

## EBA REPORT

ON THE RANGE OF PRACTICES REGARDING  
MACROPRUDENTIAL POLICY MEASURES  
COMMUNICATED TO THE EBA – JULY 2015



**EBA**

EUROPEAN  
BANKING  
AUTHORITY

# Contents

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<b>List of figures</b>	<b>3</b>
<b>Abbreviations</b>	<b>4</b>
<b>Executive Summary</b>	<b>6</b>
<b>1. Introduction</b>	<b>8</b>
1.1 Objectives of the report	8
1.2 Scope of the report	9
1.3 Outline of the report	12
<b>2. Overview of measures implemented</b>	<b>13</b>
<b>3. Measures addressing real estate risks</b>	<b>16</b>
3.1 Objective	16
3.2 Impact on internal models	19
3.3 Impact on stress testing	20
3.4 Governance	24
3.5 Transparency	26
3.6 Reciprocation	27
3.7 Information provided in notifications	29
<b>4. Measures addressing systemic risks (excl. real estate) and SII</b>	<b>31</b>
4.1 Objective	31
4.2 Impact on internal models	33
4.3 Impact on stress testing	33
4.4 Governance	33
4.5 Transparency	36
4.6 Reciprocation	36
4.7 Information provided in notifications	36
<b>5. Conclusion</b>	<b>38</b>
<b>Annex: Summary of notifications</b>	<b>41</b>

## List of figures

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Table 1: Macroprudential measures in scope of the report	10
Table 2: Number of macroprudential measures by country	13
Table 3: Number of macroprudential measures by type of measure	14
Table 4: Number of real estate measures by focus	14
Table 5: Reciprocation of real estate measures	15
Box 1: UK LTI flow limit – case study	22
Box 2: Reciprocation of the 5 percentage point add-on to the risk weights for Belgian residential mortgages in the Netherlands – case study	29
Box 3: O-SII buffer and SRB in the Netherlands – case study	32
Box 4: Capital surcharge imposed by the National Bank of Belgium on banks with excessive trading activities – case study	34
Table 6: Notifications and consultations as received by the EBA for measures to address real estate risks	41
Table 7: Notifications as received by the EBA for measures to address systemic risks (excl. real estate) and systemically important institutions	42
Table 8: Notifications as received by the EBA for the CCB – not in scope of the report	43
Table 9: CCB rates set above 0% as published by the ESRB – not in scope of the report	44

# Abbreviations

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<b>CA</b>	competent authority
<b>CCB</b>	countercyclical capital buffer
<b>COREP</b>	common reporting
<b>CRE</b>	commercial real estate
<b>CRD</b>	Directive 2013/36/EU
<b>CRR</b>	Regulation (EU) No 575/2013
<b>DA</b>	designated authority
<b>DNB</b>	De Nederlandsche Bank
<b>DSTI</b>	debt service-to-income
<b>EAD</b>	exposure at default
<b>EBA</b>	European Banking Authority
<b>EEA</b>	European Economic Area
<b>ESRB</b>	European Systemic Risk Board
<b>EU</b>	European Union
<b>FCA</b>	Financial Conduct Authority
<b>FPC</b>	Financial Policy Committee
<b>FSA</b>	Financial Supervisory Authority
<b>G-SII</b>	global systemically important institution
<b>ICAAP</b>	internal capital adequacy assessment process
<b>IRB</b>	Internal Ratings Based (Approach)
<b>LGD</b>	loss given default
<b>LTI</b>	loan-to-income
<b>LTV</b>	loan-to-value

<b>NBB</b>	National Bank of Belgium
<b>O-SII</b>	other systemically important institution
<b>PRA</b>	Prudential Regulation Authority
<b>RAS</b>	risk assessment system
<b>SII</b>	systemically important institution
<b>SSM</b>	Single Supervisory Mechanism
<b>SRB</b>	systemic risk buffer
<b>SREP</b>	supervisory review and evaluation process

## Executive Summary

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The implementation of the CRR/CRD IV at the beginning of 2014 introduced a number of macroprudential tools. The objective of this report is to carry out a stock take of the range of practices regarding these macroprudential policy measures in scope of the CRR/CRD IV, focusing on the interaction of macroprudential and microprudential objectives and tools. The report can also contribute to the ongoing discussions of the macroprudential toolbox in the EU as well as be used to provide additional information for the regulatory work carried out by the European Commission, the EBA and the ESRB regarding macroprudential tools.

This report analyses the notifications and other information received by the EBA in the first five quarters following the implementation of the CRR/CRD IV. In this period Member States were already making significant use of the new framework. Excluding the countercyclical capital buffer and capital conservation buffer, based on the information available to the EBA, 14 EU countries and Norway introduced 32 measures<sup>1</sup>. Approximately half of these relate to real estate (including three reciprocations of measures taken) and half to other systemic risks and systemically important institutions. Measures most frequently used are an increase in or the application of stricter criteria for standardised risk weights for exposures secured by mortgages on immovable property and the SRB. Pillar 2 was applied for macroprudential purposes in six cases. All but one of the measures have capital requirements in scope and no measures were applied for the setting of liquidity requirements.

In spite of the limited time period covered, some observations can be made:

- Issues regarding the interaction of macroprudential and microprudential tools at this stage mostly seem to concern measures addressing real estate risk.
- For many measures the objective, in particular regarding a clear differentiation of macroprudential and microprudential objectives, is not entirely clear. At the same time different measures are used to address similar risks (e.g. risk weights for residential mortgages for IRB banks were increased using Art. 164 and 458 CRR or Pillar 2). Both issues could be addressed with a clearer delineation of tools in the framework and more harmonisation of their application.
- Both issues hold in particular for the use of Pillar 2 for macroprudential purposes. Given further disadvantages, e.g. capital decision governance, the interaction of different capital requirements, the possibility of reciprocation and the transparency of measures, how Pillar 2 measures are to be used in the framework could be generally reconsidered. However, if the role of Pillar 2 is reconsidered, the impact on the completeness of the overall macroprudential toolbox should also be assessed carefully.

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<sup>1</sup> Other sources, for example the ESRB, reported a significantly larger number of measures. This is due to the specific scope of this report, which in particular is limited to measures taken under the CRR/CRD.

- All measures affecting IRB risk weights can impact the use of IRB models for banks' internal purposes, which should be carefully considered during the activation of macroprudential tools.
- Macroprudential measures and capital requirements derived from stress tests (e.g. banks' credit risk stress tests under Pillar 1, stress tests as part of the SREP and ICAAP and system-wide stress tests) can in certain situations lead to double counting of risks, which needs to be considered in the design of measures as well as in the context of stress tests.
- The implementation (and monitoring) of macroprudential measures requires effective coordination between macroprudential and microprudential authorities – or units, if one authority has both responsibilities – for all measures but in particular for those under Pillar 2.
- The current framework seems to allow significant flexibility to authorities regarding the choice of measures, so that it becomes possible that some tools are chosen for governance and procedural reasons. This can be viewed as a strength of the framework, as it means that a wide variety of issues can be accommodated within the framework, or as a significant weakness, showing that too much of an overlap exists across tools and that there is a need for further harmonisation.
- The sheer number of different policies already implemented, the diverse usage of macroprudential tools and the complexity of the framework can lead to reduced transparency and comparability of capital requirements for banks across the EU from the perspective of market participants. Given the framework, this could be addressed through better coordination and central communication of all measures taken.
- Cross-border effects and reciprocity are not dealt with in great detail in many notifications and voluntary reciprocation was used only occasionally. In addition, more guidance here could avoid an uneven playing field or spillover effects.
- Notification requirements and processes are seen as overly burdensome and not clear enough. More could be done to ensure an efficient and complete information flow on all measures between relevant authorities, including the provision of information to supervisory colleges. Similarly, all measures should be made transparent to other market participants (unless there are financial stability concerns related to transparency).
- The information provided in notifications shows significant variation regarding the level of detail, and in some cases key information is not given. In particular, some notifications focus on qualitative information or the preservation of existing capital requirements. Here more guidance could be given in addition to the existing templates, and data constraints could be further analysed.

# 1. Introduction

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## 1.1 Objectives of the report

Following the implementation of the CRR/CRD IV in January 2014, which introduced a number of new macroprudential tools, Member States have already implemented various macroprudential measures under the new regulatory framework. Based on these first experiences, the EBA carried out a stock take of the range of practices regarding macroprudential policy measures, focusing on the interaction of macroprudential and microprudential objectives and tools.

A general discussion of the macroprudential framework can be found, for example, in the EBA Opinion on the macroprudential rules in CRR/CRD<sup>2</sup>. The EBA was consulted by the European Commission on the macroprudential rules in the CRR and CRD, as envisaged in Art. 513(1) CRR, which requires the Commission to review those rules. The EBA answered this call for advice by issuing an opinion on 30 June 2014. In contrast to the opinion, this report does not constitute an input to the Commission's ongoing review.

A detailed discussion of all implemented measures was also provided by the ESRB, in particular in its report on one year of macroprudential policy in the EU.

The objective of the report, then, is not to give a detailed overview of the macroprudential framework of the CRR/CRD or a granular description of single measures and their reasoning or macroeconomic basis. Instead, the objective of the report is to analyse the differentiation of macroprudential and microprudential instruments, the cooperation between home and host authorities and between competent and designated authorities when implementing macroprudential instruments, and the impact of macroprudential measures on microprudential decisions, as well as some relevant practical implementation issues. Some more general descriptions are still included in the report, to give sufficient context for the focus topics. The report can also contribute to the ongoing discussions of the macroprudential toolbox in the EU as well as be used to provide additional information for the regulatory work carried out by the European Commission, the EBA and the ESRB regarding macroprudential tools.

The report does not discuss the benefits of macroprudential measures in terms of a reduction of systemic risk. In particular, the potential macro effects of Pillar 2 decisions adopted for other than macroprudential purposes are not analysed.

Based on its objective the report focuses on measures addressing real estate risks, since interaction between macroprudential and microprudential policies seems to concern measures addressing other systemic risks, like the SRB and capital surcharges for systemically important

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<sup>2</sup> <http://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-06+-EBA+opinion+on+macroprudential+rules+in+CRR-CRD.pdf>; the ESRB also provided its opinion, which has been published on the ESRB website.

institutions, to a lesser degree at this stage. Measures addressing systemic risks excluding real estate or systemically important institutions are therefore covered in less detail. Similarly, the report focuses on the use of Pillar 2 measures for macroprudential objectives, since this can in particular illustrate the challenges that exist regarding the interaction of microprudential and macroprudential authorities.

The report is mostly based on notifications and consultations received from national competent authorities, but it also covers other material published by competent authorities or designated authorities on specific measures to the extent that the EBA is aware of them, and further information provided to the EBA. Additional sources of information were the direct input to the report from those competent authorities that introduced the measures, a workshop held with bank representatives and analysts on 13 February 2015, the overview of macroprudential policy measures – including those not in scope of the CRR/CRD but of which the ESRB is aware, and that are of macroprudential interest – regularly published by the ESRB<sup>3</sup>, and the ESRB report on one year of macroprudential policy in the EU.

The report should be read giving due consideration to ongoing regulatory work, e.g. the review of the macroprudential framework by the European Commission and the EBA draft regulatory technical standards for the application of Art. 124 and 164 CRR, as well as work on real estate and on cross-border effects and reciprocity currently being carried out by ESRB expert groups.

