel III finalisation package. The report also notes that even when buffers are usable from a regulatory perspective, banks might be unwilling to use them. At the same time, the ESRB highlights that any investigations about banks' willingness to use buffer needs to take into account potential regulatory impediments since these may be an important reasons why banks do not use buffers. The ESRB also outline policy options that can be considered in order to mitigate buffer overlaps, while preserving the key objectives of the prudential and resolution frameworks in the scope.

Broadening the spectrum to the work and considerations brought up by other EU authorities, the European Central Bank (ECB) and the European Banking Authority (EBA)'s respective responses to the European Commission's call for advice on the EU Macroprudential Framework emphasise the importance to assess the materiality of the issue of capital overlaps⁵. In its response, the ECB suggests to consider targeted legislative amendments in order to improve the exchange of information among competent, resolution and other relevant authorities for macroprudential and financial stability purposes. The two authorities also highlight the need to further assess the evolution of buffer usability in light of the implementation of the ongoing EU regulatory reforms. In particular, the EBA stresses the importance to collect further evidence in order to better understand how banks have been adjusting their capital and liability positions in response to the implementation of the SRB's MREL framework and the Basel III framework.

Alongside the preliminary work conducted by EU authorities, other national authorities have carried out conceptual and empirical work in relation to the overlap between capital buffers and minimum requirements. A recent working paper published by Banca d'Italia (2022)⁶ investigates the mechanics of the interaction between the three parallel frameworks by developing a comprehensive methodology aimed at measuring the actual usability of the CBR across Italian banks. This methodology takes simultaneously into account the risk-weighted requirements, the leverage ratio, the risk-weighted MREL and the leverage-ratio-based MREL. This means that, unlike the ESRB's work summarised above, this empirical analysis considers not only the CBR stacked on top of the RW requirement, but also the

⁵ See ECB (2022): ECB response to the European Commission's call for advice on the review of the EU macroprudential framework (https://www.ecb.europa.eu/pub/pdf/other/ecb_responsetothecallforadvice~547f97d27c.en.pdf), March 2022, and EBA (2022): EBA advice on the review of the macroprudential framework – response to the Commission's July 2021 call for advice (https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Other%20publications/2022/1031866/EBA%20advice%20on%20the%20review%20of%20the%20macroprudential%20framework.pdf) April 2022.

⁶ See Banca d'Italia (2022): Overlaps between minimum requirements and capital buffers: the case of Italian banks, Notes on Financial Stability and Supervision, No. 30 (https://www.bancaditalia.it/pubblicazioni/note-stabilita/2022-0030/Note_di_stabilita_finanziaria_e_vigilanza_N.30_ENG.pdf.pdf?language_id=1) June 2022.

CBR placed on top of the risk-weighted MREL. Denmark Nationalbank (2022)⁷ issued an analytical note arguing that the interaction between the requirements significantly limits capital buffer usability in the Danish banking system. The note also argues that buffer usability can be improved if financial regulation is adjusted, so that banks cannot use the same capital to meet both capital buffers and other requirements at the same time (although this might entail, de facto, an increase in the overall requirement for the banks, ceteris paribus). A few proposed changes in EU regulation are outlined, as a way to create incentives for banks to adjust their funding in a way that buffer usability increases. André Ebner and Christiane Westhoff from Bundesbank (2022)⁸ focus on the need for closer cooperation among authorities. This is highlighted as a key ingredient of what they see as 'an integrated approach' to capital buffers encompassing both going and gone concern requirements for banks. This approach is seen as well suited to increase the effectiveness of the existing set of EU policies to implement the Financial Stability Board's (FSB) reforms to address the risks from systemically important institutions and to counter the too-big-to-fail problem.

In addition to the analysis and contributions reviewed above, there has been recent proposals to revise the existing framework more fundamentally. Bank of England⁹ proposes to do away with the existing capital buffers (CCyB, CCoB, G-SIB, D-SIB, O-SII, etc.) and substitute them with a single capital buffer (a so called "bufferati"). According to its proponent, this single buffer would be calibrated to reflect both micro and macroprudential risks. It would feature a low minimum capital requirement to maximise the size of the buffer (requirement and buffer to be met only with Common Equity Tier 1 - CET1). It would also leave to the responsible authorities a certain degree of discretion to calibrate the buffer in each specific case without mechanical triggers and thresholds. This framework would also entail an additional set of stress tests to assess banks' resilience and set the capital levels accordingly.

⁷ See Denmark Nationalbank (2022): Regulatory adjustments are to contribute to more effective capital buffers, Analysis No. 9 (https://www.nationalbanken.dk/en/publications/Documents/2022/08/ANALYSIS_No.%209_Regulatory%20adjustments%20are%20to%20contribute%20to%20more%20effective%20capital%20buffers_UK.pdf) August 2022.

