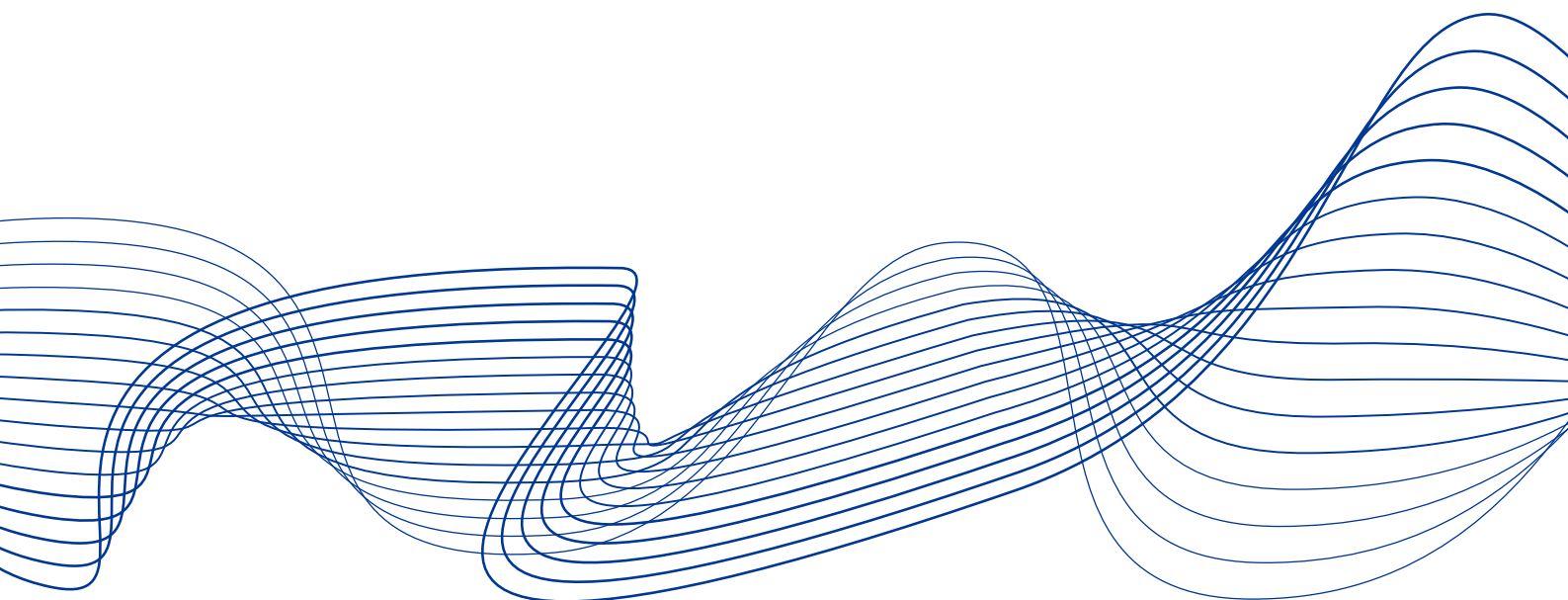


Review of the EU Macroprudential Framework for the Banking Sector

March 2022

Response to the call for advice



ESRB

European Systemic Risk Board

European System of Financial Supervision

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Executive summary

The European Systemic Risk Board (ESRB) welcomes the opportunity to contribute to the European Commission’s call for advice (CfA) on the 2022 Review of the EU Macroprudential Framework. The European Union (EU) banking system has improved its resilience thanks to the significant reforms introduced after the global financial crisis. This enhanced resilience – along with the substantial fiscal, monetary and prudential support that was swiftly activated – has allowed the banking system to continue lending to the real economy during the pandemic crisis. Overall, the macroprudential framework has functioned well over the last decade and during the pandemic crisis, making a significant contribution towards maintaining the provision of bank services by providing capital and liquidity relief. At the same time, the effectiveness of the macroprudential framework could be enhanced to allow macroprudential authorities to take a more proactive and forward-looking approach given the risks that have recently emerged and are suddenly materialising. With its response, the ESRB aims to emphasise the key priorities for making the improvements necessary to strengthen the macroprudential framework for the next decade.

The ESRB response covers the four broad themes on which the Commission is seeking advice, namely (i) the overall design and functioning of the buffer framework, (ii) missing or obsolete instruments, (iii) Internal Market considerations and (iv) global risks, including climate change. The response deals with each of these themes according to the following structure. First, it identifies the problem and the need for improvement. Second, a detailed assessment of the benefits and costs of each policy proposal is carried out to substantiate the proposals. The proposals put forward are based on a comprehensive literature review, with a focus on empirical evidence and Members States’ experiences with the framework during the last few years.

In its call for advice, the Commission requested advice on improving the overall design and effectiveness of the buffer framework to prevent and mitigate financial stability risks and to reduce the procyclicality of the financial system. Chapter 1 discusses policy enhancements to the buffer framework. First, in order to enhance authorities’ use of the countercyclical capital buffer (CCyB), the reply suggests adding additional cyclical indicators alongside the credit-to-GDP gap and allowing the CCyB to be activated based on signs of increasing cyclical risks. The early, preventive and forward-looking use of the CCyB strengthens resilience and ensures that there is enough capital that can be released or used for loss absorption during a crisis. In this context, the Capital Requirements Directive (CRD V)¹ should allow the option to reduce the 12-month implementation period to six months without the need to cite exceptional circumstances. Second, also with the purpose of enhancing the use of the macroprudential buffers, it is proposed that the amount of releasable capital be increased by (i) making earlier and more active use of the CCyB, (ii) enabling authorities to establish a positive neutral rate for the CCyB and (iii) enabling authorities to establish a positive neutral rate for the systemic risk buffer (SyRB). Third, it is important to address the interaction with minimum requirements to avoid constraints on the usability and

¹ **Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures** (OJ L 150, 7.6.2019, p. 253).



effective use of capital buffers, while being consistent with global standards. A possible option for reducing the constraints is to mirror all macroprudential buffers, or at least the buffer for other systemically important institution (O-SII) as first step, in leverage ratio buffers to enhance consistency across banks and improve the usability of the buffer framework. Other options that eliminate or reduce the overlap problem are discussed in the ESRB (2021) report on the overlap between capital buffers and minimum requirements.

In its call for advice, the Commission requested advice on the need to add macroprudential tools to the EU legal framework and to reconsider whether some instruments have become obsolete. Chapter 2 discusses possible improvements to the macroprudential instrument framework. The first proposal is to introduce into the EU legal framework a minimum common set of borrower-based measures (BBMs) for residential real estate (RRE) while leaving in the hands of the national authorities the decisions on the activation and release of BBMs and on their calibration and overall design. The Commission should consider which safeguards might be necessary to ensure that the new set of macroprudential powers would be used solely at national level, as the proposal to include BBMs in EU legislation is subject to the condition that the topping-up power of the European Central Bank (ECB) does not apply. Such BBMs should also be included in the Mortgage Credit Directive (MCD)². In addition, Member States should be allowed to extend the scope of BBMs to other loans and legal persons as a way of avoiding circumvention. In order to reduce the potential for inaction bias, common standards for the governance of BBMs should be introduced to increase transparency in decision-making about BBMs. However, in establishing minimum common definitions at European level, sufficient flexibility should be allowed in national definitions, including the flexibility to incorporate the measures of countries that have already activated BBMs. The creation of a minimum set of BBMs could be complemented by enhancing data availability, harmonising the monitoring indicators and addressing the existing gaps in the availability and comparability of data on the RRE and commercial real estate (CRE) markets in the EU by using the definitions of indicators set out in the ESRB Recommendation on closing real estate data gaps³. The second proposal is to consolidate all risk weight provisions currently in the Capital Requirements Regulation (CRR)⁴ into a single article for exposures secured by immovable property, allowing only for interventions at the risk weight level.

In its call for advice, the Commission requested advice on whether the current macroprudential framework allows national authorities to adequately address systemic risk, ensuring both the effectiveness of the macroprudential instruments and the appropriate safeguards for the integrity of the Internal Market. Chapter 3 discusses possibilities for enhancing Internal Market consistency by simplifying procedures for the implementation and reciprocation of macroprudential measures. First, in order to reduce inaction bias and ensure the integrity of the Internal Market, it is crucial to revise the cumulative rule of broad and sectoral SyRB rates in the CRD V and clarify that recognised SyRB rates do not count towards the authorisation

² [Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation \(EU\) No 1093/2010](#) (OJ L 60, 28.2.2014, p. 34).

³ [Recommendation of the European Systemic Risk Board of 21 March 2019 amending Recommendation ESRB/2016/14 on closing real estate data gaps \(ESRB/2019/3\)](#) (OJ C 271, 13.8.2019, p. 1).

⁴ [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](#) (OJ L 176, 27.6.2013, p. 1).



thresholds. Second, this reply proposes simplifying the use of stricter national macroprudential measures under Article 458 of the CRR. The condition for activating Article 458 of the CRR should also take into account situations where the intensity of macroprudential or systemic risk is unchanged but still high, while the application period of Article 458 of the CRR and any subsequent extension should be increased by one additional year. The third proposal is to review reciprocity provisions by introducing a separate article outlining the scope of reciprocity of macroprudential measures. It is proposed to (i) adopt mandatory reciprocity for Article 458 measures and the SyRB, subject to materiality thresholds; (ii) remove the reciprocity cap of 2.5% for the CCyB; and (iii) adjust the procedural requirements (i.e. notifications). Fourth, the reply proposes to promote a holistic review of the O-SII identification and calibration methodology, for instance by developing an EU-wide floor methodology with additional guidance on the calibration of O-SII buffer rates. This should be accompanied by the use of within-year averages instead of year-end values during the O-SII identification process to reduce incentives to window dress.

The ESRB believes that ensuring cooperation, coordination and the exchange of information among microprudential and macroprudential authorities, resolution authorities and central banks enhances policymaking for the banking sector in particular and the financial sector as a whole, notably in a crisis.

First, delineating the scope of action would streamline the governance procedures in macroprudential policy by helping identify synergies between the ESRB and the European Banking Authority (EBA). Whenever a new instrument or methodological approach is included in the EU macroprudential framework, the Commission should continue to ensure a prominent role for the ESRB. Second, the capital conservation plans, when defined and adjusted in the context of a systemic shock – and in particular where global systemically important institutions (G-SIIs)/O-SIIs are concerned, given the systemic importance of these banks – should also involve national macroprudential authorities, as the replenishment path and conditions should take into account broader financial stability considerations. In the event of a buffer breach, the competent authority should immediately inform authorities with a financial stability mandate. The competent authority should also consult the macroprudential authorities when deciding whether to impose distribution restrictions following a breach of the combined buffer requirement (CBR)/leverage buffer on top of the minimum requirement for own funds and eligible liabilities (MREL). Alternatively, distribution restrictions should be made automatic following such a breach. In addition, macroprudential and microprudential authorities should closely coordinate their decisions and timelines regarding the replenishment of buffers in the context of a systemic shock. Finally, the current review of the crisis management and deposit insurance (CMDI) framework in the EU should be used to ensure consistency with the macroprudential review, while potential amendments to the CRD/CRR package and the Bank Recovery and Resolution Directive (BRRD)⁵ to address gaps in supervisory, MREL and resource data should be assessed by the Commission.

In its call for advice, the Commission requested advice on limiting systemic risks and vulnerabilities that do not necessarily originate in the EU banking system but affect European financial stability. Currently, macroprudential tools to prevent and mitigate financial

⁵ [Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations \(EU\) No 1093/2010 and \(EU\) No 648/2012, of the European Parliament and of the Council \(OJ L 173, 12.6.2014, p. 190\).](#)



stability risks arising from banks' exposures to third countries are considered appropriate and sufficient. In order to reduce the inaction bias when it comes to setting CCyB rates for exposures to third countries, it is therefore important that the ESRB's coordinating role is retained so that potential inconsistent application of the CCyB for third countries does not lead to fragmentation of the Single Market. Additionally, the process for activation of third-country measures could be reviewed in order to reduce inaction bias. The second proposal is to focus on the principle of "same activities, entity-specific risks, consistent rules" as overall guidance for reforming the EU macroprudential framework. In the longer term, a dedicated macroprudential code where the macroprudential framework is provided for the entire financial system would have several advantages. In the medium term, it is important to promote the implementation of measures to limit procyclicality in margin and haircut requirements, together with consistent macroprudential definitions of high-quality liquid assets (HQLA) across the financial system. More experience might be needed before introducing new harmonised liquidity instruments at EU level. However, that should not exclude the adoption of measures to promote a regulatory system-wide perspective for monitoring and addressing liquidity risks. In addition, with regard to liquidity regulation, it should be clarified that the CRD/CRR package does not prohibit additional liquidity instruments. Another proposal is to create capabilities to tackle climate risk by closing climate data gaps, developing harmonised and granular taxonomy and metrics. **To ensure financial stability, the unique features and systemic dimensions of climate-related risks require the application of macroprudential policies consistent with and complementary to microprudential policy.** The use of existing tools in the CRD/CRR such as the sectoral SyRB and large exposure limits should be explored. If the exploration shows that existing measures are insufficient to address climate risk the design of additional instruments like concentration charges in the framework could be considered. Finally, the reply proposes to extend the macroprudential mandate to include cyber resilience. This would make it possible to introduce elevated cyber resilience requirements for systemically important institutions and either apply concentration limits to third-party providers or require higher cyber resilience in the event of a lack of substitutability of third-party providers. The extension of the mandate should encompass third-party providers, in the same way as the Digital Operational Resilience Act (DORA) proposal⁶ provides for a similar extension of the microprudential mandate. In addition, macroprudential authorities should be required to define their expectation as to a maximum acceptable level of disruption to critical economic functions which would not pose risks to financial stability. Meanwhile, efforts to supplement data collection initiatives with a framework for information sharing among authorities should be encouraged.

⁶ **Proposal for a Regulation of the European Parliament and of the Council on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014 and (EU) No 909/2014 (COM/2020/595 final).**



1 Design and functioning of the buffer framework

In its call for advice, the Commission requested advice on the scope for improving the overall design and effectiveness of the buffer framework to prevent and mitigate financial stability risks and to reduce the procyclicality of the financial system. This response focuses on three particular topics.

