BRIEFING

European Parliament

Macroprudential policy toolkit for the banking sector

This briefing provides an overview of European Union's macroprudential policy toolkit that could be applied to the banking sector. Not all the tools described in this briefing are available for all national macroprudential authorities in the European Union (EU), due to different national legislations. Even though most of the instruments are targeted at the banking sector, national specificities in some cases permit the use of the same instrument to other financial institutions.

1. Short overview: objectives, instruments and operationalisation

The ultimate objective of macroprudential policy is to contribute to the safeguarding of the stability of the financial system as a whole. The European Systemic Risk Board (ESRB) is the EU body entrusted with a mandate to monitor, advise and mitigate the build-up of systemic risks; nevertheless national authorities are the main institutions responsible for implementing macroprudential policy (for more information on the set up and functioning of the ESRB, please see a separate EGOV briefing).

To further operationalise and specify its ultimate financial stability objective, the ESRB has established five intermediate objectives and a minimum list of macroprudential instruments in a Recommendation (ESRB/2013/1).

These intermediate objectives are aimed at preventing and mitigating systemic risks that may arise from:

- Excessive credit growth and leverage
- Excessive maturity mismatch and market liquidity
- Direct and indirect exposure concentrations
- Misaligned incentives with a view to reducing moral hazard
- Strengthening the resilience of financial infrastructures.

Figure 1. Classification of EU macroprudential instruments for the banking sector

	CRD IV Tools	CRR Tools	Other Tools
Capital-based measures	• **Countercyclical capital buffer** (CCB) • **Systemic risk buffer** (SRB) • **G-SII** & **O-SII** capital buffer	• **Risk weights** for real estate sector and intra-financial sector exposures • **Capital conserv. buffer** • **Own funds** level	• **Leverage ratio**
Liquidity-based measures		• **Liquidity requirements** • **Large exposure** limits (incl. intra-financial sector)	• **Non-stable funding levy** • **LTD ratio caps**
Borrower-based measures			• **LTV ratio caps** • **LTI ratio caps** • **DSTI ratio caps** • **DTI ratio caps**
Other measures		• **Large exposure** limits (incl. intra-financial sector) • **Disclosure requirements**	• **Margin and haircuts requirements**
	Can be used by national authorities and the ECB (for SSM countries)		Can only be used by national authorities

Source: ECB.

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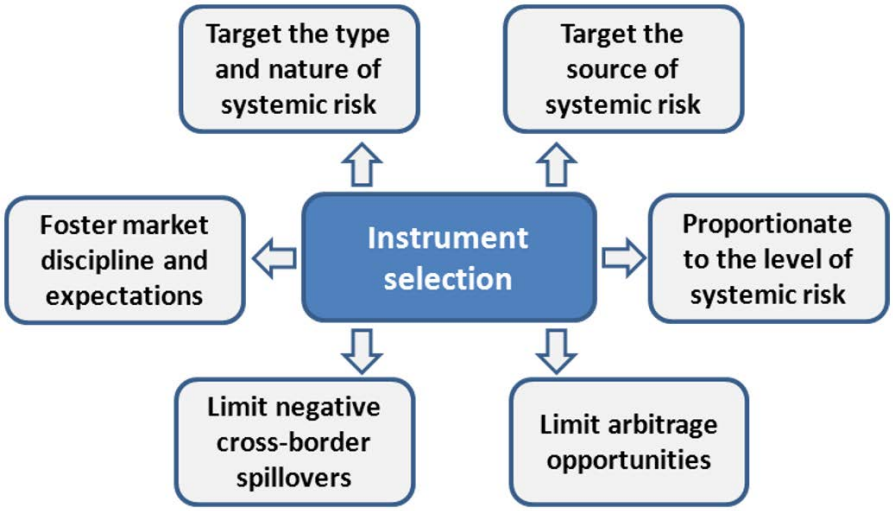
The ESRB has also recommended that macroprudential authorities should have at least one instrument to address each of these intermediate objectives.

The macroprudential instruments for the banking sector can be classified as (i) capital-based measures, (ii) liquidity-based measures, (iii) borrower-based measures, and (iv) other instruments (see Figure 1).

The ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector (hereafter referred to as Handbook) encourages macroprudential authorities to strive and use those instruments which lead to the highest net benefits to society. A practicable approach to this cost-benefit analysis involves assessing the instruments' effectiveness in relation to the desired objective, and the social costs they may give rise to by imposing restrictions on entities and activities. In general, this means favouring instruments that display a number of desirable characteristics (see below Figure 2).

