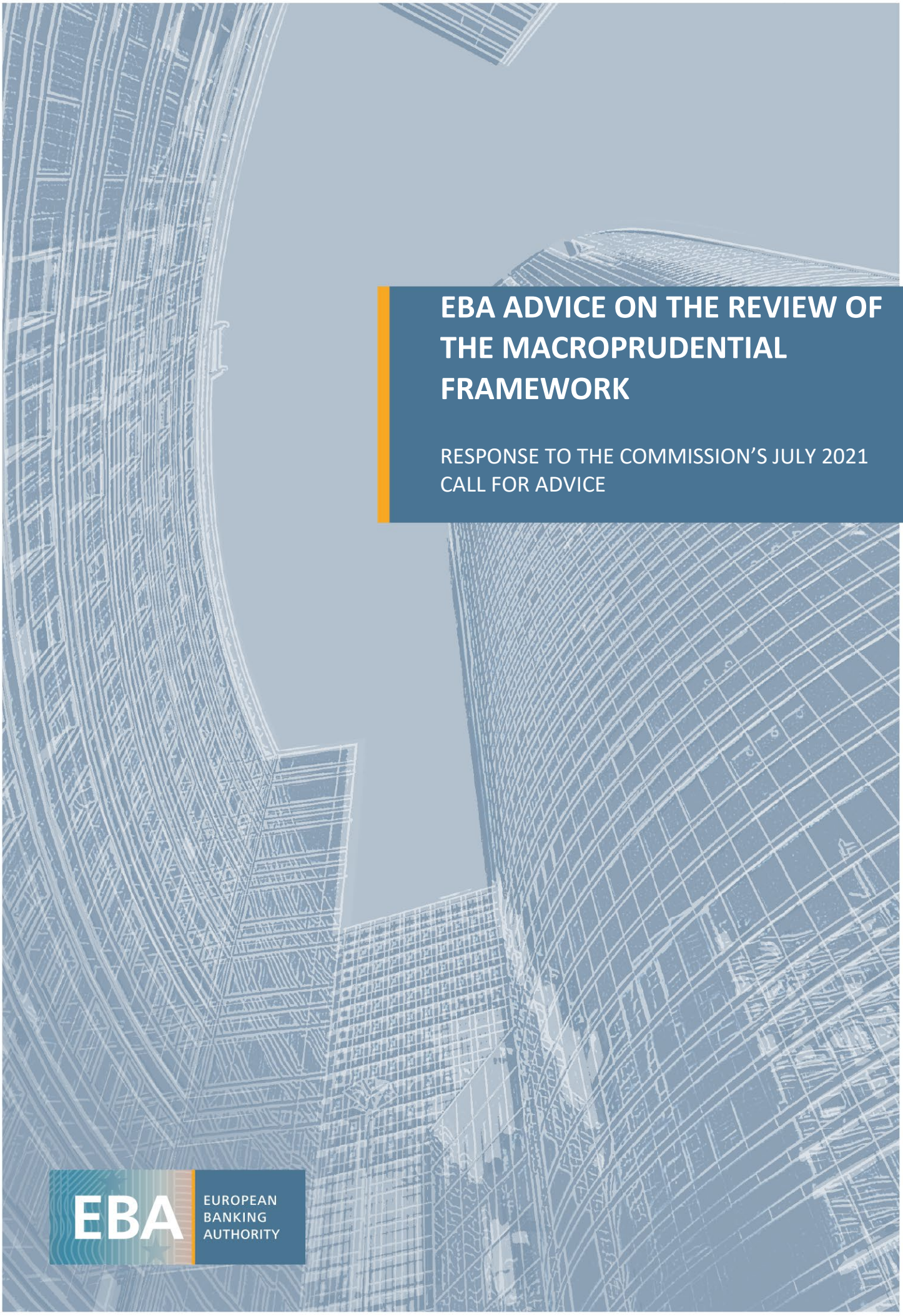

EBA ADVICE ON THE REVIEW OF THE MACROPRUDENTIAL FRAMEWORK

RESPONSE TO THE COMMISSION'S JULY 2021 CALL FOR ADVICE

EBA EUROPEAN BANKING AUTHORITY

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Executive summary

The European Banking Authority (EBA) welcomes the opportunity to provide input to the 2022 review of the EU macroprudential framework, in response to the European Commission's call for advice (CfA). [1] The CfA seeks input on four aspects: (1) overall design and functioning of the buffer framework, (2) missing or obsolete instruments, (3) internal market considerations and (4) global risks.

The EBA reply to the CfA reflects the scope of EBA mandates and tasks and therefore does not address all questions included in the Commission's call for advice.

Overall design and functioning of the buffer framework

Significant fiscal, monetary and prudential support measures - including the release of regulatory capital buffers – were introduced during the COVID-19 pandemic. This allowed banks to continue lending. Limits on dividend payments also helped strengthen bank capital positions. The combined effect of these measures meant that the pandemic did not result in a comprehensive test of the current macroprudential framework. Looking ahead, it will be important to rebuild regulatory capital buffers to ensure they can be released if needed.

Several lessons have however been learned since the inception of the macroprudential framework that can be used when considering changes to the framework. One lesson is that it may be desirable to simplify the procedures for existing macroprudential tools. Another is that it might be helpful to increase harmonisation for other tools. Both should lead to a better functioning of the Single Market. In addition, efforts to improve the framework should also consider developments at the international level.

An important requirement when considering changes to the macroprudential framework is that a clear distinction should be maintained between microprudential and macroprudential tools. This includes having clear roles and responsibilities of the different authorities involved. This is needed to ensure that the complex regulatory framework in the EU, including macroprudential measures, works effectively.

While it is acknowledged that parallel requirements restrict banks' ability to use capital buffers, further evidence on how institutions will adjust their capital and liability positions in response to the development of the regulatory framework (e.g. the implementation of Basel III and minimum requirement for own funds and eligible liabilities (MREL), the development of the Supervisory Review and Evaluation Process (SREP) under CRD5) will need to be gathered.

1 https://www.eba.europa.eu/sites/default/documents/files/document_library/About%20Us/Missions%20and%20tasks/Call%20for%20Advice/2021/CfA%20on%20review%20macroprudential/1019954/20210630%20CfA%20macropru%20review.pdf

The implementation of the CRR2, CRD5 and BRRD2 frameworks is very recent and has introduced several new elements. Hence, with respect to the interaction of macroprudential measures and other capital requirements such as leverage ratio (LR), own funds and eligible liabilities (MREL) requirements, the European Banking Authority (EBA) considers that a more comprehensive evaluation should be performed before considering more substantial changes to the current framework.

Missing or obsolete instruments

In response to the COVID-19 pandemic, competent authorities across Europe recommended dividend pay-out restrictions in a concerted action, and without the need to enact restrictions in hard law. Data on dividend payments throughout 2020 confirm that credit institutions complied with these recommendations, which resulted in an increase of capital reserves in 2020. Given that these measures proved to be an effective complement to macroprudential measures taken during the crisis, the EBA does not advocate applying additional tools and powers to enact system-wide restrictions.

Input and output floors were recently introduced in the Basel III standard to reduce excessive variability of risk-weighted assets generated by internal rating-based (IRB) models. Introducing these floors might lead to a potential recalibration and adjustment of risk weights for some macroprudential measures, particularly for real-estate exposures. However, it is too early to draw conclusions on the interaction between the input and output floors and the macroprudential measures. This assessment should be postponed to the next review of the macroprudential toolkit once the input and output floors are fully applicable.

Although not covered directly in the reply to the CfA, the EBA notes that borrower-based measures (BBMs) may help ensure sound lending standards and thereby mitigate financial stability risks.

Internal market considerations

The macroprudential framework relies on national authorities to adopt the measure best suited to address a specific local risk and to promote financial stability for the local banking sector. This flexibility for national authorities, if not used consistently across jurisdictions, may jeopardise the objective of creating a level playing field in the European financial market and may allow for regulatory arbitrage. Based on experience gained with the application of macroprudential measures over the past decade, the EBA recommends harmonising and simplifying certain aspects of the framework.

- The identification of O-SII is currently framed by the EBA Guidelines, whereas the setting of the level of the O-SII buffer is currently largely left at the discretion of national authorities, leading to a high variation of O-SII buffer rates that cannot be fully explained by differences in underlying systemic risk. This heterogeneity calls for a mandate to be given to the EBA to develop, in cooperation with the ESRB, common methodologies covering both the

identification of O-SIIs and the setting of buffer rates, which should ensure further harmonisation, while allowing specific features of national banking systems to be considered.

- The EBA sees room for enhancing and simplifying the procedures of the macroprudential measures in the Capital Requirements Regulation (CRR) framework and proposes targeted changes to Article 124, Article 164 and Article 458 of the CRR. Clear delineation of responsibilities and close cooperation between all authorities in charge of microprudential and macroprudential policy is essential to ensure an efficient application of these measures.

- The sectoral systemic risk buffer is a recent addition to the macroprudential toolkit, which allows national authorities to establish a buffer for a subset of exposures. The EBA proposes a couple of clarifications to be made in the Capital Requirements Directive (CRD), which were identified by national authorities during the implementation into national legislation and which aim to provide more clarity on the scope and governance procedures.

Global risks

Given that regulatory initiatives are currently being worked on as regards several global risks, including environmental risks, cyber security and crypto assets, the EBA considers it premature to introduce new macroeconomic tools to address the systemic aspects of these risks at this stage.

- Efforts are currently underway to identify ways to address environmental risks in the microprudential framework. While environmental risk may have financial stability repercussions, further development of this work is necessary before concluding on definitive advice on how to address environmental risks from a systemic point of view.