⁸ See André Ebner and Christiane Westhoff (2022): Joining Up Prudential and Resolution Regulation For Systemically Important Banks (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4286125) December 2022.

⁹ See Sam Woods, 'Bufferati', speech of the Bank of England Deputy Governor at City Week 2022, 26 April 2022.

3. Conceptual framework

A. Overlap and usability

Capital buffers are at the centre of the European macroprudential framework. They were developed as part of the risk-weighted capital framework. Subsequently, the LR and MREL were introduced as parallel requirements. The LR requirement was designed with the aim of making the banking system safer by constraining the build-up of banks' leverage and by introducing additional safeguards against internal model risk and measurement error. The MREL requirement aims to facilitate the orderly resolution of distressed banks without putting public funds at risk.

Capital buffers have two main purposes. First, they improve the resilience of banks by requiring them to hold additional capital against the sources of systemic risk and making the banking system more resilient and less pro-cyclical. To align banks' incentives with the need to avoid imprudent depletion of buffer capital, restrictions on distributions apply when buffers are not met. Second, buffers are intended to cushion shocks as losses can be absorbed during times of stress and buffers can be replenished afterwards. Buffers can therefore be used instead of deleveraging or de-risking strategies.

However, the way capital buffers interact with parallel minimum requirements, following different rules across various metrics (risk weighted assets and leverage ratio), has also raised concerns about the ability to effectively use these buffers.

The regulatory rules result in "multiple use" of CET1 across parallel frameworks, which may constrain buffer usability if the same unit of CET 1 is used for buffers and parallel minimum requirements. Any decrease of buffers would be ineffective in freeing up capital if banks rely on the same units of capital to meet the parallel minimum requirements that are necessary to ensure a minimum loss-absorbing capacity. Therefore, the buffer overlap ultimately reduces the possibility for macroprudential authorities to release the buffers in downturns.

The term 'buffer usability' refers to banks' ability to use the CBR without breaching any minimum requirements. In the event of overlaps, a bank would not use (all or part of) the CBR even when allowed to do so because such a use would lead to a breach of a minimum requirement.

In the two subsections section below we analyse the different types of interactions.

B. Measure of the Interaction between RW and LRE prudential frameworks

According to CRR article 92(1), financial institutions should satisfy minimum Pillar 1 requirements with a minimum CET 1 ratio of 4.5 per cent of their Risk-Weighted Assets (RWAs), as well as Tier 1 capital ratio of 6 per cent of RWAs and a total capital ratio of 8 per cent of RWAs. In addition to pillar 1 requirements, supervisors may impose bank-specific pillar 2 requirements. As per the regulatory framework, these standards should be met by at least 75 per cent by using Tier 1 capital, of which 75 per cent should be CET1¹⁰.

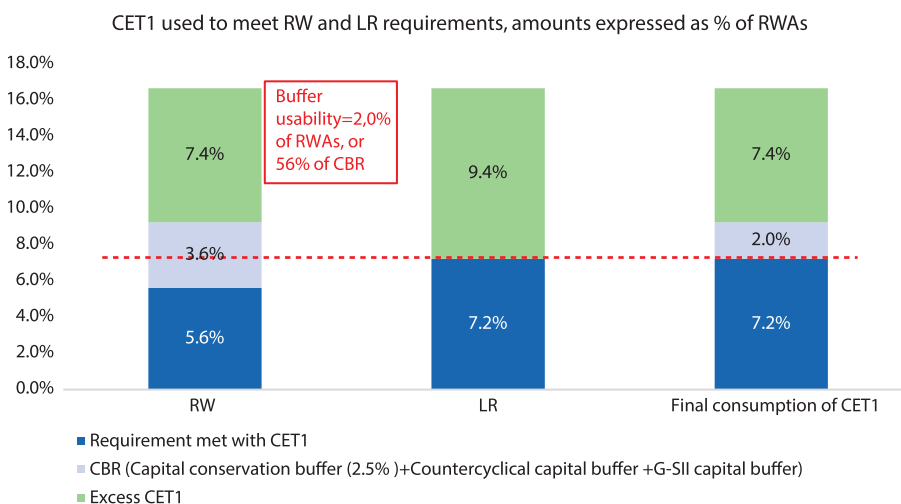
A minimum leverage was introduced as a complementary measure with the aim to reinforce the risk-based capital requirements with a simple, non-risk-based backstop in order to ensure a limit on the size to which individual bank balance sheets and off-balance sheet items can grow for an absolute limit of capital. Under CRR article 92(1)(d), the pillar 1 component is set at a minimum of 3 per cent of total exposure measure. As in the risk-weighted framework, the leverage ratio framework also includes a bank-specific pillar 2 requirement set by the supervisor.