## 1.2 Scope of the report

This report covers a subset of macroprudential measures set out in the CRR/CRD which are communicated to the EBA, i.e. notified to the EBA or consulted on with the EBA:

- the setting of higher risk weights or stricter criteria for exposures secured by mortgages on immovable property under the standardised approach (Art. 124 CRR);
- higher minimum LGD for retail exposures secured by immovable property (Art. 164 CRR);
- stricter national measures under Art. 458 CRR;
- the use of Pillar 2 measures for macroprudential purposes;
- the setting of G-SII and O-SII buffers; and
- the setting of systemic risk buffers (SRB).

These measures, their content, the underlying article and the paragraphs stating the requirement to inform the EBA, the authority addressed, and EBA actions required are listed in Table 1.

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<sup>3</sup> <http://www.esrb.europa.eu/mppa/html/index.en.html>

Table 1: Macroprudential measures in scope of the report

Measure	Article <sup>4</sup>	Content	Authority	EBA role
Art. 124 CRR	CRR 124(2)	Higher risk weights or stricter criteria for exposures secured by mortgages on immovable property under the standardised approach based on loss experience and taking into account forward-looking market developments and financial stability considerations – where risk weights given in the CRR do not reflect the actual risks	CA	Consulted Publication of risk weights and criteria
Art. 164 CRR	CRR 164(5)	Higher minimum values for exposure weighted average LGD for retail exposures secured by property in the NCA's territory based on financial stability considerations	CA	Notified Publication of LGD values
Art. 458 CRR	CRR 458(2)	Stricter national measures to address changes in the intensity of macroprudential or systemic risk in the financial system with potential serious negative consequences to the financial system and the real economy in a specific Member State Concerning the level of own funds, requirements for large exposures, public disclosure requirements, the level of the capital conservation buffer, liquidity requirements, risk weights for targeting asset bubbles in the residential property and commercial immovable property sector, or intra financial sector exposures	CA or DA to be designated by the Member State	Notified Opinion to the Council, the Commission and the Member State
	CRR 458(6)	Recognition of measures set in accordance with this Article and application to domestically authorised branches located in the Member State authorised to apply the measure	CA or DA to be designated by the Member State	Notified
	CRR 458(9)	Review of the situation and adoption of a new decision for the extension of the period of application of national measures for one additional year each time	CA or DA to be designated by the Member State	Consulted
	CRR 458(10)	Increase of risk weights for targeting assets bubbles in the property sector or for intra financial sector exposures by up to 25% Tightening of the large exposure limit by up to 15%	CA or DA to be designated by the Member State	Notified

<sup>4</sup> The article and paragraph stating the requirement to inform the EBA.

Measure	Article <sup>4</sup>	Content	Authority	EBA role
Pillar 2	CRD 97(5) <sup>5</sup>	Evaluation of risks that an institution poses to the financial system	CA	Informed
	CRD 103(2)	Application of the SREP in a similar or identical manner to institutions with similar risk profiles that are or might be exposed to similar risks or pose similar risks to the financial system	CA	Notified
O-SII/G-SII	CRD 131(7)	Setting or resetting of an O-SII buffer of up to 2% of total risk exposure amount	CA or DA to be designated by the Member State	Notified
	CRD 131(10)	Allocating a G-SII to a higher risk category or designating an entity as a G-SII	CA or DA to be designated by the Member State	Notified
	CRD 131(12)	Notification of names of G-SIIs and O-SIIs and the respective sub-categories for G-SIIs	CA or DA to be designated by the Member State	Notified
SRB	CRD 133(11)	Setting or resetting an SRB rate of up to 3% to prevent long-term non-cyclical systemic or macroprudential risks	CA or DA to be designated by the Member State	Notified
	CRD 133(12), (15)	Setting or resetting an SRB rate of above 3%	CA or DA to be designated by the Member State	Notified Voluntary opinion
	CRD 133(14)	Setting or resetting an SRB rate between 3% and 5%	CA or DA to be designated by the Member State	Assistance may be requested in case of a negative recommendation from Commission and ESRB
	CRD 134(2)	Recognition of the SRB rate and application to domestically authorised institutions for the exposures located in the Member State that sets the buffer rate	CA or DA to be designated by the Member State	Notified

Not covered is the countercyclical capital buffer (CCB) since this seems less relevant for an analysis of the interaction between microprudential and macroprudential policy measures, and also because Member States are only partly required to notify the EBA<sup>6</sup>. However, the CCB would of course play a role in a discussion of the pecking order of macroprudential buffers, i.e. the order of application of different buffers, or in a discussion of the interaction between the CCB and other

<sup>5</sup> This article is usually not seen as a macroprudential measure but was included in the list since it was referenced in notifications.

<sup>6</sup> Only the definition of a shorter transitional period for the introduction of the CCB (Art. 160(6) CRD) or the exemption of small and medium-sized investment firms (Art. 130(2) CRD) needs to be notified to the EBA, while the setting of buffer rates requires a notification to the ESRB (Art. 136(7) CRD).

macroprudential measures, such as the SRB. For completeness, notifications received regarding the setting of a CCB are tabled in the annex.

For similar reasons the report does not cover the capital conservation buffer<sup>7</sup>. In addition, it can be argued that a mandatory capital conservation buffer should primarily be considered a microprudential tool – while its potential recalibration under Art 458(2)(d) CRR to address systemic risk is of a macroprudential nature.

Also not covered are all measures not in scope of the CRR/CRD, e.g. the setting of LTV or LTI/DSTI limits or the macroprudential use of the leverage ratio, as long as these are not implemented under Pillar 2. Although measures like these were extensively used by Member States they also seem to be less relevant given the objective of this report. A detailed overview of all measures notified including those not in scope of the CRR/CRD or of which the ESRB is aware, and that are of macroprudential interest, is published regularly by the ESRB<sup>8</sup>.

Accordingly, this report is based on all notifications and consultations received by the EBA from Member States and EEA countries<sup>9</sup> on measures listed in Table 1 from the introduction of the framework in January 2014 until end March 2015. Measures that were not formally notified but which are in scope of this report are also covered, to the extent that the EBA is aware of them.

### 1.3 Outline of the report

The remainder of the report proceeds as follows:

- section 2 gives a very short overview of all measures covered and categorises them into (i) measures taken to address real estate risks, and (ii) measures addressing other systemic risks (excl. real estate) and systemically important institutions;
- sections 3 and 4 discuss these measures with regard to the topics of objective, impact on internal models, impact on stress testing, governance, transparency, reciprocity, and the information provided to the EBA in notifications and consultations;
- section 5 concludes;
- the annex lists and summarises all policy measures in scope that were communicated to the EBA and the notifications received regarding the CCB.

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<sup>7</sup> Only the imposition of a shorter transitional period (Art. 160(6) CRD) or the exemption of small and medium-sized investment firms (Art. 129(2) CRD) needs to be notified to the EBA.

<sup>8</sup> <http://www.esrb.europa.eu/mppa/html/index.en.html>

<sup>9</sup> Notifications were received only from Norway, although, as an EEA member, it is not subject to CRR/CRD notification obligations.

## 2. Overview of measures implemented

Over the five quarters in scope of this report, 32 measures from 14 EU countries and Norway were communicated to the EBA, including reciprocations of measures<sup>10</sup>. Around half of these were introduced to address real estate risks, the other half to address either systemic risks excluding real estate risks or systemically important institutions. The last two kinds of measures are discussed together since some countries notifying seem to use O-SII buffers and the SRB interchangeably, which will be detailed further in section 4. It should also be noted that around half of EU countries did not implement macroprudential measures based on the articles in scope.

Table 2: Number of macroprudential measures by country

Country	Real estate	Systemic risks (excl. real estate) and systemically important institutions	Total
BE	1	1	2
BG		1	1
CZ		1	1
DK	1	2	3
EE		1	1
FR		1	1
HR	1	1	2
IE	1		1
IT		1	1
MT	1		1
NL	1	3	4
NO	2	2	4
RO	1		1
SE	3	2	5
UK	3	1	4
<b>Total</b>	<b>15</b>	<b>17</b>	<b>32</b>

<sup>10</sup> Other sources, for example the ESRB, reported a significantly larger number of measures. This is due to the specific scope of this report, which in particular is limited to measures taken under the CRR/CRD.

The SRB and Art. 124 CRR were used most frequently. Other measures were applied by far fewer countries. In particular, Art. 164 CRR was used just once. Art. 458 CRR was also applied once, by Belgium, which was then reciprocated by the Netherlands. Pillar 2 was applied in six cases for macroprudential purposes, by Belgium, Sweden and the UK, mostly to address real estate risks and, in the case of Belgium, to set higher capital requirements for excessive trading activities.

Table 3: Number of macroprudential measures by type of measure

Measure	Real estate	Systemic risks (excl. real estate) and systemically important institutions	Total
CRR 124	8		8
CRR 164	1		1
CRR 458	2		2
Pillar 2	4	2	6
O-SII buffer		2	2
G-SII buffer		4	4
SRB		9	9
<b>Total</b>	<b>15</b>	<b>17</b>	<b>32</b>

All but two measures addressing real estate risks focus on risk weights, either via stricter criteria for the application of standardised risk weights or by setting higher risk weights for standardised or IRB banks. As mentioned above, only one measure addressed LGDs. In one case, in the UK, Pillar 2 was applied to set LTI limits.

Table 4: Number of real estate measures by focus

Measure	Risk weights	LGD	Other	Total
CRR 124	8			8
CRR 164		1		1
CRR 458	2			2
Pillar 2	3		1	4
<b>Total</b>	<b>13</b>	<b>1</b>	<b>1</b>	<b>15</b>

While reciprocity is prescribed by EU law for Art. 124 and 164 CRR, there is a decision to be made on whether reciprocity should also be applied in the case of real estate measures under Art. 458 CRR and Pillar 2<sup>11</sup>. So far, there have been only three cases in which a measure was reciprocated on a voluntary basis by a Member State.

Table 5: Reciprocation of real estate measures

Measure	Original measure	Reciprocated measure	Total
CRR 124	8		8
CRR 164	1		1
CRR 458	1	1	2
Pillar 2	2	2	4
<b>Total</b>	<b>12</b>	<b>3</b>	<b>15</b>

All but one of the measures, the setting of LTI limits in the UK, affect capital requirements. In the time period covered no measure in scope of the CRR/CRD addressing liquidity requirements was implemented<sup>12</sup>.

<sup>11</sup>An expert group on cross-border effects of macroprudential policy and costs and benefits of reciprocity was recently established under the aegis of the ESRB.

<sup>12</sup> National measures out of scope of the CRR/CRD were implemented by, for example, Hungary and Slovenia.

## 3. Measures addressing real estate risks

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### 3.1 Objective

All measures available in the CRR/CRD to address real estate risks, i.e. Art. 124, 164 and 458 CRR and Pillar 2, were also applied by Member States, as can be seen from Table 3. Real estate risks were also mentioned in notifications for the SRB (e.g. by Croatia). The objectives of these notifications will be discussed in the following section in relation to specific measures, followed by some general observations.

The measure which was most frequently used is Art. 124 CRR, which was applied in eight countries. Of these, four countries defined stricter criteria, three countries set higher risk weights and one country did both. In one case, the article was applied to a non-EEA country.