- Crypto assets remain a small portion of the overall financial system, and interconnectedness identified between crypto assets and the traditional financial sector remains limited. The finalisation of the Regulation on Markets in Crypto-assets (MiCA), and experience acquired in its application, will be informative in subsequent assessments of the need for any macroprudential tools in relation to crypto asset markets.

- Cyber security risk requires continued focus on operational resilience and is at the heart of the upcoming Digital Operational Resilience Act (DORA) and the Directive on measures for a high common level of cybersecurity across the EU (NIS2). The potential need for additional macroprudential instruments to address the systemic risk component associated with cyber risk should be further assessed considering the impact of the implementation of those two legal acts.

The increasing trend of non-bank lending, including FinTech lenders and peer-to-peer lending platforms over the past years, requires the establishment of an oversight and monitoring system for non-bank lenders. It also calls for the scope of the macroprudential framework to be enlarged, enabling the application of activity-based macroprudential measures for non-bank lenders.

1. The Commission's CfA

The EBA has been invited to respond to the Commission's July 2021 Call for Advice (CfA) on the review of the EU macroprudential framework.[2] Article 513 of the CRR requires the Commission to complete a review of the macroprudential provisions in the CRR and CRD by June 2022 and, if appropriate, to submit a legislative proposal to the European Parliament and to the Council by December 2022. The other addressees of this CfA are the European Systemic Risk Board (ESRB) and the European Central Bank (ECB). The Commission has also launched a public consultation to gather other stakeholders' views and experience with the current macroprudential rules.

In its CfA, the Commission seeks advice on the following aspects:

(1) Overall design and functioning of the buffer framework

Is there scope for optimising the overall design and use of the buffer framework to prevent and mitigate financial stability risks and to reduce the pro-cyclicality of the financial system?

(2) Missing or obsolete instruments

Are there any tools that are missing in the current macroprudential framework or that have or may soon become obsolete, and if so, which ones?

(3) Internal market considerations

Does the macroprudential framework strike the right balance between national decision-making and a well-functioning internal market?

(4) Global risks

Does the current macroprudential framework provide sufficient and appropriate tools to protect financial stability in the EU against adverse developments in third countries and other challenges?

2 https://www.eba.europa.eu/sites/default/documents/files/document_library/About%20Us/Missions%20and%20tasks/Call%20for%20Advice/2021/CfA%20on%20review%20macroprudential/1019954/20210630%20CfA%20macropru%20review.pdf

2. Overall design and functioning of the buffer framework

2.1 General observations on the review of the macroprudential framework

To make a comprehensive assessment on the effectiveness of the macroprudential framework, it should be tested over a long period of time covering at least a full economic cycle. The COVID-19 pandemic is an atypical crisis for the financial sector and many impacts were cushioned due to public support measures, which were significant in number and size. As a result, during 2020 and 2021, overall, banks continued to meet the demand for loans and did not need to use their capital buffers. Similarly, evidence on the development of risk parameters used by banks with IRB models did not show an increase in risk-taking by banks during that period. In fact, banks increased the capital they held above capital requirements (also known as management buffer) since the start of the COVID-19 pandemic. Despite the lack of a comprehensive test of the buffer framework, some evidence could be gathered, and some lessons have been learned since the inception of the macroprudential framework that might be used for targeted changes to the buffer framework.

As the Basel III package has not yet been fully implemented in Europe, the impact on the current regulatory framework and on banks should be considered to ensure international convergence and a level playing field for EU and non-EU banks. The ongoing work in Basel on the macroprudential framework and its interplay with the usability of buffers should be taken into account. This work will, however, not be finished before the date on which the response to the CfA needs to be submitted to the Commission. It does appear premature to apply more substantial changes in the macroprudential framework before the implementation of the microprudential framework is finalised and its implications on banks' balance sheets fully known.

Given the above, this response does not call for substantial changes to the buffer framework but proposes targeted changes within the existing boundaries of the framework with the aim of making it more effective and simpler to use. The aim of these targeted changes, as described in sections 2 to 4, is to simplify the procedures around some of the existing macroprudential tools and to increase harmonisation for others, which should lead to improved functioning of the Single Market.

2.2 The institutional setup of the macroprudential framework

The macroprudential framework in Europe is complex and multifaceted and involves various authorities. For the framework to work efficiently, the roles and responsibilities assigned to the different authorities need to be clearly defined and respected. It also requires coordination among authorities in charge of microprudential and macroprudential policy to avoid any overlaps in addressing the same risks via multiple channels and to ensure that overall capital requirements are set appropriately. Lastly, the hierarchy in the use of microprudential and macroprudential tools

(capital buffers, RW increases, loss given default (LGD) floors, etc.) needs to be clearly distinguished and adhered to with any measure taken, transparently and properly disclosed[3].

It is important to stress that the macroprudential framework sits on top of the microprudential framework and that both frameworks complement each other. Therefore, there is a need to be clear on the objectives of macroprudential and microprudential measures.

2.3 Interaction with other capital requirements

The CfA also seeks advice on the interaction of macroprudential measures and other capital/liability requirements (i.e. LR minimum requirements, MREL) and on how to alleviate unintended consequences/limitations. It is important to note that institutions are still adjusting their balance sheets in light of these new requirements (for example, fully-fledged MREL requirements will have to be met by banks in 2024, with the intermediate MREL target applicable from 2022).

The recent introduction of minimum LR requirements and MREL in addition to risk-based capital requirements is fostering resilience and resolvability, but can also constrain the use of buffers, since all those requirements make use of the same capital resources. As a result, the risk-based buffers cannot always be used without breaching the LR requirements or LR denominated MREL.

Options to address the issue are not straightforward and will require further assessments from a microprudential perspective, which cannot be completed within the timeframe of this CfA. Any solution should consider, in addition to the usual cost-benefit analysis, the impact on buffer usability and take into account that the CRR2/CRD5 has introduced the LR as a parallel stack.[4]

At this stage, it can be acknowledged that parallel requirements (LR, MREL) restrict banks' ability to use capital buffers, making macroprudential tools potentially less effective. In the consideration of possible broader changes, it first needs to be considered that institutions have not had much time to adjust to the new requirements of the CRR2, CRD5 and BRRD2. Further evidence is needed to understand how institutions adjust their capital and liability positions in response to the development of the regulatory framework (e.g. the implementation of Basel III and MREL, development of SREP under CRD5) and to further analyse how constraining the required stacks of capital and eligible liabilities may be for different types of institutions. It will also be important to understand in greater detail how the current MREL-MDA mechanism can be applied under different situations of comparative bindingness of stacks (own funds MDA vs MREL-MDA being triggered) and for different types of resolution strategies (multiple point of entry (MPE) vs single point of entry (SPE)).

[3] A hierarchy of tools within the current framework was included in the EBA opinion on macroprudential rules, published in 2014 (https://www.eba.europa.eu/sites/default/documents/files/documents/10180/657547/0e8efdbf-9cb3-4178-890a-9d27b1351486/EBA-Op-2014-06%20-%20EBA%20opinion%20on%20macroprudential%20rules%20in%20CRR-CRD.pdf?retry=1)

[4] The understanding of the leverage ratio as a parallel stack has been fundamental to the ongoing review of the SREP Guidelines, which define the common procedures and methodologies for the supervisory review and evaluation process, which aims to include guidance related to the Pillar 2 capital requirement add-ons and the Pillar 2 guidance.

Moreover, introducing an O-SII buffer requirement in the LR stack (equivalent to the already existing LR G-SII buffer) would need to be further analysed. It would have to be considered whether the way in which O-SII buffer rates are determined would lead to sufficient harmonisation and would be appropriate for implementation in the LR. In addition, the analysis should also consider possible effects on the effective releasability of buffers and the extent to which these concerns can be resolved. While presumably fostering resilience, the imposition of an O-SII LR buffer could conceivably make it less straightforward for institutions to use released buffers in the risk-based stack (e.g. in the event of a countercyclical buffer release, a O-SII LR buffer requirement could mean that the release creates less excess capital than it otherwise would). Lastly, the underlying analysis and observations of the 2016 LR calibration report for certain categories of institutions should be considered[5].

2.4 Availability of releasable buffers

The COVID-19 pandemic offered some insights into the functioning of the macroprudential framework, despite the limitations mentioned in Section 2.1. The countercyclical capital buffer (CCyB) was by design one of the capital buffers that could be quickly released by most national authorities in Europe, where a positive CCyB was in place. A release of the CCyB directly reduces banks' risk-weighted capital requirements and hence makes the MDA restrictions less likely to be activated. The CCyB released between December 2019 and June 2021 amounted to EUR 17.6 bn or 20 bps of European Economic Area (EEA) banks' total risk-weighted assets (RWAs) (see Figure 1), but the available releasable buffer was very uneven across countries. As of June 2021, the remaining CCyB in the European banking system stood at 3 bps of total RWA.

Several national authorities also released the systemic risk buffer (SyRB), either fully or partly. The release of the SyRB between December 2019 and June 2021 added another EUR 33.5 bn or 38 bps of EEA banks' total RWA (see Figure 2) to the released capital. As of June 2021, the remaining SyRB in the European banking system stood at 11 bps of total RWA.

Despite the magnitude of the pandemic-induced gross domestic product (GDP) shock, banks did not need to make use of the released capital buffers, as the impact was cushioned by significant public support measures. On the contrary, during the past 2 years, banks have continued to increase their capital buffers above overall capital requirements.