Using a combination of instruments may also be a potential way to go forward, especially if combining instruments leads to more effective outcome than using a single instrument. This may be the case when systemic risk has for example both structural and cyclical dimensions, and when it needs to be addressed by pursuing several intermediate objectives. It may also be the case in situations in which one instrument on its own cannot sufficiently address the level of systemic risk. Combining instruments can also increase effectiveness by limiting arbitrage opportunities. Macroprudential authorities should also favour instruments for which negative cross-border spillovers are limited.

Figure 2. Desirable characteristic in instrument selection.



Source: ECB.

Macroprudential instruments available for the macroprudential authorities have different legal bases, nature and scope, contributing to the complexity of macroprudential policy making.

Another aspect adding complexity arises from the dichotomy of some of the instruments ("national flexibility measures" as referred to in CRR Article 458) that can be used for both microprudential supervisory purposes[1] and for macroprudential policy purposes[2]. The CRR Article 458 lists a limited number of instruments that are used for supervisory function, but can also be activated by national macroprudential authorities to limit systemic risks. The list of instruments includes (i) own funds requirements; (ii) the requirements for large exposures; (iii) liquidity requirements (liquidity coverage ratio and additional liquidity requirements and charges); (iv) risk weights; (v) public disclosure requirements; (vi) the level of the capital conservation; and (vii) intra-financial sector exposures (broader discussion on the measures is provided below). Recently, the ECB has published an analysis on the use of national flexibility measures under the CRR Article 458.

[1] There is a minimum requirement set by European legal acts.
[2] Macroprudential authority could impose an add-on requirement for tackling systemic risk.

As it is strongly advocated by the ECB, for the adequate functioning of the banking union, a harmonised legislative basis for the macroprudential tools is essential. The lack of harmonised legislation in some instances creates room for cross-border arbitrage opportunities to be exploited, undermining the efforts by national authorities to ensure financial stability.

Therefore, the European legal acts providing the framework for macroprudential policy (namely Capital Requirement Directive (CRD) and Capital Requirement Regulation (CRR)) point out that Member States should mandatorily reciprocate a number of macroprudential instruments. Reciprocation allows "replicating" policies adopted in one member State by other Member States, thus leading to level playing field and mitigating the effects of the macroprudential decentralised decision-making. When reciprocating, Member States may exempt financial institutions with non-material exposures (so-called *de minimis* exemption[3]). For that purpose, Member States may use a materiality threshold above which exposures are deemed material. This principle is introduced in order to ensure that reciprocation incurs larger financial stability benefits than administrative costs related to it.

Countercyclical capital buffers, higher risk weights for Standardised Approach banks and higher Loss Given Defaults for Internal Ratings Based banks activated by other Member States as macroprudential measures are mandatorily reciprocated. There is an option of voluntary reciprocation of Systemic Risk Buffer and national flexibility measures, nevertheless, references for the reciprocation of other macroprudential measures is not mention in the abovementioned legal acts.

To further reinforce coordination of macroprudential policy, the ESRB has set up a framework for the notification of national macroprudential policy measures by relevant authorities. Such framework allows (i) assessing the appropriateness of macroprudential policy measures before they are adopted by the national competent authorities or the ECB in its banking supervisory capacity; (ii) assessing the potential adverse cross-border spillover effects of specific macroprudential policy measures; and (iii) to contribute to achieving coherence across the EU for countercyclical capital buffer rates applying to exposures to third countries.

The following sections depict the main elements of each macroprudential instrument available in the toolkit. Their description, aim and implementation specificities are drafted based on the information provided by the ESRB in their Handbook. A summary of active macroprudential measures can be found in Annex 1, while an up to date list of activated macroprudential policy measures can be found on the ESRB website.

Box 1. Macroprudential policy measures beyond banking

The above mentioned list of risk sources that could pose threats to financial stability is not limited to banking sector. As the ESRB well summarised in their Strategy paper, "*These sources of risk transcend sectoral boundaries. For example, while excessive leverage has been associated with banks, it can also be created outside the banking sector through collateralised lending, such as securities financing transactions (SFTs), or through collateralised mortgage financing. Banks and non-banks can also create excessive leverage synthetically through the use of derivatives.*"

As financial intermediation and other financial services beyond banking could be a source of financial instability, the policy makers should be equipped with a set of macroprudential instruments that would help to mitigate this shifted or new systemic risks in a non-banking sector. Same as for banking sector, addressing risks beyond banking requires a mix of macroprudential instruments that apply to both lenders and borrowers, targeting entities and activities.