What is apparent from the consultations for Art. 124 CRR is that the article allows for macroprudential and microprudential use, and it is not always clear from the information given what the focus of each measure is. In the same way it is difficult to clearly separate structural and cyclical usage, which would for example be relevant for understanding if measures are permanent or temporary. The reasoning of some Member States includes, for example, the absolute volume of mortgages, indicating a systemic reason, or the capabilities of banks to assess conditions to determine whether exposures can be regarded as fully and completely secured or the quality of collateral, indicating more microprudential objectives. Another authority focused its reasoning on uncertainty regarding loss realisation, for instance caused by forbearance practices, which could relate to systemic or microprudential objectives. At the same time, consultations frequently mention loss experience; the reflection of risks in the risk weights looking forward and including house price developments; or both.

The reason for this combination of reasons might be the requirements set out in Art. 124(2) CRR and EBA notification templates, i.e. higher risk weights shall be based on loss experience and take into account forward-looking market developments and financial stability considerations. Furthermore, draft regulatory technical standards to be developed by EBA according to Art. 124(4) and 164(6) CRR had not been completed. In this context it was, for example, stated by one Member State that it was not deemed appropriate to consult with the EBA on the basis of forward-looking real estate market developments or financial stability considerations, that any assessment carried out on these could be subject to change, depending on the drafting of the final draft regulatory technical standards, and that measures would be reviewed based on these standards when the basis for such an assessment was fully known.

It should also be noted that all countries which notified the EBA applied Art. 124 CRR in order to ensure a continuation of the risk weights previously in place before the harmonisation. Several countries had a 100% risk weight in place for commercial real estate prior to the entry into force of CRR/CRD IV. From January 2014, countries wanted to avoid a drop from a 100% to a 50% risk

weight, and therefore made use of the national discretion allowed for in Art. 124. Reference to previous capital requirements was made by Croatia, Ireland, Malta, Norway, Romania, Sweden and the UK.

In some cases relatively detailed criteria for the application of a 35% risk weight were set, e.g., in Croatia, the exclusion of holiday homes and properties whose owner is the owner of more than two residential properties. A main argument for setting stricter criteria seems to be the comparison of loss rates between exposures fully and completely secured by residential immovable property as specified in the CRR, and exposures fully and completely secured by residential immovable property which also meet stricter national requirements, e.g. as set out by the Croatian National Bank, resulting in a somewhat finer differentiation of real estate segments in the standardised approach.

Norway is the only country that increased the minimum LGD for retail exposures secured by residential property under Art. 164 CRR. A 10% LGD floor was not seen as adequate going forward, given that residential property prices in Norway had grown substantially for an extended period of time and the potential drop in prices in a future economic downturn was considerable, while certain risk factors for real estate were seen as particularly high in Norway. In this context the FSA of Norway had developed a reference model that indicated that the downturn LGD for a Norwegian IRB bank with an average LTV distribution should not be below 20%. This latter argument raises another question regarding the impact of macroprudential measures on microprudential supervision, i.e. whether risks should be captured in requirements for a downturn LGD or in macroprudential policies.

In one case, in Sweden, Pillar 2 was applied to set an additional capital requirement based on a minimum risk weight floor for IRB banks. Here the objective was clearer. The Swedish FSA raised the risk weight floor for Swedish residential immovable property from 15% to 25%. The original risk weight floor of 15% had been set based on an overall assessment of future loss levels in Swedish mortgages in a situation of intense financial stress, i.e. it reflected idiosyncratic credit risk. The motivation for raising the risk weight floor, however, was to account for structural systemic risk factors, i.e. losses to the wider economy, rather than bank-specific credit losses.

For this measure, an alternative to Pillar 2 would have been to increase minimum LGD based on Art. 164 CRR. However, an adjustment of risk weights for IRB banks directly, i.e. rather than adjusting the input parameters, could be done only via Pillar 2 or based on Art. 458 CRR. The key disadvantage for Art. 164 was seen by the Swedish FSA in a further amplification of the differences in risk weights which derive from the firms' variations in internal approaches for calculating risk-weighted exposure amounts. Art. 458 was seen as not adequate by the Swedish FSA since the article specifies measures to be taken for a limited period of time. Art. 458 does indeed specify measures that expire after two years, but it also allows for review of the situation and extension of the application of national measures for one year at a time in consultation with the EBA and the ESRB.

The first notifications already show that there are different interpretations of the applicability of Pillar 2. Under the previous framework, Pillar 2 addressed bank-specific features related to the risk profile of individual institutions. The CRD IV introduced a macroprudential dimension to Pillar 2, with Art. 103(1) CRD explicitly allowing the use of Pillar 2 in a horizontal manner, i.e. its application to subsets of institutions. Such use is possible where the competent authorities determine under Art. 97 CRD that institutions have similar risk profiles such as similar business models or geographical location of exposures and are or might be exposed to similar risks or pose similar risks to the financial system. In addition, Art. 97(1) CRD requires that the SREP should evaluate the systemic risk that an institution poses to the financial system and Art. 104(3)(d) CRD states that the assessment of systemic risk should be taken into account for the purposes of determining the appropriate level of own funds.

When applied for macroprudential purposes, Pillar 2 measures therefore by definition have a microprudential as well as a macroprudential role in the new framework; this can lead to conflicts between the two objectives and raise questions regarding the application of the measures. While in the Belgian notification for Art. 458 CRR it was argued that Art. 103 CRD would not be applicable since banks had different risk profiles, and since the measure was not based on the SREP, Sweden and the UK chose to apply Pillar 2 measures across all banks.

Furthermore, in one case, for the setting of a risk weight floor for Swedish mortgages by the Swedish FSA, Art. 97 (5) CRD was applied as a legal basis for the measure instead of Art. 103. Here it was argued that Art. 103(2) was not necessary when the risk covered by the capital requirement could be directly linked to the institution affected by the capital requirement.

Art. 458 CRR was also applied once. The Belgian Central Bank introduced an increase in risk weights for retail exposures secured by Belgian residential immovable property for Belgian IRB banks by an add-on of 5 percentage points. The main argument given was that while developments in the Belgian property market pose a risk to Belgian institutions, risk weights for residential mortgages for Belgian IRB credit institutions seemed to be relatively low compared with other countries. In particular, high risk sub-segments exist that could be the source of credit loss if conditions in the Belgian housing market worsen. Again, similar measures are available in the CRR. In this case Art. 164 CRR was seen as not adequate due to its distorting effects on risk weight across banks, and Pillar 2 was not applied due to its idiosyncratic focus. It should, however be noted that the motivation for the measure is very similar to the increase in minimum LGD in Norway.

In its opinion<sup>13</sup> on this measure in line with the requirements of Art. 458(4) CRR the EBA did not object to the application of the measure but observed that the issue of low risk weights could be addressed using institution-specific (microprudential) instruments, i.e. an evaluation of the adequacy of IRB models applied by credit institutions with a focus on downturn LGDs, to alleviate the more structural issues underlying the measure, but that implementation of these instruments would take significant time. It was also stated that, given the variance of credit institutions' risk

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<sup>13</sup> <http://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-02+Opinion+on+measures+to+address+macroprudential+or+systemic+risk.pdf>

profiles, this could also be addressed with institution-specific supervisory measures in accordance with Pillar 2. This could also limit potential distortions caused by a constant add-on to risk weights that could penalise banks with more conservative credit standards or models.

## 3.2 Impact on internal models

As a general observation, all but one of the measures described above address risk weights for real estate exposures, the only exception being a measure introduced in the UK using Pillar 2 to limit the quarterly flow of first charge mortgage lending at or above 4.5 times salary to 15% of such lending (see Box 1). As a consequence, different measures are employed for relatively similar purposes, e.g. risk weights for residential mortgages for IRB banks were increased using Art. 164 and 458 CRR or Pillar 2.

One characteristic that is common to all of these measures addressing IRB banks is that they reduce the risk sensitivity of internal models and have an impact on the use of internal models for banks' internal purposes, e.g. regarding their use in capital allocation and pricing across a bank. For instance, risk weight floors diminish the risk differentiation of IRB models if applied in pricing.

The impact depends on the practices a bank uses to implement macroprudential capital requirements in internal processes and on how the IRB use test is designed, as well as on the bank's business and portfolio mix. It is, however, clear that macroprudential measures add complexity to the use of IRB models for internal processes. If the IRB components are solely used for regulatory capital purposes, there could also be incentives to minimise capital requirements rather than produce accurate measurements of the IRB components and the resultant capital requirement.

Art. 144 (1)(b) CRR sets the requirement that internal ratings and default and loss estimates, associated systems and processes shall play an essential role in the risk management and decision-making process. This means that there are some key parts of the regulatory parameters that shall be used in the institution's economic parameters and processes. However, the final regulatory parameters are not required explicitly to be exactly the ones that are used for these economic purposes. For example, the term 'loss estimates' might allow room for interpretation as it could be interpreted in two ways: LGD as estimated by the institution or macroprudentially increased LGD. The CRR also establishes and recognises the possibility that economic parameters used by institutions may not be exactly the same as the regulatory parameters in Art. 179(1) CRR. Additionally, institutions should include in their regulatory estimates a margin of conservatism that is related to the expected range of estimation errors (Art. 179(1)(f) CRR).

Risk weight requirements, if they are binding, affect any kind of risk-adjusted return measure that can be used to evaluate return on capital. Furthermore, any floor or add-on may affect the economic capital allocation process, especially when a portfolio, business unit or legal entity faces a higher relative impact of this floor or add-on than others. For most measures this might be exactly what the measure is meant to achieve. Depending on the capital allocation mechanism employed by a bank, e.g. economic or regulatory capital allocation, it can, however, lead to

different parameters being used for different purposes. In the case of risk weight floors the regulatory parameters may be used for capital allocation, but internal economic parameters or regulatory parameters may be used for the credit decision and the expected loss estimation in pricing.

An open question in this context is if some tools have a stronger impact, e.g. comparing risk weight or LGD floors to constant add-ons. Floors obviously seem to have the highest impact on the risk sensitivity of risk weights, but it was also mentioned in notifications that other measures, like add-ons, would increase the dispersion too much.

Furthermore, the variety of macroprudential tools – sometimes even for addressing the same issue – impedes comparisons of risk parameters and capital requirements. For instance, with regard to benchmarking LGDs used for calculating risk-weighted exposure amounts, banks that apply the LGD floor according to Art. 164(4) CRR at parameter level can be difficult to compare with banks subject to an adjustment at risk weight level even if their capital requirements are consistent.

### 3.3 Impact on stress testing

Another common issue relevant for measures changing risk weights concerns the use of stress tests. Some measures, e.g. the Belgian risk weight add-on, were explicitly calibrated applying stress test results, while other notifications and consultations refer more qualitatively to forward-looking scenarios. The question arises of how an overlap of macroprudential capital requirements with stress tests can be avoided if both cover the same risk types. This can be relevant in three cases:

- banks' credit risk stress tests under Pillar 1;
- stress tests as part of the SREP and ICAAP; and
- system-wide stress tests.

