A review of macro-prudential policy in the EU one year after the introduction of the CRD/CRR

June 2015

ESRB
European Systemic Risk Board
European System of Financial Supervision

Contents

Executive summary

Many Member States actively pursued macro-prudential policies in 2014. Around 100 measures were taken in this year, of which about half could be considered substantial. While some Member States were very active (e.g. Denmark, Slovakia, Sweden, United Kingdom), for others no measures were recorded (e.g. France, Germany, Poland, Spain). These contrasts may be related to the different phases of the financial cycle the Member States were in, their distinct views on the role of macro-prudential policy, whether or not a national macro-prudential authority was already in place in the Member State concerned, and whether macro-prudential measures had already been activated before the introduction of the CRD/CRR.

The real test for inaction bias in macro-prudential policy may still be yet to come. Quite a number of the reported measures were aimed at preserving the regulatory situation before the introduction of the CRD/CRR and therefore did not result in any new requirements. Some Member States also used the financial cycle trough to introduce measures that at this juncture are not really binding but which may have a greater impact when the cycle moves from trough to peak again.

Around half of the measures observed are governed by **Union law** (use of capital instruments) while the rest have been adopted as measures based on **national law**. Member States have therefore also made active use of instruments outside the CRD/CRR framework (i.e. non-capital based ones), such as LTV caps.

Almost eight out of ten substantive measures have been used to prevent and mitigate **excessive credit growth and leverage** (especially mortgage lending). Addressing **misaligned incentives** (dealing with the “too big to fail” problem) and **maturity mismatches/market illiquidity** (addressing liquidity concerns resulting from non-domestic currencies) are the distant second and third-place objectives. The measures also trigger a number of issues related to the interpretation of the intermediate objectives of macro-prudential policy as previously defined by the ESRB.

In general, national authorities do not analyse the **potential cross-border effects** of national macro-prudential measures in great detail. There have been a few cases of **compulsory reciprocity** under the CRD/CRR. **Voluntary reciprocity** can be a useful way to address potential cross-border concerns, but up to now this has been rarely used. There have been no cases of the ESRB being asked by a Member State to issue a recommendation inviting other Member States to reciprocate a measure.

Many Member States opted for the **early introduction of the capital conservation buffer.** Quite a few Member States opted for the **early introduction of the counter-cyclical capital buffer**, but only one Member State set a counter-cyclical capital buffer rate at anything other than 0%.

Several Member States introduced the **systemic risk buffer** for a variety of reasons, reflecting the broad set of non-cyclical risks it can address. Buffer rates can be uniform or differentiated according to groups of banks; they can apply to the whole banking sector or to a subset of banks. There were no cases where the buffer rate was set above 3% (which would require the intervention of European bodies in the process). The systemic risk buffer is sometimes used as a substitute for the O-SII buffer because the latter is not yet available and is capped at 2%.

A few Member States have already taken measures related to the **O-SII buffer** (identification of O-SIIs, setting of O-SII buffer rates), although the measure will only be available from 2016 onwards.

A wide variety of measures relate to **mortgage lending developments**. The most frequently used CRD/CRR instrument is risk weights and the most frequently used instrument outside the scope of the CRD/CRR is the LTV cap (often used in combination with affordability requirements). Concerns about **misaligned incentives** are commonly addressed through capital buffers and concerns relating to **maturity mismatches/market illiquidity** through specific liquidity ratios (often for non-domestic currencies) of the LCR- or NSFR-type.

There seem to be different views across Member States as regards the **macro-prudential use of Pillar II**, with some making very active use of it while others see it as an exclusively micro-prudential instrument. The legal sequencing order of instruments as defined in the CRD/CRR (which requires Pillar II to be considered before certain other instruments) does not therefore always coincide with the reality of supervisory practice.

The ESRB has only once been required to adopt an **opinion on a national measure** under Article 458 of the CRR. The procedures put in place to ensure such opinions are delivered within the deadline of one month proved to be effective.

The analysis in this report is based on a **list of measures of macro-prudential interest** that the ESRB Secretariat started maintaining following notifications to the ESRB under the CRD/CRR, with input from the substructures of the ATC.

It remains challenging to **define what exactly a macro-prudential measure is**. The overview of measures maintained by the ESRB Secretariat therefore uses a broad interpretation ("measures of macro-prudential interest").

Notifications of national measures to the ESRB under the CRD/CRR do not always take place, or sometimes only belatedly. Member States are therefore reminded of their legal notification obligations as well as of the ESRB's recommendations on sharing information about national macro-prudential measures at an early stage.

In the **future** the ESRB could perform a periodic review of macro-prudential policy in the EU and combine it with its risk analysis. Additionally it could look into the effectiveness and efficiency of the measures adopted and the way instruments are calibrated, while also investigating ways to further improve the coordination of the reporting of national macro-prudential measures. The periodic review could also provide a useful input to the ongoing revision of the macro-prudential regulatory framework in the CRD/CRR.

Section 1
Introduction

This report gives an overview of the first year of macro-prudential policy in the EU since the CRD/CRR came into force in 2014. The introduction of the EU's new prudential rules gave the macro-prudential authorities in the EU a new set of policy instruments with which to address financial stability risks more effectively. Moreover, the CRD/CRR charged the ESRB with a number of new tasks, such as developing guiding principles for, and issuing opinions on, the use of certain instruments.

The report describes the macro-prudential measures adopted in the EU in this first year (that is, until end 2014) and draws some general conclusions. In doing so, it uses a list of measures of macro-prudential interest established by the ESRB Secretariat with input from the ATC and its substructures.[1] The measures almost exclusively cover the banking sector, which is therefore also the focus of this report. Where relevant, reference is made in the report, in brackets, to the situation in the EEA countries. In practice this only relates to Norway, which has been quite active in the macro-prudential area and also participates in some of the ESRB's work.

The remainder of the report is structured into three main sections. Section 2 gives a general overview of the type of measures adopted in the period under review. It starts by describing how the list of measures was established and what kind of measures it includes. It then draws some general conclusions, such as which Member States have been particularly active in the use of measures and what objectives they aim to achieve, etc. Section 3 reviews in greater detail the specific instruments used by the national authorities. On account of the importance of measures related to the real estate sector, these are grouped together. A concluding section finishes with some forward-looking considerations.

1 See Annex 1 for the complete list of these measures.

Section 2
General overview

2.1 Establishing a central repository of national measures

The ESRB Secretariat has initiated work on establishing a central repository of national measures of macro-prudential interest. In its Flagship Report on Macro-prudential Policy in the Banking Sector, the ESRB stated that it will serve as a central hub for collecting and disseminating information about macro-prudential policy measures in the EU.[2] Based on the notifications to the ESRB and input from the ATC and its substructures, the ESRB Secretariat started compiling a list of national measures taken within the EU/EEA that were of macro-prudential interest. The measures included on the list were either introduced or announced in 2014;[3] the list is therefore in principle not backward-looking (i.e. before 2014) and does not include historical measures. The list is to a large extent based on the notifications required under the CRD/CRR and hence focuses almost exclusively on the banking sector. The list was also published on the ESRB website. The ESRB Secretariat will continue to update the list and publish it on a periodic basis.

At the international level the IMF's Global Macroprudential Policy Instruments (GMPI) database is a useful benchmark. The GMPI database is a web-based application that provides a detailed description of 17 macro-prudential instruments covering 122 countries (including the EU Member States) that can be searched in a user-friendly way on the basis of various search criteria (country, group of countries, instrument, etc.). Reports can be generated quickly and exported to Microsoft Excel. The drawback, however, is that the source of the database is a one-off survey that took place in 2013.

Defining what exactly constitutes a macro-prudential measure remains challenging. As there can be different views on whether a particular measure should qualify as macro-prudential or not, the list established by the ESRB Secretariat refers to the broader concept of national measures that are of macro-prudential interest. While this approach is not ideal, it avoids getting tied up in definitional issues at a stage when we are still undergoing a learning process with regard to macro-prudential policy. Examples of measures for which the qualification as macro-prudential is not straightforward, but which are nevertheless of macro-prudential interest, include the following:

- the introduction of the capital conservation buffer in several Member States;
- exempting small and medium-sized investment firms from maintaining a capital conservation buffer (Article 129.2 of the CRD) and/or an institution-specific counter-cyclical capital buffer (Article 130.2 of the CRD) (DK, IT, SK, SE, UK);
- using Pillar II to address systemic risk concerns (Article 103 of the CRD) (BE, SE, UK);
- introducing an LTV limit by way of supervisory guidelines (NO);

2 Flagship Report on Macro-prudential Policy in the Banking Sector, p. 25, paragraph 56.

3 In the rest of this report, no distinction is made between the measures that are already in place and those that are planned. Some Member States also flagged measures that had been introduced before 2014 but which were still active. These measures are also included in the report, unless mentioned otherwise.

- making the tax deductibility of new mortgage loans dependent on the maximum maturity of the loan (NL);
- the competent authority for reasons of financial stability requiring higher risk weights (or stricter criteria) for exposures secured by mortgages on immovable property for banks using the standardised approach (Article 124 of the CRR) (IE, HR, MT, RO, UK, NO).

While it could be presumed that measures which must be notified to the ESRB as set out in the CRD/CRR are by definition macro-prudential in nature, the two categories do not completely coincide. First, national macro-prudential measures that fall outside the scope of the CRD/CRR do not legally need to be notified to the ESRB. Second, certain measures that come under the CRD/CRR that are at least of macro-prudential interest to the ESRB do not legally need to be notified to the ESRB (particularly in the case of Article 103 of the CRD and Articles 124 and 164 of the CRR). Third, for some measures that do need to be notified to the ESRB it is not obvious whether they are indeed macro-prudential measures (e.g. introducing the capital conservation buffer, exempting small and medium-sized investment firms from the capital conservation buffer and/or counter-cyclical capital buffer).