Looking ahead and given the recently improved capital and profitability levels of European banks, it will be important to rebuild the regulatory capital buffers to sufficient levels so that those buffers can be released when the next crisis occurs (see Figure 3). This holds true particularly for the CCyB to strengthen its function and relevance as a cyclical buffer.

The EBA therefore generally supports the European Systemic Risk Board (ESRB) work aiming at facilitating a more (pro)active use of the CCyB, by considering, for example, additional indicators for the build-up of the CCyB, the possibility for national authorities to reduce the 12-month

5 Page 22 of EBA-Op-2016-13 (EBA recommends introducing the Leverage Ratio in the EU | European Banking Authority (europa.eu)

implementation period to six months without the need to explain exceptional circumstances and removing the cap for mandatory reciprocity for the CCyB.

Banks have also explained that an impediment to the use of the buffers is the lack of clear communication concerning the time when a national authority expects to increase them again after their release. The EBA believes this is also an important aspect and that national authorities should aim to provide clear guidance to banks when buffers are released, including the conditions and/or the timing considered for their replenishment. Comprehensive conclusions on the countercyclical effectiveness of the framework would also need to take into account ongoing developments at an international level (e.g. discussions at the Basel Committee) as well as findings on the interaction of buffers with other capital requirements (see Section 2.3).

3. Missing or obsolete instruments

3.1 System-wide restrictions on distributions

In response to the COVID-19 pandemic, system-wide pay-out restrictions were broadly used by competent authorities and there was high compliance by credit institutions with such measures, which generally took the form of soft-law recommendations. Retaining earnings as a buffer for potential losses or to provide lending during a crisis was regarded as an important complement to macroprudential measures such as buffer releases. Given also that restrictions proved to be effective in boosting capital reserves in 2020, there is not a clear case for applying additional tools and powers to enact system-wide restrictions at this point in time.

Compliance with and impact of dividend restrictions

In March 2020, after the rapid spread of COVID-19 in Europe, several regulators and supervisors released statements and recommendations asking banks to refrain from distributing dividends and share buy-backs aimed at remunerating shareholders for the financial years 2019 and 2020[6]. A key driver for these statements and recommendation was that such a measure would boost banks' capacity to absorb losses and support lending to households, small businesses and corporates during the COVID-19 pandemic. Other authorities across Europe applied similar measures, effectively resulting in a concerted restriction on shareholder remuneration. By the end of 2020 and driven by the reduced uncertainty in macroeconomic projections for 2021 and 2022, authorities adjusted their recommendations to allow banks to distribute a limited share of their dividends from 2019-2020 profits in the first 9 months of 2021[7].

The vast majority of banks across Europe adhered to the recommendations and refrained from remunerating shareholders from 2019 profits. Dividend payments and share buy-backs in 2020 amounted to less than EUR 8 bn, which represents a pay-out ratio of 9% based on banks' 2019 profits. This compares to an average pay-out ratio of 59% for the previous 5 years (2015 to 2019). The payments and share buy-backs made in 2020 were either carried out before the publication of above-mentioned recommendations or were due to other obligations not related to shareholder remuneration. These obligations included payments for AT1 instruments, if they are considered equity under international financial reporting standards (IFRS), payments from subsidiaries to minority shareholders, market making of own shares (trading treasury shares) and the purchase of own shares for employee pension schemes. In line with the EBA Guidelines on Sound Remuneration Policies, where a bank does award variable remuneration in shares, the bank does not need to hold those shares at award, but only after the deferral period, where the staff member becomes the

[6] Statements and recommendations included those from the EBA on 12 March and 31 March 2020, as well those from the ECB Banking Supervision on 27 March 2020 and the ESRB from 26 May 2020. They were followed by prolongations of the measure in the following months.

[7] ECB Banking Supervision for instance asked banks to limit dividend payments to below 15% of cumulated 2019-2020 profits and not higher than 20 bps of CET1 ratio.

legal owner of the share. This means that banks, in order to comply with the remuneration requirements, must buy back some shares to provide them to staff (unless they could issue new shares). Even if this is legally a share buy-back, it should not be considered as going against the dividend restriction.

The impact of the recommendations is visible when comparing actual pay-out ratios with banks' plans for dividend distributions, as set at the beginning of each year[8]. While for previous years, banks' plans more or less coincided with actual pay-outs, for 2020, the gap between banks' plans and actual pay-outs was about EUR 29 bn or 35% of 2019 profits (Figure 4). Many banks have announced additional dividends to be paid in Q4 of 2021 and 2022 relating to 2019 and 2020 results to make up for deferred dividend payments in 2020, which is reflected in the high pay-out plans banks submitted for 2021.

Supervisory powers in the context of dividend restrictions

According to the Commission's mandate to assess whether additional binding powers should be granted to competent authorities to impose restrictions on distributions in exceptional circumstances (Recital 22 of Regulation (EU) 2020/873, Article 518b of Regulation (EU) No 575/2013), the EBA conducted a 'survey' among competent authorities in 2021, 'Supervisory Powers in the Context of Dividend Restrictions'.

In order to possibly feed the legislative debate, it was deemed important to clarify possible challenges that competent authorities encountered when imposing restrictions on dividends and exchange on possible envisaged or experienced solutions. Within this context, competent authorities were invited to comment on their relevant experience in implementing dividend and variable remuneration restrictions and in particular the need to add specific supervisory powers in this matter to the CRD[9].

The survey's four questions/replies are summarised below:

- 'Did you experience legal challenges in implementing restrictions to dividend or variable remuneration restrictions related to the COVID-19 crisis?" – The vast majority did not experience legal challenges.

- 'If you have a national legal basis for the use of legally binding measures to restrict dividends or variable remuneration, could you explain the conditions under which these powers were used?' – The vast majority do not have any legal basis in their national framework that allows them to apply legally binding measures aimed at restricting dividends or variable remuneration over and above those provided for in the CRD.

[8] These plans are reported by banks via supervisory reporting as the part of year-end profits that are not included in CET1 capital as retained earnings.

[9] 20 competent authorities replied to the survey. 19 competent authorities replied to the question 'If you have a national legal basis for the use of legally binding measures to restrict dividends or variable remuneration, could you explain the conditions under which these powers were used?'

- 'If you do not have such powers, would you support their introduction at EU level? Do you see any legal impediments under your national law for implementing such measures if established within the EU regulatory framework?' – While being generally open to possible enhancement of the EU framework many competent authorities raised some caution and argued that a careful analysis of such powers, their impact and possible legal impediments needs to be made.

- 'Should it be introduced within the EU regulatory framework, what could be the specific conditions attached to such supervisory powers? Would you support, in order to ensure an appropriately harmonised use of such powers, that such conditions might include the recognition of an exceptionally adverse situation by an EU body (e.g. the ESRB) or the fact that the financial sector has received direct or indirect support?' – Most of the replies did not support additional supervisory powers being subject to specific EU-wide conditions. However, quite a few competent authorities supported introducing specific EU-wide conditions and others were open to discussing this issue further. Competent authorities also pointed to the importance of maintaining a level playing field within the EU.

3.2 Basel III input and output floors

The Basel III standards contain some novel input and output floors in the IRB approach for the probability of default (PD) and LGD estimates and the risk-weighted assets[10]. Both floors have been introduced in the microprudential framework to reduce excessive variability of risk-weighted assets generated by IRB models and to enhance the comparability of risk-weighted capital ratios. While they do not directly address macroprudential or systemic risks, the interaction between them and the macroprudential measures may influence the need for, or calibration of risk weight measures, particularly for real-estate exposures.

The first estimations on the impact of the output floor (based on quantitative impact studies (QIS) data) point towards a reduced need for adjustments. However, the same QIS data suggest that macroprudential measures targeting exposures secured by real estate will not become redundant because of the output floor.

Before the final implementation of the output floor in the CRR (including transitional arrangements), and without any experience with its application, it is not possible to fully assess/evaluate the impact of the output floor (and the overall increase in RWA it will produce) and any overlap with macroprudential instruments. Given that the output floor is potentially only fully applicable without restrictions by 2033[11], due to transitional arrangements, the discussion on the interaction of the Basel III floors with the macroprudential framework should be postponed to the next review of the macroprudential toolkit.

[10] Further details and the estimated impact of these floors can be found in the EBA 2019 advice on Basel III for credit risk.

[11] As per the EU Commission's proposal to implement the final Basel III standard.

4. Internal market considerations

4.1 O-SII buffer rates

The EBA recommends a floor methodology for setting the O-SII buffer rates to be introduced in the EU framework, which will reduce the unwarranted heterogeneity of the current O-SII buffer rates, while still allowing sufficient flexibility for national authorities. This methodology should be based on O-SII scores resulting from the O-SII identification process, which is currently established by the EBA Guidelines on the criteria for the assessment of O-SIIs (EBA/GL/2014/10).

This recommendation has already been identified in the EBA report to the Commission on the appropriate methodology for the design and calibration of O-SII buffer rates[12]. Introducing a floor methodology would provide a significant milestone against potential under-calibration of the O-SII buffers, thus promoting financial stability across the EU. It would also ensure further harmonisation, while allowing specific features on national banking systems to be considered.

To achieve the above goals, the forthcoming review of the macroprudential framework could include a legal mandate for the EBA to develop a methodology covering both the identification of O-SIIs (currently framed by EBA Guidelines) and the setting of buffer rates. Such a legal mandate would bring both elements of identification and calibration under one consistent framework. Ultimately, the aim is to set capital buffers that match the level of systemic risk posed by relevant institutions, regardless of their origin and domicile in the EU. The ESRB should be involved in the development of this regulatory product. This work should also address shortcomings in the current identification methodology (as currently established via EBA Guidelines) and the methodology for the setting of buffer rates (as described in the EBA report).