Banks are required to use stress tests to assess the results of their Pillar 1 credit risk models and the calibration of these models; in particular, the downturn LGD can already be based on stressed conditions. Authorities introducing macroprudential measures therefore need to assess if the risk to be addressed is already covered or whether the calibration of IRB models is not conservative enough to cover the risk. An example of this would be the Belgian risk weight increase for retail mortgages.

An assessment of stressed conditions should also be carried out in the context of the SREP when assessing an institution's ability to meet its capital requirements in stressed conditions. In this case the risk of double counting as described above can be minimised by coordination between the relevant microprudential authority implementing the stress test and the macroprudential authority. Similarly, in line with the EBA's SREP Guidelines, competent authorities, as part of SREP,

should consider and reconcile institution-specific additional own funds requirements with applicable macroprudential requirements and combined buffer requirements.

For example, in the context of the SSM's RAS – in line with the EBA's Guideline on SREP – the assessor may complement its assessment of standardised indicators with its own judgement. By doing so the supervisor is able to take account of the effects of macroprudential measures on the specific risk profile of the institution. Likewise, the supervisor is able to take into account these requirements when quantifying capital requirements, and hence eliminate the risk of double counting. Regarding the question of how macroprudential capital requirements should be taken into account in the context of stress tests, one could argue that the inclusion of macroprudential risks at the individual bank level in the RAS could lead to double counting or overlap because, to a certain extent, these risks can enter via the indicators used for the RAS. This could induce an over- or underestimation of the bank's scores. However, macroprudential risks are mainly forward looking and are therefore largely overlooked by the RAS indicators. For instance, an emerging housing bubble would not be captured because loans would still be performing. In any event, supervisors should ensure that macro risks are adequately accounted for in the final risk level score.

Other competent authorities require, based on their SREP capital adequacy assessment and considering banks' ability to meet additional own funds requirements under a severe but plausible stress, that banks provide capital plans setting out actions that it will take to ensure compliance with the requirements; this may include holding additional capital, which is usable should a stress materialise. Such buffers would sit on top of macroprudential capital measures. When the stress scenario used for the stress test incorporates a macroeconomic shock to the housing market – and macroprudential measures have been introduced (or are going to be introduced) to address real estate vulnerabilities – there might be double counting of the same risk. However, this may not be a problem in reality if the CA and the DA coordinate their interventions and/or their macroprudential initiatives are factored into the assessment of banks' additional capital needs.

Some competent authorities intentionally accept the possibility of double counting. In fact, with regard to banks holding buffers as described above, one competent authority stated that banks should cover all possible losses – but at a lower confidence interval than what is required for the minimum capital requirement – in addition to Pillar 1 requirements.

Banks could face similar challenges regarding stress tests applied in their capital planning as part of the ICAAP. Here banks might design a stress scenario that assumes a severe shock to the housing market and supervisors might use banks' stress test results to inform their views on any additional capital required. If macroprudential requirements are in place, incorporating these into the assessment could add complexity to the process and make stress test results more difficult to interpret.

System-wide exercises like the EU-wide stress test often include real estate shocks and measure banks against their minimum capital requirements. Where minimum capital requirements have

already been enhanced by the application of certain macroprudential tools (e.g. higher risk weights or LGDs), comparability across banks in different jurisdictions is reduced and there is a risk of double counting. Where macroprudential risks are addressed in Pillar 2, comparability of banks is reduced even further because Pillar 2 requirements are usually not public and are also bank-specific. As a result, they cannot be taken into account in system-wide stress tests which are published, in particular in supra-national exercises like the EU-wide stress test. Pillar 1 adjustments would, on the other hand, be incorporated into stress test results. For market participants it could therefore be difficult to interpret the results of published stress tests across banks, which in some countries have Pillar 1 risk weight floors, or less visible Pillar 2 risk weight adjustments.

The situation is similar to that with regard to stress tests in the SREP; the ECB, for example, decided in the context of the comprehensive assessment for the SREP decision that the results of the comprehensive assessment would be used as a floor for additional own funds requirements (Pillar 2 requirements). This approach gave enough leeway to supervisors to adjust the capital quantification for credit risk, thus avoiding any double counting.

#### Box 1: UK LTI flow limit – case study

##### **Overview**

The UK LTI flow limit was announced in June 2014 and is a macroprudential tool designed to help protect and enhance the resilience of the UK financial system as a whole. The purpose of the flow limit is to constrain the proportion of UK mortgage lenders' new lending at loan to income ratios at or above 4.5 to no more than 15% of the total number of new mortgages. The purpose of the UK measure is to act as an insurance policy and constrain excessive levels of household indebtedness which could, following a shock, result in economic instability. The UK measure is calibrated by the current view of the UK's macroprudential authority – the Financial Policy Committee (FPC) – of the outlook for the housing and mortgage market and is consistent with providing insurance against the possibility that underlying strength in the UK housing market turns out to be greater than expected. The FPC recommendation applied to all PRA- and FCA-regulated firms undertaking UK-regulated mortgages.

The PRA's roll-out of the LTI flow limit involved a small team of experts from across the Bank of England and the PRA, who focused on the practical implementation of the limit over a six-week period. This team built on the work on the housing sector undertaken over the longer term by other teams across the Bank of England. The uniqueness of the policy design lay in the collaboration in real time between prudential and monetary policy directorates, supervision, the financial stability directorate and the press office to deliver a macroeconomic policy that took into account the practical implementation hurdles from the outset. The outcome of this was that the FPC recommendation was accompanied by the PRA consultation document setting out the proposed rules and provisions.

The measure was implemented as a Pillar 2 measure and applied to a group of firms under Art. 103(2) CRD.

### **Key practical considerations**

**Expediency** – the successful implementation of the UK LTI limit was, in part, driven by the short timetable to minimise the risk of unintended consequences and leakages. The PRA consulted on its approach to implementing the LTI measure, allowing firms three months to respond.

**Application of the limit** – the limit is applied on a quarterly basis. The PRA was clear that the limit is applied on both a volume and a value basis for certain types of mortgages where LTI was deemed an appropriate metric. To facilitate an easier roll-out the PRA used an existing regulatory return, to ensure consistency of definitions and to monitor compliance with the limit. This resulted in no additional reporting costs for firms or training requirements for supervisors.

**Pipeline management** – it was important from a practical implementation point of view that firms managed their pipelines effectively, in advance of the limit coming into legal force. To mitigate the risk of leakage during this period, supervisors wrote to firms highlighting that ‘decisions in principle’ on mortgages taken during the consultation period which might not have completed until after the limit came into force would count towards the limit. Supervisors also highlighted that ‘offers in principle’ or mortgage offers would count towards the limit when first reported.

**De minimis** – the PRA set a de minimis threshold to ensure that smaller and niche lenders were not disproportionality impacted. The de minimis threshold is applied on either a value or a volume basis (the latter threshold was introduced after the PRA consultation as it became apparent that the limit would bite on specialised lenders). Should a lender extend fewer than 300 relevant mortgages or less than GBP 100 million in value of relevant mortgages over a year, it will not be in scope of the limit.

**Communication strategy** – The communication strategy around the implementation of the UK LTI limit was important, and critical to the successful delivery of the measure. In particular, the press office and the PRA’s internal communications team were vital; Q&As were made available for supervisors and external Q&As were publicly available on the Bank of England’s website.

By working together, the small team ensured that the design, calibration and practical roll-out of the UK LTI flow limit advanced both the FPC’s financial stability objective and the PRA’s objective of promoting the safety and soundness of firms.

The PRA monitors breaches of the limits on a quarterly basis and supervisors deal with breaches on a firm-by-firm basis. The FPC will undertake an evaluation of the effectiveness of the LTI limit in June 2015 and publish its findings in its next Financial Stability Report.

### 3.4 Governance

Only one measure applied for real estate risk, i.e. Art. 458 CRR, included specific process requirements including opinions by the EBA and the ESRB and the possibility for the Commission to propose to the Council an implementing act to reject the measure. The process for the Belgian example proved to be relatively burdensome for all stakeholders and difficult to complete in the time frame given by the CRR<sup>14</sup>.

Art. 124 CRR requires consultation of the EBA and Art. 164 notification only. As stated earlier, regulatory technical standards which will specify the conditions that competent authorities have to take into account when increasing risk weights, in particular the definition of the term ‘financial stability considerations’, were not finalised in the time period covered in this report.

A general aspect concerns the application of the macroprudential toolbox laid out in the CRR/CRD versus measures under national law. A number of European countries took measures to address real estate risk under national laws, mostly focused on LTV and LTI limits. The UK is the only country that introduced LTI limits applying Art. 103 CRD.

Coordination between competent authority and designated authority generally seems necessary – or between different units of one authority with both microprudential and macroprudential responsibilities, which is the case in many Member States. In particular, this holds since Art. 124 and 164 CRR and Pillar 2 are addressed to competent authorities only, while Art. 458 refers to competent or designated authorities. Coordination also seems to be required since, as described in the previous section, it is unclear for some measures if they were applied for microprudential or macroprudential objectives.

From the Belgian example of a measure applying Art. 458 CRR the need for coordination becomes obvious, not just because the measure, as stated in the EBA opinion on this measure<sup>15</sup>, seems to address risks that can also be within the scope of microprudential instruments, but also because the measure was one part of a broader set of measures introduced earlier. It includes, as additional microprudential measures, the evaluation of the calibration of PD and LGD models to address potential weaknesses of the risk parameters used in the IRB approach and a self-assessment of credit institutions’ credit standards. Another aspect of this example would be that a macroprudential decision by the designated authority was taken that changed the results of IRB models that had been approved by the competent authority. However, this may be necessary since macroprudential authorities need to take into account different considerations than do supervisors, e.g. systemic risk not visible from the perspective of one bank.

Coordination is already relevant for the selection of a macroprudential tool. As extensively described in the EBA Opinion on macroprudential rules in the CRR/CRD, the framework explicitly

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<sup>14</sup> The process had to be followed because the risk weight add-on of 5 percentage points implied an increase of more than 25% for some IRB banks concerned, so that Art. 458(10) – which gives designated authorities full flexibility to increase risk weights up to 25% for real estate, requiring only a notification – did not apply.

<sup>15</sup> <http://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-02+Opinion+on+measures+to+address+macroprudential+or+systemic+risk.pdf>

states the order in which several macroprudential tools should be considered. The application of the pecking order therefore requires effective coordination and communication mechanisms between the different microprudential and macroprudential authorities. For example Art. 103 CRD (use of Pillar 2 measures for macroprudential purposes) is addressed to competent authorities only while competent or designated authorities are referred to in Art. 458 CRR. Art. 458 explicitly states that authorities need to justify why Art. 103 cannot adequately address the macroprudential or systemic risk identified. However, as discussed above, the choice between these two measures is not always clear.

The application of Pillar 2 for macroprudential purposes certainly allows national authorities most flexibility. Supervisory measures based on the outcomes of the SREP, in particular those envisaged by Art. 104 and 105 CRD, represent a wide range of choices for competent authorities. The SREP and joint decision can be seen as checks and balances for Pillar 2 as a microprudential tool. However, for macroprudential purposes capital requirements are in practice determined at a general level before the institution-specific SREP and joint decision, while governance mechanisms defined for other macroprudential tools as described above are not in place for Pillar 2. Here it can be unclear whether and how competent authorities in their decision on capital requirements are bound by macroprudential decisions taken outside of the SREP. It should, however, be clear that the use of Pillar 2 for macroprudential purposes regarding own funds requirements (Art. 104(1)(a) and 104(3)(d) CRD) and liquidity (Art. 105 CRD) shall be subject to a joint decision process. For other measures, like the LTI limit in the UK, this is not the case.