- Parallel requirements alongside the risk-weighted capital requirements could for some banks represent obstacles to banks' ability to use both non-releasable and releasable buffers ("usability"). Limited amounts of releasable buffers were available at the onset of the coronavirus (COVID-19) crisis. Is the existing buffer framework sufficiently effective to address systemic shocks that may hit the banking system at different stages of the financial or economic cycle? Should the amount of effectively usable macroprudential buffers be increased? If so, how can this be achieved while maintaining the multi-restrictive capital framework in accordance with the Basel standards?
- Releasable buffer space was limited at the onset of the pandemic. Does the framework for releasable buffer space need to be enhanced to ensure that buffers can play a greater countercyclical role in a more preventive and forward forward-looking manner?
- For G-SIIs, the risk-weighted G-SII buffer has been linked to the leverage ratio. Should this be extended to O-SIIs and possibly to other parts of the buffer framework?

1.1 Improving the effectiveness of the buffer framework

(i) Reasons for improvement

Bank capital buffers are intended to help banks absorb losses while maintaining the provision of key financial services to the real economy in times of stress. Capital buffers should lessen the damaging effects that can arise from credit supply shortages. Making use of released buffers means using the capital space on top of regulatory minimum requirements and buffers. Additionally, if needed, banks can also dip into non-released regulatory buffers, which gives rise to payout restrictions.

The limited availability of releasable capital buffers has constrained some macroprudential authorities' ability to act countercyclically. While the European banking sector has built up significant capital buffers since the global financial crisis, the role played by the CCyB has been limited, as it was set at 0% in many euro area countries at the onset of the COVID-19 pandemic. In the euro area the CCyB, amounted to only 0.1% of risk-weighted assets (RWA) at the onset of the pandemic. At the end of 2019, the CCyB rate amounted on aggregate to only 0.3% of RWA in the EU. This is low compared with the CBR, which amounted to 4% of RWA. European and national authorities took swift measures to address the impact on the financial sector of the coronavirus



pandemic. Several EU macroprudential authorities (including central banks and banking supervisors) reduced macroprudential buffer requirements. For example, euro area authorities released more than €20 billion of Common Equity Tier 1 (CET1) capital held by banks, of which €12 billion came from the release of the CCyB, although none of the buffers was originally designed to address an exogenous shock from a pandemic.

The Basel credit-to-GDP gap has significant limitations, mainly regarding the strong inertia of the estimated long-run trend, which does not allow structural changes or sudden variations in the ratio to be properly captured and which provides misleading signals regarding the position in the financial cycle. This inertia is a source of large downward biases in the Basel gap after crises. These downward biases lead the indicator to signal excessive credit developments too late during recovery phases. For the EU as a whole, credit-to-GDP gaps were found to be the best single leading indicators for systemic banking crises associated with excessive credit growth before the last global financial crisis. However, in a number of countries these indicators have provided misleading signals of cyclical risk in recent years. This demonstrates the drawback of relying on a single measure of credit disequilibrium for setting the CCyB.

There is room to further improve the functioning of the existing CCyB framework in relation to cyclical systemic risk. First, the literature suggests that the credit-to-GDP gap should have a less prominent role and be supplemented by additional quantitative indicators and analytical approaches, so that cyclical systemic risk can be properly measured. Second, the requirement to demonstrate an increase in risks, together with the subsequent activation period, can result in a considerable time lag in the build-up of the CCyB. This time lag is further exacerbated by the considerable uncertainty surrounding the evolution of cyclical systemic risk over the activation period. Early, forward-looking activation or more active use of the CCyB are already possible within the current framework.

(ii) Proposals for enhancement

- **Change the framework to further enable an early and more preventive and forward-looking use of the CCyB.** First, additional cyclical indicators should have a more prominent role as a complement to the credit-to-GDP gap for the activation and increases of the CCyB. Second, as mentioned above, the requirement to demonstrate an increase in risks, along with the subsequent activation period, can result in a considerable time lag in the build-up of the CCyB. This time lag is further exacerbated by the uncertainty surrounding the evolution of cyclical systemic risk over the activation period. This is particularly problematic if there is relatively little time between receiving the first early warning signals of elevated systemic cyclical risks and the materialisation of risks, as it makes it difficult for the CCyB to be built up gradually and in good time. The CRD should therefore mention that CCyB increases can be based on signals of increasing cyclical risks and should allow for the option to reduce the 12-month implementation period to six months without the need to explain exceptional circumstances.



- **Increase the amount of releasable capital.** This could be achieved by (i) allowing for earlier and more active use of the CCyB, (ii) enabling authorities to establish a positive neutral rate for the CCyB and (iii) enabling authorities to establish a positive neutral rate for the SyRB.

(iii) Policy assessment

- **More preventive and forward-looking use of the CCyB would make the buffer framework more effective in ensuring sufficient resilience against cyclical systemic risks.** Proactive use of the CCyB would allow both the time lag and the uncertainty in the activation and build-up of the CCyB to be addressed. A revision of recital 80 of the CRD should include a provision that the policy action can be based on signs of increasing cyclical systemic risks.
- **A combination of the credit-to-GDP gap with other variables in a multivariate setting performs better than any standalone indicator as a signal to indicate that the CCyB may need to be built up.** While recognising the important role of judgement by macroprudential authorities in setting the CCyB, the CRD should therefore mention more explicitly that other cyclical risk indicators are just as important as, for example, the credit-to-GDP gap. The CRD should also allow the option to reduce the 12-month implementation period to six months without the need to explain exceptional circumstances.

At the same time, to maintain the current level of resilience when a cyclical systemic risk materialises, structural buffers should not be lowered. In this regard, it is important to keep the CCoB at 2.5% in order to conserve sufficient capital for potential future loss absorbency. This could be achieved, at national discretion, by making earlier or more active use of the CCyB through the creation of a positive neutral rate for the CCyB or for the SyRB. To operationalise a positive neutral SyRB, it would be beneficial if all Member States would introduce the SyRB. Nonetheless, a positive neutral rate needs to be carefully introduced to avoid unintended procyclical effects. It also needs to be designed in such a way that national authorities can make effective use of it.

1.2 Extension of the leverage ratio buffer

(i) Reasons for improvement

The regulatory framework is multi-restrictive by construction. The revised EU capital regulation for banks features three parallel frameworks with minimum requirements. The risk-weighted framework is aimed at underpinning the resilience of banks, the leverage ratio framework limits the build-up of leverage and the resolution framework facilitates the resolution of failed banks. Parallel requirements (leverage ratio, MREL) alongside the risk-weighted capital requirements can represent obstacles to banks' ability to use buffers ("usability").

Empirical evidence collected by the ESRB Analytical Task Force (ATF) on the overlap between capital buffers and minimum requirements shows that buffer usability is



constrained by the leverage ratio in some EU Member States and may decline further once MREL rules apply.⁷ The analysis also points out that the introduction of the output floor will reduce the limitations on buffer usability but will not remove them. Therefore, limited buffer usability will remain an issue. The current overlap is increased as MREL intermediate targets have already applied since January 2022 and final targets will be fully phased in by 2024. The Basel III output floor, which could help improve buffer usability to a limited extent, will start to be implemented in 2025 with full implementation in 2030. The ESRB ATF concluded that the overlap is material even when simulating the adjustments to be made by banks to meet final requirements. This means that action may need to be taken in good time to increase buffer usability.

It is important to address the interaction with other minimum requirements to avoid constraints on the usability and effective use of capital buffers, while at the same time maintaining the multi-restrictiveness of the capital requirements in accordance with global standards. Leverage ratio buffers could be mechanically linked to risk-weighted buffers to enhance buffer usability and to make the framework more consistent. This is already the case for the G-SII leverage ratio buffer, which will be applicable in 2023. The G-SII leverage ratio buffer requirement improves the resilience of these institutions, which rely more on internal models to set risk-weighted capital requirements and which have significant trading books with low measured risk. As a result, the G-SII leverage ratio buffer makes these institutions more resilient and reduces systemic risks by limiting their probability of failure, providing a complement to the risk-weighted G-SII buffer. According to the legal framework, G-SIIs must maintain a leverage ratio buffer equal to their total leverage exposure measure multiplied by 50% of the applicable risk-weighted G-SII buffer requirement rate.

(ii) Proposals for enhancement

- **The ESRB does not make a proposal as ESRB members' views are heterogenous.**
- **There are several possible mitigating options for addressing the problem of restricted buffer usability, including mirroring all or at least the O-SII buffers in the leverage ratio (as discussed in the ESRB ATF report).**
- **If the leverage ratio buffer is not extended this time, the subject should be considered as a priority for the next macroprudential review.**

(iii) Policy assessment of costs and benefits

There are different ways to improve buffer usability, with wide-ranging implications in terms of costs and benefits. A possible option could be to remove the multiple use of capital across different capital requirements. This option could fully remove the overlap and thus ensure buffer usability. However, it might lead to a significant increase in some banks' total capital requirements

⁷ See "**Report of the Analytical Task Force on the overlap between capital buffers and minimum requirements**", ESRB, December 2021.



where there is a considerable overlap and would require changes to the CRD/CRR. With regard to MREL, it would also require changes to the BRRD/Single Resolution Mechanism Regulation (SRMR)⁸. Such a revision would need to be discussed at Basel level, as it would be conceptually different compared with the current set-up regarding the fungibility of capital. Alternatively, the consequences of the overlap could be reduced by extending some or all risk-weighted buffers to the leverage ratio, which has a more contained impact both in terms of eliminating the consequences of the overlap and in terms of the increase in capital.

Mirroring macroprudential buffers in the leverage ratio framework. Extending the leverage ratio buffer requires several design specifications, namely (i) the scope, i.e. the set of banks to which the buffer will apply; (ii) the composition of the buffers, i.e. the set of risk-weighted buffers that will be mirrored in the leverage ratio framework; (iii) the type of capital eligible to meet the new requirement; and (iv) the conversion factor between the risk-weighted buffer rate and the new leverage ratio buffer.

It should be determined whether the leverage ratio buffer should only mirror the O-SII buffer or whether it should mirror all risk-weighted buffers and apply to all banks. The extension of some or all risk-weighted buffers to the leverage ratio increases the usability of capital buffers by increasing capital requirements for banks with low risk weight density and strengthening the resilience of banks. The usability would increase from 29% to 33% with the introduction of an O-SII leverage ratio buffer, assuming a conversion factor of 50% provided that banks are willing to dip into the structural buffer. Introducing an O-SII leverage ratio buffer would also address the inconsistency – both from a legal and systemic risk perspective – that G-SIIs would be subject to the G-SII leverage buffer, while O-SIIs which are more systemic in some jurisdictions than G-SIIs are globally⁹ would not. However, some doubts remain over the potential of the O-SII leverage ratio buffer to mitigate the usability problem, given the small increase in buffer usability after their potential introduction. Mirroring the whole CBR in the leverage ratio buffer would mitigate the overlap and increase the usability of the buffer framework significantly (from 29% to 77%, assuming a conversion factor of 50%). This approach would also mirror releasable buffers in the leverage ratio framework. Furthermore, it would strengthen the complementary function, as the leverage ratio buffer would sit on top of the leverage ratio capital stack. On the other hand, it would also increase the complexity of the framework given differences between risk-weighted and leverage frameworks and considering that buffer-setting practices may have to be amended to take into account their impact on the leverage ratio buffer size.

On the basis of the empirical evidence, there is a clear trade-off between the effectiveness (benefit) in terms of increasing buffer usability and the increase in capital (cost) of mirroring some or all risk-weighted capital buffers in the leverage ratio. While the extension of all risk-weighted buffers to the leverage ratio would be more effective in increasing buffer usability, it would also imply a more material increase in required resources (€63bn, assuming a conversion factor of 50%). In contrast, a more limited extension, e.g. of mirroring the O-SII buffer with a conversion

⁸ **Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010** (OJ L 225, 30.7.2014, p. 1).

⁹ As measured by the G-SII and O-SII scores of the respective banks.



factor of 50%, would have a more limited impact on increasing buffer usability but would also imply a more limited increase in required capital resources (€6.7bn.).

It is important to clearly define the type of capital that would be eligible to meet this new requirement. Inconsistencies in the composition of capital under the leverage ratio and risk-weighted buffers could reduce the effectiveness of leverage ratio buffers. While risk-weighted buffer requirements can be met with CET1, G-SII leverage ratio buffers can also be met with Additional Tier 1 (AT1) capital. However, AT1 capital may not be suitable as buffer capital given low write-down and conversion triggers. This difference in the composition of capital could also hamper usability. In addition, risk-weighted buffers stack on top of risk-weighted MREL, while leverage ratio buffers do not stack on top of leverage-based MREL. If these inconsistencies are not removed, they could be exacerbated and reduce the effectiveness of leverage ratio buffers.

Using the current conversion rate for the G-SII leverage buffer would avoid an increase in complexity and ensure comparability of capital buffers across banks. The conversion factor determines the size of the leverage ratio buffer requirements and will consequently affect banks' capital requirements differently, depending on business models or on whether banks are already constrained by their leverage ratio capital requirements. While the conversion factor implemented for the G-SII leverage ratio buffer is set at 50% of the G-SII risk-weighted buffer under Basel and in the EU, other countries have implemented their own targeted requirements that need to be equal or stricter to be Basel-compliant. As Basel sets minimum standards, and jurisdictions are free to set higher requirements, using the Basel conversion factor and applying it to other buffers would reduce complexity and could also be something to strive for at global level. Using a lower conversion factor would create inconsistency with the G-SII buffer conversion factor under Basel and in the EU. There would be no economic reason for different conversion factors applicable to different buffers and such option would unnecessarily increase complexity in the framework.

To be effective, the leverage ratio buffer requirement could sit on top of non-risk-weighted minimum requirements and be met with CET1, the same capital quality as requested for risk-weighted buffers. As with risk-weighted buffers, a leverage ratio buffer (including the forthcoming G-SII leverage ratio buffer) could sit on top of the minimum leverage ratio and on top of non-risk-weighted MREL requirements to avoid overlaps in the non-risk-weighted stacks. In addition, as buffer capital should be readily available to absorb losses before any other instrument, it needs to be of the highest quality.

There is merit to mirror all or some macroprudential buffers in the leverage ratio framework. Taking into account the impact in terms of increasing capital requirements and the design challenges associated with its implementation, any change to the leverage ratio needs to be carefully implemented to avoid unintended effects, also taking into account the Basel output floor and the full phasing-in of the MREL requirements.



2 Obsolete and missing instruments

In its call for advice, the Commission requested advice on the need to add macroprudential tools to the EU legal framework or to reconsider whether some instruments have become obsolete, based on a cost-benefit analysis benchmarked against the baseline option of no change. This response focuses on four particular topics of interest.