Based on these two requirements, which both demand the use of CET1, the overall CBR's usability is reduced by the difference between the amount of the CET1 used to meet the leverage ratio requirement and the corresponding risk-weighted minimum requirement – in case such a difference is positive.

Figure 1 depicts the sequence in which the capital in the RW framework and in the LR framework absorb losses. In the case shown, the interaction between the risk-weighted capital requirement and the leverage ratio requirement limits the effective amount of capital buffers that could be released in a crisis. In this specific case, the bank uses 7.2 per cent of CET1 to comply with the Leverage Ratio, compared 5.6 per cent used to comply with the RW minimum requirement. The CET1 used to meet the CBR on top of the RW requirement is partly, for 1.6 per cent, used to comply with the LR requirement. Therefore, the overlap between the two requirements in the case assessed reduces the usability of the CBR to 2.0 per cent of RWA. It follows that buffer usability is limited to about 56 per cent of the total CBR.

¹⁰ Under Capital Requirement Directive V, which came into effect on 1 January 2021, P2R capital should have the same composition as Pillar 1 – i.e. at least 75% of P2R must be met using Tier 1, of which 75% should be CET1

Figure 1: Empirical example of the interaction between the CBR and the minimum leverage ratio



Note: the part of the CBR that is above the dotted red lines is the fraction that can be released and actually used.

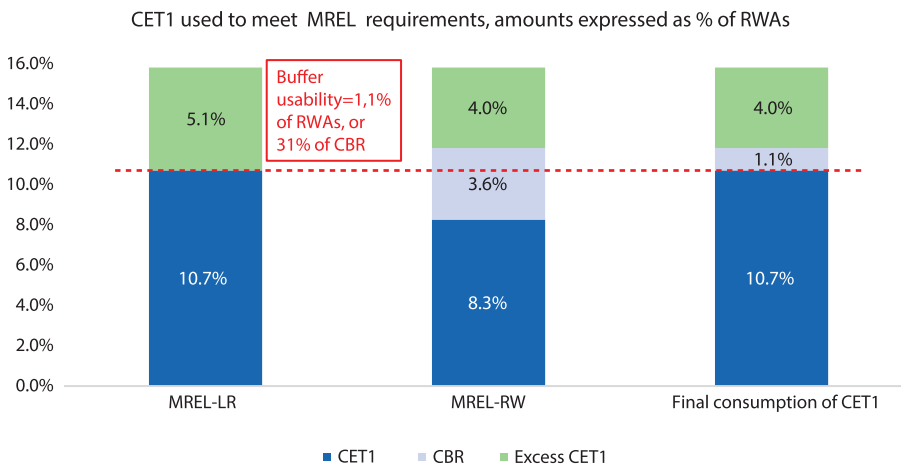
Since the leverage ratio requirement can be met with CET1 instruments and with additional Tier 1 capital (AT1), the bank in the example depicted would be able to issue more AT1 in order to reduce the amount of CET1 absorbed by the LR requirement and therefore increase the usability of its capital buffers.

C. Measure of the Interaction between LR and RW resolution frameworks

According to the legal framework, the CET1 capital used to meet the CBR on top of the risk-weighted requirement cannot be used to comply with the MREL expressed in risk weighted assets. In other words, the CBR stacks on top of the MREL-RW. When MREL is expressed in percentage of the total exposure measure (LRE), the CET1 used for meeting the MREL requirement can also be used to meet the CBR. Reference is made to the figure 2. The bank in the example uses 8.3 per cent of CET1 to comply with the MREL-RW, compared 10.7 per cent used to comply with the LRE minimum requirement. The CET1 used to meet the CBR on top of the MREL-RW is partly, for 2.5 per cent, used to comply with the LRE requirement. The overlap reduces the usability of the CBR that in the present case equals to 1.1% RWA.