In one Member State additional own funds requirements based on macroprudential measures were presented to the college and agreed upon in a joint decision like any other additional own funds requirements, i.e. an Art. 104(1)(a) measure – being applied using Art. 103 to a cross-border banking group or its entities – requires a joint decision. In this sense such a measure is no different from other Pillar 2 capital add-ons. In practice, however, an informal agreement had most often been made between relevant authorities at a high level before the start of the SREP (in some cases several years before it was imposed). The request to reciprocate the measure was then formally brought to the supervisory college as part of the SREP.

For Pillar 2 it is also unclear how macroprudential capital buffers will in practice interact with other additional own funds requirements as an outcome of the SREP. This issue is already considered in the EBA Guidelines on the SREP, which require competent authorities to reconcile additional own funds requirements with the risks already covered by additional macroprudential requirements. Competent authorities should not set additional own funds requirements where the risk is already covered by macroprudential requirements.

Given that the ECB took over its supervisory role for SSM countries at the end of 2014, it is not surprising that over the period in scope of this report notifications were received from national competent or designated authorities only. Based on Art. 5 of the SSM Regulation<sup>16</sup> the ECB has binding macroprudential competences for articles in scope of the CRR/CRD. It can apply higher requirements for capital buffers than those applied by national competent or designated

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<sup>16</sup> Council Regulation (EU) No 1024/2013

authorities and apply more stringent measures aimed at addressing systemic or macroprudential risks. Some questions arising from the ECB's role and the observations made regarding first notifications are the following:

- Process requirements, e.g. regarding notifications and consultations, should hold in the same way for the ECB as for national authorities. Art. 5 of the SSM Regulation also requires that, in a separate notification, the ECB should be informed in advance of national macroprudential measures that fall under the CRR/CRD.
- The need for coordination across microprudential and macroprudential authorities will include the ECB, in particular as competent authority for all SSM banks. The output of the ECB's macroprudential activities related to Art. 5 of the SSM Regulation are communicated and shared with the NCAs through several committees and finally up to the SSM Supervisory Board. In this way these measures are communicated within the SSM at an early stage.
- Regarding the use of Pillar 2 for macroprudential purposes, the same coordination issues arise as described above but with a more complex governance structure and with potentially less widespread effects, in that an SSM-wide decision using Art. 103 CRD could at least ensure consistency between SSM participating countries. Hence, coordination issues would be relevant mainly between SSM and non-SSM countries but would also take advantage of the more integrated governance structure offered by the SSM.

### 3.5 Transparency

Transparency is to a certain extent achieved for all measures affecting Pillar 1 risk weights, i.e. capital requirements are known to the market but with the constraints described in section 3.2 for internal models and in section 3.3 for the interpretation of stress test results. The goal of transparency may not be achieved for Pillar 2 measures. Art. 438 CRR envisages that competent authorities may require institutions to disclose additional own funds requirements applied based on Art. 104(1)(a) CRD. However, in most countries Pillar 2 microprudential capital requirements are not made public<sup>17</sup>, although we note that in practice macroprudential requirements implemented via Pillar 2 are made public in some way – although not necessarily on a bank-by-bank basis.

For example, banks' risk weights and capital requirements that are subject to an LGD floor under Pillar 1 could be difficult to compare with those subject to a risk weight adjustment under Pillar 2 for macroprudential purposes, even if the measures have similar objectives. In addition, the range of SREP measures which can be adopted for macroprudential reasons is much wider than that of those based on Art. 104(1)(a).

Another aspect of transparency concerns communication of the implementation of measures to the market. While some measures were announced well in advance of their implementation or consulted on with the industry, and adapted based on the feedback received, for example in the

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<sup>17</sup> In some countries, e.g. Sweden and Denmark, these requirements are published.

case of the LTI limit in the UK, others were seen by market participants as having come as a surprise. However, it should also be considered that there might be reasons not to communicate planned measures early, e.g. to avoid any front-running by banks.

Generally, it seems that more could be done to ensure all implemented measures in the EU are centrally communicated to authorities and market participants. In this context the ESRB started to publish notifications. Since early 2015, the ESRB has published on its website a list of measures of macroprudential interest as well as tables of countercyclical capital buffer rates. The measures are identified at the level of individual Member States and authorities and include both measures under the CRD/CRR and measures under national law.

Channels of communication to relevant competent authorities that were used by Member States before the implementation of a measure included supervisory colleges, but often other, direct and less formal, channels were used, e.g. in the early stages of a process. In other cases measures were communicated also via the EBA and the ESRB. Although some processes had already been set up by the EBA and the ESRB to ensure sharing of information on planned measures, these are based largely on exchanges within dedicated expert groups and less on formal communication procedures.

### 3.6 Reciprocation

Reciprocation concerns the recognition of a measure by a Member State taken in another jurisdiction, i.e. the application of the measure to exposures of branches, or to cross-border exposures of banks, under the supervision of the Member State. Reciprocity is prescribed for Art. 124 and 164 CRR but voluntary in the case of real estate measures under Art. 458 CRR and Pillar 2.

In one case, this was even a reason to apply a macroprudential and not a microprudential measure, i.e. Norway used Art. 164 CRR partly because stricter model requirements would have applied only to Norwegian IRB banks that are solely under the supervisory review of the FSA of Norway, whereas the LGD floor also applies to mortgage lending in Norway by foreign branches and Norwegian subsidiaries of foreign banks.

Even though the NBB did not ask the ESRB to issue a recommendation to other Member States that they recognise the measure taken under Art. 458 CRR, the measure was, despite the extremely small market share of foreign branches – which was analysed in the context of the EBA and ESRB opinions on the measure – voluntarily reciprocated by the Netherlands (see Box 2). Market share can of course change and would need to be monitored by relevant competent authorities. DNB explicitly stated in its notification of the recognition of the Belgian measure that the impact of the measure would be very small, because the activities of branches of Dutch banks in Belgium were limited and most activities of Dutch banks in Belgium were performed through subsidiaries, which already fell under NBB supervision and hence the NBB measure. Nonetheless, reciprocity was considered important on principle. In this context it was also stated that, for Art. 458 CRR, the possibility of recognising a measure of a Member State was limited to branches, i.e.

as stated in Art. 458(5), while cross-border lending was not covered. Selected other Member States informed the EBA that they did analyse a potential reciprocation of the measure but came to the conclusion that it was not relevant for institutions under their jurisdiction.

A special case is the use of Pillar 2 for macroprudential purposes, as in Sweden. The CRD does not specify reciprocation for Pillar 2 measures, and given the lack of disclosure it is unclear how measures could be recognised<sup>18</sup>. As long as measures are communicated to other authorities, measures could be reciprocated by home authorities as part of the SREP for their institutions, and Member States could influence this process via supervisory colleges, which are responsible for the joint decision regarding Art. 103 CRD in the case of cross-border groups. So far, there has been only one case of this: Denmark reciprocated the minimum risk weight floors set for Swedish mortgages.

Supervisory colleges were used by several authorities as forums to discuss the issue of reciprocation; however, a need for other, wider, forums is seen by Member States, since reciprocation is not limited to the minority of institutions for which colleges were set up<sup>19</sup>. Furthermore, it was stated that colleges might not be the right place for such discussions since they are mainly focused on institution-specific prudential requirements. For example, the ESRB working groups, and in particular an expert group working on cross-border effects and reciprocity, could be a forum for discussing guidance on general voluntary reciprocity issues. For specific cases of the application of Pillar 2, it was also noted that it is not necessary to inform other Member States or third countries of an application of Art. 103 CRD – although the EBA should be informed. For these cases involving Pillar 2 measures under Art. 103 a different forum could be required, for example supported by the EBA<sup>20</sup>.

The Norwegian FSA introduced two separate measures to raise the risk weights for Norwegian mortgages. The first measure was to raise the LGD floor under Art. 164 CRR. This measure, as stated earlier, is subject to automatic reciprocation by all Member States in accordance with Art. 164(7) CRR, including, of course, Sweden. The second measure was to introduce strict and very specific requirements on how the risk parameters on Norwegian mortgages should be estimated in banks' IRB models. The Swedish FSA assessed that it did not have the legal means to enforce these very specific requirements on banks' IRB models and therefore decided to reciprocate this measure through Pillar 2.

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<sup>18</sup> In the specific Swedish case, it should however be noted that the Swedish measures were publicly announced and consulted upon well in advance of their implementation and that the capital add-ons that the measures result in are disclosed in detail by the competent authority on a bank-by-bank basis.

<sup>19</sup> Even though these would usually be the largest institutions in terms of assets and exposure.

<sup>20</sup> The EBA is mandated in Art. 103(2) CRD to monitor the supervisory practices and to issue guidelines to specify how similar risks should be assessed and how consistent application of Art. 103(1) across the Union can be ensured.

## Box 2: Reciprocation of the 5 percentage point add-on to the risk weights for Belgian residential mortgages in the Netherlands – case study

### **Content of the measures and process for decision**

In December 2013, the NBB introduced a 5 percentage point add-on to the risk weights for Belgian residential mortgages. Shortly after the NBB decision, DNB decided in accordance with Art. 458(5) of the CRR to apply the measure for mortgages on residential real estate issued through Belgium-located branches of Dutch banks. The measure would in principle be applied as long as the NBB measure was in place, including any prolongations based on Art. 458(9) CRR.

DNB decided to recognise the measure for three reasons. First, it boosts the effectiveness of the macroprudential policy taken by reducing cross-border arbitrage. Second, reciprocity ensures that the application of an instrument does not distort the level playing field between domestic banks and foreign subsidiaries, on the one hand, and foreign branches, on the other. Third, by applying the measure, DNB ensured that Dutch banks' branches in Belgium will become more resilient to potential adverse shocks.

### **Underlying analysis**

The initial proposal for reciprocity was a joint project between two divisions – Financial Stability and Supervisory Policy. Before making a final proposal, two actions were taken. First, an impact assessment was carried out to verify whether reciprocity would in no case jeopardise financial stability. Second, DNB informally liaised with NBB colleagues to see whether such a measure was considered helpful. The response was that domestic banks and foreign bank subsidiaries, which fell under the NBB regime, had most of the exposure to the Belgian real estate market. That being said, recognition of the measure was considered welcome to bolster effectiveness and ensure that the level playing field between branches and subsidiaries was not unduly distorted.

### **Communication**

Once the board of DNB approved the reciprocity proposal, DNB notified the ESRB, the ECB, the EBA, the Commission, the European Council and the NBB of its decision in accordance with Art. 458 CRR.