- Many Member States are using BBMs in addition to capital-based and other measures to prevent credit-fuelled overheating. Should BBMs be added to the EU macroprudential toolkit? Specifically, how could the EU macroprudential framework support and ensure a more comparable and effective use of BBMs across Member States?
- There was a consensus in the current crisis on the need to impose restrictions on the distribution of capital to investors and staff even before the CBR is breached, but there are no clearly defined powers for national or EU authorities to apply such restrictions on a system-wide basis. Should competent authorities be empowered by EU law to impose restrictions on such distributions in exceptional circumstances (Article 518b of the CRR)?
- In particular, forthcoming legal changes due to the finalisation of Basel III reforms may have implications for macroprudential instruments that directly or indirectly affect risk weights such as those provided under Articles 164 and 458 of the CRR. To what extent should provisions be maintained that allow the adjustment of risk weights or risk weight determinants for real estate exposures on macroprudential grounds once Basel III input and output floors apply?
- Systemic liquidity risks have a cyclical component: in the boom phase, funding and market liquidity are abundant, and individual investors and issuers increase their liquidity risk exposure. This reduces their liquidity risk-bearing capacity, leading to increasing systemic liquidity risk throughout the financial system which may materialise when the liquidity illusion evaporates. The systemic consequences of liquidity and funding risk call into question the desirability of creating new macroprudential liquidity instruments.

2.1 Borrower-based measures

(i) Reasons for improvement

BBMs act directly on the borrower, generally restricting the quantity of credit provided with characteristics that are deemed risky. The most frequently used measures are limits to loan-to-value (LTV), debt or loan-to-income (D/LTI), debt or loan-service-to-income (DSTI/LSTI) maturity and amortisation requirements. So far, existing measures have been predominantly used to address RRE risks, while a few measures to address risks related to CRE loans have also been



implemented.¹⁰ While powers to activate legally binding BBMs are currently available in most European Economic Area (EEA) countries, the existing national legal frameworks diverge significantly in the extent to which they are available to authorities to mitigate financial stability risks. Limitations on the use of appropriate macroprudential tools across Member States may expose the European economy as a whole to systemic risks. BBMs can help to ensure sound lending standards and higher resilience of borrowers. They are therefore necessary complements to capital-based measures. International experiences illustrate that risks to financial stability from developments on RRE markets tend to build up when there is a combination of strong house price growth and strong housing credit dynamics while credit standards are being eroded. BBMs can help mitigate these risks by ensuring minimum credit standards for new housing loans, which can be associated with stricter lending standards, a reduced risk of excessive mortgage credit growth and higher resilience of both households and lenders. By reducing the procyclicality of credit, the scale of banking crises and/or their negative economic consequences become smaller. Consumption and investment are less volatile, contributing to a more stable macroeconomic environment and facilitating economic growth in the medium term, particularly as borrowers are less at risk of not being able to repay or service their debt regularly without significantly reducing their consumption.

The availability of BBMs in individual countries depends on national legislation, and the definitions of the measures differ across countries. In many countries, the national legal frameworks provide a comprehensive set of legally binding BBMs, which the authorities can use depending on the vulnerabilities identified. However, in some Member States, either legally binding BBMs are missing completely (Greece, Poland¹¹) or the set of available instruments is not sufficient to ensure that sources of systemic risk can be mitigated effectively any time in the future (Germany, Finland, Hungary, Liechtenstein, Netherlands, and Norway). Both the definitions and the design of the measures in place also vary across the EEA countries. For example, six countries (Denmark, France, Ireland, Malta, Netherlands, Norway and Sweden) use gross income to define income-related measures, while other Member States use income in net terms. Three countries (Austria, Finland and Slovenia) use a broad definition of collateral value for the purpose of the LTV limits, while in other countries this is restricted to real estate.

(ii) Proposals for enhancement

- **Enhance the EU macroprudential framework by introducing BBMs for new RRE loans into EU law (the CRD and MCD).** To ensure (i) that the scope of BBMs is at least the same as that of capital-based measures, while at the same time extending the scope of BBMs to non-banks; and (ii) that they apply to credit granted by EU branches, it would be recommended that reference be made to BBMs in both legal texts, the CRD and the MCD. This would not only ensure a level playing field but would also prevent regulatory arbitrage.

¹⁰ So far, only Denmark has imposed restrictions on the exposures of credit institutions to CRE, while Cyprus and Poland have introduced LTV limits for CRE loans.

¹¹ In Poland, BBMs have been used as part of supervisory guidance to banks since 2010 (DSTI), 2013 (maturity limits) and 2014 (LTV). Banks have been following those guidance in their lending policies.



- **Make a minimum but sufficient set of BBMs for RRE loans available in all countries,** with the aim of mitigating risks related to RRE markets effectively, both at national level and at EU level.
- **Keep decisions both on the activation and the release of BBMs and on their calibration and overall design solely in the hands of national authorities.** In addition, entrust either designated authorities or macroprudential authorities with an active role in making decisions on BBMs.
- **Define BBMs using general principles from the ESRB Recommendation on closing real estate data gaps but ensure that definitions are flexible and that BBMs are used throughout the EU.** The flexibility is required so that national specificities and circumstances can be addressed and the effectiveness of BBMs is ensured.¹²
- **Introduce basic common standards for the governance of BBMs** in order to reduce the potential for inaction bias by increasing transparency in the decision-making on BBMs.
- **Make BBMs applicable, at a minimum, to new RRE loans provided to natural persons, while allowing national legal frameworks to extend their applicability to other consumer loans and legal persons.** The broader scope would prevent circumvention of BBMs and increasing indebtedness of mortgagors.
- **Enhance data availability and harmonise the definitions related to RRE and CRE loans across EU reporting by making use of the work on the ESRB Recommendation on closing real estate data gaps.** This would not prevent countries from continuing to collect more detailed data for decision-making about BBMs using national definitions.

(iii) Policy assessment

Including BBMs for RRE loans in the EU macroprudential framework would, if appropriately designed, have the potential to bring significant benefits; these benefits could include, for instance, increasing effectiveness in mitigating RRE-related systemic risks at EU level and enshrining BBMs as standard macroprudential instruments along with capital-based measures. Although both legally binding and non-legally binding BBMs are already applied in most Member States, the inclusion of a common minimum toolbox of BBMs in EU legislation would enhance the EU macroprudential framework by ensuring that a sufficient set of borrower-based instruments was available and could be used by the authorities of all EU Member States to prevent the build-up of systemic risks. At the same time, including BBMs in the CRD would complement the existing set of macroprudential instruments for the banking sector and emphasise the financial stability dimension of BBMs alongside the existing capital-based measures. By contrast, the inclusion of BBMs in the MCD, which is also aimed at contributing to financial stability, would allow authorities to apply macroprudential BBMs to loans granted by all types of lenders, including insurance companies and investment funds.

¹² This includes flexibility on making decisions about the introduction of BBMs by means of legally or non-legally binding regulation.



It would be beneficial to refer to BBMs in both legal texts, the CRD and the MCD, to ensure that the scope of BBMs mirrors that of capital-based measures, to extend the scope of BBMs to non-banks and to ensure that BBMs apply to credit granted by EU branches. To ensure that BBMs are applied at the same level as capital-based measures, but at the same time to extend the scope of BBMs to EU branches and non-banks, it would be important to refer to the macroprudential use of BBMs in both legal texts, the CRD and the MCD. In addition, Member States would not be precluded from applying BBMs to other types of loans granted to borrowers, e.g. to consumer loans. Although the proposal is not intended to harmonise BBMs at EU level, it could lead to a further alignment of national legal frameworks and reduce the complexity arising from the multitude of different national legal frameworks across the EU.

In addition, the inclusion of BBMs in EU legislation could reduce risks related to an inaction bias potentially associated with the use of BBMs. The proposal could increase the transparency and comparability of macroprudential actions across Member States and thus strengthen overall confidence in the measures. To that end, the EU legal framework should be designed in such a way that it is not in conflict with existing national macroprudential frameworks for BBMs. Should that be the case, the benefits of including BBMs for RRE loans in the EU macroprudential framework are expected to significantly outweigh the associated efforts in terms of the necessary adaptation and transposition at Member State level. By contrast, should the design of an EU legal framework require changes other than including the minimum set of BBMs in the existing national frameworks for BBMs developed over the past decade, this could also entail potential additional costs. These would not just be procedural and could affect the cost-benefit calculus of the proposal.

The EU legal framework should take into consideration a minimum basis for BBMs but ensure sufficient flexibility for Member States. The EU legal framework should be enriched by a minimum but sufficient set of BBMs available in all countries to mitigate risks related to RRE markets. EU legislation should define the key concepts for BBMs at EU level but leave flexibility to Member States on specific elements of the definitions and indicators of lending standards used by national authorities for making decisions about the activation, release and calibration of BBMs. This flexibility is needed to account for national specificities and ensure that BBMs remain effective. Following the principle of proportionality, changes to existing national frameworks should not be required if the frameworks already meet the requirements set out in the EU framework. However, establishing the minimum set of BBMs for RRE at EU level should allow enough flexibility for national definitions to incorporate the measures of countries that have already activated BBMs.

The BBMs should remain solely at national level, and the Commission's legislative proposal should provide for sufficient safeguards to ensure that national authorities are in charge of BBMs. The decision about the activation, calibration and lifting of BBMs should remain the full responsibility of Member States and their authorities. In addition, the Commission should consider which safeguards would be necessary to ensure that the new set of macroprudential powers would be used solely at national level, as the proposal to include BBMs in EU legislation is subject to the condition that the ECB's topping-up power does not apply. Either the designated authorities or the macroprudential authorities should be entrusted with an active role in activating and calibrating BBMs, as it is essential for the application of BBMs to involve authorities with sufficient experience in addressing financial stability risks stemming from the RRE market. BBMs should, at a minimum, be applicable to new RRE loans taken out by natural persons. However, to avoid increasing the



indebtedness of mortgagors and to prevent measures from being circumvented, EU legislation should, where appropriate, allow national legal frameworks to have the possibility of applying BBMs to other consumer credit and/or to legal persons. In addition, it should be mandatory for all institutions involved in making decisions on the activation, release and calibration of BBMs to regularly assess (i) any potential sources of systemic risk stemming from the RRE markets and (ii) the need to act using macroprudential measures and BBMs in particular. The main observations from the assessments of vulnerabilities conducted by the relevant authorities should be made transparent, for instance in a regular financial stability publication or other dedicated publication. Box 1 summarises the main features of the proposal for including BBMs in EU legislation.

As well as including BBMs in EU legislation, definitions relating to RRE and CRE loans used for the monitoring of risks in the current EU reporting could be harmonised. Currently, some of the reporting requirements use definitions which are consistent with the ESRB Recommendation on closing real estate data gaps, while others use different (previously set) definitions. Harmonising the definitions in the reporting at EU level would therefore reduce costs to lenders, make it easier to monitor risks to financial stability across Member States and thus foster the further development of BBMs as an effective and efficient tool for addressing vulnerabilities stemming from the real estate markets. However, Member States should be able to continue using different indicators for the purpose of activating, releasing or calibrating BBMs if that is necessary owing to national specificities. At the same time, further work needs to be done on closing the prevailing data gaps, especially in relation to CRE loans. This could be done by further developing and improving data collection through the AnaCredit dataset or other credit registers.

Box 1

Proposal for including BBMs in EU legislation

A minimum set of BBMs for RRE should be included in EU legislation, applying the BBMs to natural persons and potentially – in accordance with national frameworks – also to legal persons. The proposal envisages a common basis for BBMs but it also ensures that Member States are left with sufficient flexibility. EU legislation should define the **key concepts for BBMs** at EU level but Member States should have flexibility over specific elements of the definitions and indicators of lending standards used by national authorities in decision-making with regard to the activation, release and calibration of BBMs.

To ensure that BBMs are applied with the same scope as capital-based measures for **banks**, while at the same time extending the scope of BBMs to **non-banks**, it would be most effective to refer to BBMs in both legal texts (the CRD and the MCD), despite the existing differences between the regulatory objectives of the CRD and the MCD.

The design, calibration and activation of BBMs would remain solely at **national level** and the Commission should provide for the implementation of sufficient safeguards to ensure that the national authorities are responsible for BBMs. Member States and their authorities remain fully responsible for any decision to activate BBMs. However, it would also be strongly advisable to entrust the designated or macroprudential authorities with an active role in the activation and calibration of BBMs as it is essential, with regard to the application of BBMs, to involve authorities with sufficient experience of addressing the financial stability risks stemming from the RRE market.



Furthermore, to reduce the number of potential sources of inaction bias, a **regular assessment of the need to act using BBMs** should be made mandatory for all national authorities entrusted with decision-making in respect of BBMs. The main observations from the assessments of vulnerabilities conducted by the relevant authorities should be made transparent (e.g. in a part of the regular financial stability publication or in **another dedicated publication**).

In addition to the key elements of BBMs, EU legislation should also include an **ex post reporting** obligation to inform the ESRB of the activation/setting of BBMs, **although it should not require an authorisation procedure prior to the activation of BBMs**.

1. The inclusion of BBMs in EU legislation. Introducing BBMs into EU law, thereby enhancing the macroprudential toolkit available to all EU Member States, would be an important step towards strengthening Member States' ability to contain systemic risk related to RRE markets across the EU. This could be achieved by establishing a common basis for BBMs at EU level and facilitating the coordination of national measures to activate or set BBMs. However, the proposal does not intend to establish uniform and directly applicable prudential requirements for credit institutions in the area of lending for the financing of RRE. Instead, it seeks to ensure accountability and transparency, as well as to allow for better comparability in the activation and definition of BBMs at national level.

To ensure that the scope of BBMs is at least the same as that of capital-based measures, and at the same time to extend the scope of BBMs to non-banks, it would be more effective to refer to BBMs in both legal texts, the CRD and the MCD. Including BBMs in the CRD would complement the existing set of macroprudential instruments for the banking sector and emphasise the financial stability dimension of BBMs alongside existing capital-based and other measures, while including BBMs in the MCD would allow the authorities to apply BBMs to loans granted by all types of lenders, including insurance companies, investment funds and pension funds. In addition, Member States should be allowed to extend the scope of BBMs to other consumer loans to avoid circumvention. This would ensure a level playing field and prevent regulatory arbitrage.