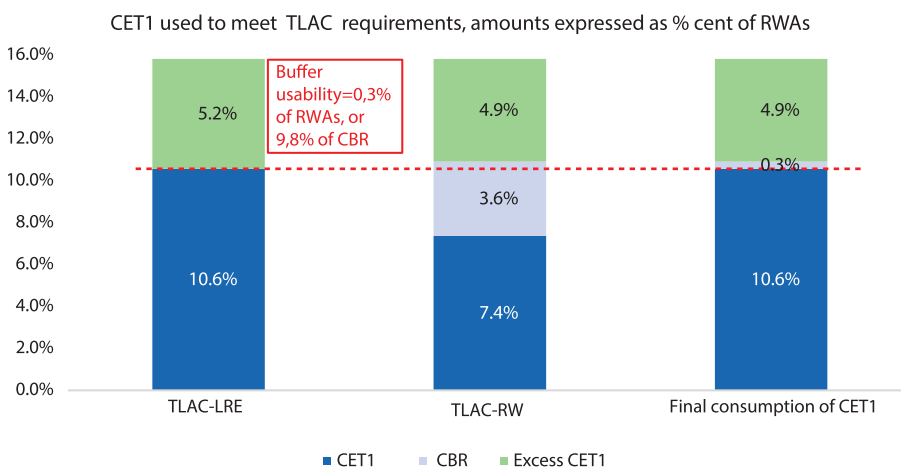
Increases in eligible liabilities, Tier 2 or AT1 instruments free up CET 1 resources to comply with the CBR and increases its usability. The more the bank relies on eligible liabilities to comply with its MREL requirement the higher the CBR usability (the lower the overlap).

Figure 2: Empirical example of the interaction between CBR and MREL



For globally systemic banks (G-SIBs), the same dynamic applies to Total Loss Absorbing Capacity (TLAC), where in RWA the CET1 cannot be used to meet both the TLAC requirement and the CBR while in LRE it counts for both the requirement and the CBR (for simplicity we exclude the G-SIB LRE buffer¹¹). In the example depicted in figure 3, the bank uses 7.4 per cent of its CET1 to meet the TLAC expressed in RW and 3.6 per cent to meet the CBR on top. However, the TLAC-LRE framework absorbs 10.6 per cent of CET1, overlapping with the CBR absorption by 3.3 per cent. As a result, the usable CBR taking into account the combined effects of both requirements is 0.3 per cent.

Figure 3: Empirical example of the interaction between CBR and TLAC



¹¹ According to Article 2(2) of Regulation (EU) 2020/873, since 1st January 2023 G-SIBs are required to hold a buffer on their leverage requirement equal to 50% of the G-SII buffer determined by macroprudential authorities.

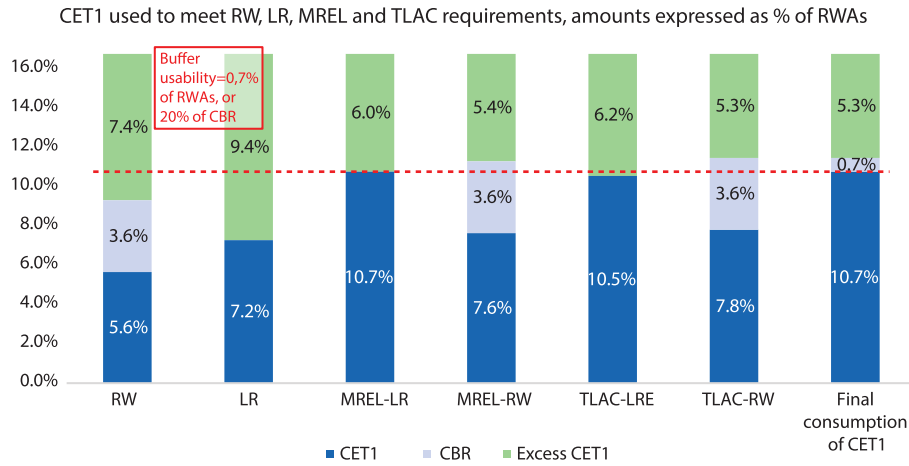
4. Empirical analysis of CBR's overall usability

In order to measure the overall buffer usability, we now consider jointly all the CET1 components of the regulatory requirements presented in the previous section. For each of the parallel frameworks, the use of the CET1 to satisfy the requirement is estimated. For each bank in the sample, the total usability is the lowest CET1 usability over the CBR across the individual requirements.

The CET 1 component of each requirement is obtained by subtracting from this requirement all the eligible resources that are not CET1. For example, the CET1 component of the leverage ratio requirement is the nominal Tier 1 requirement minus a bank's stock of AT1, and the CET1 component of MREL results corresponds to this MREL requirement minus available AT1, T2 and eligible liabilities. Figure 4 depicts all the requirements considered jointly, converted as percentage of the risk-weighted exposures. In the example shown, which portrays the situation of a G-SIB, the CBR usability is nil if we consider only the CBR stacked on top of the RW framework, compared with all the requirements, and thus not the CBR stacked on top of the MREL and TLAC risk weighted frameworks described in section 3 of this note. This way to estimate the total usability has been proposed by the ESRB's working paper released in 2021 and referred in section two of this paper.