The process as regards notification to the ESRB required under the CRD/CRR could be further improved. Sometimes authorities do not, or only belatedly, meet their legal notification obligations. For example, under Article 160.6 of the CRD Member States may impose a shorter transitional period for the introduction of the capital conservation buffer and the counter-cyclical capital buffer. While eight Member States officially notified the ESRB in 2014 of their early introduction of the capital conservation buffer as required under the CRD, according to an ESRB survey four more Member States made use of this option without having issued an official notification.

In this respect, it should be noted that sharing information about a national measure at staff level or in the context of an ESRB substructure cannot be considered equivalent to an official notification to the ESRB as required under the CRD/CRR. Official notifications have the benefit of being able to be published on the ESRB website, which fosters transparency. They also help keep the central repository of measures of macro-prudential interest up to date. To some extent the existence of the aforementioned notification issues may be explained by the fact that not all national authorities with macro-prudential responsibilities are represented in the ESRB,[4] as well as by the fact that there is uncertainty or unfamiliarity with all the notification requirements in these early stages of the implementation of the CRD/CRR. Moreover, the time required for the translation into English of the decision on the measure and the supporting material may further contribute to delays.

There is sometimes uncertainty among ESRB members on how notifications to the ESRB need to be done in practice, which may result in delays. It is therefore advisable to agree on a common procedure. Notifications could be addressed to the ESRB Chair (either via surface mail or e-mail, with a preference for the latter as it reduces delays) with a carbon copy sent to the Head of the ESRB Secretariat or the generic ESRB Secretariat e-mail address.[5]

Some ESRB members have suggested that the ESRB Secretariat could play a role in the notification of their national measures to the competent and designated authorities of the

4 Examples include the Ministry of Business and Growth in Denmark and the Ministry of Finance in Norway.

5 esrbadministration@esrb.europa.eu

Member States concerned. Sometimes, as in the case of the introduction of the systemic risk buffer, the CRD/CRR requires national authorities to notify not only the ESRB, the EBA and the European Commission of the measure, but also the competent and designated authorities of the Member States concerned. As it might be challenging to identify all the relevant authorities and their contact details, it has been suggested that the ESRB Secretariat might play a role in this process.

Since Norway has been quite active in taking macro-prudential measures, the question of whether the notification obligations under the CRD/CRR also apply to EEA countries has arisen.[6] Union acts marked by the legislator as relevant for the EEA (such as the CRD/CRR) are applicable to the entire EEA only after the EEA Joint Committee decides to incorporate them into the EEA Agreement. While the incorporation of the CRD/CRR into EEA law is under consideration[7] the EEA Joint Committee has not yet officially adopted and published a decision on this matter. EEA countries are therefore not yet subject to the CRD/CRR notification obligations. However, since Norges Bank and Finanstilsynet (the Norwegian FSA) are observers in the ATC and also participate in the work of some of the ATC substructures, information exchange on such measures already takes place at staff level. In the aforementioned list of measures of macro-prudential interest, the Norwegian measures have therefore been included in a separate section.

The entry into force of the SSM Regulation[8] in November 2014 has had an impact on the notification obligations of the authorities of the Member States that participate in the SSM. Article 5 of the SSM Regulation requires the ECB to be informed in advance through a separate notification of any national macro-prudential measures that fall under the CRD/CRR. The ECB can object to the measures and the national authority concerned should duly consider the ECB's reasons. The ECB can also apply more stringent requirements and a similar notification and coordination procedure applies when the ECB initiates such a measure. Up to now, no more stringent requirements of this kind have been adopted by the ECB but if they occur in the future they should also be included in the ESRB's central repository of measures.

Finally, apart from the notifications required under the CRD/CRR, it should be recalled that the ESRB recommended early information sharing on national macro-prudential measures. The ESRB recommended that the macro-prudential authorities should cooperate and exchange information on a cross-border basis as well, in particular by informing the ESRB of the actions taken to address systemic risks at the national level.[9] Furthermore, the ESRB recommended that macro-prudential authorities should, without prejudice to the relevant provisions of Union legislation, inform the ESRB prior to the application of macro-prudential instruments at the national level if significant cross-border effects on other Member States or the single market are expected.[10]

Various factors may complicate early information sharing. In some Member States a macro-prudential authority is not yet in place[11] and while the aforementioned ESRB Recommendations are

6 In addition to the EU Member States, three members of the European Free Trade Association (EFTA) – Norway, Iceland and Liechtenstein – have ratified the EEA Agreement.

7 EEA Agreement, Annex 11 "Financial Services".

8 Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

9 See Recommendation ESRB/2011/3, Recommendation B, point 4.

10 See Recommendation ESRB/2013/1, Recommendation C, point 3.

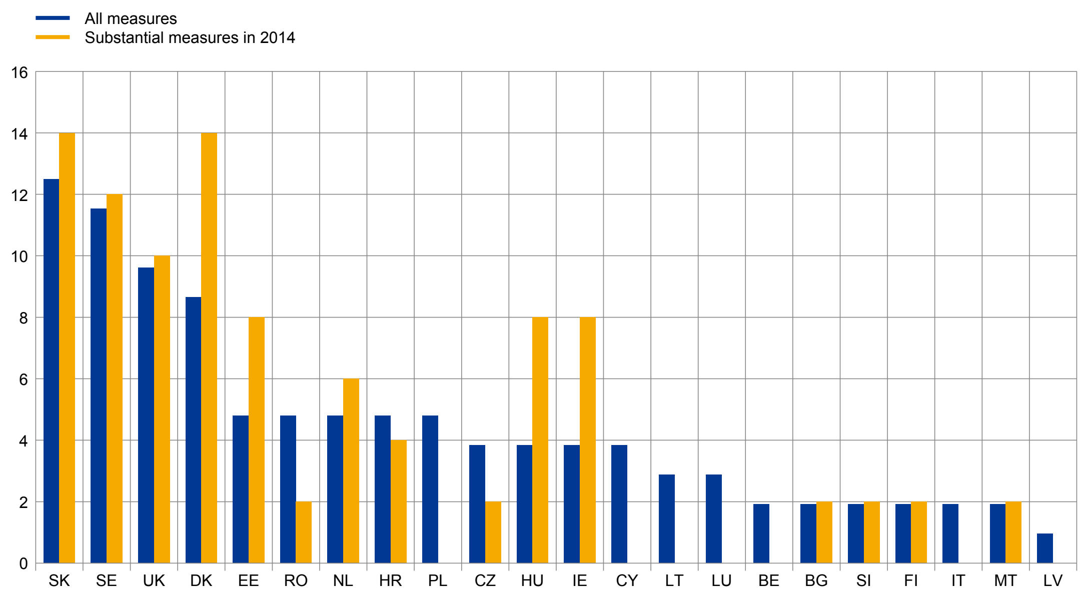
11 Italy, Poland, Romania and Spain do not yet have a macro-prudential authority in place as required under Recommendation ESRB/2011/3.

addressed to macro-prudential authorities, in some cases other authorities may also adopt macro-prudential measures. In addition, not every authority which is able to take macro-prudential measures is represented in the ESRB. Further procedural guidance could clarify when and how such an exchange of information should take place. Since information sharing contributes to improvements in the quality of macro-prudential policy in the EU, Member States should not only provide the compulsory notifications but also consider sending information on all the other macro-prudential measures including those that fall outside the scope of the CRD/CRR.

2.2 General characteristics of the measures

In general, macro-prudential policy has been actively pursued in the EU in the period under review. The list of active and planned measures of macro-prudential interest includes 104 measures in total for the EU (117 measures including Norway).[12] If the measures that are more procedural and administrative in nature are excluded,[13] the total figure drops to 50; this suggests that around half of the measures can be considered to be economically substantial. A distinction in the analysis is therefore made in Chart 1 (and subsequent charts) between all measures and the measures adopted or announced in 2014 that are deemed to be economically substantial.

Chart 1
Relative frequency of use of measures by Member State
(percentages)



Source: ESRB

12 A few national authorities also reported measures that had already been introduced before 1 January 2014 which are included in this total as well.

13 These are measures such as the early introduction of the capital conservation buffer, the early introduction of the counter-cyclical capital buffer, setting the counter-cyclical capital buffer rate at 0% or keeping the rate unchanged, and exempting small and medium-sized investment firms from the capital conservation buffer and/or the counter-cyclical capital buffer. Moreover, measures that were introduced before 2014 (as reported by some national authorities) which are still active were also excluded.

Wide differences exist across Member States in the number and type of measures taken. When counting just the number of measures, and therefore not taking into account their relative importance or impact, the list is topped by Denmark, Slovakia, Sweden and the United Kingdom (and Norway). These four Member States account for about half of the measures whether one looks at all measures or only the economically substantial measures. At the other end of the spectrum, there are Member States for which no measures were reported. This includes Germany, Greece, Spain, France, Austria and Portugal.

These geographical differences may be explained by various factors. These include differences in the economic and credit cycle and in the assessment of residential property prices, differences of opinion concerning the role of macro-prudential policy, and whether or not a macro-prudential authority is already in place in the Member State concerned. Furthermore, some Member States may have already activated macro-prudential instruments before the introduction of the CRD/CRR so there was no need to take any further measures in 2014. Finally, some of the measures put in place may at least initially have also reflected a build-up of resilience by national authorities in some structural way – since the instruments became available. As discussed in greater detail below, some Member States also wanted to ensure that the introduction of the CRD/CRR would not result in a lowering of past (higher) capital requirements, thereby potentially eroding the resilience of their banking sector.

The real test for inaction bias in macro-prudential policy may still be yet to come. The number of measures and the fact that they are almost exclusively of a tightening nature may indicate that inaction bias has not materialised. But this would be a premature conclusion.