## 3.7 Information provided in notifications

The information provided is of course strongly linked to the defined EBA and ESRB templates for notifications or consultations, which in turn are aligned with the information requirements specified in the relevant articles of the CRR. Some notifications or corresponding public documents announcing the measures contain extremely detailed qualitative and quantitative information. However, some observations can be made regarding information and data constraints:

- Many notifications include detailed analyses of the risks seen, specific indicators and banks' portfolios, e.g. historical losses, property prices, indebtedness indicators, LTV, risk weights, the structure of the mortgage market and, more generally, the risk that the real estate sector poses to the wider economy. However, the link between these risks and the calibration of specific risk weight requirements is not detailed in a quantitative way. In particular, little information is given on why existing risk weights are not adequate. In this context it is worth mentioning that, possibly due to data constraints, the analyses provided are mostly limited to the relevant Member State itself.
- Some notifications are limited to qualitative reasoning, e.g. regarding financial stability concerns.
- Art. 124 and 164 CRR refer to the use of data from supervisory reporting for the assessment of measures, i.e. collected under Art. 101 CRR, which was, as stated in some notifications, not available for a sufficient number of data points for the instatement of the first measures.
- As stated in section 3.1, many notifications, in particular all received for Art. 124 CRR, refer to capital requirements existing before the introduction of the CRR/CRD IV as guidance, which, in themselves, would not constitute the need for a macroprudential measure. Here the question arises of whether the framework is simply used to maintain national capital requirements.

Of course, any interpretation of these constraints has to take into account the fact that technical standards for Art. 124 and 164 CRR are still to be developed by the EBA.

Finally, notification requirements and the relevant timelines are not always clear, and notifications are therefore handled in different ways. Some, i.e. three, measures were not notified to the EBA. However, measures were communicated informally. Similarly, while some Member States notified the EBA under Art. 124 CRR when limiting the 35% risk weight to the part of the loan up to a certain percentage of collateral value, others did not.

In particular, there are different views on notification requirements for measures introduced before 2014. Some countries, e.g. Belgium, reintroduced measures, and also changed measures to bring them in line with the new legal framework, and notified the EBA accordingly. In one case known to the EBA, an EU country that had introduced a measure in anticipation of Art. 124 CRR did not consult the EBA following the introduction of the CRR. The measure concerned the limitation of the 35% standardised risk weight to the part of a loan up to a certain percentage of collateral value. This measure is therefore not included in section 2 or in the annex.

Even for clear notification requirements, authorities implementing measures saw identifying the relevant Member States and contacts as a problem, while some Member States in scope of measures taken in other countries noticed a lack of transparency on measures that would affect them. The need for central coordination due to the numerous authorities and processes involved was stated by several Member States; it was considered that this was required to streamline the process and avoid overlap, as well as underlap, of notifications, and to reduce the reporting burden of notifications.

## 4. Measures addressing systemic risks (excl. real estate) and SII

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### 4.1 Objective

As shown in Table 3, nine SRB requirements were introduced and two countries defined O-SII buffers. Countries use both measures interchangeably. For example, Denmark set the SRB only for identified O-SIIs. In the Netherlands the SRB was introduced for the three most systemically relevant banks (see Box 3). The Czech National Bank also set SRB levels depending on a bank's contribution to systemic risk as indicated by its systemic importance. In Sweden the SRB applies to the four largest banks. The assessment criteria for identifying systemic risks are often similar to those used to identify O-SIIs, e.g. size, complexity and interlinkages. As a consequence the SRB rate was not always set in a uniform manner but applied to a subset of banks and at varying levels across banks.

There seems to be little overlap with other macroprudential or microprudential instruments, in particular because of the clear system-wide focus of notifications regarding the SRB. However, based on the requirement under Art. 133(11)(e) CRR to justify why none of the existing measures in the CRR excluding Art. 458 would be sufficient, questions were raised regarding whether or not Pillar 2 could have been an alternative. In one case, in Croatia, reasons to set an SRB included rising non-performing loans and illiquidity of collateral for real estate exposures. Here, the question arises of if these issues could have been addressed with a change in risk weights or a review of LGD models.

Based on the first notifications for the SRB, Member States assess underlying risks differently. For example, the activation of the SRB in Sweden and the Netherlands was partly based on the size of the banking sector in terms of total assets relative to GDP; the UK, which has a similarly large banking sector, did not set an SRB in the time period covered in this report.

Pillar 2 was applied in two cases for systemic risks not related to real estate. The Swedish FSA introduced a 2% additional own funds requirement on top of the 3% SRB. In Belgium a capital surcharge for excessive trading was introduced. Although this measure had originally been introduced as a Pillar 1 measure, Pillar 2, i.e. Art. 103 CRD, was seen as the most appropriate tool to continue the measure under the new regulatory framework.

Over the period in scope four countries notified the EBA regarding the annual identification of G-SIIs and the corresponding score.

### Box 3: O-SII buffer and SRB in the Netherlands – case study

#### Introduction

In April 2014, DNB, in its capacity as designated authority, made public its intention to impose an O-SII capital buffer requirement of 1-2% and a systemic risk buffer (SRB) of 3% on Dutch banks that were identified as systemically important (see table below). Both requirements are to be phased in between January 2016 and January 2019.

	O-SII buffer	SRB
ING Bank NV	2%	3%
Rabobank BA	2%	3%
ABN Amro Bank NV	2%	3%
SNS Bank NV	1%	N/A

#### Content of the measures and process for decision

DNB is the designated authority in the Netherlands. Its mandate to introduce the measures in question is derived from the Art. 131 and 133 CRD, which were transposed into binding Dutch law (*Besluit prudentiële regelgeving*) in 2014. The measures were developed and proposed by the Financial Stability department of DNB in cooperation with the Supervisory Policy department, and approved by its Board as the ultimate governing body. As the measures were imposed on banks with subsidiaries in other Members States, DNB *ex post* clarified its decision to the EU partners through a teleconference organised by the ESRB. Throughout the process the microprudential supervisors (DNB supervisory account teams for the relevant institutions) were kept informed.

#### Underlying analysis

DNB, ahead of the EBA Guidelines on identifying O-SIIs, had developed a methodology for identifying banks that are of systemic importance to the Dutch financial system. This methodology was built on indicators for determining systemic importance prescribed in Art. 131 CRD (i.e. size, interconnectedness and substitutability) and complemented with indicators on coverage by the deposit guarantee scheme and resolvability. The templates were filled in with COREP data for each individual bank, resulting in a score reflecting each bank's systemic importance. These scores then led to the imposition of an O-SII buffer of 0%, 1% or 2%.

As for the SRB, given the long-term non-cyclical risks to the financial sector and the real economy resulting from the large and concentrated banking sector in the Netherlands, it was decided to apply an SRB of 3% to the three most systemically relevant banks.

#### Communication

The measures were informally discussed with the banks concerned in 2011 when the CRD IV was developed. The formal decision was made in 2014, followed by a consultation period. After the measure was imposed, DNB publicly published it and notified the European Commission, the ECB, the ESRB and the EBA.

## 4.2 Impact on internal models

Measures covered in this section do not affect the use of internal models.

## 4.3 Impact on stress testing

There could be issues arising from the use of stress testing where risk buffers (O-SII or SRB) are in place. First, it needs to be ensured that systemic firms are kept to a higher standard than other, less systemic, firms; however, if the same system-wide stress scenario is applied to all with the same hurdle rate, the stress test may conclude that the less systemic firms need more capital while the systemic firms do not, because they already hold systemic buffers. This outcome would contradict the macroprudential objective of holding systemic firms to higher standards.

Second, where a systemic risk is already captured by a buffer such as the O-SII or the SRB, there may be the need to adjust the stress scenario applied to systemic firms, or the stress testing process, so that only the additional risks, over and above those already captured by the systemic buffers, are addressed by the stress test, and double counting is avoided.

Finally, similarly to what was mentioned with regard to real estate risks, where macroprudential concerns are addressed via Pillar 2 measures, remediation is less visible and, for example, cannot be captured in the EU-wide stress test.

## 4.4 Governance

As already mentioned, the O-SII buffer and the SRB are used interchangeably. Several notifications stated that this was purely done for governance reasons, e.g. the SRB was chosen instead of an O-SII buffer since the cap of 2% of the O-SII buffer was perceived as too low and since the SRB could be activated immediately while the O-SII buffer could only be applied from January 2016 onwards.

Similarly, the application of Pillar 2 by the Swedish FSA to increase a systemic risk buffer from 3% to 5% was chosen due to governance reasons. The application of the SRB at this level would have required an opinion from the ESRB, and on a voluntary basis from the EBA, and the approval of the European Commission. The Swedish FSA found it appropriate not to decide on an SRB in excess of the level within its own decision-making power. Addressing systemic risks using Pillar 2 instead was therefore seen as more appropriate and likely to result in an efficient decision-making process. As this was a measure applying Art. 104(1)(a), the Swedish authorities had to agree on this 2% additional own funds requirement for systemic risk individually within the colleges' joint decisions for the affected banks.

Other governance issues already discussed in section 3.4 regarding the use of Pillar 2 to address macroprudential real estate risks apply in the same way here. In particular, in the case above one objective was implemented via two different tools in the same jurisdiction. Whilst the Swedish FSA is both the competent authority and the designated authority, this would require close

coordination across authorities in other countries. The Belgian example shows how Pillar 2 decisions are affected. The measure was based on structural reforms introduced to the Belgian banking law; these reforms were implemented via a regulation. As such, it was independent of the SREP outcomes of banks (see Box 4).

As for real estate measures, in one case, for the setting of the 2% own funds requirement for systemic risks by the Swedish FSA, Art. 97(5) CRD was applied as a legal basis for the measure, instead of Art. 103 CRD, which was used by Belgium and the UK.

There are some cases of measures taken in Member States which were not formally implemented. In these cases the measures addressed situations which would be governed by the corresponding macroprudential articles in the CRD; however, because they were communicated as recommendations instead of formal requirements, the measures were not notified to the EBA and no governance requirements specified in the CRD were applied. Therefore, these measures could not be included in the overview in section 2 or in the annex.

**Box 4: Capital surcharge imposed by the National Bank of Belgium on banks with excessive trading activities – case study**

**Process**

Following the Volcker and Vickers proposals, the Belgian government requested that NBB analyse the desirability and feasibility of introducing structural reforms in Belgium. In response to this request, the NBB published, for public consultation, an interim report in June 2012. The NBB's final report on structural banking reforms in Belgium appeared in July 2013.

The report recommended, among a series of policy recommendations, a capital surcharge on trading activities exceeding some threshold. The objective of this recommendation was to deter banks from engaging in an undesirable level of trading activity. In light of the high levels of trading activities of Belgian banks prior to the crisis, and because of the systemic risk associated with high levels of trading, Belgian authorities decided to impose this surcharge among a series of structural banking reform measures.

The capital surcharge had been introduced as a Pillar 1 requirement by the NBB Regulation of 23 December 2013. With the entry into force of the CRR/CRD IV on 1 January 2014, several legal options (including the use of Art. 458 CRR, on which the NBB consulted the European Commission) were considered to continue implementing such a surcharge. The most appropriate was deemed to be applying a Pillar 2 approach as specified in Art. 149 and 154 of the new Belgian banking law, which transposed Art. 103 and 104 CRD. These articles enable the competent authority to use a Pillar 2 capital surcharge to cover systemic or macroprudential risks that are not captured by minimum capital requirements. As a Pillar 2 measure, the capital surcharge was discussed in the supervisory colleges of the banks concerned.

The new Belgian banking law, in addition to transposing the CRR/CRD IV, implemented most of the policies proposed in the NBB's final report on structural banking reforms in Belgium. The law required the NBB to issue a regulation in order to frame the trading activities. This regulation included the capital surcharge for trading activities as a Pillar 2 add-on and was, after consultation with the banks, approved by the NBB on 1 April 2014. It was published in the Official Journal on 7 May 2014.