However, this approach can be complemented by a more comprehensive interpretation on how the actual usability should be considered. As shown empirically by the right bar of the chart, the capital buffer usability may increase considerably when we consider simultaneously the CBR on top of the risk-based minimum capital requirements and the risk-based MREL. This is because CBR usability can be defined as the maximum usable CBR in the risk-based or in the MREL stack. It follows that where the CBR in the MREL framework is usable (ie. CET1 not locked by the MREL-LR requirement), the overall usability across all framework increases. For the bank in this example, the CBR in the prudential framework is not usable (ie. locked by the MREL-LR and MREL-RW); however, taking into account also the CBR that stacks on top of the MREL requirement, the overall capital buffer usability increases substantially - up from 0% to 20% of the full CBR set up by the supervisor. This approach to estimate the full usability of the capital buffer has been highlighted in the note on financial stability and supervision published by Banca d'Italia in 2022, referenced in section 2 of this paper.

Figure 4: CET1 used to meet RW, LR, MREL and TLAC requirements, values expressed as % of RWAs



As explained in section 3.C of this paper, by applying this approach the buffer usability would increase only for those banks exhibiting LR or MREL-LR requirements met with CET1 higher than the RW requirements.

In order to provide a complete overview of the application of the different methodologies to all the resolution groups under the SRB's remit, the table below shows two different sets of results. One set of results is derived by applying a restrictive approach that considers only the CBR in the risk-weighted capital framework. The second set of results also takes into account the CBR in the resolution framework. Both measures of buffer usability are implemented under two different assumptions concerning MREL requirement, considering either the intermediate target and the final target that will apply as from the first of January 2024 when the transitional period will expire. As the results show, the overall capital buffer usability of the SRB banks grows substantially when the resolution framework's usable combined buffers are taken into account as per the comprehensive approach. Taking into consideration SRB banks' intermediate MREL targets applicable, buffer usability stands at 29.5% under the more restrictive approach put forward by the ESRB in 2021 and at 44.2% under the comprehensive approach. Similarly, when considering the final MREL targets, buffer usability stands at 21.5% and 50.8% with the two different approaches.

Figure 5: CBR usability, full sample of banks assessed

CBR usability, full sample of banks assessed, %				
	All sample	G-SIIs	Top Tier and other Pillar 1 banks	Non-pillar 1 banks
RW approach - with MREL intermediate target	29.5%	26.0%	28.2%	61.1%
Comprehensive approach - with MREL intermediate target	44.2%	36.1%	45.3%	93.9%
RW approach - with MREL final target	21.5%	26.0%	17.2%	17.2%
Comprehensive approach - with MREL final target	50.8%	51.8%	48.4%	58.9%

Note: the sample includes 80 resolution groups. Aggregate buffer usability for the entire sample of banks and per category is calculated based on the weighted average taking into account each bank's CBR. The data computed is based on the banks' balance sheets situation as of 31/12/2022.

5. Conclusions and possible adjustments in regulatory requirements and banks' funding strategies

The empirical analysis developed in this paper shows that, on aggregate, buffer usability is, on average across SRB banks, limited. This is due to the combined effect of the parallel application of the prudential and resolution minimum requirements, and due to diverging rules governing the counting of CET1 for CBR compliance in the risk-weighted and the non-risk-weighted framework. Buffer usability is expected to slightly change once the final MREL requirements will apply, at the beginning of 2024. This effect is driven by the fact that capital buffers stacks on top of risk-based requirements (CET1 cannot be used to meet in parallel both requirement and buffer), while in the leverage ratio framework the double counting is permitted. As shown empirically, the risk-based capital buffers cannot fully be used without breaching the leverage ratio requirement or the MREL requirement when expressed as leverage exposure amount. For example, the leverage ratio can be met with CET1 and AT1. If a bank has sufficient AT1 to fully comply with the leverage ratio requirement, the CET1 is used to meet the capital buffers and therefore no overlap between risk weighted capital buffers and parallel minimum requirement occur. In contrast, if the bank has insufficient AT1 to meet the leverage ratio in full, the remaining part of the leverage ratio would need to be met with CET1 and an overlap between the CET1 component of the leverage ratio requirement and the CET1 used to meet the risk-weighted capital buffers may arise.