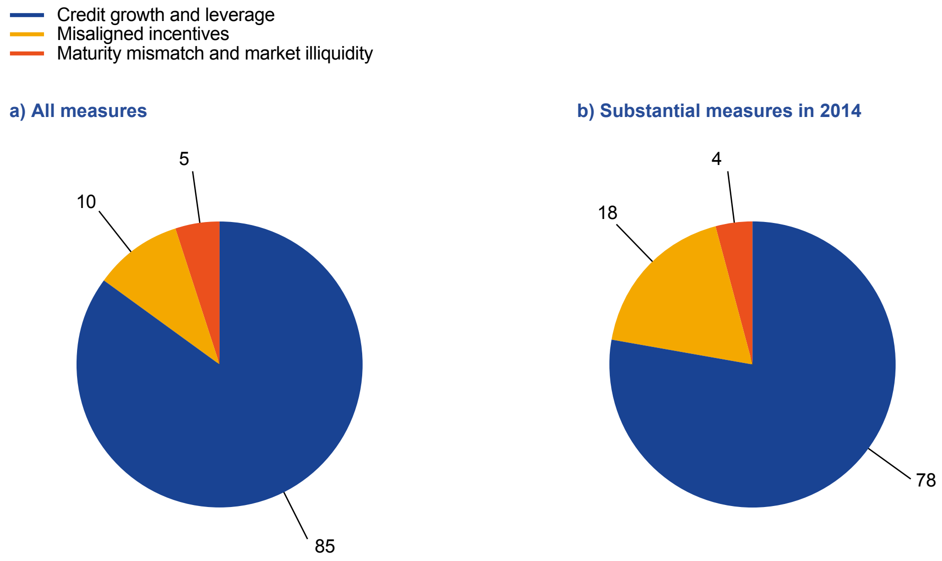
First, several measures were designed to preserve the regulatory situation before the CRD/CRR. Under the minimum harmonisation approach in place before the introduction of the CRD/CRR, several Member States had imposed stricter capital requirements than the minimum required under Union law. Some of the measures taken under the CRD/CRR, such as the early introduction of the capital conservation buffer and the use of the systemic risk buffer, were designed to keep these stricter requirements in place (e.g. in BG, CZ, EE and HR). Second, some Member States used the downward phase of the credit cycle to introduce measures that at this juncture are not really binding but which may have a greater impact when the cycle moves from trough to peak again (e.g. the LTV cap in SK and the LTI cap in IE). There were, however, a few (planned) measures that are already "biting" (e.g. the LTV cap in IE), which has led to some pushback from the industry.

Slightly more than half of the measures are governed by Union law (i.e. the use of capital instruments) while the rest have been adopted as measures under national law. Many measures in the last category relate to mortgage lending and cover the use of instruments such as LTV, LTI/DTI, DSTI and maturity limits as discussed in greater detail below.

An individual measure is often part of a wider package of measures. While measures can be taken in isolation (e.g. the early introduction of the capital conservation buffer or the setting of a counter-cyclical capital buffer rate), more often they are part of a wider package of measures designed to address various aspects of the problem that the national authority wants to focus on (e.g. developments in the real estate sector, systemically important institutions). Thus, the use of an LTV cap can for example be combined with an LTI cap and a stress test or sensitivity test.

Mitigation and prevention of excessive credit growth and leverage is the single most important intermediate objective of macro-prudential policy and one that the large majority of the measures aim to address.[14] Chart 2 below shows that almost 9 out of 10 of the measures identified in the EU relate primarily to excessive credit growth and leverage[15]. Not surprisingly, this figures drops to 8 out of 10 when measures such as the early introduction of the counter-cyclical capital buffer/capital conservation buffer, the setting of the counter-cyclical capital rate at 0% or keeping the rate unchanged, etc. are excluded. Addressing misaligned incentives, basically addressing the "too big to fail" problem, is the second-place objective. The primary objective of mitigating and preventing excessive maturity mismatch and market illiquidity is, according to the reported measures, considered even less important. Finally, two intermediate objectives are almost completely absent: limiting exposure concentration[16] and strengthening the resilience of financial infrastructures.

Chart 2
Relative frequency of use of measures pertaining to various intermediary objectives
(percentages)



Source: ESRB

The initial experience of using these measures raises a number of issues regarding the interpretation of intermediate objectives of macro-prudential policy as defined by the Recommendation ESRB/2013/1.

Almost all the measures relating to credit growth and leverage under the period of review were aimed at addressing excessive credit growth and leverage. This may be a result of the specific

14 Recommendation ESRB/2013/1 defines five intermediate objectives of macro-prudential policy: (i) to mitigate and prevent excessive credit growth and leverage, (ii) to mitigate and prevent excessive maturity mismatch and market illiquidity, (iii) to limit direct and indirect exposure concentration, (iv) to limit the systemic impact of misaligned incentives with a view to reducing moral hazard, and (v) to strengthen the resilience of financial infrastructures.

15 It is possible that a measure has several intermediary objectives (e.g. addressing credit growth and leverage, as well as exposure concentration or misaligned incentives). In that case the measure was allocated to what is considered to be the primary intermediary objective.

16 Limiting exposure concentration may have been a secondary intermediate objective for some of the measures that aim to address credit growth and leverage in relation to developments in the real estate sector.

economic situation to date, as loosening measures (e.g. releasing capital buffers) often require the relaxation of previously tightened measures. Such tightening may not yet have taken place because the CRD/CRR was introduced only recently (e.g. no counter-cyclical capital buffers have been built up yet) and because of the recent financial crisis. There is, though, one exception. A measure introduced by Slovenia aims to slow down the decline in the LTD ratio by introducing a minimum requirement for banks regarding their changes in loans to the non-banking sector in relation to changes in deposits collected from the non-banking sector, while also giving banks the alternative of increasing their liquidity buffers.

This case raises the broader issue of precisely which situations the first intermediate objective of Recommendation ESRB/2013/1 aims to address. The wording of the intermediate objective ("mitigate and prevent excessive credit growth and leverage") suggests a focus on only the peak of the financial cycle rather than the peak and trough. However, the Annex to the Recommendation mentions that buffers created in the upturn could be released in the downturn thereby alleviating the need for deleveraging and preventing bank runs, while supporting the extension of credit to sustain economic growth. At the same time it should be emphasised that the ultimate objective of macro-prudential policy is financial stability and not stimulating credit and economic growth per se. Rather, it is through pursuing this ultimate objective that the financial system can make a sustainable contribution to economic growth.[17] Furthermore, in addition to its time-varying dimension (pro-cyclicality), credit growth and leverage can also have a structural dimension. The formulation of the first intermediate objective could therefore be further sharpened to better highlight these considerations.

Increasing the resilience of financial infrastructures vs increasing the resilience of financial intermediaries. The intermediate objectives of the Recommendation include increasing the resilience of financial infrastructures[18] but not the resilience of financial intermediaries. It may be argued that increasing the resilience of financial intermediaries is part of the overall objective of macro-prudential policy and therefore does not require a separate intermediate objective, while the intermediate objectives refer to the operational modalities to achieve this. However this argument seems to equate stability of the financial system as a whole with the resilience of financial intermediaries. Moreover, it is not straightforward to allocate measures such as the systemic risk buffer and the early introduction of the capital conservation buffer, which constitute direct attempts to strengthen the resilience of the banking sector,[19] to any of the five intermediate objectives.

It should also be noted that in the indicative list of macro-prudential instruments mentioned in Recommendation ESRB/2013/1, the structural systemic risk buffer is listed under the intermediate objective of strengthening the resilience of financial infrastructures. This is somewhat strange since under the CRD/CRR the systemic risk buffer targets banks and not financial infrastructures.

The above points illustrate that the framework of intermediate objectives is still in the early stages of implementation and may be subject to further development. The formulation of the existing intermediate objectives may be revised and/or new ones could be added as the financial system and its components continue to evolve and instruments for the non-banking sector become more important. Furthermore, macro-prudential measures taken by national authorities may not always be easily allocated

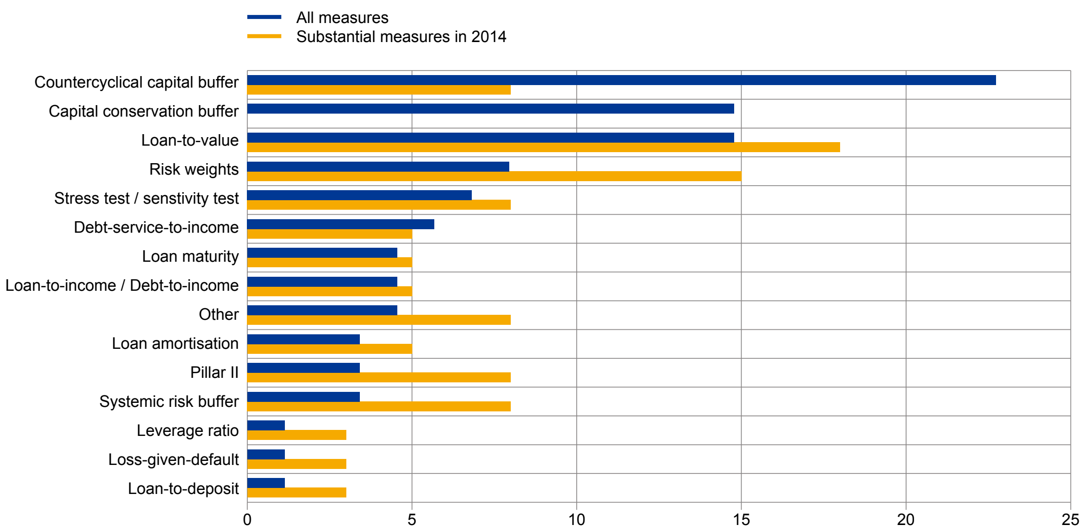
17 On this see in particular Recommendation ESRB/2013/1, Article A.1 as well as the ESRB Regulation, Article 3.1 and Recital 10.
18 This normally includes CCPs and payment systems, etc. and not financial intermediaries.
19 LTV and LTI caps are sometimes used primarily for resilience reasons as well (e.g. in Estonia and Ireland).

to one of the five intermediate objectives. This may be because macro-prudential authorities might not (yet) be using the intermediate objectives as a communication device or because the five intermediate objectives do not comprehensively cover all relevant cases.