The mentioned report highlighted the fact that two institutions from different countries with a similar O-SII score may be required to hold a significantly different level of O-SII buffer. The latter holds both for O-SIIs with relatively low scores (some of which are required to hold buffers of up to 2%) and for O-SIIs with relatively high scores (some of which apply buffer rates near 0%). Though the systemic risk emanating from banks with similar O-SII scores might vary across Member States and national specificities should be considered in buffer calibration, this high variation of O-SII buffer rates cannot be fully explained by differences in systemic risk. Unjustified heterogeneity is a source of concern from the perspective of the Single Market and the banking union. From a financial stability perspective, avoiding possible under-calibration of O-SII buffers is of great importance as insufficiently capitalised banks not only pose systemic risk to their home jurisdictions but might also

[12] This report was published in December 2020: https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2020/961796/EBA%20report%20on%20calibration%20of%20OSII%20buffer%20rates.pdf

lead to negative cross-border spillovers across the EU. Likewise, insufficiently capitalised banks will tend to be less able to support healthy lending flows to the economy.

The methodology proposed to address these shortcomings is based on four principles consisting of i) providing a floor for capital buffers set by national authorities; ii) adopting a bucketing approach rather than a continuous function approach; iii) the calculation of scores based on the EBA's O-SII identification framework and their allocation to buckets; whereby iv) a non-zero calibration of the buffer for the first bucket applies. Since this methodology establishes a floor for any given bucket, the O-SII buffer for each bank in a particular bucket must be at least equal to the minimum buffer rate associated with each bucket. Considering that the lowest floor rate is a non-zero buffer rate, this means that institutions that have been identified as O-SIIs cannot have an O-SII buffer requirement of 0%.

The report also includes results of a simulation to test the floor methodologies (the one proposed in the report and an alternative floor methodology). The results show that introducing an EU-wide floor methodology for setting O-SII buffer rates would have the merit of limiting the unwarranted heterogeneity at the lower end of the buffer rates across the EU while still allowing for a sufficient degree of national discretion in setting more prudent buffer requirements. Such flexibility is justified since national banking systems differ in terms of size, ownership structure, concentration and other specific features. However, the simulation also shows that a floor methodology will only limit heterogeneity to a limited extent. Therefore, it will be important to assess potential solutions to overcome shortcomings in the development of a methodology for setting buffer rates, should the EBA receive such a mandate.

4.2 Enhancing and simplifying the procedures of the CRR

The current CRR framework comprises various macroprudential measures set out in Articles 124, 164 and 458 and grants relevant national authorities the power to tighten certain requirements due to financial stability considerations. The EBA believes that a precondition for an appropriate application of these articles of the CRR is a clear allocation of responsibilities, powers and a close cooperation between all authorities involved in microprudential and macroprudential policy. Several authorities in charge of the respective article have taken action since 2013.[13] These measures are predominantly used to address risks building up in real-estate markets which may, in turn, give rise to an increase in systemic risks.

Article 124/164 CRR

The relevant authority may set either higher risk weights for institutions using the standardised approach (SA) pursuant to Article 124, or set higher average minimum LGD values for institutions using the IRB approach pursuant to Article 164, in both cases for exposures secured by immovable property.

[13] Articles 124, 164 and 458 give power to the relevant authority. The relevant authority in charge is either the competent authority or a designated authority (depending on the specificity in the corresponding Member State).

Pursuant to Article 124 of the CRR, relevant authorities may increase risk weights or impose stricter criteria than those set out in Articles 125(2) or 126(2) for credit institutions using the SA for exposures fully and completely secured by mortgages on immovable property. Under certain preconditions, this article enables a relevant authority to set those risk weights within the ranges of 35% and 150% for exposures fully and completely secured by mortgages on residential property and within the ranges of 50% and 150% for exposures secured by mortgages on commercial immovable property. Article 124 has, so far, been used by 12 competent authorities.[14]

Article 164 of the CRR allows setting a higher minimum exposure weighted average LGD value for retail exposures, secured by immovable property, for credit institutions using the IRB approach. The LGD and the PD parameters are arguably the main risk parameters used in the calculation of IRB risk weights. However, Article 164 only enables increasing the minimum average LGD value, not the PD value. As Article 164 has only been used once by Norway in 2014, relevant authorities currently seem to assess low PDs as a concern rather than low LGDs. Therefore, relevant authorities use the flexibility powers pursuant to Article 458 of the CRR to apply stricter risk weight measures to address low PDs for exposures under the IRB approach.

Article 458 CRR

Relevant authorities may implement national stricter prudential measures using Article 458 of the CRR when identifying changes in the intensity of macroprudential or systemic risk in the financial system that may potentially have serious negative consequences for the financial system and the real economy in a specific Member State. Article 458 is a national flexibility measure, and it should only be used when none of the existing tools under the CRR/CRD framework are able to effectively address the identified risks (Article 458(4)(b)). To ensure appropriate usage of this measure, the following steps are provided for in the CRR: i) the relevant authority notifies the Commission and the ESRB on the intended measure and the ESRB forwards the notification to the European Parliament, the Council and the EBA without delay; ii) the EBA and the ESRB issue separate opinions based on the information provided in the notification; iii) the Commission needs to determine whether it has any objection on the measure taking into account the ESRB and the EBA opinions; and iv) the Council takes a decision by a non-objection procedure. The duration of such measures is 2 years, with the possibility of extending the measure by up to 2 additional years each time.

Currently, Article 458 (2)(d) of the CRR includes seven macroprudential measures, concerning: (i) level of own funds; (ii) requirements for large exposures; (iii) liquidity requirements; (iv) risk weights for targeting asset bubbles in the residential property and commercial immovable property sector; (v) public disclosure requirements; (vi) the level of the capital conservation buffer; or (vii) intra-financial sector exposures.

Although Article 458 measures are meant to serve as a macroprudential tool of last resort, it has been used quite frequently by several authorities. Since 2014, a total of eight authorities in different jurisdictions have made use of Article 458 measures and submitted notifications to introduce or

[14] Table 1 in the Annex gives an overview on the usage of Article 124/164 measures across the countries and the introduction date.

extend a measure. The EBA has submitted 19 opinions to the Commission.[15] Six countries have used Article 458 to increase risk weights due to elevated risks in real-estate exposures. One country used it to set stricter liquidity requirements and 1 country to set stricter large exposures requirements (limiting concentration risk, by setting a large exposure requirement for highly indebted large non-financial counterparties (NFCs)).

Proposal

The EBA sees room for enhancing and simplifying the procedures of the macroprudential measures in the CRR framework and proposes targeted changes to Article 124, Article 164 and Article 458 of the CRR.

Article 124 and 164 CRR

The EBA believes that the current legislative text of Article 124(2) and Article 164(6) should be revised. For Article 124, the EBA does not see the need for an opinion if a relevant authority decides to recalibrate downwards a previously set risk weights and the resulting risk weights measure remains above the levels of 35% for exposures secured by mortgages on residential property and 50% for exposures secured by mortgages on commercial immovable property. The EBA believes that Article 124(2) should be amended so that an opinion would only be needed if a relevant authority decided to increase risk weights within the range set out in the CRR. The same thinking should also apply to Article 164 and an opinion should only be required if the minimum average LGD value is recalibrated upwards.

Article 458 CRR

Article 458 CRR should be enhanced and streamlined. The proposed improvements contain three elements.

1. The process to activate an Article 458 measure should be changed, considering that the time span of 30 days for drafting an opinion is very tight. Considering all the processes required, including approval by the EBA Board of Supervisors, the time span should be increased. This would provide more time for the discussion in the relevant EBA committees and sufficient time for additional clarifications, where required.
2. A non-objection approach for the extension of an existing Article 458 measure should be implemented. Such a more simplified non-objection approach will reduce the administrative burden and would replace the current recurring mandatory publication of opinions. However, this approach would still allow the EBA (and other authorities involved in the authorisation process) to publish an opinion if there are concerns on such extension.
3. An Article 458 measure should be applied by the relevant authority within a certain period of time. The EBA believes that an Article 458 measure not rejected by the Council should

[15] A summary of the Article 458 measures is provided in Table 2 in the Annex.

be activated within 12 months of the submission of the notification.[16] Failing to meet this period may trigger a new submission process.[17] Otherwise, the non-objection decision by the Council would mean that a relevant authority can activate the measure at any time during the duration of the approved measure even if circumstances and/or conditions alter.

In addition to the above proposals for changes to the CRR, the EBA would like to remind that Article 458 measures are generally considered to be temporary. Therefore, when Article 458 is used over a long period of time relevant authorities should consider whether underlying structural issues that may exist cannot be more appropriately addressed by other measures. Given that Article 458 should be used as a last resort instrument, notifying authorities should consider and thoroughly assess alternative measures which are available or will become available.

4.3 Sectoral SyRB

With the sectoral SyRB being a relatively recent addition to the macroprudential framework, little experience on its functioning could be gathered thus far. During the implementation into national legislation, some authorities found that the current wording of Art 133 of the CRD was unclear as regards the type of risk that could be covered by the SyRB. It should therefore be clarified that the SyRB, in particular its sectoral component, can be used to address cyclical risks, if these risks are different from those covered by the CCyB. The possibility to target sectoral exposures, which is not possible with the CCyB, makes the sectoral SyRB more appropriate for a range of specific risks, which could – at least in parts – also be cyclical (e.g. residential real estate).

Despite its relatively short existence, several national authorities have identified the sectoral SyRB as an alternative tool that could be used to address certain risks. Article 458 measures will, however, continue to play a role as measures of last resort, not least because they have a broader scope than the sectoral SyRB.