2. Types of instrument. The proposal is to incorporate a minimum set of instruments for BBMs into European law. EU legislation should provide for several BBMs to address the risks to financial stability stemming from the RRE market. The BBMs to be incorporated into EU legislation should be, at a minimum, the following:

- (a) limits that apply to the debt-to-income (DTI) ratio and limits that apply to the debt service-to-income (DSTI) ratio;
- (b) limits that apply to the loan-to-value (LTV) ratio;
- (c) limits that apply to the maturity;
- (d) amortisation requirements.

These instruments are regarded as the minimum set of tools, and it should be ensured that they are available to help mitigate systemic risk, in line with international experience of BBMs. Member States should feel encouraged to go beyond this set of tools or to allow full flexibility to the respective authorities to use any macroprudential instruments related to the loan or borrower



characteristics of RRE loans. Legal frameworks for BBMs, which give flexibility to the national authorities in terms of instruments that can be activated (i.e. national legal frameworks that allow for the activation of the aforementioned BBMs without listing them explicitly) should be considered to be compliant with this requirement.

In addition to making it possible to apply this set of instruments in a legally binding manner, EU legislation should explicitly allow Member States the flexibility to adapt the details (e.g. definitions), of these instruments to their national macroprudential policy needs (e.g. taking into account the specific characteristics of their national RRE market) and to add further instruments to their respective toolkits¹³. Also, in line with the principle of proportionality, Member States should be able to activate non-legally binding limits if this is deemed more appropriate in a specific situation. More specifically, Member States should therefore also be able to introduce non-legally binding BBMs by issuing macroprudential expectations. Such a possibility could either be included in EU legislation or could be an element of guidance to be issued by the ESRB in the form of recommendations.

3. Definitions of indicators. EU legislation should describe the general principles and concepts of the BBMs, leaving further details of the definitions of the BBMs to Member States, and should contain a reference to the definitions in the ESRB Recommendation on closing real estate data gaps¹⁴. This recommendation is particularly suitable as a starting point for establishing certain definitions of general aspects of BBMs at European level, as it has been prepared while taking into account ongoing international and European initiatives in the area of data harmonisation and collection. Although the definitions of the indicators to be used to monitor risks stemming from the RRE market should follow the aforementioned ESRB Recommendation, it should be possible to make national modifications, especially when the indicators are used in the monitoring of risks as well as the activation and calibration of BBMs at the national level. This ensures that Member States that have already activated BBMs have a level of flexibility that enables them to continue to use their current definitions of indicators at national level. To provide for sufficient flexibility at Member State level, the proposal to include BBMs at EU level would therefore not include any detailed definitions and methods for calculating indicators for BBMs such as those specified in Annex IV of the ESRB Recommendation. At this stage, detailed harmonisation of the definitions of indicators to be used in BBMs at EU level would be counterproductive in respect of the broader acceptance of BBMs and their potential use. However, Member States should be encouraged to follow the definitions specified in Annex IV of the ESRB Recommendation as closely as possible when introducing new BBMs or when amending the legal framework applicable to BBMs, if this is in line with their national specificities.

An example of the inclusion of the definition of a BBM (DTI) in EU legislation based on the ESRB Recommendation on closing real estate data gaps:

¹³ Depending on the availability in each country of data on individual borrowers and their overall debt in each country, limits to loan-to-income (LTI) and loan service-to-income (LSTI) should be considered to be available in the national toolkit for BBMs.

¹⁴ See [Recommendation of the European Systemic Risk Board of 31 October 2016](#) on closing real estate data gaps (ESRB/2016/14) (as amended by Recommendation ESRB/2019/3).



“A DTI instrument should be defined as limits to or requirements of debt-to-income ratio, which means the total debt of the borrower at the moment of loan origination relative to the borrower’s total annual income at the moment of loan origination.”

Apart from the definition of income as “total annual income”, the proposal would not contain any other elements of income definition. In particular, it would not include the first-best definition of “disposable income” described in Annex IV of the ESRB Recommendation on closing real estate data gaps.

4. Governance. The Commission’s proposal should clearly assign the responsibility for activating and calibrating BBMs to national level, and should explicitly rule out any topping-up powers for European authorities or institutions. Member States and their authorities remain fully responsible for the decision to activate, release and calibrate BBMs. However, the designated or macroprudential authorities should be entrusted with an active role in the activation and calibration of BBMs, as it is essential for the application of BBMs to involve authorities with sufficient experience of addressing the financial stability risks stemming from the RRE market. Furthermore, the regular monitoring of the risks stemming from the RRE market is essential for the supervision of the financial system and the prevention or mitigation of systemic risks to financial stability. The main observations from the assessments of vulnerabilities conducted by the relevant authorities (those entrusted with assessing systemic risk as well as those entrusted with the activation of BBMs) should be made transparent in, for example, a regular financial stability publication or in another dedicated publication. Conferring tasks associated with the monitoring of risks on macroprudential authorities should be in line with the mandates of national macroprudential authorities, as required by the ESRB in its Recommendation on the macroprudential mandate of national authorities¹⁵. The additional burden on macroprudential authorities would therefore be limited. In addition, the ESRB may always issue recommendations addressed to Member States that do not take appropriate action in response to risks to financial stability.

Furthermore, the requirement for cooperation, coordination and exchange of information between national authorities (including the designated or macroprudential authorities), as well as between national and EU authorities, should be a key element of the proposal to establish a common minimum toolbox of BBMs at EU level.

5. Flexibility in the use of BBMs. When transposing BBMs into national legal frameworks, Member States should be required to provide for the possibility of activating legally binding instruments so that such instruments may be effectively and efficiently used to avoid the build-up of vulnerabilities. Based on appropriateness, sufficiency and proportionality, Member States’ authorities should, however, have the possibility of deciding if those instruments are activated in a legally or non-legally binding manner.

In particular, national authorities should be able to:

(i) activate the BBMs pre-emptively to avoid the build-up of vulnerabilities;

¹⁵ Recommendation of the European Systemic Risk Board of 22 December 2011 on the macro-prudential mandate of national authorities (ESRB/2011/3) (OJ C 41, 14.2.2012, p. 1).



(ii) activate one or more BBMs at the same time, possibly in combination with other macroprudential instruments such as capital buffers;

(iii) activate BBMs in a conditional form (e.g. by applying an LTV limit or amortisation requirement to loans that do not comply with certain DSTI limits);

(iv) activate different instruments, or calibrate the same instruments differently, depending on distinct specific borrower or loan characteristics (e.g. by applying less stringent LTV limits to first-time buyers);

(v) define exemptions from the BBMs (e.g. by allowing a certain percentage of loans to be provided in breach of LTV limits or exempting certain product types altogether).

6. Conditions to be met for activation, release and calibration. The conditions to be met for the activation of or changes to BBMs should be set exclusively by Member States. To further ensure consistency the ESRB could develop a framework providing guidance to national authorities on issues such as the activation, release and calibration of BBMs as well as the principles behind the monitoring of risks related to RRE. This would promote sound and consistent decision-making across Member States, while any policy decision regarding the use of BBMs would remain explicitly with the Member States. Furthermore, BBMs should not be included in the so-called pecking order of macroprudential measures (i.e. capital buffers as well as risk weights and other measures) given their different yet complementary nature and their differing objectives and transmission channels. Decisions about the activation of BBMs and the right mix of borrower-based and capital-based measures in place should follow careful assessment of the nature and intensity of the vulnerabilities.

7. Methodologies. Member States should preferably apply a methodology, established by each Member State, when assessing and monitoring risks and when calibrating BBMs. The ESRB would be available to assist them in developing such a methodology, for instance issuing a recommendation based on the “guided discretion” approach. This approach could provide guidance on the assessment of interactions between the envisaged BBMs and other macroprudential tools, such as capital-based measures. In addition, the ESRB could facilitate discussions among Member States, as well as with the European institutions, on the setting of BBMs.

8. Ex post reporting of the measures. There should be no authorisation requirements for activating or setting BBMs. Although EU legislation should not provide for any authorisation procedure it should, however, include an ex post obligation for Member States to report to the ESRB on the activation/setting of BBMs. To promote the further transparency and comparability of national measures it would also be beneficial to include an explanation of the activated measures and to accompany the reporting with reasons for the activation, release or calibration of BBMs. There could also be an obligation to include an explanation as to why the measure is considered suitable, effective and proportionate to address the situation. The ESRB would be able to assess the proposed measures, looking at both the benefits of the macroprudential measures from a national financial stability perspective and potential spillover effects. The reporting obligation would also allow the ESRB to contribute to a further deepening of coordination between the authorities involved by developing a coherent and consistent macroprudential policy framework in the EU and by promoting best practices.



9. Reciprocity. Ensuring the reciprocation of national measures is an important part of creating a level playing field for lenders. In principle, reaching a common understanding of the BBMs at EU level should pave the way for the implementation of provisions on reciprocation.

10. Disclosure. The relevant authority should publicly announce the activation and setting of the BBMs (including the assessment of appropriateness and other relevant background information) through the usual communication channels (such as websites) used for other macroprudential measures.

11. Transitional period. The proposal would not lead to the existing national measures being discontinued, as it does not alter the existing national frameworks for BBMs that already include the proposed set of instruments and, in principle, allow national authorities to activate legally binding instruments. However, some Member States would need to adjust their legal frameworks if these did not include the possibility of activating the full set of instruments in a legally binding manner. In order to keep transition costs low and to avoid too much interference with existing national frameworks, especially for national measures based on such national frameworks, the proposal to include BBMs at EU level would also provide for a sufficient transition period.

2.2 System-wide dividends and other payout restrictions

(i) Reasons for improvement

There are currently no defined powers for national or EU authorities to apply system-wide payout restrictions in EU law, but the evidence suggests that these were widely used around the world during the pandemic, and compliance with the measures was high. The rationale for the use of blanket restrictions on dividends and other payouts during the COVID-19 crisis has been to support/preserve resilience and so ensure that the capital relief and flexibility provided by authorities is used to absorb losses and support lending. In addition, system-wide restrictions mitigate possible stigma effects arising from automatic distribution restrictions if a bank has dipped into regulatory buffers and this has been estimated to have had temporary impact on the cost of capital. In early 2021, the ESRB conducted a survey which demonstrated that compliance with the relevant ESRB Recommendation 16 was satisfactory.

Current literature on the rationale for payout restrictions highlights a number of potential benefits but also potential costs. In terms of benefits, the system-wide restrictions may (i) reduce procyclicality and deleveraging behaviour in the face of a systemic shock; (ii) reduce both the collective action problem and the stigma associated with breaching the CBR; (iii) help mitigate uncertainty among market participants as higher solvency reduces uncertainty and risk for unsecured bondholders and depositors; and (iv) enhance the effectiveness of other policy

¹⁶ [Recommendation of the European Systemic Risk Board of 15 December 2020 amending recommendation ESRB/2020/7 on restriction of distributions during the COVID-19 pandemic \(ESRB/2020/15\) 2021/C 27/01](#) (OJ C 27, 25.1.2021, p. 1).



responses (monetary, fiscal, etc.). At the same time, it might also (i) raise the cost of funding for European banks; (ii) disrupt income flows for investors; (iii) send a negative signal to investors in capital instruments, which might reduce European banks' access to equity in the future; and (iv) create fragmentation of the Single Market if implemented at national level.

(ii) Proposals for enhancement

- **Maintain the ESRB's power to issue a recommendation to national authorities to restrict payouts under very adverse conditions, similarly to what was done during the COVID-19 crisis.** The degree of compliance with the Recommendation issued by the ESRB suggests that the approach adopted is appropriate and sufficient. However, the non-legally binding status quo may not work as well in the next crisis, and there is the risk of a lack of coordination among Member States that would tilt the level playing field and hamper cross-border capital flows.

(iii) Policy assessment

Taking into account effectiveness and the degree of compliance with the recommendations issued by the ESRB, it does not seem necessary to enshrine this power in the EU legal framework at the current juncture. The ESRB should be given a prominent role as a coordinator between national authorities and other European authorities to mitigate the risk of heterogeneous responses harming the Single Market and the level playing field across the EU. During a severe systemic crisis, soft power tools, such as recommendations and public communication, could be used to prevent capital freed up by regulatory measures from being used for payouts.

2.3 Risk weight measures

(i) Reasons for improvement

Currently, the process of increasing risk weights to mitigate systemic risk in the real estate sector differs significantly depending on which article of the CRR the measure is based on. Articles 124 and 164 of the CRR allow the relevant authorities to set higher risk weights and minimum average loss-given-default (LGD) values, applicable to exposures secured by immovable property, for banks using the standardised approach (SA) and those using the internal-ratings based (IRB) approach respectively. Under Article 458 of the CRR, national authorities have at their disposal a set of flexible instruments that can address different sources of systemic risk, including using risk weights to target developments in the property sector, although these are limited in scope and subject to procedural conditions.

The final Basel III agreement requires an output floor to be implemented so as to limit the excessive variability of RWA and enhance the comparability of risk-weighted capital ratios among banks. The output floor is intended to enhance the comparability of risk-weighted capital



ratios between banks. It is microprudential in nature and has not been designed to address systemic risks, which can go beyond idiosyncratic risks. It defines a lower limit on the total risk exposure amount (TREA) of a bank using internal models, not on individual portfolios. Therefore, its impact on the mortgage portfolio might only be indirect and potentially insufficient for banks that have high risk weights on other portfolios. The output floor does not affect banks that only use the SA.

(ii) Proposals for enhancement

- **Consolidate the risk weight-related articles in the CRR by bringing all provisions on macroprudential adjustments to risk weights – currently included in Articles 124, 164 and 458 of the CRR – into one single chapter or article.** This approach could consist in creating a single macroprudential article on risk weights for real estate exposures that would enable macroprudential authorities to intervene only at the risk weight level to address sources of systemic risk in the real estate market. This implies that the possibility of intervening at the individual risk weight parameter level from a macroprudential perspective, as in the case of the LGD values currently contained in Article 164 of the CRR, will be removed. By removing the macroprudential provisions allowing risk weights and minimum LGD values in Articles 124 and 164 of the CRR to be increased, legislators should consider whether competent authorities should have the possibility of increasing risk weight, SA or minimum LGD powers for microprudential purposes.
- **Review the application of risk weight measures after the implementation of the output floor in EU legislation.**

(iii) Policy assessment

The articles in the CRR regarding risk weight instruments should be consolidated into one single article. The consolidation of risk weight-related articles in the CRR would lead to a material improvement in the framework of macroprudential risk weight instruments, for instance by (i) retaining as far as possible the flexibility on the design of the risk weight measure (e.g. floors, add-ons or multipliers) as is currently provided under Article 458 of the CRR; (ii) requiring cooperation, coordination and the exchange of information between relevant authorities; (iii) adopting mandatory reciprocation subject to materiality; and (iv) preserving the transparency of IRB risk weights for market participants, since interventions at the LGD level would not be necessary. Box 2 summarises the main features of this proposed new single article.