In this regard, it is to be acknowledged that the possible multiple uses of capital for buffers and risk-based minimum requirements is an inherent feature of the prudential framework, which was designed in this way by the co-legislators. The existing set-up foresees that the macroprudential and the microprudential frameworks complement each other to foster financial stability in the Banking Union. In this framework, banks are subject to a risk-based capital requirement, and also to the leverage ratio, as well as to the recovery and resolution framework. The leverage ratio has been designed to constrain the build-up of banks' leverage in a way that better protects against model risk and measurement error, while the MREL has been conceived to facilitate the orderly resolution of distressed banks. Another cornerstone of the Basel-III agreement was the introduction of capital buffers, whereby banks need to conserve capital before getting close to breaching minimum requirements. This multi-restrictive framework creates overlaps between different requirements. At the same time, the complexity of the current design requires a broad reflection on how to limit the overlap between the

different requirements, so to increase buffers' usability while ensuring the financial system's capacity to absorb shocks. Yet, the key questions are how to make the framework more effective in tackling systemic risks, smoothen the economic cycle, and eventually redesign it in view of the interaction with the minimum capital and resolution requirements. The European Commission has launched at the end of 2021 a targeted consultation on improving the EU's macroprudential framework for the banking sector.¹² In this context, targeted rebalancing of certain existing requirements may be considered. A stronger separation between buffer and minimum requirements would ensure that all buffers would always be fully usable and that the overall buffer size would be more easily identifiable for banks and authorities. The recently developed analyses on usability of banks' capital buffer offer a starting point for discussing mitigating options for reducing overlaps with minimum requirement.

The ESRB in its "Report on the overlap between capital and minimum requirements" has made several proposals to increase the usability of buffer (Annex 4)¹³, some of them requiring changes in the regulatory framework. Among those, it is in particular worth exploring the possibility for macroprudential authorities to communicate regularly their expectation that banks should maintain a certain level of buffer usability, in coordination with micro-prudential and resolution authorities. This option would give banks the discretion to decide how this level should be achieved, for example by issuing specific instruments to improve buffer usability, or by adjusting their RWAs. The advantage of this approach is that it would reduce the size of the overlaps in a flexible manner. On the other hand, this arrangement would not intervene on the structural reasons behind the existence of overlaps, since it would leave to the banks the responsibility to mitigate the overlapping issue.

When it comes to the MREL regime, banks could be required to hold a minimum amount of eligible liabilities, corresponding for example to the recapitalisation component, to mitigate the buffer overlap with MREL. If banks largely use eligible liabilities to comply with MREL rather than CET1, the overlap between the buffers and non-risk-based MREL declines, and thus buffer usability would increase. This proposal would require a change in the legal framework, and need to be adequately calibrated to minimise side effects. In particular, challenges for accessing debt markets in some jurisdictions and for some banks might make issuing the required amount of eligible liabilities difficult or costly. Following a similar logic, the leverage ratio overlaps with capital macroprudential requirements could also be reduced as a way to increase buffer usability. This objective could be achieved by foreseeing that part of this minimum requirement shall be met with eligible additional Tier 1 instruments, thus releasing CET 1 capital instruments. The benefits of those actions need to be weighted against the risk of weakening the quality of loss absorbing capacity and the overall resilience of the banking sector.

¹² https://finance.ec.europa.eu/regulation-and-supervision/consultations/finance-2021-banking-macroprudential-framework_en

¹³ See ESRB (2021): Report of the Analytical Task Force on the overlap between capital buffers and minimum requirements (https://www.esrb.europa.eu/pub/pdf/reports/esrb.ATReport211217_capitalbuffers~a1d4725ab0.en.pdf) December 2021.

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ANNEX A – Technical description of the method and data

Sample: 80 resolution groups under the SRB remit for which an external MREL target was set (or is) in 2022 resolution planning cycle, excluding: i) two resolution groups due data unavailability at the time of finalising this paper; ii) groups whose preferred strategy is liquidation.

Reference Date: 31 December 2022.

Data Source: the 2022 Liability Data Report and Commission Implementing Regulation 2021/763 reports.

MREL targets: the targets considered in the analysis are: i) draft external final MREL targets (expressed as % TREA and % LRE) set by the SRB under the 2022 RPC as per draft resolution plans; ii) intermediate MREL targets (expressed as % TREA and % LRE) set by the SRB under the 2021 RPC as per official decisions.

Bank category: the list of Other Systemically Important Institutions (O-SIIs) includes banks identified and notified to the EBA in 2022 by competent or designated authorities in accordance with the EBA Guidelines on criteria to assess other systemically important institutions ([link](#)).