Changes to the calculation of the authorisation threshold

Article 458 discussions have also indicated some reluctance to use the sectoral SyRB because of procedural aspects. Article 131(15) of CRD 5 lays down an authorisation threshold of 5% for the sum of the SyRB, the O-SII and G-SII buffer rates. Furthermore, Article 133(12) lays down an authorisation threshold of 5% for the combined SyRB rate. If these thresholds are breached, an authorisation from the Commission is required. In the calculation of this threshold, the SyRB rates applied on all exposures are treated equally as sectoral SyRB rates, which only apply to a specific subset of exposures. This impedes the use of the sectoral SyRB, especially for smaller exposures that have an elevated risk and require relatively high buffer rates to increase the capital

[16] The application timing of such an Article 458 measure does not account for any phasing-in-period of such measure (i.e. time for banks to apply the measure). The timing represents only the adoption of the measure.

[17] This potential new submission process of an Article 458 CRR measure should be less extensive than the initial submission and reference the earlier communication to a large extent.

requirements notably. To overcome this impediment, the sectoral SyRB should be weighted by the share of the targeted sectoral exposure over total RWA for the authorisation threshold.

5. Global risks

5.1 Environmental risk

As a starting point, it should be noted that different features of environmental risks can be handled via either microprudential tools in the Pillar 1, Pillar 2, Pillar 3 frameworks or via the macroprudential framework. Considering environmental risks in the Pillar 1 framework and integrating environmental risk considerations into the Pillar 2 framework, including stress tests and the SREP, and the Pillar 3 framework, through enhancing environmental risk-related disclosures, is relevant to capture the long-term time horizon and forward-looking nature of environmental risks as far as they relate to the idiosyncratic risks of individual banks, while the systemic dimension of environmental risks would need to be primarily addressed by the macroprudential framework. Given that work on defining and integrating environmental risks at the idiosyncratic level is still ongoing, it is difficult to propose at this stage how and where the systemic aspects of such risks could be addressed. Further development of this work is necessary before concluding on definitive advice on how to address environmental risks from a systemic point of view.

Nevertheless, in assessing the current macroprudential framework – and specifically capital buffers as these are the most relevant tools to consider in light of the systemic aspects of environmental risks – the EBA sees room for the sectoral SyRB to address such risks. The EBA recognises the potential interaction between environmental risks and the different parts of the prudential framework, such as the framework for concentration risks. A discussion on these aspects is included in the EBA's discussion paper on the role of environmental risk in the prudential framework, which will be published in Q2 2022.

Climate change and other environmental risks

Climate change is an important subcategory of environmental risk as it interacts with and reinforces other environmental risks. The scope of this analysis therefore extends to environmental risks more broadly, also including air pollution, water pollution, the scarcity of fresh water, land contamination, biodiversity loss and deforestation. Environmental risk drivers may have a negative impact on financial stability.[18]

Environmental risks are expected with a high degree of certainty to become more prominent going forward. The result will be an increase in the frequency and severity of physical risks as well as more apparent transition risks. As drivers of traditional categories of risk, environmental risks are already present as drivers of risks banks face. They are however currently not well-measured nor well-understood. This is in part due to the characteristics of environmental risk drivers, including in particular their multidimensional, non-linear, uncertain and forward-looking nature. This could lead

[18] Section 2.3 of the EBA (2021) Final Report on management and supervision of ESG risks for credit institutions and investment firms (link) describes how environmental risks, including climate-related risks, can transmit to negative financial impacts through physical and transition risks.

to an underestimation and resulting mispricing of these risks. Furthermore, risk externalities caused by interconnectedness and second-round effects may additionally aggravate the systemic impact of environmental risks on the financial system.

Macroprudential tools and environmental risk drivers

In the context of the systemic aspects of environmental risks, the macroprudential capital buffers which relate to the riskiness of banks' exposures are more relevant than the tools which are applied to the risks posed by banks' systemic dimension (the G-SIIs and O-SIIs buffers). In addition, tools other than macroprudential buffers, such as the prudential tools for concentration risks, could be considered when addressing climate-related financial risk concerns. The interaction between environmental risk and such tools are discussed in the aforementioned discussion paper on the role of environmental risk in the prudential framework which is to be published in Q2 2022. The following analysis focuses on the systemic risk, capital conservation and countercyclical buffers.

Systemic risk buffer

The SyRB can generally be used to tackle a wide range of systemic risks. It aims at preventing and mitigating risks of disruption to the financial system with the potential for serious negative consequences for the financial system and the real economy in a specific Member State. It can be applied to all exposures, to sectoral domestic exposures or to subsets of sectoral domestic exposures, and to all institutions or to one or more subsets of those institutions. The exposure of banks to assets' sensitive to environmental risks could be given consideration under the sectoral SyRB framework, noting the caveat that to effectively be able to do so, some targeted adaptations would need to be made.

Firstly, it would require a classification system of exposures pertaining to sectors or subsets of sectors associated with environmentally harmful or sensitive activities, which would need to be applied uniformly. Secondly it would possibly require consideration of extending the scope of the sectoral SyRB from only domestic exposures to also include exposures in non-domestic countries, as the sectoral SyRB's current application to only domestic exposures might be too limited in light of effectively addressing environmental risks, which tend to be geographically dispersed. Such extensions would need to be carefully designed and calibrated, to avoid possible unintended side-effects, such as fragmentation in the internal market and undesirable interferences in the macroprudential policies of other countries. Moreover, it should be considered that designated authorities might lack the detailed data which are needed for the sectoral SyRB's proper application in other member states.

Capital conservation buffer (CCoB)

The CCoB aims to improve banks' general loss-absorbing capacity and address the vulnerability of the financial system to systemic risk, regardless of the factors contributing to the build-up of risk. It is constant over time and is not releasable by national authorities. The CCoB was calibrated without taking environmental risks into account. Hence, increased environmental risks would require a higher buffer rate than the current 2,5%. The feasibility and desirability of such a potential

capital add-on via the CCoB would however need to be analysed carefully. This is because the CCoB must be complied with at all times by institutions if they do not want to face distribution restrictions. In addition, for national authorities to be able to increase the capital rate level, they must follow the procedure set out in Article 458(2)(d)(iv) CRR, which entails strict legal requirements and should only be applied when the identified systemic risk cannot be adequately and effectively addressed by other instruments. Until now, no national authority has used the article to increase the level of the CCoB above 2.5%.

Countercyclical buffer (CCyB)

The purpose of the CCyB is to help counter procyclicality in bank lending by ensuring that bank capital is increased when cyclical risk is judged to be increasing. However, given the non-cyclical nature of environmental risk drivers, the CCyB is inappropriate to address capital needs due to increasing environmental risks. Additionally, the calibration of the CCyB is linked to, inter alia, the deviation of the ratio of credit-to-GDP from its long-term trend. Since the interaction between environmental risks and this ratio is not straightforward, the calibration would need to be rethought entirely to reflect environmental risks, which is not appropriate given the purpose of the instrument and the need to have a simple and usable framework.

Going forward

Work on integrating environmental risks into the different parts of the prudential framework will need to further develop before the EBA would be able to present any definitive advice on if and how macroprudential tools could address the systemic aspects of such risks. In light of the observed limitations of the sectoral SyRB to address environmental risks, further analysis is needed to explore how to overcome these limitations and whether other tools would be more appropriate taking into account the ongoing developments in the microprudential framework.

5.2 Crypto assets

In the context of this Call for Advice, the EBA considers it premature to consider the introduction of macroprudential tools in relation to crypto assets. However, the EBA emphasises the need for monitoring of the crypto asset sector, in particular identifying old and new mechanisms, vulnerabilities and risks that can make crypto assets a source of systemic risk or threat to financial stability.

Overall, the EBA and international organisations, such as the Financial Stability Board (FSB) and the International Monetary Fund (IMF),[19] continue to maintain the view that crypto asset activities (including those within the EU) do not currently pose a threat to financial stability and continue to observe a relatively low interconnectedness between the market for crypto asset and the conventional financial sector.

[19] https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/crypto-assets-and-global-stablecoins/ and https://blogs.imf.org/2021/12/09/global-crypto-regulation-should-be-comprehensive-consistent-and-coordinated/

The market is however evolving quickly. The rapid broadening and deepening of the market for crypto asset products and services points to the need for close monitoring. Adding to this is the increasing consumer interest in this area (in turn generating increasing interest among financial institutions to broaden their product and service offerings to include crypto assets), growing leverage in the markets for crypto assets and the possibility of stable-coins being used for payments outside markets for crypto asset. A recent IMF paper suggests that the correlation of crypto assets with traditional holdings like stocks has increased significantly. This and indicates that the diversification benefits from holding crypto assets may be lower than perceived.[20]

Pending the conclusion of the negotiations and the coming into force of regulation on markets in crypto assets (MiCA), [21] the EBA notes that in the vast majority of Member States, crypto asset activities typically fall outside the supervisory perimeter of the relevant supervisory authorities. This poses practical challenges for authorities in monitoring crypto asset activities at both a micro and macro level, albeit authorities are making significant efforts to monitor activities leveraging public data sources, ad hoc data-gathering exercises (including surveys to firms within their supervisory perimeter), and newer capabilities to monitor social media platforms for promotions entailing crypto asset products and services, as well as suspicious transactions reports.

To further strengthen the monitoring capacity given the broadening and deepening of crypto asset activities, in mid-2021, the EBA established a Network on Crypto-assets comprising representatives from the national competent authorities represented on the EBA's Board of Supervisors and observers from the EC, ECB, EIOPA and ESMA. The Network enables a structured exchange of views on market developments, supervisory experiences and regulatory perimeter issues, including taking into account emerging activities such as crypto lending and staking and new business models, notably decentralised finance (DeFi). It also supports the aggregation of the results of monitoring activities at EU level.