For instance, in a number of cases measures such as the introduction of the systemic risk buffer are implemented by national authorities with the aim of strengthening the resilience of the banking sector but without specific reference to any of the five intermediate objectives. For the purposes of the list of measures and this report such measures have therefore been allocated to the intermediate objective of addressing excessive credit growth and leverage on the basis of the reasoning that by increasing the solvency and resilience of the banking sector they address leverage in the financial system.

A wide variety of measures has been used in addressing the intermediate objective of preventing and mitigating excessive credit growth and leverage (Chart 3). Looking at the measures used the counter-cyclical buffer and the capital conservation buffer clearly dominate. However, looking at the substantial measures in 2014, the chart also shows that this conclusion is somewhat biased, first, on account of the interpretation that the objective of the capital conservation buffer is to address excessive credit growth and leverage (see previous paragraph) and second, once the counter-cyclical capital buffer has been introduced, the national authority sets the buffer rate on a quarterly basis. Even if the buffer rate is set at 0% or kept at the same level, each decision on the buffer rate is considered to be a separate

Chart 3
Relative frequency of use of various types of measures for addressing credit growth and leverage
(percentages)



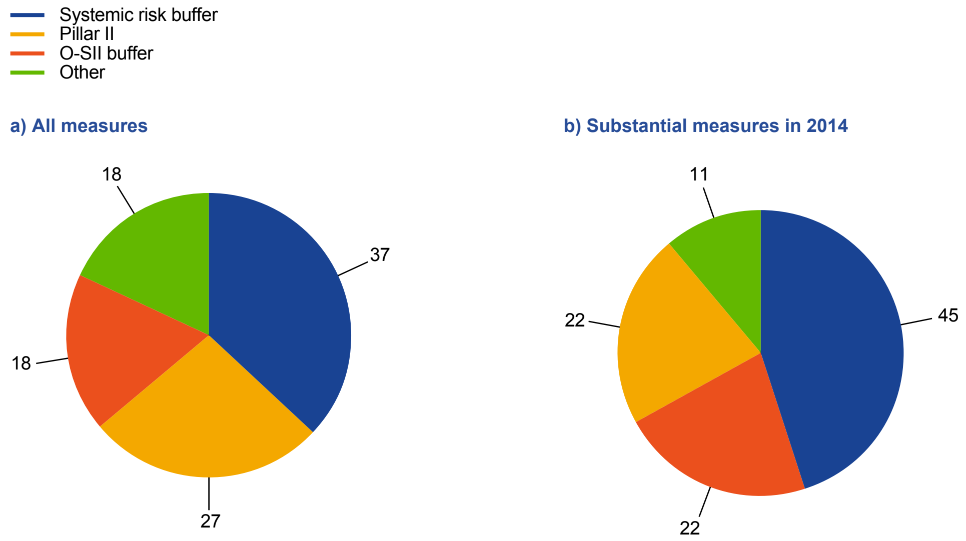
Source: ESRB

measure.

Most measures that are aimed at addressing excessive credit growth and leverage specifically target residential mortgage lending. Some of the measures used (such as risk weights) fall within the scope of the CRD/CRR; others are subject to national discretion (e.g. LTV and DSTI ratios, stress tests and sensitivity tests). In a few cases (HU, SK) the measures target the broader category of retail lending rather than just residential mortgage lending.

Various forms of capital buffers are the most common measures used to limit the systemic impact of misaligned incentives with a view to reducing moral hazard (Chart 4). Such capital buffers can take the form of a systemic risk buffer, a Pillar II capital add-on or an O-SII buffer. Slovakia provides an example of a non-capital measure being used; banks have been encouraged to maintain a

Chart 4
Relative frequency of use of various types of measures for addressing misaligned incentices
(percentages)



Source: ESRB

prudent approach to lending through mortgage brokers, which have an incentive to generate high loan volumes but care less about the credit quality of these loans.

In order to mitigate and prevent excessive maturity mismatch and market illiquidity typically an LCR or NSFR-type liquidity ratio is used. In two cases at hand (HU, SE) a liquidity ratio has also been used to address liquidity concerns resulting from non-domestic currencies.

In general national authorities conduct only limited analyses of the possible cross-border effects of national macro-prudential measures in sufficient detail. In their notifications to the ESRB, the analysis of the cross-border consequences of measures is not usually developed in great detail. Often it is limited to the observation that since the measure will benefit the stability of the national financial system it will, indirectly, also contribute to the stability of the financial systems of other Member States. Sometimes it is argued that financial stability is ultimately a national concern because of the national mandate of authorities and the possible involvement of national taxpayers in the case of financial instability. The limited analysis may further be explained by the relative lack of practical experience to date or an expectation that such effects will be minimal (for example because of the nature of the measure or the existing low levels of cross-border activity), as well as by the fact that the effects are difficult to quantify. In order to provide a better framework for assessing potential cross-border effects, the ESRB has recently initiated work on the cross-border effects of macro-prudential policy and the costs and benefits of reciprocity.

Reciprocity is a useful but still not often used technique to address the risk of potential cross-border leakage of national measures. Reciprocity means that a Member State applies the same (or sometimes equivalent) macro-prudential measure set by another Member State to its own institutions. Under the CRD/CRR there are a very limited number of cases of mandatory reciprocity.[20] However, this does not prevent Member States from reciprocating measures by other Member States, or even measures outside the scope of the CRD/CRR, on a voluntary basis. Moreover, for certain measures the CRD/CRR stipulates that the Member State concerned can ask the ESRB to issue a recommendation inviting other Member States to reciprocate the measure. There have been a few instances of voluntary reciprocation,[21] in particular in the Nordic countries. There have been no cases in which a Member State has asked the ESRB to issue a recommendation to reciprocate a measure.

In reviewing the national measures, a number of interpretation issues were identified related to reciprocity. For example, how can a Member State reciprocate a measure if this measure is not available in its national law (e.g. some Member States have not introduced the systemic risk buffer)? What are the implications for reciprocation when the scope of application of a measure differs across Member States (for instance whether it is applied on a solo or consolidated basis)? Reciprocity is one of the topics currently being investigated in greater detail by the ESRB.

20 Some examples are mentioned subsequently in this report.

21 Some are discussed in greater detail in this report under the review of the individual instruments.

Section 3
Review of the individual instruments

3.1 The counter-cyclical capital buffer

A number of Member States have opted for the early introduction of the counter-cyclical capital buffer. These include the Czech Republic, Denmark[22], Croatia, Slovakia, Sweden and the United Kingdom (and Norway). With the exception of Sweden, all these Member States set the buffer rate at 0% (see Annex 2). The Swedish buffer rate was initially set at 1% and was kept at this level in the subsequent quarterly reviews (the buffer rate for Norway was also set and kept at 1%).

The counter-cyclical capital buffer is one of the areas where up till now limited, voluntary reciprocity has been observed. In the EU the mandatory reciprocity regime becomes effective from 1 January 2016 (Article 162.2 of the CRD).[23] If a Member State uses a shorter transitional period and decides to activate the buffer prior to 2016, the buffer rates for the exposures located in these Member States will thus not necessarily apply to the exposures of institutions authorised in other Member States. In its Handbook on macro-prudential policy, the ESRB therefore argued that national authorities should consider recognising the buffer rates set by countries that had chosen to implement it early, also beyond the 2.5% threshold rate, in order to reduce the risk of regulatory arbitrage and leakage.[24] Up to now Denmark, Slovakia, Finland[25] and the United Kingdom have voluntarily reciprocated the buffer rates of 1% for Sweden and Norway[26].

3.2 Measures related to the real estate sector

Many Member States took measures to address concerns about developments in the real estate sector. A number of sector-specific measures were taken in the course of 2014 and they all relate to the real estate sector. The vast majority of the measures target the residential real estate sector (mortgage lending), but there are also a few initiatives related to the commercial real estate sector[27].

About half of the real estate measures fall under the CRD/CRR and the rest under national law (Table 1). The CRD/CRR measures all relate to increases in risk weights, although technically this can be achieved in different ways (for instance as a Pillar II measure, by raising minimum LGDs or as a national flexibility measure). The most frequently used measure that falls outside the scope of the CRD/

22 With a buffer rate of up to 0.5%.

23 The automatic mutual recognition only applies within the limits set in Article 160.2 to 160.4 of the CRD for the period 1 January 2016 - 31 December 2018. See the Single Rulebook Implementation Q&As published on the EBA's website (http://www.eba.europa.eu/single-rule-book-qa).

24 ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector, p. 46 and Recommendation ESRB/2014/1, Recommendation A, principle 6.

25 The reciprocation by Finland is rooted in Finnish law.

26 Denmark and Slovakia decided to recognise the rate of all other Member States that opted for a shorter phasing-in period for the counter-cyclical capital buffer.

27 In addition, the counter-cyclical capital buffer has been used to deal with spill-over effects from the real estate sector to the broader economy (e.g. SE, NO)

CRR is the LTV limit. The variety of measures adopted may point to an experimentation process that is still ongoing in the early stages of the development of a macro-prudential policy framework. While sometimes national authorities justify the measures taken with cyclical explanations, the reasons may also be of a structural nature (for example the introduction of LTV limits in some Member States).