As part of the above mentioned Strategy, the ESRB is trying to expand macroprudential policy beyond banking and has recently published a report proposing ways to enhance macroprudential dimension in insurance sector regulation under Solvency II framework. The macroprudential toolkit applicable for non-banking sector is beyond the scope of this briefing.

[3] To harmonise the application of the *de minimis* exemption, the framework was amended by an ESRB Recommendation.

2. Capital buffers

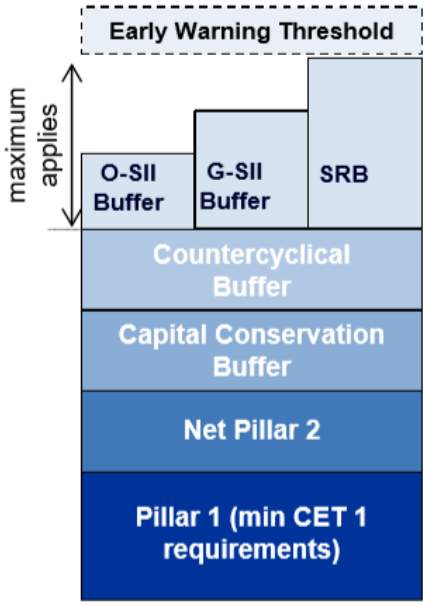
Capital-based measures aim primarily at increasing the resilience of the institutions so that they have sufficient loss-absorbing capacity on a "going concern" basis. These measures can be classified as:

(i) "hard requirements", which are expected to be met at all times (such as minimum own funds requirements) or

(ii) "buffers", which institutions can use in stress periods, subject to certain restrictions on distribution (such as restrictions on dividends, bonuses or coupon payments on hybrid capital instruments).

Buffers can address cyclical or structural risks (such as the countercyclical capital buffer and the systemic risk buffer, respectively), as well as the "too-big-to-fail" problem posed by large, complex, highly interconnected institutions (such as the capital buffers for global or other systemically important institutions). Since capital buffers are used for both supervisory (microprudential policy) and macroprudential policy purposes, there is also a so called "pecking order" that clarifies the sequence in which the different buffers are stacked[4] as well as indicates the sequence in which macroprudential capital buffers should be activated (e.g. countercyclical capital buffer should be activated before applying systemic risk buffer, unless, the systemic risk that the authority is intending to address, cannot be mitigated by the countercyclical buffer and systemic risk buffer is more appropriate).

Figure 3. Pecking order of capital requirements



Source: ECB.

Below the main characteristics of the various capital related buffers are listed.

2.1. The countercyclical capital buffer (CCyB)

Legal base for macroprudential policy use: CRD Articles 130, 135-140 as amended by CDR IV.

Aim: This instrument is designed to counter procyclicality in the financial system. It is aimed at building up a capital buffer during periods of excessive credit growth that is released when systemic risks materialise or abate. By increasing resilience during the upturn, the CCyB supports the sustainable provision of credit to the economy in the downturn. The CCyB can also help dampen the credit cycle during the upturn.

[4] This order is important when a bank breaches overall capital requirement to evaluate whether the bank has breached only "buffers" or also "hard requirements".

Implementation: The buffer should normally be set between 0% and 2.5% of risk-weighted assets (RWA), but can be set higher when justified by the underlying risk. For buffers set up to a rate of 2,5%, reciprocity by other Member States is mandatory. In line with the internationally agreed Basel III framework, national authorities should follow a set of principles and calculate a reference rate as a benchmark to guide their judgement. Much work is being done by the ESRB to help guide EU macroprudential authorities in exercising their judgment when activating and calibrating the CCyB (such as ESRB guidance - under the CRD IV Article 135(1) mandate, and as laid down in the Handbook - on appropriate CCyB rate; on the variables indicating the timing when CCyB buffer should be maintained, reduced or fully released; on the activation of a CCyB for third country exposures).

2.2. The systemic risk buffer (SyRB)

Legal base for macroprudential policy use: CRD Articles 133 and 134 as amended by CRD IV.

Aim: The SyRB is designed to prevent and mitigate structural systemic risks of a "long-term, non-cyclical" nature, including excessive leverage and exposure concentration, which are not covered in CRR. This instrument increases banks' loss absorbing capacity and also has a possible impact on financial cycle through higher funding costs. The SyRB can be used to address situations in which the entire financial sector or a specific part thereof is prone to risks causing vulnerability to large losses that could severely impair the financial system's ability to lend and/or provide other critical financial services to the real economy.

Implementation: It is a flexible instrument that can be applied to all or to a subset of banks, and is subject to a notification requirement for buffer rates up to 3%. Above that rate, the need to obtain authorisation from the European Commission after the delivery of an opinion by the EBA and ESRB is differentiated depending on the scope, geographic exposure and level of the SyRB. Reciprocation of SyRB is voluntary.