The upcoming introduction of the output floor in European legislation would not phase out the need to use risk weight measures as a means of addressing macroprudential risks in the real estate sector. Risk weight measures addressing such macroprudential risks should be kept in the toolkit despite the upcoming introduction of the output floor in the CRR given their different objectives and targets, and the limited experience in assessing their interaction with the output floor.



Box 2

Elements of a harmonised macroprudential risk weight article for real estate exposures

Design of instrument. The instrument can be designed as a risk weight add-on, a risk weight multiplier, a risk weight floor or a combination of all three. It could also link the risk weight measure to specific risk metrics such as the loan-to-value ratio, the debt-to-income ratio or the debt service-to-income ratio (in line with the definitions in the ESRB Recommendation on closing real estate data gaps¹⁷). The instrument could also encompass the possibility of setting stricter criteria used to determine when an exposure under the standardised approach (SA) can be considered to be fully and completely secured.

Scope. All exposures secured by immovable property (i.e. RRE and commercial real estate (CRE) exposures) within the Member State independent of the risk measurement approach used for capital purposes (i.e. the SA or the IRB approach). Where appropriate, the scope could also include a subset of the above-mentioned exposures (e.g. a geographical or property segment). This sectoral approach is a direct transposition of the current risk weight provisions in the CRR and mirrors some of the features of the sectoral SyRB. For this purpose, the Commission could mandate the ESRB, in collaboration with the EBA, to issue a recommendation on the appropriate identification of these subsets of real estate property exposures. The intention would be to reduce inaction bias and increase symmetry within the macroprudential toolkit in order to avoid overlaps and double-counting.

Governance. The relevant authority (national competent authority or national designated authority) would be appointed by the Member State while adding the requirement of cooperation, coordination and exchange of information between the national designated authority and the national competent authority in the same way as currently required in Articles 124 and 164 of the CRR. The relevant authority should aim to avoid any duplicative or inconsistent use of the macroprudential measures laid down in the CRD and the CRR.¹⁸ In particular, the relevant competent authority should consider whether measures implemented under this new single article duplicate or are inconsistent with other existing or upcoming systemic risk buffers.

Conditions to be met for activation. First, the actual risk weights for the exposures mentioned under “Scope” should not reflect the actual systemic risk related to the immovable property. This should be assessed and monitored by the relevant authority at least once a year (there is already a related requirement in Articles 124 and 164 of the CRR). Second, it should be ascertained that any inadequacy of risk weights identified by this assessment could have negative and severe consequences for the financial stability and real economy of a Member State.

Methodology. For assessment and monitoring according to the first condition for activation, the relevant authority should follow a common methodology when assessing the appropriateness of risk weights for macroprudential risk, while taking into consideration microprudential IRB regulation,

¹⁷ Recommendation of the European Systemic Risk Board of 21 March 2019 on closing real estate data gaps (ESRB/2019/3) (OJ C 271, 13.8.2019, p. 1).

¹⁸ Recital 26 in CRD V.



the relevant active macroprudential measures and national specificities. For this purpose, the EBA should adjust the existing guidance concerning the assessment of the appropriateness of risk weights to reflect the features of this new single risk weight article. For the second condition mentioned above, the ESRB should provide guidance on setting higher risk weights, in the form of a recommendation based on a guided discretion approach. This recommendation should also touch on overlaps with other active instruments (such as the sectoral SyRB and CCyB), and with the output floor, without under-provisioning the targeted risk.

Limits. The article should not set ceilings on how much an authority can increase risk weights, although different authorisation requirements should apply, depending on the magnitude of the risk weight adjustment. For exposures secured by immovable property under the SA, the risk weight could be increased to 150%, which is an existing limit in Article 124 of the CRR, without an authorisation requirement. No specific limit exists (in respect of minimum average LGD values) for similar exposures under the IRB approach, and a threshold-dependent authorisation requirement is proposed.

Authorisation requirement. The ESRB would be notified prior to the activation of the instrument. If the measure concerns SA risk weights, an increase above 150% would require authorisation by the Commission and, therefore, notification which is similar to the existing notification under Article 458 of the CRR. If the measure concerns IRB risk weights, the new single article would include a threshold-dependent authorisation requirement.¹⁹ If the country-average IRB risk weight for the target portfolio increases, after activation, above a given threshold, the ESRB and the EBA must provide opinions to the Member State within two months after receiving a notification.²⁰ If both opinions object to the measure, the relevant authority must comply or explain. If the country-average IRB risk weight for the target portfolio increases, after activation, to above an even higher threshold, authorisation from the Commission will be required, taking into account the opinions received from the ESRB and the EBA.²¹ The notification requirements when the measure crosses the second threshold should be similar to the existing notification requirements under Article 458 of the CRR. Any authorisation provided by the Commission can only last three years but can be renewed. If the EBA and the ESRB provide opinions, they should evaluate the measure once every three years and notify the Commission if the measure no longer complies with the regulation or has a negative impact on the Single Market which outweighs the financial stability benefits resulting from the reduction in macroprudential or systemic risk. It is important for the legislator to calibrate these thresholds using data from all EU IRB banks and to clarify their measurement type (i.e. relative or levels). More importantly, the first threshold should be set much higher than the existing threshold applicable in Article 458(10) of the CRR.

¹⁹ The SyRB has a similar feature (see Article 133(10)-(12) of the CRD).

²⁰ The threshold feature is already present in Article 458(10) of the CRR: "Notwithstanding the procedure as set out in paragraphs 3 to 9 of this Article, Member States shall be allowed to increase the risk weights beyond those provided for in this Regulation by up to 25 % [...]".

²¹ The aim of this threshold is to ensure that the activated risk weight measure (if relatively high) does not entail disproportionate adverse effects on the whole or parts of the financial system in other Member States or in the EU as a whole, thus forming or creating an obstacle to the functioning of the Internal Market.



Activation. The recitals in the CRR should underline the fact that the relevant authority can immediately deactivate the measure in cases of market distress which jeopardises credit supply to the real economy.

Consolidation and reciprocity. It should be possible to apply the instrument at group or individual level (or both). Risk weight measures shall be subject to mandatory recognition (as is currently the case in Articles 124 and 164 of the CRR) but should be based on a defined materiality threshold which would allow banks with exposures below this threshold not to apply the measure. This threshold should be set in accordance with the ESRB Recommendation on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures²², it should follow the calibration guidance provided in the ESRB handbook on operationalising macroprudential policy in the banking sector, and it should be publicly disclosed on the ESRB's website. The host authority should aim to avoid any application of the reciprocated measure which is duplicative of or inconsistent with a similar existing risk weight measure or systemic risk buffer in the host country.

Disclosure. The relevant authority should announce the activation or deactivation of the instrument (including the assessment of the appropriateness of risk weights and other relevant background information) on an appropriate website.

2.4 Systemic liquidity instruments in the banking system

(i) Reasons for improvement

For the time being, there is limited experience with the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) and their sufficiency during stress times. The LCR and NSFR were introduced to reduce risk resulting from maturity mismatch and short-term liquidity outflows. However, the requirements focus on individual banks without taking into account the systemic aspects of liquidity risk such as interconnectedness and contagion, suggesting a possible need for new macroprudential liquidity instruments. Systemic liquidity risks arise when multiple financial institutions experience simultaneous liquidity shortages, with adverse consequences for financial stability and the real economy.²³ Financial intermediaries are then subject to inward risks (given their sensitivity to systemic liquidity shortage) and outward risks (given their ability to withdraw liquidity from the system). Here, macroprudential oversight and instruments should complement microprudential supervision and instruments. While stricter requirements can limit systemic risk and related costs to the economy and society, additional liquidity may be costly in the short term, as it prevents investments in assets that are more profitable in the long term. Given the importance of credit provision for financial stability, the potential benefits of introducing new tools need to be weighed against the costs.

²² Recommendation of the European Systemic Risk Board of 15 December 2015 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (ESRB/2015/2) (OJ C 97, 12.3.2016, p. 9).

²³ See "**Lower for longer – macroprudential policy issues arising from the low interest rate environment**", ESRB Report, June 2021.



(ii) Proposals for enhancement

- **Promote a regulatory system-wide perspective for monitoring and addressing liquidity risks.**
- **Clarify that the CRD/CRR package does not prohibit additional liquidity instruments.**

(iii) Policy assessment

While systemic liquidity risk and risks stemming from the liability side of banks should remain high on the macroprudential agenda, more experience might be needed before introducing new harmonised instruments at EU level. There are still difficulties regarding the measurement of systemic liquidity risks. Data quality and availability issues make it challenging to construct a compelling case for considering the activation of macroprudential liquidity instruments from a risk perspective. Additionally, systemic liquidity risks might be masked by the current accommodative monetary policy stance, which might hinder the timely identification of risks. More experience might be needed before introducing new harmonised liquidity instruments at EU level. However, that should not exclude the adoption of measures to promote a regulatory system-wide perspective for monitoring and addressing liquidity risks. With regard to liquidity regulation, it should be clarified that the CRD/CRR package does not prohibit additional liquidity instruments. Meanwhile, a regulatory system-wide perspective for monitoring and analysing systemic liquidity risks should be promoted.



3 Internal Market considerations

In its call for advice, the Commission requested advice on whether the current macroprudential framework allows national authorities to adequately address systemic risk, ensuring both the effectiveness of the macroprudential instruments and the appropriate safeguards for the integrity of the Internal Market. This response focuses on four particular questions of interest.

- Is there evidence that macroprudential measures fall short of appropriately addressing systemic risk due to governance issues or the applicable authorisation procedures?
- Are the provisions to prevent inappropriate uses of macroprudential tools proportionate and effective? Is there scope for simplification or streamlining of procedures?
- Is there scope for simplification or streamlining of the reciprocation framework and procedures? If so, which options do you see and how would you evaluate them?
- Are the hard and soft-law instruments adequate to ensure that national authorities take sufficient and appropriate action to address systemic risks? If not, which additional measures would you see and how would you evaluate them?

3.1 The SyRB and the governance procedures in CRD

(i) Reasons for improvement

When considering the activation of the safeguard procedures aimed at ensuring the proper functioning of the EU Internal Market, the legal text does not differentiate between the SyRB rates applied to all exposures and the SyRB rates applied to sectoral exposures or subsets of such exposures.²⁴ The sum of the SyRB and the higher of the O-SII and G-SII buffers above 5% is subject to authorisation by the Commission. In addition, the CRD stipulates the simple addition of the general SyRB rate and the sectoral SyRB rate (despite their respective application to different sets of exposures) when the applicability of the authorisation threshold is considered. Under the current legal framework, the authorisation thresholds could be perceived as a disincentive to apply a sectoral SyRB. Sectoral rates applied to a targeted subset of exposures would potentially need to be set at higher levels to achieve the desired resilience effect. Although the thresholds are considered to be an accountability mechanism that guarantees the level playing field across different Members States, the administrative constraints may discourage authorities from applying such an instrument or calibrating it at a level that is commensurate with the systemic risks identified, particularly in cases where general SyRB or G-SII/O-SII buffers are already in place.

²⁴ As provided for in points (b) and (f) of Article 133(5) of the CRD.



The wording of Article 133(10) of the CRD V differs from that of Article 133(11) and (12) in relation to the exception regime for recognised SyRB rates.²⁵ Currently, Article 133(10) CRD stipulates that the recognition of an SyRB rate set by another Member State, where the combined SyRB rate does not exceed 3%, does not count towards the 3% threshold. However, in cases where the combined SyRB rate is higher than 3%, the legal text does not set out such exception. Clarifying the CRD by extending this exception to Article 133(11) and (12) could promote reciprocity and the integrity of the EU Internal Market. To ensure consistency in the CRD, the exception for recognised SyRB rates could also apply when the cumulative SyRB and O-SII/G-SII buffer rate exceeds 5%. Therefore, the European Commission proposal for the CRD VI²⁶, which addresses these amendments, is supported.

(ii) Proposals for enhancement

- **Adjust the calculation of the combined SyRB rate by weighting the sectoral buffer rate with the sectoral share in all exposures.** This means that general SyRB rates (if applicable) and sectoral SyRB rates are first brought to a common denominator, which should be the TREA, before the additivity rules and the authorisation thresholds are applied.
- **Clarify that recognised SyRB rates do not count towards the authorisation thresholds defined in the CRD V.**

(iii) Policy assessment

The CRD V should be adjusted to define the combined SyRB rate. According to Article 133(2) of the CRD, institutions must calculate the nominal amount of the SyRB by multiplying the SyRB rates by the corresponding (targeted) risk exposure amount. Therefore, Article 133(2) of the CRD should be adjusted accordingly to include the calculation of the combined SyRB rate by weighting the sectoral (domestic) buffer rate with the sectoral (domestic) share in all exposures. At the same time, whenever the CRD sets out the authorisation threshold for the cumulative SyRB/O-SII/G-SII buffer rates, the legal text should use the designation “combined SyRB rate” instead of “systemic risk buffer rate”.

In addition, recognised SyRB rates should not count towards the authorisation thresholds defined in the CRD V. To promote reciprocity and the integrity of the EU Internal Market, recognised SyRB rates should not be considered for the stringent procedures that are triggered when the combined SyRB rate exceeds 3% or the cumulative SyRB/O-SII/G-SII buffer rate is higher than 5%. To facilitate reciprocity, as suggested by the Commission in its proposal for the CRD VI, the SyRB should be included in the national legislation of all Member States.

²⁵ A governance procedure also applies to the combined SyRB rate when the SyRB is set and applied in isolation. Thus, if the combined SyRB rate exceeds 5%, the CRD requires authorisation by the Commission, as per the provisions in Article 133(12). If the combined SyRB rate has a level higher than 3% and up to 5%, it is subject to Commission's opinion.

²⁶ **Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/36/EU as regards supervisory powers, sanctions, third-country branches, and environmental, social and governance risks, and amending Directive 2014/59/EU.**



3.2 Simplification of stricter national macroprudential measures under Article 458 of the CRR

(i) Reasons for improvement

The usability of stricter national measures under Article 458 of the CRR can be strengthened and simplified. Although the onerous and long notification and approval processes inherent to the activation of (last-resort) measures under Article 458 of the CRR contribute to clarity on the intended objectives of the planned measures for a relatively wide group of stakeholders, the usability of these instruments can be simplified.