Table 1
Measures related to the real estate sector

	Under CRD/CRR
Risk weights	BE, IE[15], LU[13], MT[9], RO[17], SE, UK, (NO)
LGDs (indirectly risk weights)	(NO)
	Outside CRD/CRR
LTV	DK[7], EE, IE, CY[8], LV[2], LT[4], LU[13], HU[1], MT[9], NL, PL, RO[5], SK, FI[7], SE[3], (NO)
LTI/DTI	IE, PL[10], UK
DSTI[1]/PTI[1]	EE, CY[11], LT[4], HU, PL[14],
Stress test / sensitivity test	IE[16], CY[11], LU[6], SK, UK
Loan maturity	EE, LT[4], NL, SK[1]
Loan amortisation	DK[7], NL, SK[1], SE[12]

Source: ESRB
1) For more than just the real estate sector
2) In place since July 2007
3) In place since October 2010
4) In place since September 2011
5) The current version is in place since October 2011
6) In place since July 2013
7) Planned or not yet active measure (as of May 2015)
8) In place since November 2003
9) Combination of preferential risk weight and LTV. In place since 2008
10) In place since July 2013
11) In place since December 2013
12) Proposal on hold pending further legal clarification
13) Combination of preferential risk weight and LTV. In place since July 2013
14) In place since end 2010 and amended several times since then
15) Combination of preferential risk weight and LTV. In place since January 2007
16) In place since January 2012
17) In place since 2007.

It should also be noted that the ESRB Handbook on macro-prudential policy has a dedicated chapter on real estate instruments. Moreover, in the course of 2014 the ESRB initiated work to look into macro-prudential policy issues related to the real estate sector in more detail.

3.2.1 Risk weights and loss-given-default parameters

Sometimes higher risk weights or stricter criteria have been set than those set out in the CRR for banks that use the standardised approach for credit risk. This measure can be used for exposures secured by mortgages on commercial immovable property (IE, RO, UK, NO) and by residential immovable property (IE, HR, MT) under Article 124 of the CRR.[28] Some Member States had a 100% risk weight in place for commercial real estate prior to the entry into force of the CRD/CRR

28 It should be noted that under Article 124.5 of the CRR this measure is subject to compulsory reciprocation. In early 2015 Malta (residential immovable property) and Sweden (commercial immovable property) also launched a consultation with the EBA to make use of this Article.

and used Article 124 of the CRR to prevent a drop in the risk weight from 100% to 50% under the new capital rules. Ireland, Luxembourg and Malta imposed as one of the requirements for a preferential risk weight for mortgage lending that the LTV should not exceed a certain level (generally between 70%-80%); in most cases, this was again a continuation of previous policies in place before the introduction of the CRD/CRR.

For banks using the IRB approach, higher risk weights have been introduced by using Pillar II, raising the LGD floor, and by using national flexibility measures. Sweden introduced a risk weight floor of 15%, later raised to 25%, for Swedish mortgage loans (reciprocated by Denmark). Norway increased the minimum EAD-weighted average LGDs for Norwegian retail exposures secured by residential real estate from 10% to 20%, a measure that would be subject to compulsory reciprocation (Article 164.7 of the CRR)[29]. Belgium used the national flexibility package (Article 458 of the CRR) to introduce a 5 percentage point add-on to the risk weights for Belgian residential mortgage loans (reciprocated by the Netherlands).

The use of the national flexibility package by Belgium was the only case where the ESRB was formally required to provide an opinion on a national measure. With its decision ESRB/2014/4 of 27 January 2014 the ESRB had put in place the necessary procedures to deliver such opinions within a deadline of one month as required under the CRR. In this case these procedures proved to be effective.

3.2.2 The loan-to-value limit

LTV caps are the most popular instrument outside the scope of the CRD/CRR used to address concerns in the real estate sector. Although LTV caps are commonly used for housing loans, in principle they can also be applied to other types of object financing (HU, RO), e.g. car loans.

Typical LTV limits for housing loans seem to range from around 75% to 85% (see Table 2). This figure can also be linked to covered bond legislation, the preferential treatment of risk weights and international practices. However, substantially higher caps are equally possible; in Slovakia, for example, new loans cannot have an LTV of more than 100%, a limit which the Netherlands wants to achieve in a stepwise fashion by 2018.

Variants of the traditional LTV cap are possible. Sometimes LTVs are differentiated according to the perceived risk of the loans, with higher risk loans subject to lower LTV limits. Elements that can be taken into account in assessing riskiness are, for example, the currency denomination of the loan (HU, RO), whether or not the loan benefits from a credit guarantee / collateral (EE, LV, PL) or the use of the dwelling (own occupation vs "buy-to-let"; IE). In order not to exclude households from acquiring their own home, sometimes first-time buyers benefit from a somewhat higher LTV limit (IE, FI). Another variant is the so-called "proportionate LTV", under which the share of loans that exceed the LTV limit in the total of new loans cannot be higher than a certain percentage (EE, IE, SK). This approach allows mortgage lenders to hold a limited share of higher risk, but still creditworthy, loans.

29 See, however, the discussion above on the specific situation of EEA countries.

Table 2
LTV limits for residential mortgage lending

Member State	LTV limit
Denmark [5)]	95%
Estonia	85%; 90% in the case of a KredEx guarantee
Ireland	80%; for first-time buyers a sliding LTV limit starting at 90% based on property value; 70% for "buy-to-let" housing; 75% for preferential risk weighting [9)]
Cyprus [6)]	70%; 80% in case the credit facility is granted for financing the primary permanent residence of the borrower
Latvia [1)]	90%; 95% for loans covered by a state guarantee under the Law on Assistance in Resolution of Dwelling Issues (since July 2014)
Lithuania [3)]	85%
Luxembourg [8)]	80%
Hungary	Between 35% and 80% (depending on the currency denomination of the loan)
Malta [7)]	70%
Netherlands	From 106% (2012) to 100% (2018)
Romania [4)]	Between 60% and 85% (depending on the currency denomination of the loan)
Poland	95% (with a further tightening over time, until 80% in 2017)
Slovakia	100%
Finland [5)]	90%; 95% for first-time-buyers
Sweden [2)]	85%
Norway	85%

Source: ESRB
1) In place since July 2007
2) In place since October 2010
3) In place since September 2011
4) The current version is in place since October 2011
5) Planned or not yet active measure (as of May 2015)
6) In place since November 2003
7) In combination with risk weight and in place since 2008
8) In combination with risk weight and in place since July 2013
9) For banks under the standardised approach. In place since January 2007.

LTV caps are often used in combination with affordability measures, such as LTI/DTI caps, DSTI caps, stress test/sensitivity tests and loan maturity/amortisation requirements (EE, CY, IE, HU, NL, PL, RO, SK, SE). Since LTV caps focus on the collateral underlying the mortgage loan and the affordability measures on the repayment capacity of the debtor, they can be considered to be complementary measures meaning that there is merit in having both types of instruments in place at the same time.[30]

3.2.3 The loan-to-income / debt-to-income limit

LTI/DTI limits have been used, or are planned, also for housing loans, but much less so than LTV caps. The LTI limits used ranged from 3.5 (IE) to 4.5 (UK).

Just as in the case of the LTV, the LTI limit can also be applied on a proportionate basis, i.e. a limit on the share of new housing loans that exceed an LTI threshold. In fact, the two cases of the (planned) use of LTI caps over the past year concerned proportionate LTI caps (IE, UK). In the case

30 See also ESRB Handbook on Operationalising Macro-prudential policy in the Banking Sector, p. 49.

of the UK, a de minimis exception was applied to lenders with a limited mortgage portfolio so as not to disproportionately burden the smaller mortgage lenders.

3.2.4 The debt service-to-income limit

DSTI limits, sometimes called PTI limits, have been used as well but they typically cover all types of credit operations (EE, CY, LT, HU, PL, RO). In the case of Hungary and Romania, and just as is the case for the LTV caps, limits can be differentiated according to the currency denomination of the loan. In Cyprus and Hungary DSTI limits were further differentiated according to the income of the borrower in order to reflect the fact that higher-income borrowers typically have a higher repayment capacity and can therefore meet a higher DSTI. In Hungary DSTI limits can range from 10% to 60%, depending on the currency of the loan and the income of the borrower.

3.2.5 Stress test / sensitivity test

Stress tests and sensitivity tests take the form of an affordability test, i.e. (mortgage) lenders are required to assess whether borrowers would still be able to afford to service their debt in an adverse scenario (IE, CY, PT, RO, SK, UK).[31] The scenario can be generic (i.e. a general requirement to perform an affordability test) or quite specific. Such scenarios typically include a test for interest rate risk and income risk (e.g. the borrower becoming unemployed) and where relevant also foreign currency risk (for loans denominated in foreign currencies).

3.2.6 Loan maturity and loan amortisation requirements

Outright limits or disincentives are sometimes used to limit loan maturity and prevent "interest-only" loans being issued. An outright limit can be imposed on the original maturity of new mortgage loans or consumer loans (EE, LT, RO, SK) and such new loans can also be required to be amortising (DK, SE). Alternatively, disincentives can be introduced for very long-dated mortgage loans, for example by making tax deductibility conditional on a maximum original maturity and an amortisation requirement (NL). Denmark and Sweden are considering combining LTV limits with an amortisation requirement (i.e. a – higher – amortisation requirement for higher LTV loans).

Typically, the maturity limit used for mortgage loans is 30 years. Romania and Slovakia present cases where a maturity limit is imposed on non-mortgage loans to retail customers as well (RO: 5 years for consumer loans; SK: initially 9 years, ultimately to be reduced to 8 years).

31 Besides this, stress tests are also applied in the context of regulatory capital requirements.

3.3 The systemic risk buffer

Several Member States have introduced the systemic risk buffer (BG, CZ, DK, EE, HR, NL, SE) and typically the buffer is calculated on the basis of all exposures, i.e. domestic exposures combined with exposures to other Member States and third countries. In one case it is applied on domestic exposures only (BG).[32] In most cases the systemic risk buffer is calculated on a solo, sub-consolidated and consolidated basis, but in some cases it was decided that the buffer would only be calculated on a (sub-)consolidated basis (CZ, NL, SE).