To facilitate convergence in the monitoring of crypto asset activities in the Member States, and consequently a more effective monitoring on a pan-European basis, in 2022 the EBA will develop templates which competent authorities can use. Working with the other European Supervisory Authorities (ESAs), the EBA will carry out a mapping of crypto asset activities in the EU, building on previous ad hoc monitoring exercises. The EBA welcomes the establishment by the ESRB of its new High Level Exploratory Group on Crypto-assets and DeFi (in which the EBA is participating) and notes that the group can play a significant role in identifying cross-financial sector weaknesses or gaps in existing capabilities to monitor the market. Moreover, if new vulnerabilities and risks are identified, potential effective macroprudential policies can be identified. The experience acquired from the application of the MiCA framework will also be significant in developing any future macroprudential tools.

[20] https://www.imf.org/en/Publications/global-financial-stability-notes/Issues/2022/01/10/Cryptic-Connections-511776

[21] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593

In the meantime, the EBA will continue to take action where risks are identified. For instance, the EBA has issued warnings to consumers, most recently in March 2022 jointly with the other ESAs,[22] and a recommendation for banks' exposures to virtual currencies to be subject to conservative prudential treatment pending the outcome of the Basel Committee on Banking Supervision (BCBS) work,[23] which has successfully disincentivised banks from gaining exposures to these typically volatile assets.

5.3 New global providers of financial services

As part of the European Commission's Call for Advice on Digital Finance[24], the EBA is currently carrying out an analysis of non-bank lending in the EU, focusing on entities that are not subject to any sectoral EU directives or regulations and covering entities such as leasing companies, factoring companies, FinTech lenders/peer-to-peer lending platforms and BigTech lenders.

In general, the interim findings of the analysis show that non-bank lending activities vary across Member States and, in some MS, are subject to national regimes regulating such activities. In those Member States, national authorities appear to have a good understanding of the activities of non-bank lenders that are regulated at a national level and subject to mandatory authorisation/ registration. By contrast, authorities often do not have information on activities of non-bank lenders that remain unregulated at a national level, if they are allowed to operate in their jurisdictions. It is therefore important that enough data and information is collected to allow authorities to monitor the build-up of systemic risks in a timely manner.

While there are challenges in data availability to precisely lay out the overall extent of non-bank lending in the EU, the information provided by national authorities and other sources indicates that non-bank lending remains very small in volume compared to credit provided by banks.

However, according to the survey on non-bank lending, a number of competent authorities have indicated that – in light of the recent increase in non-bank lending provided by new FinTech entities – consideration must be given to some potential risks, in particular:

- Over-indebtedness risk and creditworthiness: while this is not currently identified as a high risk for non-bank lenders, relatively lower credit underwriting standards and unsecured loans granted to vulnerable borrowers may increase their over-indebtedness and financial fragility. Moreover, since not all non-bank lenders are required to report data to the credit registers, the informative value of these databases may become less valuable as an instrument to assess creditworthiness.

[22] https://www.eba.europa.eu/eu-financial-regulators-warn-consumers-risks-crypto-assets

[23] https://www.bis.org/bcbs/publ/d519.htm

[24] The Joint ESAs response to this Call for Advice can be found here: https://www.eba.europa.eu/esas-recommend-actions-ensure-eu%E2%80%99s-regulatory-and-supervisory-framework-remains-fit-purpose-digital

- Contagion and step-in risk[25]: this risk may become relevant when non-bank lenders, as part of a financial group, become exposed to credit institutions and financial institutions[26]. However, according to the ESRB 2021 EU Non-bank Financial Intermediation Risk Monitor, the interconnectedness of financial corporations engaged in lending (FCL), which broadly overlap with the entities reflected in the EBA analysis of non-bank lending with the banking system appears to be low, as only 4% of FCL assets in 2020 had direct counterparty exposure to the banking sector[27].

- Regulatory arbitrage: while some Member States apply the same macroprudential tools for non-bank lenders as for banks (e.g. loan-to-value (LTV) or loan-to-income (LTI) limits, debt-service-to-income (DSTI) ratios, maturity limits), regulatory arbitrage risks may arise if borrower-based measures (BBMs) are only applied to banks and not extended to non-bank lenders. It has been observed that in such situations banks may have the incentive to circumvent the restrictions by buying up loans to households issued by non-bank lenders. Finally, most macroprudential measures applied to banks are capital-based (e.g. buffers), while only in a few jurisdictions non-bank lenders are requested to own capital (and thus be possibly subject to capital-based measures), thus further increasing the risk of regulatory arbitrage.

In view of the above, a first step to address potential concerns may be the establishment of an oversight and monitoring system at national and/or EU level for non-bank lenders, which would help assess the build-up of systemic risks on a timely basis, as well as identify and address the most compelling risks at a macro level. As a second step, a minimum set of EU-wide activity-based rules for lending may be developed based on a minimum harmonisation of the main elements of already widely applied activity-based instruments, such as macroprudential BBMs for new residential real estate (RRE) financing, in order to facilitate their reciprocity among Member States. Finally, all credit providers (i.e. not only credit institutions but also non-bank lenders) may be covered by a macroprudential framework, allowing for the possibility to introduce activity-based macroprudential measures, which should consider also the application of any requirement at entity level. In turn, this may also reduce the scope of regulatory arbitrage.

[25] Step-in risk is defined as the risk that a bank 'provides financial support to an unconsolidated entity that is facing stress, in the absence of, or in excess of, any contractual obligations to provide such support' (see BCBS, Guidelines on Identification and management of step-in risk – October 2017).

[26] To this extent, note that according to SSM Supervisory Board Chair, Andrea Enria (2019), new risks may emerge from the recent trend of 'slice and dice' the banking value chain, so that each small portion of the value chain may be occupied by one individual player, thus creating a new level of interconnectedness. If this trend gains more traction, then this will increase the risk that 'a problem in one part of the value chain could travel in all directions, affecting many players' thus increasing systemic risk.

[27] ESRB EU Non-bank Financial Intermediation Risk Monitor 2021 (August 2021).

5.4 Systemic cyber risk

The EBA considers that capital-related macroprudential tools which may be used to manage cyber risk may not be sufficient alone and that further attention would be needed on financial institutions' operational resilience to systemic cyber incidents. However, given the ongoing negotiations on DORA and the Directive on measures for a high common level of cybersecurity across the EU (NIS2), both of which will significantly improve financial institutions' cyber risk management, the EBA is of the view that introducing any new macroprudential tools to address systemic cyber risk can best be considered when the impact of the implementation of DORA and NIS2 Directives can be thoroughly assessed. In this section of the report, the EBA refers to the main cyber-risk-related changes to be introduced under DORA, as these provisions could become the basis for discussion on macroprudential tools in the future.

Tools are needed not only to mitigate and prevent cyber risks from materialising, but also to be prepared to react to systemic cyber incidents. The current macroprudential tools focus on quantitative financial aspects and devote insufficient attention to resilient information and communication technology (ICT), including cyber security. Eighty-eight per cent of EU banks[28] consider cyber risk and data security as by far the most prominent drivers of increased operational risk. Given the speed at which this risk can materialise and unfold within the financial system across sectors and borders, cyber risk could quickly shift from being an institution-specific microprudential risk to a type of risk that may require system-wide macroprudential attention. Despite a range of existing microprudential measures, existing macroprudential tools related to the mitigation and management of systemic cyber risk are not sufficient and require a focus on operational resilience.

Microprudential tools related to management of cyber risk

The current Pillar 1 and Pillar 2 frameworks contain elements linked to managing cyber risk. *Systems – ICT risk* is a subcategory of operational risk that needs to be assessed as part of the SREP. Competent authorities should evaluate operational risk based on the SREP Guidelines. The separate EBA Guidelines on ICT Risk Assessment under the SREP[29] set out the requirements for competent authorities to apply in their assessment of ICT that contributes towards deciding on additional capital financial institutions should hold. The EBA Guidelines on ICT and security risk management[30] establish requirements on the mitigation and management of financial institutions' ICT risks. Furthermore, the EBA Guidelines on outsourcing arrangements[31] set requirements on third-party dependencies[32] and mandate competent authorities to effectively supervise financial institutions' outsourcing arrangements.

[28] Based on the EBA Risk Assessment Questionnaire results (RAQ 2021).

[29] https://www.eba.europa.eu/regulation-and-policy/supervisory-review-and-evaluation-srep-and-pillar-2/guidelines-on-ict-risk-assessment-under-the-srep

[30] https://www.eba.europa.eu/regulation-and-policy/internal-governance/guidelines-on-ict-and-security-risk-management

[31] https://www.eba.europa.eu/regulation-and-policy/internal-governance/guidelines-on-outsourcing-arrangements

[32] Including criteria for the identification of critical or important functions and requirements if such functions are outsourced.

Macroprudential tools related to management of cyber risk

Some of the current macroprudential tools, e.g. capital buffers, may be used in the event of a systemic or idiosyncratic crisis to absorb financial losses that may help to continue providing services to the real economy. However, these tools are likely to be applied relatively late in cyber crisis mitigation and are not well suited to reduce the likelihood or operational impact of cyber incidents.