(ii) Proposals for enhancement

- **The condition for activating Article 458 of the CRR should also take into account situations where the intensity of macroprudential or systemic risk is unchanged but still high.**
- **The application period of Article 458 of the CRR and any subsequent extension should be increased by one additional year.**

(iii) Policy assessment

The condition for activating Article 458 of the CRR should also take into account situations where the intensity of macroprudential or systemic risk is unchanged but still high. The application of stricter national measures under Article 458 of the CRR is subject to the identification of changes in the intensity of systemic risk in the financial system. However, the experience of some national authorities, especially when considering the extension of an existing Article 458 measure, has shown that changes in this intensity might be difficult to substantiate, even though the systemic risks remain significantly elevated from a macroprudential perspective and thus warrant macroprudential intervention.²⁷

The application period of Article 458 of the CRR and that of any subsequent extension should be expanded by one additional year. According to Article 458(4) of the CRR, the Member State may adopt the draft national measures for a period of up to two years or until the macroprudential or systemic risk ceases to exist if that occurs sooner. However, Article 458 measures tend to address sources of long-term systemic risk, which has resulted in national authorities requesting extensions. The condition to deactivate the measure if the risk ceases already provides a backstop. In this sense, the application period of Article 458 measures, including subsequent extensions, should be expanded from two to three years. This change could also

²⁷ Swedish notification of an extension of the period of application of a stricter national measure based on Article 458 of the CRR, 16 September 2020; Finnish notification of an extension of the period of application of a stricter national measure based on Article 458 of the CRR, 27 September 2019.



reduce the burden for all stakeholders involved, i.e. banks, relevant authorities, the Commission, the ESRB and the EBA.

3.3 Simplification or streamlining of the reciprocation framework and procedures

(i) Reasons for improvement

Among the macroprudential instruments laid down in the CRD/CRR package, the burdensome reciprocity procedures have been primarily associated with the SyRB and Article 458 measures. Additionally, a more flexible and forward-looking activation of the CCyB might also call for refinements in its reciprocation framework.

(ii) Proposals for enhancement

- **Harmonise and simplify provisions on reciprocation.**
- **Remove the cap for mandatory reciprocity for the CCyB.**

(iii) Policy assessment

Ensuring reciprocation of macroprudential measures remains an important element in the effectiveness of the measures, the level playing field within the EU Internal Market and the reduction of regulatory arbitrage between EU countries. The reciprocation of all macroprudential measures should therefore be harmonised. Currently, automatic recognition applies only to the CCyB in the CRD and the risk weight measures in Articles 124 and 164 of the CRR. Going forward, reciprocation of Article 458 of the CRR should become mandatory, subject to materiality thresholds. As a consequence, the activating authority would not need to ask the ESRB to issue a recommendation to Member States asking for reciprocation of the measure. A similar requirement should be considered for the reciprocation of the SyRB (above a materiality threshold). This materiality minimis threshold in accordance with the existing voluntary framework supported by the relevant ESRB Recommendation implies that relevant exposures that are below a specific de minimis threshold should continue to be exempted from mandatory reciprocation. This would ensure that reciprocated measures with limited impact did not create an additional burden and thus further complexity for banks. In turn, this would enhance the consistency of the macroprudential framework. In addition, a separate article on reciprocation could be created, outlining the scope of reciprocity of macroprudential measures (including the use of materiality thresholds) and the procedural requirements (i.e. notifications). When a macroprudential buffer or measure is not available in the national legislation of the host authority, the latter should reciprocate the measure with another macroprudential policy measure which is available in its jurisdiction and has an effect equivalent to that of the activated measures. If the risk is already covered by another



macroprudential tool in the reciprocating jurisdiction, it should not be necessary to reciprocate the measure. For those measures for which reciprocation would be voluntary, procedures could be simplified.

Mandatory reciprocity of CCyB rates should no longer be capped at 2.5%. Under the current framework, the CCyB rate should be set at up to 2.5% of the TREA, but may be set above 2.5% in exceptional cases, if the risk assessment so justifies. According to the Basel Committee on Banking Supervision (BCBS) guidelines, the CCyB rate guide increases linearly for the 2 percentage point to 10 percentage point range of the credit-to-GDP gap, which has been the lead indicator so far. Introducing a flexible approach to activating the CCyB would enable national authorities to focus on a set of cyclical indicators other than the quantitative measures of excessive credit to the private non-financial sector and the credit-to-GDP gap. Hence, at their own discretion, national authorities might opt either for early activation or for a positive neutral CCyB, adopting a forward-looking strategy in both cases. Against this background, more flexible activation may also translate into a more flexible calibration of the CCyB rate. Consequently, the declining prominence of the Basel gap might call for a redefinition of the CCyB reciprocity framework by removing the cap for mandatory reciprocity, as 2.5% would no longer be a reference rate in this context. This would not prevent national authorities from implementing a CCyB rate above 2.5%. This would be stricter than the Basel standards, but perfectly compatible and compliant given that they are minimum standards.

3.4 Methodology for O-SII buffer rates

(i) Reasons for improvement

As noted in an ESRB report published in 2020²⁸, O-SII buffer rates differ across Member States for similar levels of systemic importance vis-à-vis the national banking system.

National specificities give rise to differences in systemic risk that affect the calibration of buffers and thus contribute to explaining part of the variation in O-SII buffer rates. Even so, there is some heterogeneity in the levels of O-SII buffer requirements across the EU. This heterogeneity is not fully explained by institutions' scores, assets relative to GDP or Member States' position in the financial cycle. There is also heterogeneity in the Single Supervisory Mechanism (SSM) area, despite the application of the ECB minimum floor. Meanwhile, window dressing by institutions could introduce additional unwarranted heterogeneity.

(ii) Proposals for enhancement

- **Promote a holistic review of the O-SII identification and calibration methodology (to develop an EU-wide floor methodology with additional guidance for the calibration of O-SII buffer rates).**

²⁸ See "A Review of Macroprudential Policy in the EU in 2019", ESRB Report, April 2020, also cited in "EBA report on the appropriate methodology to calibrate O-SII buffer rates", EBA, December 2020.



- **Promote measures to address the window dressing problem (e.g. the use of within-year averages instead of year-end values).**

(iii) Policy assessment

It would be beneficial to promote a holistic review of the O-SII identification and calibration methodology to develop an EU-wide floor methodology with additional guidance for the calibration of O-SII buffer rates. A comprehensive look at the O-SII framework should start by addressing some shortcomings in the identification methodology. The measurement of systemic importance poses issues in certain countries. These issues relate to factors such as the absolute size of the individual institutions and their business models or the degree of concentration in the banking sector. Any data gaps that render the calculation of appropriate O-SII scores challenging or unfeasible should also be addressed.²⁹

A potential way to reduce unwarranted heterogeneity in buffer calibration and cross-border spillovers is to define an EU-wide harmonised floor methodology. Any proposed legislative change needs to assure flexibility for national authorities in the O-SII identification process and the calibration of buffers, so that countries' specificities can be accounted for, including differences in the size and concentration of the banking sector. To address differences in the buffer rates of banks that have similar scores, a floor methodology may be used as a first step towards limiting heterogeneity at the lower end of the buffer rates. It would allow some jurisdictions to set high buffer rates if they considered this appropriate given their specific national systemic risks, while ensuring a minimum degree of harmonisation. For the SSM area, a minimum floor methodology currently applies with the possibility of top-up by the ECB, which could serve as a starting point and be extended EU-wide. Guidance covering the buffer calibration process, in addition to the identification process, could be issued for that purpose. Such a methodology, developed by the ESRB with the involvement of the EBA, would allow systemic risk to be countered in a more consistent way across Member States, while further strengthening the resilience of O-SIIs, and thus of the entire European banking system.

The use of within-year averages instead of year-end values during the O-SII identification process would help to reduce incentives for window dressing. The use of within-year averages could reduce the volatility of scores from year to year when applied on a moving average basis. Less variability in the scores increases predictability, which is beneficial for financial institutions' capital plans and provides more transparency to market participants. With regard to the bucket methodology used by the majority of European countries, the use of within-year averages could avoid sudden cliff effects related to the change of an institution from one bucket to the other. In addition, the use of averages would mitigate the negative consequences of window dressing by

²⁹ For instance, macroprudential authorities may find it challenging or even not feasible to fully assess potential window dressing. This applies to cases where reporting frequency is low and/or quarter-end values might be window-dressed. In addition to the problem of potential window dressing, it is also challenging in practice to use some of the optional indicators provided in Annex 2 of the **EBA Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically importance institutions (O-SIIs) (EBA/GL/2014/10)**, December 2014. These are e.g. "assets under custody", as only full FINREP institutions need to report and there are materiality thresholds, and "degree of resolvability according to the institution's resolvability assessment" if the information is not shared by the resolution authority.



institutions. Certainly, window dressing might lead to scores that do not reflect the de facto systemic relevance of a bank. In particular, banks might obtain scores that are too low, leading to buffer rates that are also too low or even resulting in a bank not being identified as an O-SII. However, the use of within-year averages may not promptly capture an increase in the systemic importance of a growing institution.

3.5 The role of European authorities in macroprudential policy and of cooperation and information sharing among authorities

(i) Reasons for improvement

Lack of cooperation and communication among the relevant authorities may lead to a suboptimal policy response to systemic risks. Preparedness for systemic events could be enhanced by closer cooperation among national authorities with different mandates (resolution, supervisory, macroprudential and fiscal), as well as among the relevant authorities within the EU structures. Such cooperation could include the discussion of systemic stress scenarios and the use of the macroprudential analytical toolkit (e.g. macroprudential stress testing and analysis of cross-border and cross-sectoral interconnectedness) to support resolution activities and the further development of methodologies for public interest assessment.

In addition, in the context of a systemic shock, designated authorities are not usually consulted on the assessment of capital conservation plans and are not included in the decision on whether to impose distribution restrictions if buffers on top of MREL are breached. The capital conservation plans are currently approved by the microprudential authority, and the macroprudential authority is not consulted even when plans are designed in the context of a systemic shock. In addition, under current legal provisions, resolution authorities have the power to impose distribution restrictions after consulting the microprudential supervisor. The absence of the macroprudential perspective may lead to policy responses that fail to take into account broader financial stability considerations when deciding on the replenishment path and conditions of the buffers.

(ii) Proposals for enhancement

- **Enhance cooperation and coordination among relevant European and national authorities (including microprudential, macroprudential and resolution authorities).** In particular, in the context of a systemic shock, national macroprudential authorities should be consulted on the definition of capital conservation plans. Macroprudential authorities should also be consulted on decisions whether to impose distribution restrictions following a breach of buffers on top of MREL. Alternatively, such restrictions should be made automatic.



- **Ensure that all relevant authorities have access to the granular data needed for assessing systemic implications stemming from idiosyncratic or system-wide stress.**
- **Evaluate potential amendments to the CRD/CRR and BRRD to address supervisory, MREL and resource data gaps that might result from insufficient information sharing.** National authorities would benefit from an exchange of information on all relevant bank-specific requirements when calibrating and applying macroprudential instruments. An appropriate legal basis for enhanced data exchange among competent, designated and resolution authorities should be considered. However, the exchange of confidential data should be on a strict “need to know” basis, so unlimited access should not be given. In addition, the current review of the CMDI framework in the EU should be used to ensure consistency with the macroprudential review.

(iii) Policy assessment

Delineating the scope of action would streamline the governance procedures in macroprudential policy by helping to identify synergies between the ESRB and the EBA.

Whenever a new instrument or methodological approach is included in the EU macroprudential framework, the Commission should continue to ensure a prominent role for the ESRB.

Macroprudential authorities should be consulted regarding the assessment of capital conservation plans in the presence of a systemic shock.

The capital conservation plans, when defined and adjusted in the context of a systemic shock, should also involve national macroprudential authorities, as the replenishment path and conditions should take into account broader financial stability considerations, in particular where G-SIIs/O-SIIs are concerned, owing to the systemic importance of those banks.

Macroprudential authorities should also be consulted in the event of distribution restrictions (i.e. the application of the maximum distributable amount related to MREL) following a breach of the CBR buffer on top of risk-weighted MREL.

Alternatively, such restrictions should be made automatic.³⁰ In addition, macroprudential and microprudential authorities should closely coordinate their decisions and timelines regarding the replenishment of buffers.

Evaluate potential amendments to the CRD/CRR package and the BRRD to address supervisory, MREL and resource data gaps possibly resulting from insufficient information sharing.

One possibility could be to put in place indicators to enable regular monitoring. For instance, these could be indicators on the interconnectedness of the banking system itself and on interconnectedness between banks and non-bank financial intermediaries. In particular, it would be important for these indicators to monitor the distribution of bail-inable liabilities. The indicators could assist in anticipating potential spillovers, which could also be cross-border and cross-sectoral, allowing the authorities to adopt a more appropriate policy response. For instance, Article 504a of the CRR sets out a requirement to assess whether the current MREL/total loss-absorbing capacity

³⁰ Articles 16a and 17 of the BRRD should contain a provision to the effect that resolution authorities should consult macroprudential authorities when deciding on distribution restrictions or that such restrictions should be made automatic. Distribution restrictions are also automatic when the leverage ratio buffer is breached.



(TLAC) deduction regime, which applies only to G-SIIs that hold TLAC and is thus less comprehensive than the BCBS holdings standard, should be expanded. Owing to the mitigating effect on contagion, this is relevant from a resolution and macroprudential perspective. Another example is that in order to create more systematic and closer interaction between the SyRB and the risk weight measures, Article 133 of the CRD should include a provision requiring cooperation, coordination and data sharing between the designated and the competent authorities in a similar way as is required under Articles 124 and 164 of the CRR. Legal provisions should be strengthened such that competent authorities are required to share information necessary for macroprudential and financial stability purposes with other relevant authorities, subject to appropriate confidentiality arrangements.³¹ For instance, the sharing of information for macroprudential and financial stability purposes could be strengthened in the resolution framework³² Sharing information about impact analyses on failing banks in the context of system-wide events and about impediments to resolvability³³ could help inform effective macroprudential policies. In addition, the possibility to timely access information on MREL requirements and resources is crucial for determining buffer usability as shown in a report by the ESRB published in December 2021.³⁴ Meanwhile, NCAs should immediately notify authorities with a macroprudential mandate (NDA, central bank where applicable) when an institution breaches its buffer requirements (CBR, leverage buffer) and inform them about any supervisory measures.