Table 3
Main features of the systemic risk buffer

Member State	Level	Calculation basis	Main motivation
Bulgaria	3%	• All banks • Domestic exposures • Solo and (sub-)consolidated	• Presence of currency board and impact for monetary and fiscal policy • Weak economic environment
Czech Republic	Three rates: 1%, 2.5% and 3%	• Four banks identified as O-SIIs[1)] • All exposures • (Sub-)consolidated	• Systemic risk resulting from O-SIIs
Denmark	Five rates: 1%, 1.5%, 2%, 2.5% and 3%	• Six banks identified as O-SIIs[2)] • All exposures • Solo and (sub-)consolidated	• Systemic risk resulting from O-SIIs
Estonia	2%	• All banks • All exposures • Solo and (sub-)consolidated	• Small and open economy • Ongoing convergence process • High concentration in banking sector and common exposures to same economic sectors
Croatia	Two rates: 1.5% and 3%	• All banks • All exposures • Solo and (sub-)consolidated	• Systemic risk resulting from O-SIIs • Macro-economic imbalances • Features of real estate markets and role of real estate as collateral • High concentration in the banking sector
Netherlands	3%	• Three largest banks[3)] • All exposures • Consolidated	• Systemic risk resulting from systemically important institutions
Sweden	3%	• Four largest banks[4)] • All exposures • Consolidated	• Systemic risk resulting from systemically important institutions • Features of the banking sector: similarity of business models, high common exposures, high interconnectedness, high concentration
Norway	3%	• All banks • All exposures • Solo and (sub-)consolidated	• Exposure concentration

Source: ESRB
1) Česká spořitelna, Československá obchodní banka (ČSOB), Komerční banka, Unicredit Bank Czech Republic and Slovakia.
2) Danske Bank, DLR Kredit, Jyske Bank, Nordea Bank Danmark, Nykredit Realkredit, Sydbank.
3) ABN Amro Bank, ING Bank, Rabobank.
4) Handelsbanken, Nordea, SEB, Swedbank.

In most cases the buffer rate was set at a uniform level and in no cases was it higher than 3% (the threshold which requires the intervention of European bodies in the process). The buffer requirement can be applied to all banks (BG, EE, HR) or a subset, i.e. those banks that carry higher

32 A systemic risk buffer calculated on the basis of domestic exposures can be cumulated with a G-SII or O-SII buffer (rather than taking the maximum of the rates).

systemic risk (CZ, DK, NL, SE). In the former case, the reason for introducing the buffer relates more to system-wide concerns, such as the features of the domestic economy or banking sector; in the latter case it is more motivated by systemic risk concerns posed by particular institutions. Some authorities decided to apply a uniform buffer rate for the entire banking sector (BG, EE) or a sub-group of banks (NL, SE). Other authorities grouped the banks subject to the systemic risk buffer (which can again be the whole banking sector of a sub-group of banks) into different buckets with a different buffer rate for each bucket (CZ, DK, HR). In some cases, these buckets consist of only one or two institutions (CZ, DK). The number of different buckets and rates in the same Member State can be as high as five (DK).

When the systemic risk buffer is applied to a small subset of banks, there is the issue of its delineation with the O-SII buffer. In fact, in such cases the systemic risk buffer may serve as a substitute for the future O-SII buffer. The O-SII buffer will be applicable from 2016 onwards and is also subject to a 2% buffer cap (there is no such cap for the systemic risk buffer). While formally this may be in line with the CRD/CRR rules, from a conceptual point of view it is not ideal as the O-SII buffer is the dedicated instrument to address systemic risks resulting from O-SIIs. In this context it should be noted that in its response to the call for advice from the European Commission on macro-prudential rules under the new capital requirements, the ESRB has already raised these conceptual issues and recommended a number of amendments to the systemic risk buffer and the O-SII buffer regimes.[33]

The reasons given for introducing the systemic risk buffer are quite diverse, reflecting the broad set of non-cyclical risks it can potentially capture:

- features of the domestic economy (e.g. large macro-economic imbalances, volatility and vulnerability to external shocks, presence of currency board) and the real estate sector (e.g. low turnover and liquidity, falling prices, role of real estate as bank collateral) (BG, EE, HR);
- features of the domestic banking sector (e.g. size, concentration, similarity of banks' business models, high common exposures, high interconnectedness of banks) (EE, HR, NL, SE);
- the presence of systemically important institutions (CZ, DK, HR, NL, SE).

This wide diversity is also reflected in the very different analyses of national authorities that have underpinned the introduction of the systemic risk buffer.

3.4 The buffer for other systemically important institutions (O-SII buffer)

The O-SII buffer will be available from 2016 onwards but a few Member States have already taken measures in this area. Denmark identified five sub-categories of O-SIIs and six individual O-SIIs.[34] Based on their systemic importance the O-SIIs are allocated to one of the five sub-categories. Both the list of O-SIIs and their allocation to the sub-categories will be reviewed each year. The systemic importance of the institutions is calculated as the average of three indicators (total assets as a

33 ESRB response to the call for advice by the European Commission on macro-prudential rules in the CRD/CRR, 30 April 2014. The document is available on the ESRB website.

34 Danske Bank, Nykredit Realkredit, Nordea Bank Danmark, Jyske Bank, Sydbank and DLR Kredit.

percentage of GDP, banking sector loans as a percentage of total lending, banking sector deposits as a percentage of total deposits).

The Netherlands identified four O-SIIs based on quantitative and qualitative indicators (size, substitutability, interconnectedness and resolvability) and decided to impose a 2% O-SII buffer on the three most systemically important banks (ING Bank, ABN AMRO Bank and Rabobank) and a 1% O-SII buffer on SNS Bank on a consolidated basis to be phased in between January 2016 and January 2019. Since the Netherlands also introduced a systemic risk buffer at the consolidated level, which is calculated on the basis of domestic and cross-border exposures, the higher of the two buffer rates will apply.

Norway decided to impose a 1% O-SII buffer on its two largest banks (DNB and Nordea Bank Norge) and the credit company Kommunalbanken from 1 July 2015 onwards. The buffer will be raised to 2% from 1 July 2016 onwards.

In practice the systemic risk buffer has sometimes been used as a substitute for the O-SII buffer because of its greater flexibility and the absence of a cap, as mentioned earlier. Using the systemic risk buffer for this purpose seems to be at odds with the intended use of the different types of capital buffers.

3.5 Pillar II requirements

There are different views and practices among Member States as to the use of Pillar II for macro-prudential purposes. It should be recalled that the macro-prudential use of Pillar II is provided for under Article 103 of the CRD. Moreover, the CRD/CRR defines a sequencing order of instruments under which certain macro-prudential measures can only be used after it has been deemed that none of the other measures in the CRD/CRR (including Pillar II measures) are sufficient to address the macro-prudential risk concerned. But while some Member States have actively used Pillar II for macro-prudential purposes (e.g. SE, SI, UK), others seem to see Pillar II as an exclusively micro-prudential instrument (for instance some of the Member States that have used the systemic risk buffer).[35] Reasons for the reluctance of using Pillar II for macro-prudential purposes could be uncertainty regarding the extent to which micro-prudential supervisors are bound by macro-prudential decisions, the need to reach an agreement in the supervisory college, the rather lengthy SREP (based on an annual cycle) and a general lack of transparency on Pillar II decisions.[36]

Authorities that have used Pillar II for macro-prudential purposes have done this in a pragmatic way. For example, Sweden imposed a systemic risk buffer of 3% on its four largest banking groups and at the same time used Pillar II to subject them to an additional capital add-on of 2%. A comparable result could have been achieved by a systemic risk buffer of 5% but this would require an opinion of the European Commission and Sweden would have to follow a “comply or explain” procedure. Belgium used Pillar II to introduce a capital add-on for banks with excessive trading activities while at the same time it used the national flexibility measures under Article 458 of the CRR (rather than Pillar II) to apply

35 In the aforementioned response to the European Commission’s call for advice, the ESRB recommended amending the sequencing requirements to ensure that Pillar II does not need to be considered before using Article 458 of the CRR.

36 In most Member States, Pillar II capital requirements are not made public.

an add-on to the risk weights by banks using the IRB approach for their Belgian mortgages. It is also noteworthy that in respect of the Belgian Pillar II measure the supervisory decision was introduced by a formal Royal Decree as part of a broader package of structural reforms and because of political signalling.

3.6 Liquidity measures

A few Member States took measures to address liquidity concerns. Hungary made a number of methodological changes in its NSFR-type “foreign exchange funding adequacy ratio” (FFAR), increasing the required level and extending the institutional scope of the measure. It also made a change to the short-term liquidity requirement, but this change was exclusively to the legal form of the measure. Sweden has an LCR requirement for all currencies combined, but also for the euro and US dollar individually. This measure, however, was already in place at the beginning of 2013. Also Poland had already a number of liquidity ratios in place.

3.7 Other measures

Apart from the more frequently used measures mentioned above, there were also a few measures that do not fit well into the aforementioned categories. All of these measures relate to lending activity. Slovakia, for example, recommended that banks should adopt a prudent approach to loan refinancing (with the topped-up loan meeting all the requirements that apply to new loans) and lending through mortgage brokers. Slovenia sought to support lending to the real economy by using an LTD-type measure, i.e. by setting minimum (rather than maximum) requirements on changes in loans to the non-banking sector relative to changes in deposits from the non-banking sector. Following an earlier consultation of the ESRB on the subject, Ireland adopted a number of requirements that alternative investment funds involved in the loan-originating business should meet. This last measure is the only non-bank measure included in Annex 1.

Section 4
Concluding considerations

The ESRB will perform a review of macro-prudential policy in the EU on a regular basis. This report is the first comprehensive review of macro-prudential policy in the EU and it might be useful to repeat this exercise on an annual basis. By taking regular stock, emerging approaches and best practices can be identified. It might also contribute to a greater harmonisation in approaches. Finally, it allows for the identification of shortcomings and inconsistencies in macro-prudential regulation as well as areas of divergent interpretations of Union law. A periodic review of this kind would thus also provide useful inputs for the revision of the macro-prudential regulatory framework.