A focus on operational resilience is needed

Cyber risk is increasing from the digitalisation and increased operational interconnectedness between financial institutions and ICT third-party providers and has not been taken explicitly into account in the existing EU macroprudential framework. Certain cyber incidents can affect financial institutions' operational capabilities to provide critical functions and services which ultimately might affect financial stability. Capital-related macroprudential tools which may be used to manage cyber risk may not be sufficient alone and the attention needs to further shift to financial institutions' operational resilience to systemic cyber incidents. To introduce new tools, there is a need to assess the financial and operational implications of cyber incidents for both the affected institution and financial stability. Additionally, suitable coordination and communication tools should be designed to ensure effective EU-level response if there is a systemic cyber incident that could have a systemic impact on the EU's financial sector, taking into account envisaged work under the ESRB recommendation to the ESAs on setting up a pan-European systemic cyber-incident coordination framework (EU-SCICF)[33].

Existing microprudential tools and forthcoming provisions[34] envisaged under the upcoming DORA[35] and the Directive on measures for a high common level of cybersecurity across the EU (NIS2)[36] aim to strengthen the cybersecurity in the financial services industry and address broader operational risks. In particular, among other provisions DORA[37] envisages that the ESAs:

- should monitor cybersecurity developments by creating a harmonised ICT-related incident reporting scheme[38];
- should establish the oversight framework of critical ICT third-party service providers[39];

[33] RECOMMENDATION OF THE EUROPEAN SYSTEMIC RISK BOARD of 2 December 2021 on a pan-European systemic cyber incident coordination framework for relevant authorities (ESRB/2021/17).

[34] For instance, the consolidation and harmonisation of ICT risk management requirements across different financial sectors, harmonised ICT-related incident reporting, introduction of advanced digital operational resilience testing and financial cross-sector exercises, an oversight framework of critical ICT third-party service providers and plans to create communication and cooperation framework.

[35] DORA which will be *lex specialis* regarding the NIS.

[36] Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on measures for a high common level of cybersecurity across the Union, repealing Directive (EU) 2016/1148.

[37] Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on digital operational resilience for the financial sector (DORA).

[38] Articles 17-20 of DORA proposal.

[39] Articles 28-39 of DORA proposal.

- may establish mechanisms to enable the sharing of effective practices across financial sectors to enhance situational awareness and identify common cyber vulnerabilities and risks across sectors[40]; and

- may develop crisis-management and contingency exercises involving cyber-attack scenarios with a view to developing communication channels and gradually enable an effective EU-level coordinated response in the event of a major cross-border ICT-related incident or related threat having a systemic impact on the EU's financial sector as a whole[41].

These DORA provisions can become the basis for i) macroprudential tools to enable the sharing of effective practices and relevant information across financial sectors; ii) crisis-management and contingency exercises; iii) mechanisms to ensure appropriate communication and coordination if there are systemic cyber incidents; and iv) an analytical framework to better understand interdependencies, risk concentration and risk transmission channels.

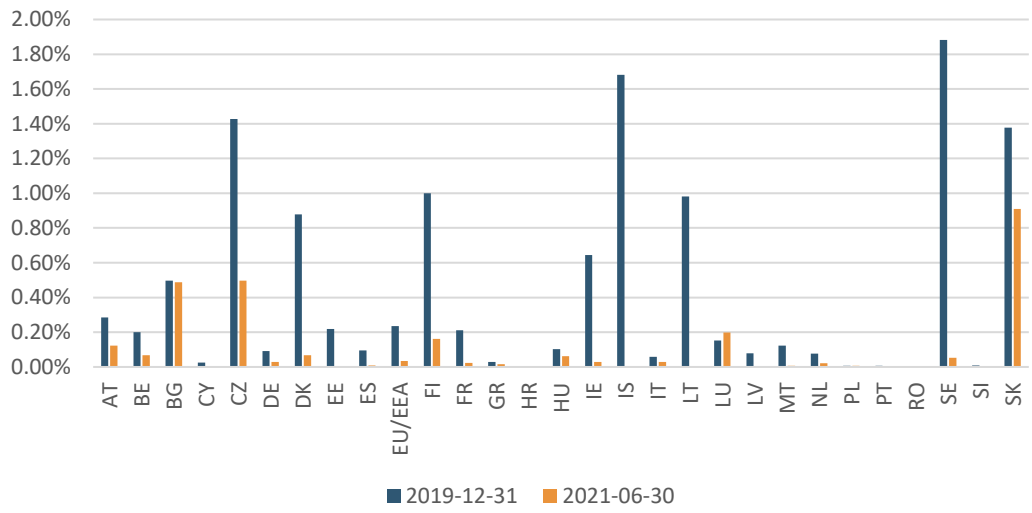
In addition, macroprudential instruments may be required to address the systemic risk component associated with cyber risk, such as setting higher operational resilience requirements for identified systemic financial institutions and critical ICT third-party service providers. However, this should be further assessed considering the impact of the implementation of DORA and NIS2 Directives.

[40] Article 43 of DORA proposal.

[41] Article 43 of DORA proposal.

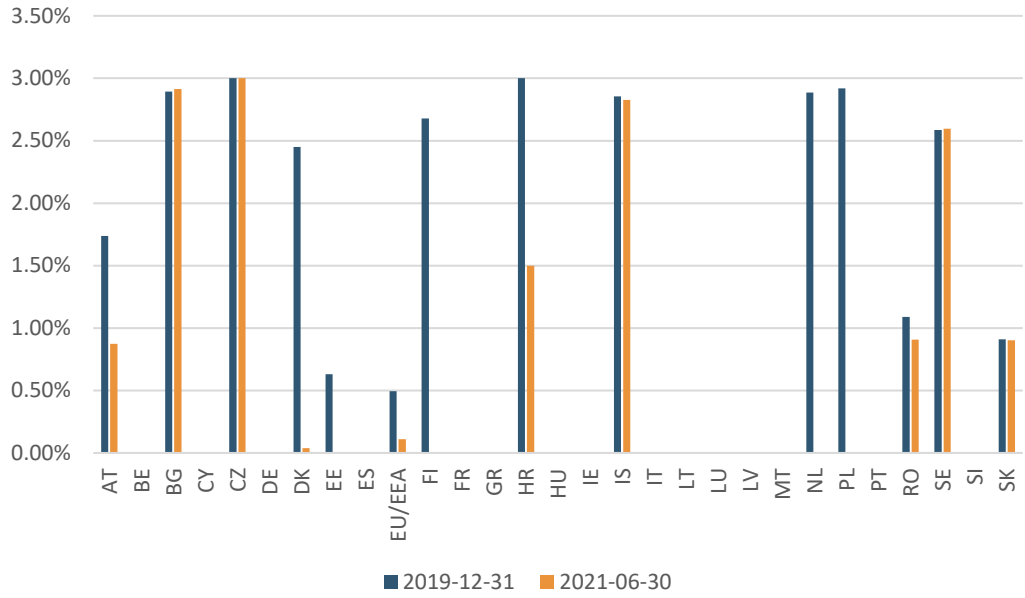
6. Charts and figures

Figure 1: Institution-specific CCyB during COVID-19 pandemic, average rates reported by banks (at consolidated level) in each country



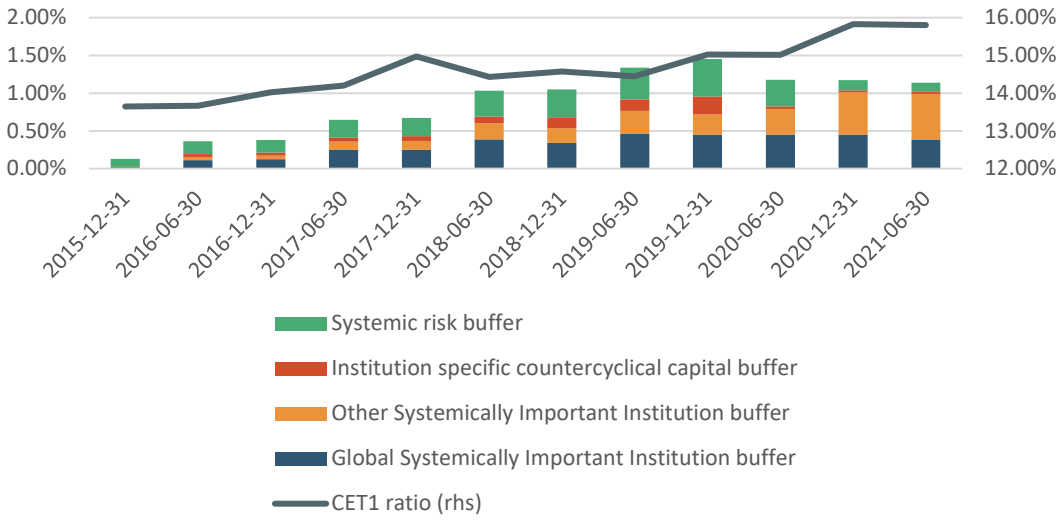
Source: EBA supervisory reporting (tables C02, C04)

Figure 2: SyRB during COVID-19 pandemic*, average rates reported by banks (at consolidated level) in each country