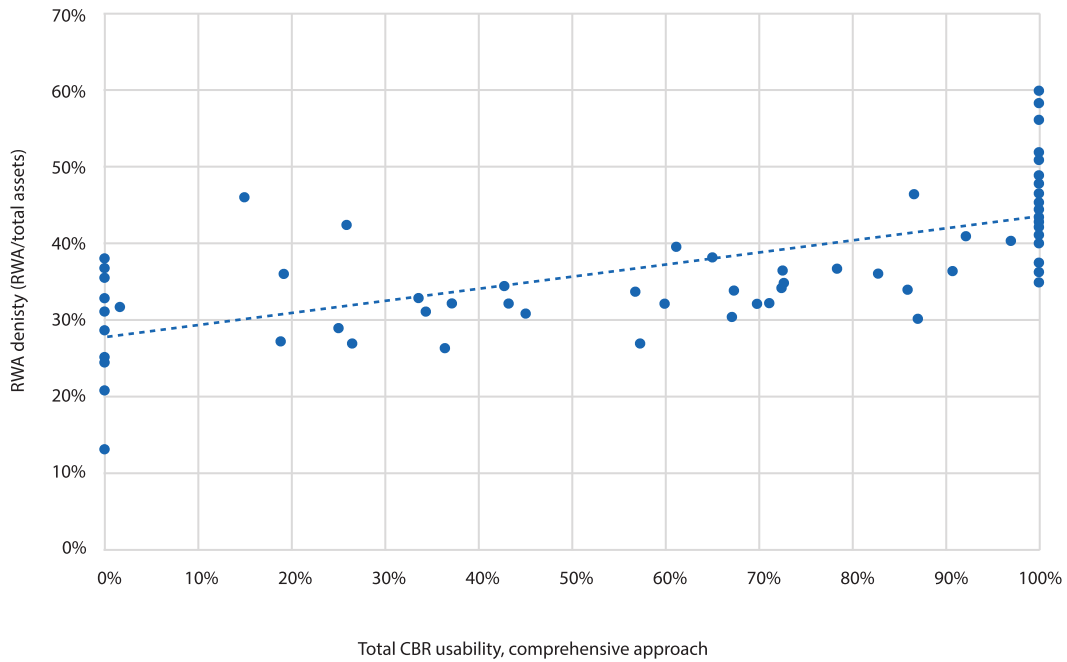
ANNEX B – Buffer usability across different bank categories

G-SII	MREL final target		MREL interim target	
	Total CBR usability, RW approach	Total usability comprehensive approach	Total usability, RW approach	Total usability comprehensive approach
Bank 1	0.0%	100.0%	0.0%	25.9%
Bank 2	45.1%	66.5%	45.1%	45.1%
Bank 3	0.0%	0.0%	0.0%	0.0%
Bank 4	57.3%	57.3%	57.3%	57.3%
Bank 5	0.0%	33.7%	0.0%	33.7%
Bank 6	56.2%	96.5%	56.2%	72.5%
Bank 7	26.5%	26.5%	26.5%	26.5%
Bank 8	0.0%	24.1%	0.0%	19.2%

Top Tier and other Pillar 1 banks	MREL final target		MREL interim target	
	Total CBR usability, RW approach	Total usability comprehensive approach	Total usability, RW approach	Total usability comprehensive approach
Bank 1	18.91%	18.9%	18.91%	18.9%
Bank 2	35.56%	76.7%	47.65%	85.9%
Bank 3	41.20%	100.0%	70.35%	100.0%
Bank 4	0.00%	79.6%	0.00%	0.0%
Bank 5	0.00%	100.0%	7.31%	100.0%
Bank 6	0.00%	47.1%	0.00%	0.0%
Bank 7	0.00%	9.0%	0.00%	1.7%
Bank 8	51.67%	100.0%	90.75%	90.7%
Bank 9	0.00%	87.3%	0.00%	0.0%
Bank 10	0.00%	48.5%	26.21%	56.7%
Bank 11	0.00%	0.0%	0.00%	0.0%
Bank 12	0.00%	79.0%	0.00%	61.2%
Bank 13	0.00%	0.0%	72.66%	72.7%
Bank 14	9.83%	100.0%	71.35%	96.8%
Bank 15	6.25%	53.1%	7.10%	42.8%
Bank 16	0.00%	23.0%	0.00%	0.0%
Bank 17	62.00%	67.1%	65.00%	65.0%
Bank 18	0.00%	0.0%	0.00%	0.0%
Bank 19	69.80%	69.8%	69.80%	69.8%
Bank 20	43.24%	43.2%	43.24%	43.2%
Bank 21	0.00%	0.0%	36.38%	36.4%
Bank 22	0.00%	53.6%	0.00%	15.0%
Bank 23	0.00%	41.9%	100.00%	100.0%
Bank 24	0.00%	12.8%	0.00%	0.0%
Bank 25	0.00%	0.0%	0.00%	0.0%
Bank 26	0.00%	0.0%	0.00%	0.0%
Bank 27	36.58%	92.7%	39.32%	67.3%
Bank 28	0.00%	57.5%	0.00%	87.0%
Bank 29	25.05%	25.0%	25.05%	25.0%
Bank 30	34.40%	34.4%	34.40%	34.4%
Bank 31	35.86%	100.0%	100.00%	100.0%
Bank 32	82.85%	82.8%	82.85%	82.8%
Bank 33	0.00%	0.0%	0.00%	0.0%
Bank 34	86.61%	86.6%	86.61%	86.6%
Bank 35	0.00%	96.6%	6.26%	100.0%
Bank 36	0.00%	0.0%	78.23%	100.0%
Bank 37	0.00%	0.00%	0.00%	0.00%