The complexity of the CRD/CRR framework is one of the notable features that figures prominently when the framework is used in practice. A series of capital buffers are available under the CRD/CRR and whereas their end effect is the same (more capital), the conditions and procedures for their use are very different. This feature may encourage the pragmatic use of the capital rules, whereby the desirable end result (more capital) is achieved in the procedurally least burdensome way rather than by using the most appropriate instrument. Also it may not always be clear to banks which buffer should be used in which circumstances. It should further be noted that more capital may not always be the appropriate response to a macro-prudential concern, as illustrated by the widespread use of measures under national law.

The ESRB will investigate how the measures have been calibrated and how effective and efficient they have been in addressing the concerns they are expected to address. This report has focused on the introduction of macro-prudential measures over the past year or so, which makes it too early to assess whether they have been successful in achieving their objectives. However, over time the ESRB should also review how authorities assess the success of their measures. Policy evaluation is indeed one of the key steps in the macro-prudential policy cycle that the ESRB identified in its Handbook on macro-prudential policy.[37] Related to this is also the issue of instrument calibration.

Another area of further work will be to investigate whether there is a natural sequencing order and/or combination of instruments. The CRD/CRR already provides a legal sequencing order that has to be considered when using certain instruments, but there might also be a natural sequence, or combination, of instruments. For example, if the objective is to dampen credit growth in the real estate sector, it would seem reasonable to consider first instruments that specifically target mortgage lending (e.g. sectoral capital requirements, LTV and LTI/DSTI caps, etc.) rather than broad credit instruments such as the counter-cyclical capital buffer. In addition, it might be useful to combine instruments that address different aspects of mortgage lending, namely the debtor risk (LTI/DSTI limits) and collateral risk (LTV limits). The issue of a sequencing order is also closely related to an assessment of the effectiveness and efficiency of instruments.

37 ESRB Handbook on Operationalising Macro-prudential policy in the Banking Sector, p. 24.

Annex 1
List of measures of macro-prudential interest

Up to date until end 2014 and insofar as the measures have been reported to the ESRB. “Status of measure” refers to the situation as of May 2015. EU Member States are listed in alphabetical order in English.

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
1	Belgium	Banque Nationale de Belgique / Nationale Bank van België	Pillar II	Misaligned incentives	Capital add-on for banks with excessive trading actvities as measured according to two indicators (volume-based, risk-based).	7 May 2014	Active	Art. 103 CRD	No
2	Belgium	Banque Nationale de Belgique / Nationale Bank van België	Risk weights	Credit growth and leverage	5 percentage point add-on to the risk weights applied by banks that use the IRB approach to mortgage loans to Belgian residents covered by residential real estate in Belgium.	Continuation of a measure (but now under CRD/CRR) that was already applicable from 8 December 2013 onwards.	Active	Art. 458 CRR	Reciprocation by NL
3	Bulgaria	Българската народна банка (Bulgarian National Bank)	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5%.	13 May 2014	Active	Art. 160(6) CRD	No
4	Bulgaria	Българската народна банка (Bulgarian National Bank)	Systemic risk buffer (SRB)	Credit growth and leverage	SRB of 3%. Applied to domestic exposures. Applied on individual, consolidated and sub-consolidated basis.	1 October 2014	Active	Art. 133 CRD	No
5	Croatia	Hrvatska narodna banka	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5%.	1 January 2014	Active	Art. 160(6) CRD	No
6	Croatia	Hrvatska narodna banka	Countercyclical capital buffer (CCB)	Credit growth and leverage	Early introduction of countercyclical capital buffer.	1 January 2015	Active	Art. 160(6) CRD	No
7	Croatia	Hrvatska narodna banka	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Not yet active	Art. 136 CRD	No
8	Croatia	Hrvatska narodna banka	Risk weights	Credit growth and leverage	Stricter defintion of residential property for preferential risk weighting (e.g. owner cannot have more than 2 residential properties, exclusion of holiday homes, need for occupation by owner or tenant).	1 January 2014	Active	Art. 124 CRR	Compulsory reciprocation under Art. 124(5) CRR