The trading surcharge was further communicated through different channels, including the NBB's annual reports of 2013 and 2014, a press release on 15 May 2014 after the first meeting of the NBB Board as macroprudential authority, the NBB's Financial Stability Review of 2014, and presentations in several supervisory forums within the European Banking Authority and the European Systemic Risk Board.

In line with the provisions of Art. 103 CRD, the measure was officially notified to the EBA on 10 June 2014. This notification was simultaneously sent to the ESRB, although this was not legally required.

#### **Details and calibration of the measure**

Belgian banks will have a capital surcharge imposed on trading activities when these exceed at least one of two thresholds:

- Volume-based: when the volume of trading activities exceeds 15% of the balance sheet, the capital surcharge will be equal to the amount by which this threshold is exceeded.
- Risk-based: when the capital requirements for market risk (excluding foreign exchange risk) exceed 10% of the total capital requirements, the capital surcharge will equal three times the amount by which market risk capital requirements exceed the threshold.

If an institution exceeds the threshold values of both metrics, the capital surcharge will equal the maximum of the two implied surcharges.

An important implementation challenge related to the measurement of the volume of trading activities. In particular, available data did not allow the NBB to determine what fraction of derivatives in the 'held for trading' category was used for hedging purposes and, hence, would not qualify as trading activities. After consultation with the banks, the rule was introduced that 80% of derivatives in 'held for trading' are considered trading activities (i.e. not for hedging), unless the bank can prove this fraction is lower.

The threshold values of the two metrics were calibrated on the basis of the levels of trading observed in Belgian banks just prior to the recent financial crisis. It was argued that the most reliable available indicators of trading activity associated with an increase in the intensity of systemic risk were precisely those levels observed in large Belgian banks just prior to the crisis.

	End 2014	End 2013	End 2012	End 2010	Q1 2008
<b>Volume-based:</b>					
'trading activities'/total assets	9.0%	8.4%	12.3%	15.3%	21.4%
<b>Risk-based:</b>					
'adjusted capital requirements for market risk'/total capital requirements	2.2%	3.0%	5.2%	8.8%	13.9%

The amount of the capital surcharge is intended to dissuade banks from actually exceeding the threshold values of the indicators. Therefore, it is expected that the banks' trading activities will remain below these thresholds, which is the case at this juncture. At the end of 2014, the volume-based indicator for the four largest banks was on average 9.0% (compared with 21% in 2008 and a threshold value of 15%); the risk-based indicator was 2.2% (compared with 14% in 2008 and a threshold value of 10%).

## 4.5 Transparency

Transparency seems to be less of an issue for measures addressing systemic risks and systemically important institutions since the capital buffers tend to be applied at group level and can easily be compared across banks. For complex measures like the Belgian capital requirements for trading activities it could, however, be difficult for market participants to assess capital requirements.

Regarding the use of Pillar 2 to address systemic risks, the same issues arise regarding transparency as for real estate risks.

## 4.6 Reciprocation

For institution-specific O-SII and G-SII buffers reciprocation seems to be less relevant. The SRB is subject to voluntary reciprocity, as specified in Art. 134 CRD. Other Member States may recognise the SRB rate set by another Member State, and may apply that buffer rate to domestically authorised institutions for exposures located in the Member State that sets the buffer rate. So far, no reciprocation has been notified to the EBA. This may be due to the fact that the SRB is mostly applied as an institution-specific buffer and not applied to domestic exposures only.

Again, regarding the use of Pillar 2 to address systemic risks, the same issues arise regarding difficulties in reciprocating a measure as for real estate risks.

## 4.7 Information provided in notifications

The information provided for measures addressing systemic risks is of course also linked to the defined EBA and ESRB templates for notifications or consultations, which in turn are aligned with the information requirements specified in the relevant articles of the CRD. Some notifications or

corresponding public documents announcing the measures contain detailed qualitative and quantitative information. However, some observations can be made:

- The scope of the SRB concerning exposures and the level of consolidation was in many cases not given. The SRB was generally applied to the total risk exposure amount and not to specific exposures or the credit risk exposure amount only. The only exception to this was the setting of an SRB in Bulgaria which applies to domestic exposures only.
- Some notifications focused on qualitative information only; in particular, the calibration of measures was often not quantified or it was stated explicitly that a quantification would not have been feasible.
- Not all notifications for the setting of O-SII buffers followed the criteria set out in Art. 131(3) CRD, i.e. size, importance, significance of cross-border activities and interconnectedness. It should be noted that EBA Guidelines on criteria for the assessment of O-SIIs were published in December 2014 and were not available at the time when O-SII notifications were received.
- As with measures addressing real estate risk, there were cases in which measures were not notified to the EBA and the notification process was seen as burdensome. In particular, it was stated that the requirement for Member States to inform all third countries' competent or designated authority whenever a buffer is applied to exposures in that country can lead to an excessive number of notifications.

## 5. Conclusion

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The issues discussed in this report regarding the interaction of macroprudential and microprudential tools mostly concern measures addressing real estate risks, in particular measures impacting risk weights. The discussion below is therefore mostly based on observations regarding measures addressing real estate risks.

### Objective

Macroprudential tools are still relatively new and the objective of many macroprudential measures applied is not entirely clear. Judging from notifications received, some address macroprudential or microprudential, structural or cyclical, bank-specific or systemic risks. For measures with a clear macroprudential objective, the general question remains of whether they were implemented to increase banks' capital buffers or to 'lean against the wind' and change market participants' behaviour, for instance to dampen credit growth. This potential overlap between macroprudential and microprudential objectives could be reduced with a clearer delineation of tools in the framework and a hierarchy between these types of objectives.

In addition, different measures are used to address the same risk, e.g. to increase risk weights for real estate exposures, and there is variation across countries regarding the interpretation of the relevant macroprudential articles. As the institutional setting across countries differs, such flexibility might be necessary, but this could also be symptomatic of an overly large degree of leeway requiring further harmonisation regarding the choice of measures.

Both issues hold in particular for the use of Pillar 2 for macroprudential purposes. Pillar 2 measures were applied for a number of different objectives, i.e. to set minimum risk weights, to define an LTI limit, to set a part of a systemic risk buffer and to address excessive trading activities. In principle, the focus of Pillar 2 should be to address bank-specific risks based on the SREP results, which should also provide a basis for verifying the conditions set out in Art. 103 CRD. It should be noted that this objective would include use in a forward-looking way, e.g. based on stress tests, for individual institutions and also for the assessment of systemic risk as required in Art. 97 CRD. In addition, Pillar 2 measures for macroprudential purposes were used to require firms to hold additional capital in a uniform manner across the system or groups of banks, which is also consistent with Art. 103(1) CRD.

Given other potential disadvantages of the use of Pillar 2 for macroprudential purposes, e.g. less transparency and difficulties in reciprocating measures, the role of Pillar 2 in the macroprudential toolkit and its position in the hierarchy of tools (for example in comparison with Art. 458 CRR) could be generally reconsidered. Regarding the interaction between macroprudential buffers and Pillar 2, a clear conceptual separation of the microprudential and macroprudential aspects may help avoid complexity, overlap or underlap and costly *ex ante* coordination efforts. However, it should be recognised that the possibility of using Pillar 2 measures for macroprudential purposes

was part of the overall agreement that resulted from the negotiations on the national flexibility provided for in the CRR/CRD IV. Therefore, if the role of Pillar 2 were reconsidered, the impact on the completeness of the overall macroprudential toolbox would also need to be assessed.

### Impact on internal models

All measures affecting IRB risk weights impact the use of IRB models for banks' internal purposes. This impact has to be carefully considered during the implementation of macroprudential tools. What remains unclear is how banks handle these effects and which measures have the strongest effects.

### Impact on stress testing

Underlying assumptions of macroprudential measures and capital requirements derived from stress tests can in certain situations lead to double counting of risks. This can, for example, be the case in system-wide stress tests like the EU-wide stress test but is also relevant for stress tests as part of the SREP. There are different views on how significant the risk of double counting is, but it should clearly be assessed during the design of measures by designated authorities and in the context of stress tests carried out by competent authorities, requiring coordination between the two. Future stress test exercises will need to consider that, depending on the different macroprudential measures in different Member States, banks might not be measured on a comparable basis.

### Governance

The current framework seems to allow authorities significant flexibility regarding the choice and activation of measures, so that in some cases tools are chosen for governance and procedural reasons and not because of their macroprudential objective. This also seems to show the need for further harmonisation.

The issues described above regarding the objectives of macroprudential policies and also the fact that relevant articles in the CRR/CRD address in some cases the competent or designated authority, show the need for significant coordination between designated macroprudential and competent authorities, or units within one authority, for their implementation. Again, this holds in particular for the use of Pillar 2 for macroprudential purposes.

### Transparency

The sheer number of different policies already implemented, the diverse usage of macroprudential tools and the complexity of the framework can lead to reduced transparency and comparability of capital requirements for banks across the EU from the perspective of market participants. In particular, this can be the case for changes to risk weights and Pillar 2 requirements. Given the framework, this could be addressed through better coordination and central communication of all measures taken.

## Reciprocation

Cross-border effects and reciprocity are not dealt with in great detail in many notifications, and voluntary reciprocation was used only occasionally. From the information available in notifications it is not clear why this is the case. Furthermore, more guidance in this area could avoid an uneven playing field or spillover effects. Generally, colleges are seen as a place for discussing reciprocation, but the need for wider forums is also stated. However, work in this area is currently ongoing in the context of an ESRB expert group on cross-border effects of macroprudential policy and costs and benefits of reciprocity.

## Information provided in notifications

Notification requirements and processes are seen as overly burdensome and not clear enough. Communication in many cases relies on informal channels that vary from country to country. More could be done to ensure an efficient and complete information flow on all measures between relevant authorities, including the provision of information to supervisory colleges. Similarly, and in particular given the potential complexity of macroprudential measures and capital requirements, all measures should be made transparent to other market participants.

The information provided in notifications shows significant variation regarding the level of detail and in some cases key information is not given. There are also no common definitions yet for key terms used, e.g. financial stability considerations. In particular, some notifications focus on qualitative information or the preservation of existing capital requirements instead of a quantification of the macroprudential risk to be addressed. Here more guidance could be given in addition to the existing templates. Several notifications mention data constraints. This should be partly alleviated by the increasing availability of supervisory reporting data. However, there might be further data requirements regarding exchange of data across the EU to allow national authorities to make cross-country comparisons.