Under the mandate granted by the CRD V Article 133(6), the European Banking Authority (EBA) has developed draft Guidelines on the appropriate subsets of sectorial exposures and recently launched a consultation with competent and designated authorities. The aim of these Guidelines is to set a common framework and harmonise the design of the appropriate subsets of sectoral exposures to which a systemic risk buffer may be applied, thus facilitating a common approach of supervisory practices throughout the EU.

2.3. The globally systemically important institutions (G-SII) buffer

Legal base for macroprudential policy use: CRD Article 131 as amended by CRD IV.

Aim: It imposes a mandatory capital buffer on banks identified as globally systemically important (G-SIBs). The rationale for requiring G-SIBs to hold a specific capital buffer in addition to all other capital requirements is that the failure or default of such banks would generate major negative externalities and ripple effects internationally. This instrument addresses misaligned incentives and moral hazard.

Implementation: The surcharge ranges from 1% to 3.5% of RWA and is calibrated taking into account variables that are related to the extent of the externality: size, interconnectedness, substitutability, complexity and cross-jurisdictional activity (see Basel Committee on Banking Supervision, 2014). The methodology was agreed on at the Basel Committee and is implemented collectively on a yearly basis. The buffer is fully phased in as of 1 January 2019, while reciprocation provisions are not mentioned in the EU law.

2.4. The other systemically important institutions (O-SII) buffer

Legal base for macroprudential policy use: CRD Article 131 as amended by CRD IV.

Aim: A complementary approach was devised for domestically important banks by focusing on the impact that the default or failure of banks (including by international banks) has on the domestic economy.

Implementation: It enables authorities to impose capital charges on domestically important institutions. A notification procedure and a 2% upper limit are imposed. The O-SII buffer became applicable in all EU Member States on 1 January 2016. The buffer size set for each systemic institution should reflect the risk posed by this

particular institution and should provide an incentive to the bank not to increase its systemic importance (for a more detailed discussion on some complex aspects of O-SII buffer calibration please see Annex 2).

2.5. Additional own funds requirements and capital conservation buffer (CCB)

Legal base for macroprudential policy use: CRD Articles 141 and 142 as amended by CRD IV, CRR Article 458.

Aim: When other capital instruments are not adequate to address excessive credit growth, macroprudential authorities can use national flexibility measures to apply add-ons to own funds requirements and the capital conservation buffer, subject to specific procedures and authorisation. Higher own funds requirements and capital conservation buffers reduce broad-based systematic risk by increasing banks' resilience and their capacity to absorb future potential losses when existing levels of minimum requirements are considered insufficient. Like other capital instruments, they can also help to tackle excessive credit growth and leverage insofar as they increase the internal cost of providing loans.

Implementation: Own funds requirements may be increased above (for macroprudential purposes, there is no upper limit) the level laid down in the CRR II, that is a Common Equity Tier 1 capital ratio of 4,5% of Risk Weighted Assets (RWA), a Tier 1 capital ratio of 6% of RWA and a total capital ratio of 8% of RWA. The CCB may be increased above (for macroprudential purposes, there is no upper limit) the level laid down in the CRD V that is a common equity Tier 1 ratio of 2,5% of RWA.

2.6. Sectoral requirements (risk weight or loss given default requirements)

Legal base for macroprudential policy use: CRR Articles 124, 164 and 458, national legal acts.

Aim: Sectoral requirements enable stricter regulatory requirements to be imposed, for example by increasing risk weights for specific exposures or minimum loss given default (LGD) values. They can also have a dampening effect on credit growth. Sectorial requirements (including sectorial capital requirements) help to increase banks' loss absorption capacity, lower potential losses and incentivize banks to shift lending away from certain sectors concerned.

Implementation: Most of capital buffers, liquidity based and borrower based measures can be calibrated and addressed to specific sector where systemic risks tend to accumulate.

2.7. Leverage ratio

Legal base for macroprudential policy use: National legal acts.

Aim: This instrument addresses excessive credit growth and leverage. Both for micro and macroprudential reasons, risk-weighted capital requirements should be complemented by a backstop leverage ratio add-on, as it helps to tackle (i) fundamental uncertainty, which is not measurable and not possible to calculate; (ii) model risk, especially regarding tail events, and (iii) aggregate financial system risks linked to overall balance sheet size or the correlation of losses due to common exposures. These risks cannot be sufficiently accounted for by risk-weighted capital requirements alone.