Non-pillar 1 banks	MREL final target		MREL interim target	
	Total CBR usability, RW approach	Total usability comprehensive approach	Total usability, RW approach	Total usability comprehensive approach
Bank 1	0.00%	25.9%	32.4%	100.0%
Bank 2	0.00%	100.0%	0.0%	100.0%
Bank 3	0.00%	0.0%	100.0%	100.0%
Bank 4	0.00%	75.4%	100.0%	100.0%
Bank 5	0.00%	98.3%	67.2%	67.2%
Bank 6	31.53%	100.0%	37.9%	100.0%
Bank 7	0.00%	87.0%	63.0%	100.0%
Bank 8	0.00%	10.0%	100.0%	100.0%
Bank 9	0.00%	22.2%	100.0%	100.0%
Bank 10	0.00%	100.0%	14.5%	100.0%
Bank 11	37.20%	37.2%	37.2%	37.2%
Bank 12	48.15%	100.0%	100.0%	100.0%
Bank 13	16.20%	98.8%	78.4%	78.4%
Bank 14	0.00%	100.0%	0.0%	100.0%
Bank 15	0.00%	35.8%	0.0%	100.0%
Bank 16	3.13%	100.0%	3.1%	59.8%
Bank 17	25.35%	96.6%	71.3%	100.0%
Bank 18	0.00%	0.0%	100.0%	100.0%
Bank 19	0.00%	0.0%	0.0%	0.0%
Bank 20	0.00%	12.8%	100.0%	100.0%
Bank 21	0.00%	0.0%	0.0%	0.0%
Bank 22	0.00%	60.4%	23.5%	100.0%
Bank 23	0.00%	100.0%	0.0%	100.0%
Bank 24	0.00%	0.0%	71.1%	71.1%
Bank 25	68.55%	100.0%	90.2%	100.0%
Bank 26	0.00%	0.0%	100.0%	100.0%
Bank 27	0.00%	100.0%	12.3%	100.0%
Bank 28	0.00%	0.0%	100.0%	100.0%
Bank 29	0.00%	0.0%	92.1%	92.1%
Bank 30	47.64%	100.0%	47.6%	100.0%
Bank 31	25.83%	100.0%	100.0%	100.0%
Bank 32	100.00%	100.0%	100.0%	100.0%
Bank 33	19.23%	92.8%	100.0%	100.0%
Bank 34	41.95%	100.0%	72.6%	72.6%
Bank 35	100.00%	0.00%	0.00%	100.0%

Annex C: Distribution of the results and relationship between banks' estimated CBR usability and banks' risk density



Annex D: ESRB's proposed potential mitigating options that can increase CBR's usability¹⁴

	Option	Need for legal change?	Improving usability of CBR	Improving usability of LR buffer	Improving usability of excess capital with respect to MREL-RWA
1	Intensified information exchange between authorities on requirements and resources	No/Yes (depending on the existing arrangements)	Indirectly	Indirectly	Indirectly
2	Enhanced bank disclosure on buffer usability and distance from breach	Yes	Indirectly	Indirectly	Indirectly
3	Higher CBR	No	Yes	No	No
4	Increase risk weights through: (a) macroprudential measures; (b) microprudential measures; (c) general regulatory requirements (such as the Basel floor)	No/Yes (depending on the measure used)	Yes	No	No
5	Communicate expectation of banks keeping usable buffer	No	Yes (if compliant)	Yes (if compliant)	Yes (if compliant)
6	Legal requirement for minimum EL	Yes	Yes	Yes	Yes
7	Mirroring CBR with LR buffers	Yes	Yes	Yes	No
8	Prohibiting the multiple use of capital for buffers and minimum requirements	Yes	Yes	Yes	No
9	LR buffer stacked on top of MREL-LR	Yes	No	Yes	No
10	Meeting LR buffers with CET1 only	Yes	No	Yes	No
11	Higher capital quality of risk-based minimum requirements	Yes	Yes	No	No
12	Higher capital quality of leverage-based minimum requirements	Yes	No	Yes (if combined with (10))	No

¹⁴ Source of the table: ESRB's Report of the Analytical Task Force on the overlap between capital buffers and minimum requirements (2021).

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