Given the interaction of the macroprudential and resolution frameworks and the common objective to safeguard financial stability, the reviews of the macroprudential framework and of the CMDI framework should be aligned if possible. This would ensure consistency and contribute to effective policies. As outlined above, there are different issues that may necessitate adjustments not only of the CRD/CRR package but also of the BRRD/SRMR. This includes the overlap of capital buffers with minimum requirements, distribution restrictions when buffers are breached in the MREL stack, the limitation of contagion via MREL deductions, the assessment of systemic events in resolution planning and actual crisis cases, and the consideration of impediments to resolvability in the O-SII framework.

³¹ Article 4 of the CRD should be amended for this purpose.

³² Articles 84(4) and 90 of the BRRD could contain an explicit provision ensuring information sharing for macroprudential and financial stability purposes.

³³ The “degree of resolvability according to the institution’s resolvability assessment” indicator cannot be used for the O-SII assessment if the macroprudential authority has no access to this information. See the **EBA Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically importance institutions (O-SIIs) (EBA/GL/2014/10)**, December 2014.

³⁴ See **“Report of the Analytical Task Force on the overlap between capital buffers and minimum requirements”**, ESRB, December 2021.



4 Global risks

In its call for advice, the Commission requested advice on limiting systemic risks and vulnerabilities that do not necessarily originate in the EU banking system but affect European financial stability. This response focuses on four particular questions of interest.

- Are macroprudential tools (notably Articles 138 and 139 of the CRD) appropriate and sufficient to prevent and mitigate financial stability risks arising from banks' exposure to third countries, notably taking into account compliance with global prudential standards? If not, which tools could be added and how would you evaluate them?
- Is there a need to enhance the tools for monitoring and mitigating banks' risk exposures to other financial institutions, notably through derivatives, margin debt and securities financing transactions? Given the increasing importance of market-based finance and trading, is there a need to enhance the tools for monitoring and mitigating banks' risk exposures, while at the same time strengthening the resilience of banks' market making functions and the provision of market liquidity in crisis situation? If so, which tools could be added and how would you evaluate them?
- Are macroprudential tools appropriate and sufficient to prevent and mitigate financial stability risks arising from sources of systemic risk related to climate change? If not, which tools could be added and how would you evaluate them?
- Are macroprudential tools appropriate and sufficient to prevent and mitigate financial stability risks arising from sources of systemic risk related to cybersecurity? If not, which tools could be added and how would you evaluate them?

4.1 Exposures to third countries

(i) Reasons for improvement

The ESRB is mandated to address risks arising from excessive credit growth in third countries and to ensure a coherent approach for setting CCyB rates for exposures to third countries (Articles 138 and 139 of the CRD). More specifically, when actions taken by authorities in a third country are deemed insufficient, members can set a third-country CCyB to protect their banking sector from risks arising out of excessive credit growth in that third country. The ESRB plays a coordinating role and can issue recommendations on third-country rates. To date, only one third country has implemented a non-zero CCyB. It could be argued that the reason for 0% rates being so widespread worldwide is that third countries also rely excessively on the credit-to-GDP gap. This could indicate that the overreliance on the credit-to-GDP gap should not be the only decisive factor behind identifying risks of excessive credit growth in third countries which would warrant setting/increasing the CCyB rates for exposures in those countries. A review of the provisions to promote a more active use of the CCyB for third countries might be appropriate.



(ii) Proposals for enhancement

- **Maintain the possibility of setting CCyB rates for exposures to third countries.**

(iii) Policy assessment

Macroprudential tools (notably those under Articles 138 and 139 of the CRD) are currently considered appropriate and sufficient to prevent and mitigate financial stability risks arising from banks' exposures to third countries. Although the ESRB has not yet issued any recommendation on implementing a CCyB for exposures to third countries, the need for such a tool in the future cannot be ruled out. It is therefore important for the ESRB's coordinating role to be retained so that potential inconsistent application of the CCyB to third countries does not lead to fragmentation of the Single Market. However, the process for activation of third-country measures could be reviewed in order to reduce inaction bias. As an alternative, macroprudential authorities can also use the sectoral SyRB for exposures to third countries, which may be subject to less inaction bias. Accordingly, it would be useful to provide a clarification in the legal framework on the possibility of using the sectoral SyRB for third countries, given its broader scope and less politically sensitive nature.

4.2 Non-bank financial institutions

(i) Reasons for improvement

Non-bank financial institutions (NBFIs) are a growing and important component of the global financial market risk transmission mechanism. Financial connections, whether in the form of linkages within and across countries or as an intrinsic part of the interconnectedness between NBFIs and banks, are significant potential sources of systemic risk. NBFIs, namely investment funds (IFs), money market funds (MMFs) and other financial institutions (OFIs), provide equity and other types of financing (including wholesale funding) for non-financial corporations. NBFIs are exposed to banks as counterparties in non-centrally cleared derivatives and securities financing transactions. Stress in NBFIs can spill over to the banking system, as illustrated by the losses borne by some banks related to the Archegos default case or to the market turmoil in March 2020. The global financial crisis and the COVID-19 crisis have highlighted the complexity of these interconnections between NBFIs and the banking system. They have also underlined their significant potential to spread risk, while at the same time providing the EU macroprudential policy framework with critical tests of its ability to protect financial stability.

There is evidence of procyclical patterns in the market-based finance and banking sector that exacerbate economic downturns. Investment funds, and money market funds in particular, are entities that pose potential risks to financial stability owing to their intrinsic liquidity or maturity mismatches, which can be exacerbated by excessive reliance on leverage. In addition, recent evidence points to herding patterns in the timing of fund redemptions, margin calls, haircut-setting, and liquidity in collateralised securities and derivative markets. These herding patterns have been



shown to amplify financial market risks during crisis periods and set off fire sale dynamics between banks and NBFIs.

From a macroprudential perspective, a growing non-bank financial sector brings benefits in terms of increased risk sharing across the financial system, but it can also result in new risks and vulnerabilities.^{35 36} In addition to banks operating almost entirely online and with a limited number of branches, digitalisation has brought new intermediaries, for example in the form of peer-to-peer lending platforms and new payment service providers. In addition, it has paved the way for non-financial companies to enter the financial services market (e.g. Amazon, Facebook, etc.). Banks' new competitors (fintech, big tech) and the rise in popularity of new products (e.g. stablecoins) could also potentially pose risks to financial stability. This expansion of the non-bank financial sector in recent years has been accompanied by an increase in liquidity transformation and maturity transformation, combined with a pick-up in leverage for some entities. Such risk taking has created vulnerabilities which need to be monitored and assessed, taking into account interconnectedness within the financial system and the role of NBFIs in funding the real economy more broadly.

Additionally, less stringent oversight of NBFIs may create incentives for regulatory arbitrage and shift risks to the non-banking sector. The lack of consistency in macroprudential oversight and instruments across the banking and NBFi sectors creates incentives for regulatory arbitrage. The lack of transparency and underlying risks of some products should also be considered. This applies particularly to products such as exchange-traded funds (ETFs). Important aspects of ETFs are not even made transparent to regulators in regular reporting; for instance, the authorised participants in the funds are not disclosed either to regulators or to investors. As these participants are the link between investors and their investment, this lack of transparency needs to be addressed.

(ii) Proposals for enhancement

- **Introduce activity-based tools to be used alongside entity-specific tools.**
- **Either apply consistent rules across all financial institutions when they perform the same activities, taking account of their specific risk profiles, or require them to adjust their activities accordingly.**
- **Implement anti-procyclicality measures in margin and haircut requirements.**
- **Use consistent macroprudential definitions of HQLA across the financial system.**
- **Set out a dedicated macroprudential code that includes a framework for the whole financial system.**

³⁵ See “**EU Non-Bank Financial Intermediation Risk Monitor 2021**”, ESRB, August 2021.

³⁶ The early 20th century saw the rise of investment banks to fund railroad expansion in the United States, while the 1960s saw the rise of money market funds in the United States in response to Regulation Q, which prevented banks from paying interest on demand deposits.



(iii) Policy assessment

There is some evidence suggesting that minimum regulatory standards for the non-banking financial system are desirable. In terms of the regulatory framework for non-banks, it is important to adopt a macroprudential perspective by implementing the existing policy initiatives being discussed for the insurance sector³⁷, both for money market funds³⁸ and for investment funds³⁹, as well as the initiatives addressing the procyclicality of derivative margins⁴⁰. Additionally, any prudential and market conduct regulation needs to balance entity and activity-based aspects to avoid creating incentives for regulatory arbitrage. Finally, non-banking sector reforms need to be carried out in close international cooperation to avoid creating a competitive disadvantage for EU banks and NBFIs in relation to their (less regulated) foreign counterparts.

The authorities need granular data to monitor and assess the build-up of systemic risks on a timely basis. With regard to short-selling and failures to deliver, there is a need for data that show which short positions are being built up. This is especially true for the ETF segment, where naked short-selling is allowed in some countries. At this point, the supervisory authorities in particular need to be able to monitor the build-up of systemic risks so that they can identify any inherent dangers in good time.

The principle of “same activities, entity-specific risks, consistent rules” could provide guidance for reforming the EU macroprudential framework in order to ensure congruent regulation.⁴¹ The goal of congruent regulation would be to prevent both regulatory arbitrage and the transfer of risks to unexpected or less regulated parts of the system. At the same time, technological innovations should be encouraged. Where non-banks conduct bank-like activities, such as lending, deposit-taking or payment services, an assessment of entity-specific risks and sectoral legislation, as well as an assessment of opportunities for regulatory arbitrage, should be conducted. The outcome could either be that congruent regulatory rules should be implemented or that activities should be adjusted accordingly.

Defining new macroprudential tools from an activity-based point of view, rather than an entity-based point of view, could be a way to ensure the resilience of the whole system.

Macroprudential tools designed for banks cannot be applied one-to-one to NBFIs, even if they are exposed to the same type of risks. This is because the business models and balance sheets of non-banks are different. A way for macroprudential tools to also cover non-banks would be to design activity-based tools which would then be applicable to various groups of financial institutions that conduct similar risky activities in a similar but not identical way. A disadvantage of this new approach is that it may be difficult to implement in the existing legal framework.

³⁷ In view of the Solvency II 2020 review, the ESRB has proposed macroprudential tools for insurers, addressing liquidity risk and credit risk when insurers originate loans.

³⁸ ESRB Recommendation on money market funds (upcoming).

³⁹ **Recommendation of the European Systemic Risk Board of 7 December 2017 on liquidity and leverage risks in investment funds (ESRB/2017/6)** (OJ C 151, 30.4.2018, p. 1).

⁴⁰ **Recommendation of the European Systemic Risk Board of 25 May 2020 on liquidity risks arising from margin calls (ESRB/2020/6)** (OJ C 238, 20.7.2020, p. 1).

⁴¹ See Metrick, A and Tarullo, D.K., “**Congruent financial regulation**”, *Brookings Papers on Economic Activity*, March 2021.



Consistent macroprudential definitions of HQLA would be beneficial to ensure a coherent system-wide analysis of liquidity vulnerabilities. The liquidity vulnerabilities of banks and non-banks differ and should be analysed taking into account both assets and liabilities. However, sources of liquidity should be consistently defined across sectors. The EBA is currently developing a report to the European Commission on appropriate uniform definitions of high and extremely high liquidity and credit quality of transferable assets. The European Securities and Markets Authority (ESMA) has a consistent definition of HQLA when analysing potential liquidity shortfalls of investment funds in several of its publications.⁴² The ESRB has also suggested using a consistent definition when assessing the liquidity risks stemming from the liabilities of insurers.⁴³ European Insurance and Occupational Pensions Authority (EIOPA) publications use a definition of liquid assets that is aligned with that used in the International Association of Insurance Supervisors (IAIS) and ESRB publications. Using consistent – but not necessarily identical – definitions would help in analysing the stock of HQLA held across all sectors and would be a step towards measuring liquidity risks at the system-wide level. However, such definitions should be regularly reviewed, as the liquidity of assets may change over time, possibly also owing to structural developments.

Procyclical margin and haircut requirements might increase systemic liquidity risks. In contrast to initial margins, variation margins usually comes in the form of cash and increases when volatility is high while liquidity tends to be scarcer, as shown during the March 2020 market stress. The ESRB is carrying out work on margins and haircuts⁴⁴ and has published a Recommendation on liquidity risk arising from margin calls⁴⁵.

In the longer term, a dedicated macroprudential code where a framework applies to the entire financial system would have several advantages. While the European Commission's call for advice on their 2022 review of the macroprudential framework for the banking sector is by definition limited to the banking framework, it may be beneficial in the longer term to have a dedicated macroprudential regulatory framework for the entire financial system. This would cover all types of systemic risks independently of which entity is exposed to them. It would also be helpful to avoid gaps, inconsistencies or overlaps between different legal frameworks. This should be considered when reviewing other regulatory frameworks such as Solvency II or digital finance.

⁴² See “**Measuring the Shadow banking system - a focused approach**”, Report on Trends, Risks and Vulnerabilities, No 2, ESMA, 2015 and “**Stress simulation for investment funds**”, ESMA Economic Report, 2019.

⁴³ See “**Enhancing the macroprudential dimension of Solvency II**”, ESRB Report, February 2020, pp. 74 ff.

⁴⁴ See “**Mitigating the procyclicality of margins and haircuts in derivatives markets and securities financing transactions**”, ESRB Expert Group on the Macroprudential Use of Margins and Haircuts, January 2020, which put forward six policy proposals to help mitigate procyclicality in the practice of central and bilateral margining.

⁴⁵ **Recommendation of the European Systemic Risk Board of 25 May 2020 on liquidity risks arising from margin calls (ESRB/2020/06)** (OJ C 238, 20.7.2020, p.1).



4.3 Climate risk

(i) Reasons for improvement

There is mounting evidence that transition and physical risks arising from climate change represent a material risk to the banking system and may even be a source of systemic risk to the financial system as a whole. In recent years there has been a tremendous effort to assess the risk of climate change on the financial system. Available evidence for the EU suggests that vulnerabilities are unevenly spread across EU regions, sectors and financial institutions, while exposures to physical and transition risks are concentrated at regional and sectoral level and in specific European financial intermediaries.⁴⁶ Properly measuring climate risks to banks' balance sheets remains a major challenge owing to the unprecedented combination of effects that might result from climate risk in the short and medium to long term. Innovation in forward-looking modelling is necessary to identify prospective financial losses. The capacity of climate change to trigger feedback loops between the real and financial sectors further compounds the difficulties. Losses suffered by the financial system could cause reductions in lending by banks and coverage by insurance firms, thereby decreasing their support to the real economy. These unique features and amplifiers suggest that climate risk may represent a systemic risk to the banking sector.