Implementation: As of 1 January 2019, banks must meet a 3% leverage ratio minimum requirement at all times, as set by Basel III requirements (in EU, such requirement will become binding as of 27 June, 2021 as specified by CRR II, this level is set for microprudential purposes and not meant to contain systemic risk build up). For macroprudential reasons, the leverage ratio can be made more stringent to prevent further accumulation of systemic risk. The leverage ratio hinders excessive on-balance sheet and off-balance sheet leverage by limiting a bank's total assets (including off-balance sheet) in relation to its equity. Since it is not based on risk-adjusted assets, it also provides a simple and transparent backstop to safeguard against model and measurement error in the risk-based capital requirements. The ESRB has also published additional detailed guidance to macroprudential authorities in the EU on how to design and implement macroprudential leverage ratios for the banking sector.

3. Liquidity based measures

Liquidity-based measures aim at addressing risks originating from maturity mismatches in institutions' balance sheets. The EU legal framework (in compliance with Basel III requirements) currently includes the liquidity coverage ratio (LCR) as a short-term liquidity measure, and the net stable funding ratio (NSFR), which addresses longer-term liquidity risks. Other measures, such as the levy on non-stable funding or loan-to-deposit ratio, are currently outside the EU legal framework and can therefore be applied only by national authorities that have included them in their national frameworks (using national flexibility measures under Article 458 of the CRR).

Below the main characteristics of the various liquidity related buffers are listed.

3.1. Net stable funding ratio (NSFR)

Legal base for macroprudential policy use: CRR Article 458 as amended by CRR II.

Aim: The NSFR in its' design is a microprudential measure. Developing a sound NSFR that is aimed at limiting banks' one-year maturity and liquidity mismatches will go a long way towards increasing the stability of banks' funding bases to sudden outflows. A macroprudential use of the NSFR could impose a (fixed or time-varying) add-on over the prudential minimum requirement.

Implementation: As of 1 January 2018, NSFR for microprudential supervision reasons, is set at 100% value by Basel III requirements (in EU, such requirement will become binding as of 27 June, 2021 as specified by CRR II). NFSR, as a macroprudential instrument, is the preferred instrument for mitigating excessive maturity mismatch – the key macroprudential objective relevant for systemic liquidity risk. In addition to this, a time-varying use of the NFSR would allow banks to adjust their resilience to liquidity risk over the financial cycle and would also enable longer-term (structural) changes to be addressed.

3.2. Liquidity coverage ratio (LCR)

Legal base for macroprudential policy use: CRR Article 458.

Aim: The LCR, same as other liquidity ratios, are microprudential measures. This instrument may increase banks' resilience to liquidity shocks by increasing the stock of liquid assets available to cover sudden outflows.

Implementation: A macroprudential use of the LCR could impose a (fixed or time-varying) add-on over the prudential minimum requirement. Similarly, add-ons for systemically important institutions may be envisaged.

3.3. Loan to deposit (LTD) limits

Legal base for macroprudential policy use: National legal acts.

Aim: Limit over-reliance on short-term, less stable wholesale funding that fuels excessive credit growth and leverage. Can be used as a structural and a cyclical instrument.

Implementation: This instrument could be seen as a variant of NSFR as it focuses on particular sub-classes of assets and liabilities.

3.4. Large exposures restrictions

Legal base for macroprudential policy use: CRR Article 458.

Aim: Large exposures restrictions directly aim to reduce the risk of concentration and contagion linked to counterparty default. This instrument may target both direct exposures and excessive (indirect) interconnectedness among financial institutions, thereby reducing concentration risk and risk of propagation of shocks through the financial system.

Implementation: These restrictions are microprudential measures (exposure that is equal to or exceeds 10% of bank's eligible capital triggers additional monitoring, control and reporting requirements and is capped at 25% level) which can be further restricted for a macroprudential purpose. They can be applied via Pillar 2 on a

sectoral basis to reduce banks' exposures to a particular sector and/or asset class (restrictions on intra-financial exposures can also be imposed through national flexibility measure under Article 458 of the CRR). Under the national flexibility measure, national authorities may tighten the large exposure limit by a maximum of 15% per period of up to two years.

3.5. Additional liquidity requirements or charges

Legal base for macroprudential policy use: CRR Article 458, national legal acts.

Aim: Increase banks' loss absorption capacity. The resilience of banks may also be increased through additional liquidity requirements or charges. Liquidity charges are easier to adjust than liquidity buffers so they are less prone to "stickiness" and are therefore less pro-cyclical. On the other hand, liquidity risk charges can be challenging to implement, mainly owing to the lack of experience with their use and their fiscal or quasi-fiscal nature.