## Annex: Summary of notifications

Table 6: Notifications and consultations as received by the EBA for measures to address real estate risks

Country	Date	Measure	Article	Description
BE	Apr-14	CRR 458	CRR 458(2)	5% add-on to risk weight for residential mortgages of IRB banks
DK	N/A <sup>21</sup>	Pillar 2	CRD 97(5)	Reciprocation of SE risk weight floor on mortgages of 25% for IRB banks
HR	Nov-13	CRR 124	CRR 124(2)	Stricter criteria for the application of the 35% risk weight to exposures fully and completely secured by mortgages on residential property (e.g. exclusion of holiday homes, property is occupied by a natural person who is the owner or to whom the owner lets for residential purposes, the owner is the owner of not more than two residential properties)
IE	Jul-14	CRR 124	CRR 124(2)	Stricter criteria for the application of the 35% risk weight to exposures fully and completely secured by mortgages on residential property (the property is owner-occupied and the LTV does not exceed 75%)  Increase in the risk weight for CRE from 50% to 100%
MT	Dec-14	CRR 124	CRR 124(2)	Stricter criteria for the application of the 35% risk weight to exposures fully and completely secured by mortgages on residential property – the part of the loan to which the 35% risk weight is assigned shall not exceed 70% of the market value of the property in question
NL	Jan-15	CRR 458	CRR 458(6)	Reciprocation of Belgian add-on to risk weight for mortgages on residential real estate issued through Belgium-located branches of Dutch banks
NO	Nov-13	CRR 164	CRR 164(5)	Increased minimum EAD weighted average LGD for retail exposures secured by residential real estate in Norway from 10% to 20%
NO	Oct-14	CRR 124	CRR 124(2)	Setting of higher risk weights for exposures secured by mortgages on commercial immovable property (100%)
RO	Nov-14	CRR 124	CRR 124(2)	Setting of higher risk weights for exposures secured by mortgages on commercial immovable property (100%)
SE	Nov-14	Pillar 2	CRD 97(5)	Setting of risk weight floor on SE mortgages of 25% for IRB banks
SE	Jan-15	CRR 124	CRR 124(2)	Setting of a higher (100%) risk weight for exposures secured by mortgages on commercial immovable property
SE	N/A <sup>22</sup>	Pillar II	CRD 103(2)	Reciprocation of requirements on how the risk parameters on

<sup>21</sup> Publicly announced December 2014.

Country	Date	Measure	Article	Description
				Norwegian mortgages should be estimated in banks' IRB models
UK	Dec-13	CRR 124	CRR 124(2)	Stricter criteria for eligibility when assigning the 50% risk weight to exposures fully and completely secured by mortgages on commercial immovable property located in the UK depending on annual average loss rates over a representative period  I.e. an institution may treat exposures as fully and completely secured by mortgages on commercial immovable property located in the UK only where annual average losses stemming from lending secured by mortgages on commercial property located in the UK did not exceed 0.5% of risk-weighted exposure amounts over a representative period; an institution shall calculate the loss level referred to in this rule on the basis of the aggregate market data for commercial property lending published by the PRA; a representative period shall be a time horizon of sufficient length and which includes a mix of good and bad years
UK	Oct-14	CRR 124	CRR 124(2)	Stricter criteria for eligibility when assigning the 50% risk weight to exposures fully and completely secured by mortgages on commercial immovable property located in a jurisdiction that is not an EEA country depending on annual average loss rates over a representative period
UK	N/A <sup>23</sup>	Pillar II	CRD 103(2)	Limitation of the quarterly flow of first charge mortgage lending at or above 4.5 times salary to 15% of such lending

Table 7: Notifications as received by the EBA for measures to address systemic risks (excl. real estate) and systemically important institutions

Country	Date	Measure	Article	Description
BE	Jun-14	Pillar 2	CRD 103(2)	Capital surcharge for excessive trading activities, i.e. maximum of the following: if volume of trading activities exceeds 15% of balance sheet, the amount this threshold is exceeded; if capital requirements for market risk (excl. foreign exchange) exceed 10% of the total, the amount this threshold is exceeded
BG	Dec-14	SRB	CRD 133(11)	Setting of 3% SRB applied to domestic exposures at individual, sub-consolidated and consolidated levels
CZ	Sep-14	SRB	CRD 133(11)	Setting of SRB at the level of 1%, 2.5% or 3% depending on a bank's contribution to systemic risk as indicated by their systemic importance for four banks at sub-consolidated level
DK	Jun-14	O-SII buffer	CRD 131(12)	Identification of six O-SII for which an SRB will be set
DK	Oct-14	SRB	CRD 133(11)	Setting of SRB of 1-3% for all exposures at consolidated level depending on the systemic risk of an institution

<sup>22</sup> Publicly announced September 2014.

<sup>23</sup> Notification announced June 2014.

Country	Date	Measure	Article	Description
EE	May-14	SRB	CRD 133(11)	Setting of 2% SRB for all credit institutions for all exposures at consolidated level
FR	Mar-15	CRD 131	CRD 131(12)	Identification of four G-SIIs
HR	Apr-14	SRB	CRD 133(11)	Introduction of SRB of 1.5% or 3% applied to all exposures for all credit institutions depending on complexity to address structural risks from SIIs, concentration in the banking sector, national macro-economic imbalances and the characteristics of the real estate market
IT	Mar-15	CRD 131	CRD 131(12)	Identification of one G-SII
NL	Apr-14	O-SII buffer	CRD 131(7)	Identification of four O-SIIs and definition of buffer of 1% for one and 2% for the three most systemically relevant
NL	Apr-14	SRB	CRD 133(11)	Setting of 3% SRB for the three most systemically relevant O-SIIs at consolidated level
NL	Feb-15	G-SII buffer	CRD 131(12)	Identification of one G-SII
NO	N/A <sup>24</sup>	SRB	CRD 133(11)	Setting of an SRB of 1% from Jul-15 and 2% from Jul-16 for the two largest institutions plus one credit company which is a state instrumental lender to the local government sector in NO
NO	N/A <sup>25</sup>	SRB	CRD 133(11)	Setting of 3% SRB for all banks
SE	Nov-14	Pillar 2	CRD 97(5)	2% own funds requirement under Pillar 2 for the four largest banks to cover systemic risk
SE	Nov-14	SRB	CRD 133(11)	Setting of 3% SRB for the four largest banks for all exposures at consolidated level
UK	Mar-15	G-SII buffer	CRD 131(12)	Identification of four G-SIIs

Table 8: Notifications as received by the EBA for the CCB – not in scope of the report

Country	Date	Measure	Article	Description
CZ	Aug-14	CCB	CRD 160(6)	Early introduction of a CCB without transitional period
DK	N/A <sup>26</sup>	CCB	CRD 160(6)	Early introduction of a CCB capped at 0.5%
DK	N/A <sup>27</sup>	CCB	CRD 160(6)	Recognition of CCB rate in SE and NO
DK	Mar-15	CCB	CRD 130(2)	Exemption of small and medium-sized investment firms
HR	Jul-14	CCB	CRD 160(6)	Early introduction of a CCB without transitional period

<sup>24</sup> Publicly announced May 2014.

<sup>25</sup> Publicly announced March 2013.

<sup>26</sup> Notified to the ESRB January 2015.

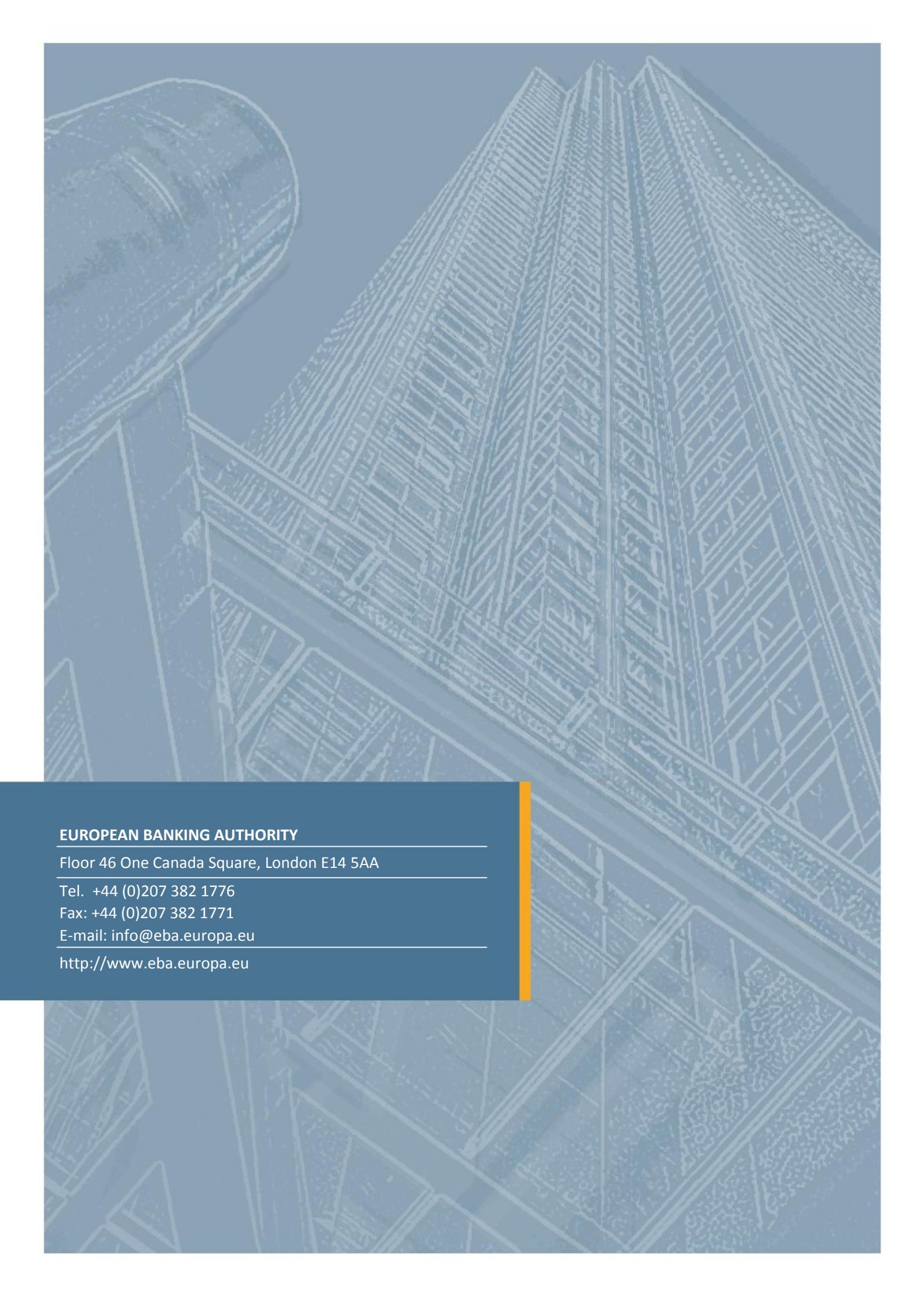
<sup>27</sup> Publicly announced September 2014.

Country	Date	Measure	Article	Description
SE	Nov-14	CCB	CRD 160 (6)	Early introduction of a CCB without transitional period
SE	Nov-14	CCB	CRD 130 (2)	Exemption of small and medium-sized investment firms
SK	Dec-14	CCB	CRD 160 (6)	Early introduction of a CCB without transitional period
UK	N/A <sup>28</sup>	CCB	CRD 160 (6)	Recognition of CCB rate in SE and NO
UK	May-14	CCB	CRD 130 (2)	Exemption of small and medium-sized investment firms

Table 9: CCB rates set above 0% as published by the ESRB – not in scope of the report

Country	Date	Measure	Article	Description
NO	Dec-13	CCB	CRD 136 (7)	Setting of the CCB rate at 1%
SE	Dec-14	CCB	CRD 136 (7)	Setting of the CCB rate at 1%

<sup>28</sup> Notified to the ESRB October 2014.



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