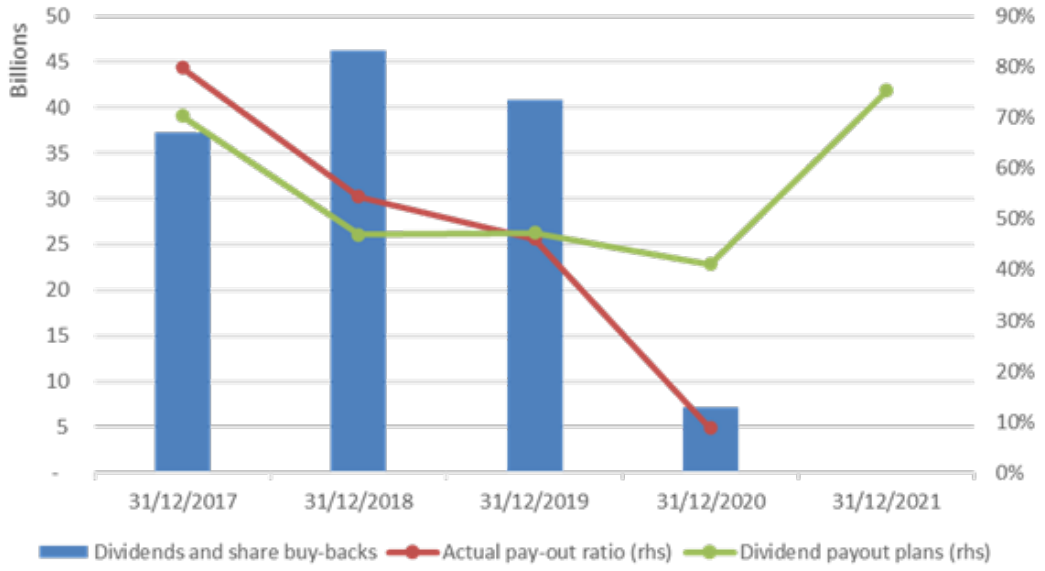
*Source: EBA supervisory reporting (tables C02, C04). *Changes to the SyRB might also reflect regulatory changes brought about by the application of CRD V in 2020.*

Figure 3: Trend in macroprudential buffers and CET1 ratio, average reported by banks (at consolidated level) in the EEA



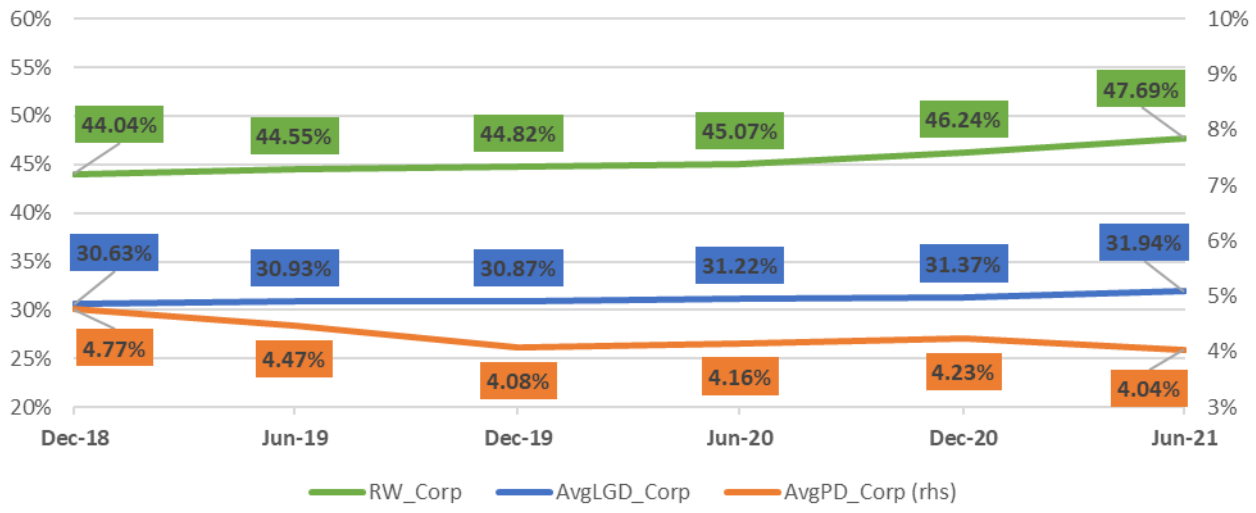
Source: EBA supervisory reporting (tables C01, C02, C04)

Figure 4: Dividends and share buy-backs – actual vs planned pay-outs (EUR bn)



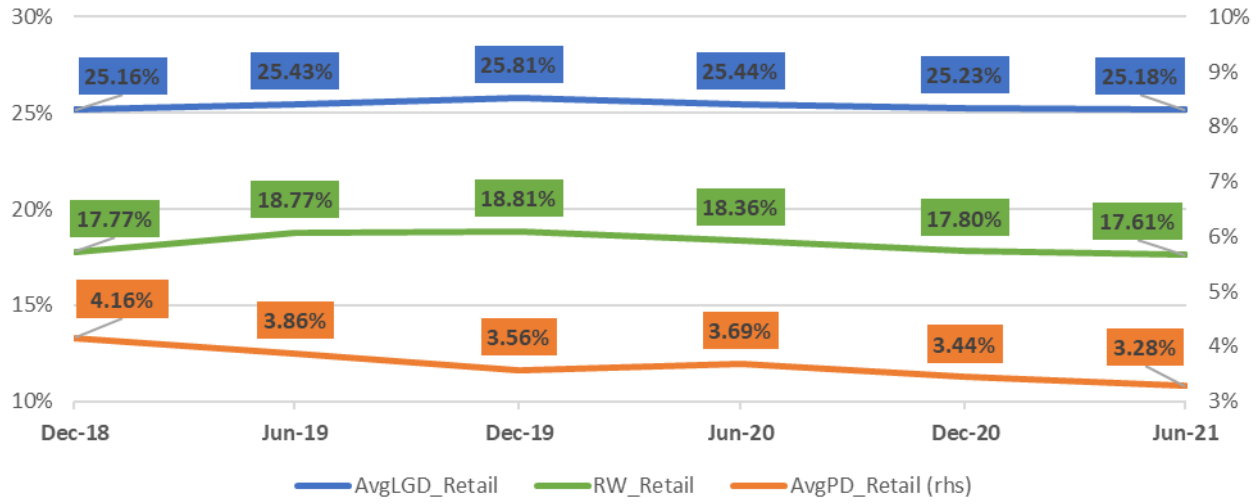
Source: EBA supervisory reporting (tables C01, F02, F46). Dividend plans represent banks' deductions from CET1 at the start of the year due to planned pay-outs for the year.

Figure 5: The trend in credit risk parameters for exposures to corporates from December 2018 to June 2021



Source: EBA Supervisory reporting and EBA QIS data. Credit risk parameters are estimations based on weighted averages for a sample of 20 banks which consistently submitted data from December 2018 to June 2021

Figure 6: The trend in credit risk parameters for retail exposures from December 2018 to June 2021



Source: EBA Supervisory reporting and EBA QIS data. Credit risk parameters are estimations based on weighted averages for a sample of 20 banks which consistently submitted data from December 2018 to June 2021

Table 1: Article 124/164 of the CRR Measures[42]

Sector	Type	BG	HR	IE	LI	LV	MT	NO	PL	RO	SE	SI	UK
RRE	max. LTV				2015		2014					2016	
	Definition	2014	2015	2014					2017				
CRE	Risk weight		2013	2013		2014		2014[43]	2017	2014	2015		
	Definition	2014											2014

Table 2: Article 458 (2)(d) of the CRR Measures[44]

Year	Country	Ext.	Reason*	Justification	Further specification	Measures
2014	Belgium		(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Increase of risk weights (5% add-on for IRB banks)
2016	Belgium	X	(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Increase of risk weights (5% add-on for IRB banks)
2017	Belgium	X	(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Increase of risk weights (5% add-on for IRB banks)
2017	Finland		(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (15% floor for IRB banks)
2017	Cyprus		(v)	liquidity requirements		Stricter liquidity requirements (add-on)
2018	Belgium		(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Increase of risk weights (5% add-on for IRB banks)
2018	France		(ii)	requirements for large exposures		Limits applicable to large and highly indebted non-financial corporations
2018	Sweden		(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (25% floor for IRB banks)
2019	Estonia		(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (15% floor for IRB banks)
2019	Estonia[45]		(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (15% floor for IRB banks)
2019	Finland	x	(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (15% floor for IRB banks)
2020	Belgium	x	(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Increase of risk weights (5% add-on for IRB banks)
2020	France	x	(ii)	requirements for large exposures		Limits applicable to large and highly indebted non-financial corporations
2020	Netherlands		(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (12% floor for IRB banks)
2020	Sweden	x	(vi)	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (25% floor for IRB banks)

[42] All measures are related to CRR 124 of the CRR, except for the marked Norwegian case which relates to both Article 124 and 164. The year is referring to the year of submitting the initiative.

Notes: The maximum LTV levels for a mortgage to obtain the preferential 35% risk weight are different across countries. Definitions refer to implement stricter requirements in order for an exposure to be considered "fully and completely secured by mortgages" either on RRE or CRE.

[43] In 2014 Norway took action for both Article 124 and Article 164 of the CRR.

[44] In the course of CRR 2, the numbering of the list has changed. Please note that the numbering beginning from 2021 is different – also marked with a *. The year refers to the year of submitting the initiative.

[45] This second opinion was requested by the EU Commission.

Year	Country	Ext.	Reason*	Justification	Further specification	Measures
2020	Norway[46]		(vi)	risk weights for targeting asset bubbles in the property sector	commercial + residential property	Introduction of risk weight floor (CRE 35% and RRE 20% floor for IRB banks)
2021	Belgium	x	(iv)*	risk weights for targeting asset bubbles in the property sector	residential property	Increase of risk weights (5% add-on for IRB banks)
2021	France	x	(ii)*	requirements for large exposures		Limits applicable to large and highly indebted non-financial corporations
2021	Estonia	x	(iv)*	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (15% floor for IRB banks)
2021	Sweden	x	(iv)*	risk weights for targeting asset bubbles in the property sector	residential property	Introduction of risk weight floor (25% floor for IRB banks)

[46] An EBA opinion was not required.

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