Implementation: Liquidity charges could complement other quantity-based ratios. They could be a Pigouvian levy [5] reflecting banks' contributions to systemic liquidity risk (e.g. the duration of their funding profile or their reliance on wholesale funding).

4. Borrower based measures

Borrower-based measures aimed at addressing the vulnerabilities of banks' clients directly, which have proven to be effective in mitigating the financial cycle in several jurisdictions, are available to certain national authorities at the current juncture (the summary of active national borrower based measures can be found in Annex 1, while an up to date list of activated national borrower based measures can be found on the ESRB website).

Below the main characteristics of the various borrower related restriction are listed.

4.1. Loan-to-value (LTV), loan-to-income (LTI), debt service-to-income (DSTI) caps and other

Legal base for macroprudential policy use: National legal acts.

Aim: Borrower based measures help dampen a boom in real estate mortgage lending and/or curb excessive consumption lending. These instruments contribute to strengthening banks' as well as borrowers' resilience and to dampening credit growth during the upswing of the credit cycle. Borrower based measures can also be used to address both time-varying and structural systemic risks.

Implementation: These instruments are exclusively based on national law. They include caps that restrict credit in relation to the value of the underlying real estate (LTV cap) or the income of the borrower (LTI/DSTI cap), as well as, other measures applied on a borrower level (amortisation requirements, interest increase stress test). In contrast to capital-based instruments, they target the borrowers who take credit, rather than the banks that provide the credit.

4.2. Amortisation requirements

Legal base for macroprudential policy use: National legal acts.

Aim: The main objective of the amortisation requirement is usually to counteract macroeconomic and financial stability risks associated with high household debt. This instrument also makes borrowers more resilient to shocks.

[5] A Pigouvian tax is a tax on any market activity that generates negative externalities (costs not included in the market price). The tax is intended to correct an undesirable or inefficient market outcome (a market failure), and does so by being set equal to the social cost of the negative externalities. Often-cited examples of such externalities are environmental pollution, and increased public healthcare costs associated with tobacco and sugary drink consumption.

Implementation: Since the amortisation requirement applies to new mortgages, households with new mortgages will be affected first. The stock of loans changes more slowly, and it will take a long time before the amortisation requirement has an effect on all mortgages.

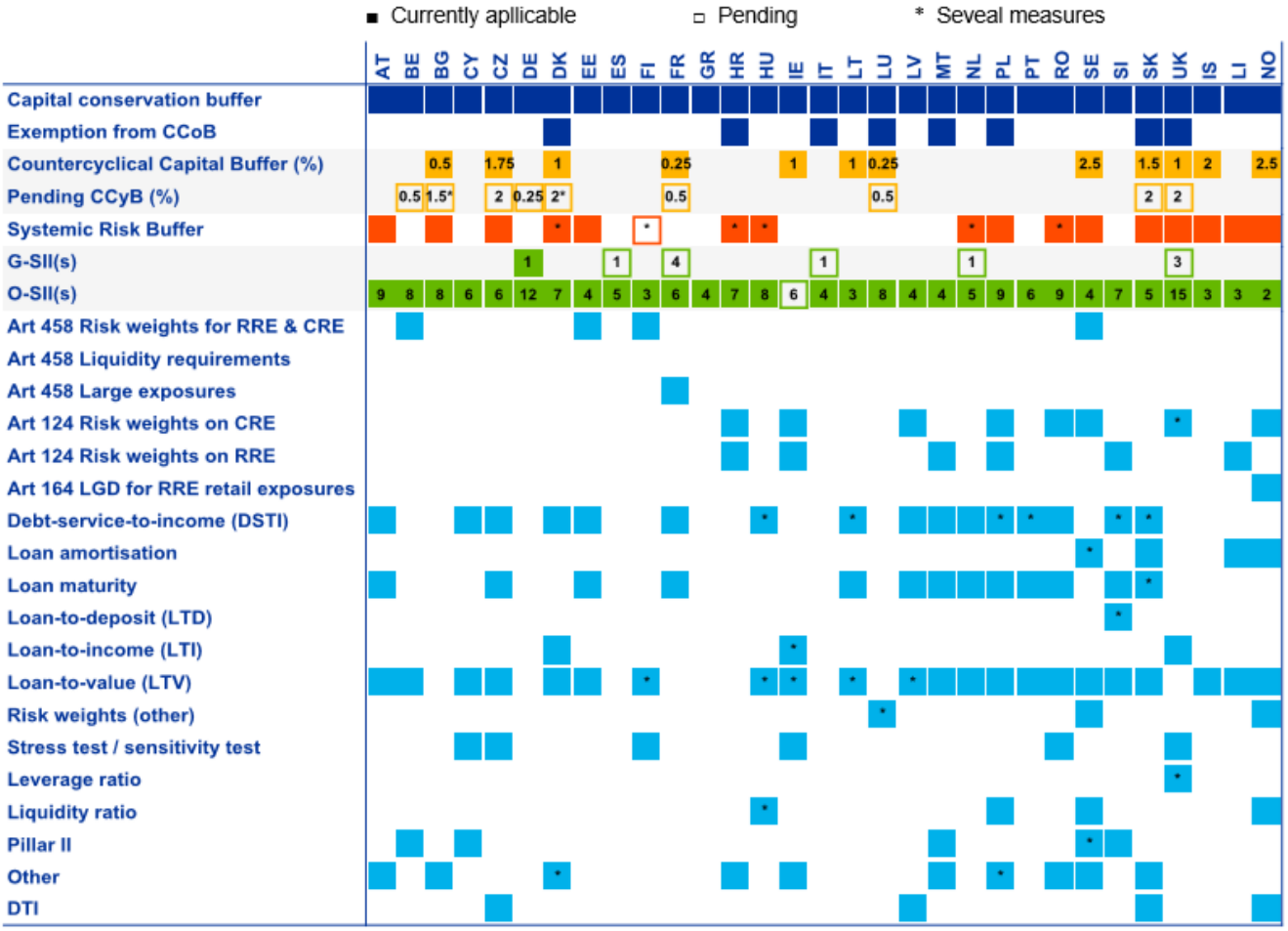
Box 2. Lack of harmonisation in borrower based measures