The unique features and systemic dimensions of climate-related risks may call for the application of specific macroprudential policies that are consistent with and complementary to microprudential policies. In general, macroprudential policy is complementary to microprudential policy and provides an additional layer in ensuring the stability of the financial system as a whole. Macroprudential measures can play an important role in limiting the build-up of climate-related financial risks (CRFR) in the financial system and in strengthening the resilience of the system through pre-emptive interventions.

(ii) Proposals for enhancement

- **Explore the use of existing tools in the CRD/CRR such as the sectoral SyRB and large exposure limits.**
- **Carefully evaluate the introduction of concentration charges in the framework.**
- **Promote coordination among European countries when implementing measures to address CRFR.**
- **Close climate data gaps and promote development of harmonised and granular taxonomy and metrics.**

⁴⁶ See “**Climate-related risk and financial stability**”, ECB/ESRB Project Team on climate risk monitoring, July 2021.



(iii) Policy assessment

Based on a cost and benefit assessment of different tools, it seems likely that existing macroprudential tools could already be used to limit or build up resilience against any climate-related systemic risks. Existing macroprudential tools such as large exposure limits (under the remit of stricter national measures in Article 458 of the CRR) or sectoral SyRB could already be used to address CRFR. To allow the current large exposure measure in Article 458 to serve as a concentration limit to address a bank's concentration to groups of clients operating in similar industries or geographical areas, one possibility might be to make the definition of the "group of clients" more flexible. If this proved too complex, an alternative option could be the creation of a new concentration limit standard targeting exposures to climate-related risks. Similar limits could also be included in other regulations beyond banking, to avoid the migration of this risk to other financial intermediaries. As regards the sectoral SyRB, adjustments could be made to the EBA Guidelines on the appropriate subsets of exposures in the application of SyRB⁴⁷. Another possibility might be to extend the sectoral SyRB to third-country exposures or ensure a more prominent role for ESRB recommendations on the application of sectoral SyRB for CRFR.

A potential new tool focusing on concentration charges – outside Article 458 of the CRR – could also address climate-related risk in a more proportional, targeted, and harmonised manner than existing tools. With this tool, the relevant exposures above a certain threshold would be multiplied by a coefficient (i.e. the climate risk concentration charge). The risk charge could be imposed on exposures to geographical areas or sectors particularly exposed to climate risk, which exceed a certain threshold. Concentration charges would avoid the cliff effects of concentration limits. They would also be more proportionate than concentration limits and potential sectoral SyRB, as only banks with exposures above a certain threshold would be subject to a higher capital charge. However, the more targeted concentration charge entails a higher degree of complexity and has to be justified by a risk differential between green and brown assets, which is still being researched.

The use of macroprudential tools to address CRFR must go hand in hand with the reduction of climate data gaps, as well as the development of harmonised and granular taxonomy and metrics. Indeed, to enable a risk-based calibration of macroprudential tools, it must be possible to assess the level of risk across the emission spectrum, underscoring the importance of work under way at international level to enhance the still incomplete and heterogeneous quantity and quality of climate-related disclosures. In addition, an accurate assessment of financial stability risk arising from climate change would require the aggregation of risk through a taxonomy of activities that are either sustainable or environmentally harmful. While work continues on ensuring that such a taxonomy is feasible for sustainable activities, work on ensuring a taxonomy of environmentally harmful activities still needs to be developed.

Finally, since climate issues may have far-reaching impacts, global or at least EU-wide coordination in addressing systemic CRFR is paramount. Macroprudential policy will also have to deal with cross-sectoral and cross-border issues in order to avoid arbitrage and "waterbed

⁴⁷ **Final guidelines on the appropriate subsets of sectoral exposures to which competent or designated authorities may apply a systemic risk buffer in accordance with Article 133(5)(f) of Directive 2013/36/EU (EBA/GL/2020/13),** September 2020.



effects⁴⁸, especially owing to the universal nature of climate change. In the EU, a possible coordination tool would be ESRB recommendations and warnings. The ESRB could issue such recommendations and warnings to the EU as a whole or to individual Member States.

4.4 Cyber risk

(i) Reasons for improvement

To address systemic cyber risk, the scope of the macroprudential framework needs to be extended beyond financial resilience so that it also includes cyber resilience.⁴⁹ The adverse effect of cyber incidents on the financial system's operability adds a new dimension to macroprudential policy. Existing macroprudential tools are not designed specifically to act preemptively in dampening amplifiers and channels of cyber incidents and managing their impact. They therefore have limited ability to serve as systemic cyber risk mitigants. Applying existing financial tools directly in the context of systemic cyber risk may overburden these tools by forcing them to meet objectives they are not designed for. A macroprudential policy based solely on financial risks will leave the operational risk amplifiers and contagion channels of a systemic cyber crisis unaddressed. This calls for specific tools on cyber resilience, especially as the design and calibration of financial tools relies on the assumption that operational systems are functioning, which might not be the case in a systemic cyber crisis.

As a sensible first step, macroprudential authorities need to expand their systemic cyber risk monitoring, as this is necessary for the development, calibration and activation of adequate mitigants. Macroprudential authorities need to develop systemic cyber resilience scenario stress tests. These exercises provide insights into the financial system's capacity to absorb the shock stemming from a cyber incident in "what if" scenarios. By benchmarking test results against institutions' tolerance for disruptions, systemic cyber resilience scenario stress tests aim to reveal cyber risk-related vulnerabilities in the financial system. These tests would provide authorities with data on how operational disruptions could lead to the prolonged unavailability of key economic functions. They would also provide data on the extent of the financial losses stemming from this unavailability. Results could guide macroprudential authorities in developing their expectations on tolerance for disruption. For the sake of proportionality, these systemic cyber resilience scenario stress tests should be focused on systemically important institutions.

Timely and high-quality data are important for systemic cyber risk monitoring, instrument calibration and ex post management of systemic cyber crises, both in terms of defining recovery strategies during the immediate impact and for improving recovery plans. As proposed in DORA, data collection initiatives should be supplemented by a framework for information sharing among authorities, including macroprudential ones, to overcome the lack of data at macroprudential level and facilitate risk assessment across jurisdictions and sectors.

⁴⁸ "Waterbed effects" are where credit grows in the non-regulated or under-regulated (shadow) banking sector.

⁴⁹ See "**Mitigating systemic cyber risk**", ESRB Report, January 2022.



Macroprudential authorities' expectations on tolerance for disruptions would complement the existing work of microprudential and oversight authorities by adding a systemic dimension. Microprudential and oversight authorities already define their tolerance for disruptions reflecting their statutory objectives. For example, in guidelines published in 2019⁵⁰ the EBA called for backup and restoration procedures allowing data and information and communications technology (ICT) systems to be recovered in line with business recovery requirements and the criticality of the data and the ICT systems. Meanwhile, in guidance published in 2018⁵¹ the ECB defined its cyber resilience oversight expectations for financial market infrastructures (FMIs). The ECB Regulation on oversight requirements for systemically important payment systems (SIPS Regulation)⁵² defines operation resumption times for critical information technology systems. With reference to financial stability, in 2016 the Committee on Payments and Market Infrastructures (CPMI) and Board of the International Organization of Securities Commissions (IOSCO) called for FMIs to resume critical operations within two hours and complete settlement by the end of the day of the disruption.⁵³ Notwithstanding this capability, the CPMI and IOSCO suggest in their guidance that “FMIs should exercise judgement in effecting resumption so that risks to itself or its ecosystem do not thereby escalate”. The objective of all these different authorities' tolerance levels is to ensure a sufficient level of cyber resilience of institutions.

As macroprudential authorities only express their expectations on tolerance for disruptions, no explicit costs for the industry are expected. However, expectations on tolerance for disruptions can serve as a cyber resilience benchmark for the financial industry. This might provide an incentive for voluntary investments in cyber resilience. As microprudential authorities already define their tolerance for disruptions for some critical economic functions, the costs might be limited overall.

Additional cyber resilience requirements for systemically important institutions will complement their existing regulatory framework. This expands the scope of the regulatory requirements beyond financial resilience to include cyber resilience – a complementary and much-needed step to address systemic cyber risk. The approach takes proportionality into account, as an elevated level of cyber resilience is envisaged only for systemically important institutions. The work can build on the DORA framework. For operational services, DORA proposes an EU-wide harmonised designation framework for critical third-party ICT service providers in the financial system. In addition, institutions should maintain and update – both at entity level and at sub-consolidated and consolidated levels – a register of information in relation to all contractual arrangements on the use of ICT services provided by third parties. This assessment provides financial authorities with a first centralised overview at EU level of critical nodes in the financial system. However, amendments might be needed, potentially to cover other critical nodes in the financial system which will not be reported under DORA. In addition, an overview of systemic nodes makes it possible to define which institutions and third-party providers serving them are to be included in systemic cyber resilience scenario stress testing.

⁵⁰ “EBA Guidelines on ICT and security risk management (EBA/GL/2019/04)”, November 2019.

⁵¹ “Cyber resilience oversight expectations for financial market infrastructures”, ECB, December 2018.

⁵² Regulation (EU) 2021/728 of the European Central Bank of 29 April 2021 amending Regulation (EU) No 795/2014 on oversight requirements for systemically important payment systems (ECB/2021/17) (OJ L 157, 5.5.2021, p. 1).

⁵³ “Guidance on cyber resilience for financial market infrastructures”, Committee on Payments and Market Infrastructures and Board of the International Organization of Securities Commissions, June 2016.



Costs for investments in elevated levels of cyber resilience are hard to estimate. On this point, the financial industry could profit from existing industry-led initiatives to establish high industry standards for protecting and recovering data with the goal of reducing overall costs.⁵⁴ This concept is still relatively new to the financial authorities. They should build up experience with and knowledge of these solutions and, where beneficial, collaborate with the financial industry on system-wide approaches.

(ii) Proposals for enhancement

- **Entity-based tools might be more easily included in the CRD/CRR, while activity-based tools might be allocated to DORA.**
- **Introduce additional cyber resilience requirements for systemically important institutions to address the systemic risk they pose to the financial system.**
- **Apply concentration limits to third-party providers or require additional cyber resilience in the event of a lack of substitutability of the third-party providers.**
- **Require macroprudential authorities to develop a system-wide cyber resilience scenario stress test with the aim of assessing the maximum acceptable level of disruption to critical economic functions without posing risks to financial stability.**
- **Supplement data collection initiatives with a framework for information sharing among authorities, including macroprudential authorities, to allow systemic cyber risk monitoring, instrument calibration and ex post management of a systemic cyber crisis.**
- **Extend the macroprudential mandate beyond financial institutions so as to include third-party ICT providers (as provided for in the DORA proposal for microprudential authorities) and to assess and help to address the systemic risk stemming from them.**

(iii) Policy assessment

New macroprudential tools could be included in the CRD/CRR or in the forthcoming DORA.

The key is to avoid any gaps in the different regulatory frameworks. Some new tools might be implemented in the CRD/CRR, while others might be implemented in DORA.

Entity-based tools are aimed at ensuring that systemically important institutions have a higher level of cyber resilience than other institutions. In the financial system, critical economic functions are provided to a large extent by systemically important institutions or critical/core financial infrastructures. These are supported to an increasing extent by third-party ICT service providers,⁵⁵ which can lead to third-party dependencies and concentrations across the value chain. As a result of these dependencies and concentrations, third-party ICT providers might also

⁵⁴ Examples of such initiatives are the **Zero Outage Industry Standard** and **Sheltered Harbor**.

⁵⁵ See **Financial Stability Review**, ECB, May 2021.



become systemically important for the financial system.⁵⁶ To mitigate contagion effects, systemic entities might need to operate with elevated levels of cyber resilience⁵⁷ on which macroprudential authorities can provide guidance through their tolerance for disruptions. For the sake of proportionality, such an application might focus on G-SIIs and O-SIIs, whose designation framework is based, for instance, on the substitutability of the services or financial infrastructure provided by the group. To avoid regulatory arbitrage, elevated cyber resilience requirements might also be applied to other systemically important nodes in the system, such as designated third-party providers under DORA.⁵⁸ In addition, operational concentration risks to systemically important third-party providers need to be addressed so as to mitigate related contagion effects. Operational diversification can be a tool for mitigating concentration risk and can be implemented by requiring a multi-vendor strategy, in which services are replicated across more than one provider.⁵⁹ Other forms of higher cyber resilience requirements could be more appropriate in the case of lack of substitutability of the third-party providers in question.

Activity-based tools are aimed at ensuring the cyber resilience of operational systems providing critical economic functions.

The objective of these tools is to ensure the timely recovery of operational systems which mitigate contagion related to cyber incidents. This work could build on existing microprudential and oversight authorities' initiatives in the area of tolerance for disruption. For instance, banks might define their operational resilience expectations according to the institution's risk appetite, risk capacity and risk profile.⁶⁰ Macroprudential authorities could provide guidance to financial entities by defining the maximum acceptable level of disruption to critical economic functions that would not pose a risk to financial stability in severe scenarios, or even in extreme but still plausible ones. Under Pillar 2, consideration could be given to how banks' cyber resilience is aligned with macroprudential authorities' expectations. Such an approach would underpin existing initiatives by adding a systemic dimension.

Macroprudential authorities need to expand their systemic cyber risk monitoring, required for the development, calibration and activation of adequate mitigants.

This would encompass the development of systemic cyber resilience scenario stress tests and the definition of a maximum acceptable level of disruption to critical economic functions that does not pose a risk to financial stability. To that end, data collection initiatives using a framework for information sharing among authorities should be launched.

In addition, the macroprudential mandate needs to be expanded to take into account third-party providers, as provided for in the DORA proposal for microprudential authorities.

⁵⁶ See “**Cyber-resilience: Range of practices**”, Basel Committee on Banking Supervision, December 2018.

⁵⁷ See “**Cybersecurity Risk Supervision**”, International Monetary Fund, September 2019, in which the IMF concludes that “... smaller and lower-capacity firms should focus on strengthening cyber hygiene, and the largest and most globally connected firms and key system nodes should be subject to heightened standards commensurate with their size, scale, interconnectedness, and risk profile.”

⁵⁸ See also “**Cyber resilience practices – Executive Summary**”, Financial Stability Institute, Bank for International Settlements, 2021.

⁵⁹ See “**Third-party dependencies in cloud services – Considerations on financial stability implications**”, Financial Stability Board, 2019.

⁶⁰ cf. “**Principles for Operational Resilience**”, Basel Committee on Banking Supervision, March 2021.



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