The ECB and some macroprudential authorities have been vocal on the need and merits to harmonise the definitions of borrower-based measures and making them available to all macroprudential authorities by integrating them into the European legislation.

One of the examples of national diversities could be seen in the description of LTV ratio. For establishing the value of denominator "Value", different country specific practices exist. In some countries, banking practice is to take only the value of the property bought in estimating the LTV ratio (value of additional assets pledged is not taken into consideration while estimating actual LTV ratio, e.g. Lithuanian legislation), while in some others, loan originators take the value of all assets pledged for the particular loan (leading in a nutshell to other type of ratio, that should be called loan-to-collateral, e.g. Swedish legislation), a third type of national practice is when loan originators take into account all assets owned by borrower to establish the value of the denominator for LTV calculations (this should be called loan-to-assets).

On one hand, the ability of macroprudential policy measures to be very flexible and capable of tailor adjusting to the country specific situation is an advantage (as it can get into all the cracks of the financial system, where systemic risk might be accumulating). On the other hand, rich diversity of national measure descriptions adds to regulatory complexity and can potentially create regulatory arbitrage and unlevel playing field.

Annex 1. Overview of active macroprudential measures in Europe (Q4 2019 data)



Source: [ESRB](#).

Notes: A coloured box means that a specific measure was active as at Q4 2019, while an empty box means that the measure has been announced but not yet introduced. An asterisk denotes that more than one measure of that kind is in place or has been announced. For Denmark, the asterisk refers to the SyRB set for the Faroe Islands. In the "Countercyclical capital buffer (%)" row, the number in the box refers to the prevailing buffer rate as at Q4 2019, with no box meaning that the countercyclical capital buffer has not been set or a positive rate has been set but not implemented as at Q4 2019, which in this case would be reflected in the "Pending CCyB (%)" row. In the "Pending CCyB (%)" row, the latest announced rates as of end-2019 are shown, with an asterisk denoting that more than one incremental increase was announced by Q4 2019. The number in the boxes for G-SIIs and O-SIIs refers to the number of such institutions identified in the latest identification exercise. This is based on the application dates of the official notifications sent to the ESRB and does not signify whether a SII buffer has been set or not and is regardless of its phasing-in arrangements.

Annex 2. Calibration of O-SII buffers

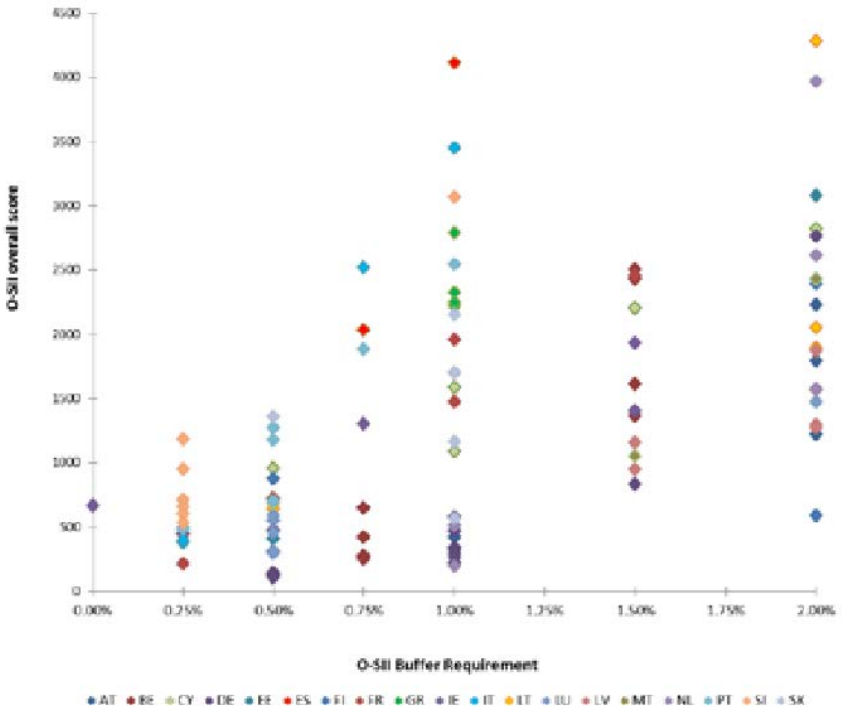
The ECB has been trusted with a power to top up national macroprudential policy measures (one should note that the ECB cannot introduce a non-activated measure or reduce it). In order to assess how an actual top-up could be calibrated in a transparent and consistent manner for one of the buffers, namely the O-SII buffer, the ECB has performed a cluster analysis of banks' scores (based on European Banking Authority (EBA) Other Systemically Important Institutions (O-SII) assessment methodology). The summary of this analysis is provided below.

Under the mandate stated in CRD IV Article 131(3), the European Banking Authority (EBA) published a guideline on how to identify an O-SII in a way that is reminiscent of the G-SIB methodology: a scoring process based on a set of indicators that capture the dimensions of size, importance, complexity, cross-border activity and interconnectedness. The EBA methodology asks each national authority to calculate the market share of banks in its jurisdiction for each indicator, then adds the scores together (which are implicitly equally weighted, as for G-SIBs) and sets a threshold above which an institution is considered domestically significant. This methodology is equivalent to calculating a summary measure of "domestic systemic relevance" (the final score) for each bank, which might be compared across countries taking into account national specificities since the score is calculated for the domestic market.

However, the EBA has so far not proposed any methodology to calibrate O-SII buffers themselves in relation to the estimated O-SII scores. Consequently, national authorities have developed a variety of approaches for assessing the costs associated with the failure or default of a bank and calibrating its buffer. This variety spans the extremes, from considering the G-SIB buffer of the largest banks (when such banks are present) as a cap for O-SII buffers to considering the G-SIB buffer as a floor. As a result, the level of buffers applied for a given EBA score still exhibits substantial heterogeneity (see Figure a). This applies both to their levels and implementation schedule, which is also left to national authorities within the bounds specified by EU legislation.

The above mentioned cluster analysis of banks' scores performed by the ECB shows that they can be sorted into four buckets grouping banks by similar degrees of "domestic systemic importance". A minimum buffer is then applied to each bucket to act as a floor.

Figure a. O-SII buffer and scores across SSM countries (2017 data)



Source: ECB.

For the O-SII buffer "top up" calibration, the ECB has decided to attribute the highest bucket of this ECB methodology with half of overall maximum O-SII buffer value (overall O-SII buffer currently can reach 2%) and set it at 1%, to allow scope for national authorities to take national specificities into account. Buffers are set with 25-basis-point increments for each bucket, with the first one set at 25 basis points. Based on the national authorities' decisions in 2016, 2017 and 2018, most banks' O-SII buffer was higher than the ECB floor (that in the case of this exercise could reach on 1% maximum value).

Thus the ECB has concluded that such methodology is valid and acts as a backstop against inaction bias and as a cross-country harmonisation factor. However, viewing the actual dispersion of O-SII scores and corresponding O-SII buffers (see Figure a), the question remains if setting the maximum O-SII buffer value at 1% for the "top up" calibration exercise is relevant and does not shield national inaction bias. The O-SII buffer is bank specific and currently (based on 1 July 2020 data), only 12 SSM Member States have set an O-SII buffer higher than 1% for some or all of the identified O-SII banks in their jurisdiction. Nordic countries (Estonia, Finland, Latvia and Lithuania), as well as Belgium, the Netherlands and Malta were more active and have set the O-SII buffer higher than 1% for more than half of their identified O-SII banks.

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