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
9	Croatia	Hrvatska narodna banka	Systemic risk buffer (SRB)	Credit growth and leverage	Two SRB rates (1.5% and 3%) applied to two sub-groups of banks (market share < 5%, market share > 5%). Applied to all exposures.	19 May 2014	Active	Art. 133 CRD	No
10	Cyprus	Central Bank of Cyprus	Loan-to-value (LTV)	Credit growth and leverage	LTV ratio (as amended in 2013) shall not exceed: (a) 80% in case the credit facility is granted for financing the primary permanent residence of the borrower. (b) 70% for all other property financing cases.	24 November 2003 (latest amendment: 4 December 2013)	Active	National law	No
11	Cyprus	Cyprus Central Bank of Cyprus	Debt-service-to-income (DSTI)	Credit growth and leverage	The debt servicing amount shall be limited either: (a) to 35% of the borrower's "total monthly income" or, (b) the difference between the "total monthly income" and the "total monthly expenditure", whichever is lower. For high income borrowers, the debt servicing amount may exceed the above limit of 35%. This limit shall in any case not exceed the lower of either: (a) 60% of the borrowers' total income, or (b) the difference between the "total income" and the "total monthly expenditure".	4 December 2013	Active	National law	No
12	Cyprus	Central Bank of Cyprus	Stress test / sensitivity test	Credit growth and leverage	Credit institutions should carry out scenario analysis in order to assess the impact on debt servicing in case of increases in the loan instalment due to increases in the interest rate or any other cause. Scenarios shall also be applied to future reduction in the cash flow generating capacity of the borrower. As a minimum scenario, credit institutions shall assume that interest rates move towards their long term average level and that the cash generating capacity of the borrower is reduced by 20%.	4 December 2013	Active	National law	No
13	Cyprus	Central Bank of Cyprus	Pillar II	Maturity mismatch and market illiquidity	The cap on deposit interest rates measure is implemented as part of the internal capital adequacy assessment process- supervisory risk evaluation process (ICAAP-SREP) and defines an interest rate ceiling for deposits beyond which additional Pillar II specific own fund requirements are imposed.	24 April 2012 (latest amendment 17 February 2015)	Active	National law	No
14	Czech Republic	Česká národní banka	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5%.	22 July 2014	Active	Art. 160(6) CRD	No
15	Czech Republic	Česká národní banka	Countercyclical capital buffer (CCB)	Credit growth and leverage	Introduction of countercyclical capital buffer without transitional period.	22 July 2014	Active	Art. 160(6) CRD	No
16	Czech Republic	Česká národní banka	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 October 2015	Not yet active	Art. 136 CRD	No
17	Czech Republic	Česká národní banka	Systemic risk buffer (SRB)	Misaligned incentives	SRB of between 1% and 3% depending on the systemic importance of the bank. Applied to all exposures on sub- consolidated basis.	1 November 2014	Active	Art. 133 CRD	No
18	Denmark	Erhvervs-og Vaekstminister Minister of Business and Growth)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Early introduction of countercyclical capital buffer (capped at 0.5%).	1 January 2015	Active	Art. 160(6) CRD	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
19	Denmark	Erhvervs-og Vaekstminister Minister of Business and Growth)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Not yet active	Art. 136 CRD	No
20	Denmark	Erhvervs-og Vaekstminister (Minister of Business and Growth)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Reciprocation of Swedish and Norwegian CCB rates	30 June 2015	Not yet active	Art. 136 CRD	Reciprocation of SE and NO measure
21	Denmark	Finanstilsynet	Loan-to-value (LTV)	Credit growth and leverage	Home buyers are generally required to make at least a 5 percent down payment (own financing) when purchasing a home.	In process. Implementation date to be decided.	Not yet active	National law	No
22	Denmark	Finanstilsynet	Loss-given-default (LGD)	Credit growth and leverage	Reciprocation of tighter model requirements by Finanstilsynet (Norwegian FSA) for mortgage lending by IRB banks.	31. March 2015	Active	National law	Reciprocation of NO measure
23	Denmark	Finanstilsynet	Other	Credit growth and leverage	The share of interest only lending by mortgage credit institutions to private homeowners where the LTV exceeds 75% of the lending limit shall not exceed 10% of the total mortgsge lending volume to private homeowners. Interest-only loans are to be counted regardless of the placement in the priority order.	1 January 2020	Not yet active	National law	No
24	Denmark	Finanstilsynet	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of 5 sub-categories of O-SIIs and 6 individual O- SIIs.	19 June 2014	Active	Art. 131 CRD	No
25	Denmark	Finanstilsynet	Pillar II	Credit growth and leverage	Reciprocation of risk weight floor of 25% for Swedish mortgage loans by IRB banks.	8. September 2014	Active	National law	Reciprocation of SE measure
26	Denmark	Erhvervs-og Vaekstminister (Minister of Business and Growth)	Systemic risk buffer (SRB)	Misaligned incentives	SRB of between 1% and 3% for O-SIIs depending on the level of systemic importance of each institution.	1 January 2015	Active	Art. 133 CRD	No
27	Estonia	Eesti Pank	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5%.	19 May 2014	Active	Art. 160(6) CRD	No
28	Estonia	Eesti Pank	Debt-service-to-income (DSTI)	Credit growth and leverage	All credit institutions operating in Estonia are subject to a DSTI limit of not more than 50% of borrower's net income. Up to 15% of the amount of new housing loans issued in a quarter are allowed to breach the limit(s).	1 March 2015	Active	National law	No
29	Estonia	Eesti Pank	Loan maturity	Credit growth and leverage	All credit institutions in Estonia are subject to a maturity limit of 30 years for new housing loans. Up to 15% of the amount of new housing loans issued in a quarter are allowed to breach the limit(s).	1 March 2015	Active	National law	No
30	Estonia	Eesti Pank	Loan-to-value (LTV)	Credit growth and leverage	All credit institutions operating in Estonia are subject to a LTV limit of 85% (90% if guaranteed by KredEx) for new housing loans. Up to 15% of the amount of new housing loans issued in a quarter are allowed to breach the limit(s).	1 March 2015	Active	National law	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
31	Estonia	Eesti Pank	Systemic risk buffer (SRB)	Credit growth and leverage	SRB of 2%. Applied to all exposures.	1 August 2014	Active	Art. 133 CRD	Reciprocation requested
32	Finland	Finanssivalvonta	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5% (required in the Act on Credit Institutions (610/2014)).	1 January 2015	Active	Art. 160(6) CRD	No
33	Finland	Finanssivalvonta	Loan-to-value (LTV)	Credit growth and leverage	LTV of 90% (95% for first-time house buyers) by law. Cap can be tightened by 10 percentage points by Finanssivalvonta.	1 July 2016	Not yet active	National law	No
34	Hungary	Magyar Nemzeti Bank	Debt-service-to-income (DSTI)	Credit growth and leverage	PTI (Payment-to-income) limits, going from 10% to 60% covering all types of credit and loan operations. The limits are differentiated according to the currency of the loan (HUF, EUR, other currencies) and the net income of the borrower (≤, > HUF 400,000). De minimis exception for very small loans. (32/2014. (IX. 10.) MNB Decree).	1 January 2015	Active	National law	No
35	Hungary	Magyar Nemzeti Bank	Liquidity ratio	Maturity mismatch and market illiquidity	The Foreign currency Funding Adequacy Ratio (FFAR) introduced 2012 is the ratio of stable foreign exchange funds divided by the weighted foreign currency denominated assets outstanding. The regulation was changed on 1 July 2014 in terms of content, required level and institutional scope. The required level was raised from 65% to 75% on 1 July 2014 and will change by 5 percentage points semi-annually to 100% by 2017. (14/2014 (V.19) MNB Decree).	1 July 2014	Active	National law	No
36	Hungary	Magyar Nemzeti Bank	Liquidity ratio	Maturity mismatch and market illiquidity	The short-term liquidity requirement was set up in 2011 to make sure that institutions hold a sufficient liquidity buffer to cover an idiosyncratic or market-wide stress scenario. Credit institutions shall hold liquidity reserves in the following 30-day horizon that should cover 20% of the retail and corporate deposits (deposit coverage ratio (DCR)) or cover 10% of the balance sheet total (total liabilities) of the institutions (balance sheet coverage ratio (BCR)). Credit institutions must meet at least one of these two minimum levels. The credit institutions had to comply with the minimum requirements of DCR and BCR from 16 January 2012 onwards. Only the legal form of regulation was changed recently as the earlier Government Decree was replaced by an MNB Decree (24/2014 (VI.27.). MNB Decree)	1 July 2014	Active	National law	No
37	Hungary	Magyar Nemzeti Bank	Loan-to-value (LTV)	Credit growth and leverage	LTV limits for new mortgage loans, going from 35% to 80%. LTV limits for new vehicle loans, going from 30% to 75%. Limits are differentiated according to currency of loan (HUF, EUR, other currencies). (32/2014. (IX. 10.) MNB Decree).	1 January 2015	Active	National law	No
38	Ireland	Central Bank of Ireland	Loan-to-income (LTI)	Credit growth and leverage	Proportionate LTI limit: new housing loans with LTI greater than 3.5 should not be more than 20% of aggregate value new housing loans.	9 February 2015	Active	National law	No
39	Ireland	Central Bank of Ireland	Loan-to-value (LTV)	Credit growth and leverage	Proportionate LTV limits of: 80% for non-first time buyers (FTBs); 90% for FTBs of properties up to €220,000; a sliding LTV limit based on property value for FTBs over €220,000. To be exceed by no more than 15% of the value of new lending for primary homes. Buy-to-let (BTL) loans with LTV greater than 70% should be no more than 10% of the value of new BTL loans.	9 February 2015	Active	National law	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
40	Ireland	Central Bank of Ireland	Other	Credit growth and leverage	Set of requirements for loan originating alternative investment funds.	September 2014	Active	AIFMD	No
41	Ireland	Central Bank of Ireland	Risk weights	Credit growth and leverage	Stricter criteria for preferential weighting residential mortgage loans: the property needs to be owner-occupied and the LTV must not exceed 75%. Minimum risk weight on commercial property lending increased from 50% to 100%. These are a continuation of previous policies in place sinc 2007.	1 January 2007 (1 January 2014 under CRR)	Active	Art. 124 CRR	Compulsory reciprocation under Art. 124(5) CRR
42	Italy	Banca d'Italia	Capital conservation buffer	Credit growth and leverage	Earlier introduction of capital conservation buffer of 2.5%.	1 January 2014	Active	Art. 160(6) CRD	No
43	Italy	Banca d'Italia	Capital conservation buffer	Credit growth and leverage	Exemption for small and medium-sized investment firms from the application of the capital conservation buffer	1 January 2014	Active	Art. 129(2) CRD	No
44	Latvia	Finanšu un kapitāla tirgus komisijas (Financial and Capital Market Commission)	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5%.	28 May 2014	Active	Art. 160(6) CRD	No
45	Lithuania	Lietuvos bankas	Loan-to-value (LTV)	Credit growth and leverage	LTV of new housing loans cannot be more than 85%.	1 September, 2011	Active	National law	No
46	Lithuania	Lietuvos bankas	Debt-service-to-income (DSTI)	Credit growth and leverage	DSTI of not more than 40% of borrower's net income.	1 September, 2011	Active	National law	No
47	Lithuania	Lietuvos bankas	Loan maturity	Credit growth and leverage	Maturity of new housing loans should not be more than 40 years.	1 September, 2011	Active	National law	No
48	Luxembourg	Commission de Surveillance du Secteur Financier	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5% for all banks	1 January 2014	Active	Art. 160(6) CRD	No
49	Luxembourg	Commission de Surveillance du Secteur Financier	Risk weights	Credit growth and leverage	Institutions using the standardised approach for credit risk need to apply a risk weight of 75% to the part of the mortgage loan exceeding 80% of the value of the real estate object.	1 July 2013	Active	National law	No
50	Luxembourg	Commission de Surveillance du Secteur Financier	Stress test / sensitivity test	Credit growth and leverage	Institutions using the internal ratings-based approach shall ensure that their regulatory capital adequacy is subject to a stress test which considers the effects of severe, but plausible, recession scenarios. The stress test on the retail exposures secured by residential property requires an increase of minimum 50% of the PDs and a LGD of at least 20%.	1 July 2013	Active	National law	No
51	Malta	Malta Financial Services Authority	Loan-to-value (LTV)	Credit growth and leverage	Continuation of practice since 2008 for exposures secured by mortgages on residential property and attracting a risk-weight of 35% not to exceed 70% of the market value of that property.	EBA notified	Active (continuation existing practice)	Art. 124 CRR	Compulsory reciprocation under Art. 124(5) CRR

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
52	Malta	Malta Financial Services Authority	Pillar II	Misaligned incentives	Required reserve for general banking risks for all banks to mitigate risks arising from heightened level of non-performing loans (Banking Rule 09).	2013	Active	National law	No
53	Netherlands	Rijksoverheid (Dutch government)	Loan amortisation	Credit growth and leverage	New mortgage loans are only tax deductible when they are amortised within 30 years.	1 January 2013	Active	National law	No
54	Netherlands	Rijksoverheid (Dutch government)	Loan-to-value (LTV)	Credit growth and leverage	LTV limit for new mortgage loans decreases stepwise 1 percentage point per annum from 106% in 2012 to 100% in 2018.	1 January 2012	Active	National law	No
55	Netherlands	De Nederlandsche Bank	Other systemically important institutions (O-SII) buffer	Misaligned incentives	O-SII buffer of 2% on ING, Rabobank and ABN Amro. O-SII buffer of 1% on SNS Bank. Requirement on consolidated basis.	1 July 2014. Phasing in of O-SII buffer between January 2016 and January 2019.	Active	Art. 131 CRD	No
56	Netherlands	De Nederlandsche Bank	Risk weights	Credit growth and leverage	Reciprocation of the Belgian measure of 5 percentage point add-on to the risk weights of IRB banks taken under Art. 458 CRR.	3 June 2014	Active	Art. 458 CRR	Reciprocation of BE measure
57	Netherlands	De Nederlandsche Bank	Systemic risk buffer (SRB)	Misaligned incentives	SRB of 3% applied to 3 largest banks. Applied to all exposures on a consolidated basis.	Between January 2016 and January 2019.	Active	Art. 133 CRD	No
58	Poland	Komisja Nadzoru Finansowego (Polish Financial Supervision Authority)	Loan-to-value (LTV)	Credit growth and leverage	LTV limits: <u>Residential real estate:</u> 2014 - 95% 2015 - 90% 2016 - 85% or 90% if the part above 85% is insured or collateralized with funds on bank account, government or NBP securities ≥2017 (target levels) - 80% or 90% if the part above 80% is insured or collateralized with funds on bank account, government or NBP securities <u>Commercial real estate:</u> Since 07.2014: 75% or 80% if the part above 75% is insured or collateralized with funds on bank account, government or NBP securities.	1 January 2014	Active	National law	No
59	Poland	Komisja Nadzoru Finansowego (Polish Financial Supervision Authority)	Debt-to-income (DTI)	Credit growth and leverage	Removal of strict DTI levels, for creditworthiness assessment bank should take into consideration broad set of indicators and set their internal DTI limits . Applies to all loans to households.	1 July 2013	Active	National law	No
60	Poland	Komisja Nadzoru Finansowego (Polish Financial Supervision Authority)	Debt-to-income (DTI)	Credit growth and leverage	Removal of strict DTI levels, for creditworthiness assessment bank should take into consideration broad set of indicators and set their internal DTI limits. The supervisor can challenge these limits. Banks should pay particular attention to loans for which DTI ratios exceed 40% (for borrowers with incomes below the average salary in the region) and 50% (for other borrowers). In such cases the client should be informed about heightened risk of such a transaction. Applies to newly originated housing loans.	1 January 2014	Active	National law	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
61	Poland	Komisja Nadzoru Finansowego (Polish Financial Supervision Authority)	Other	Credit growth and leverage	For any new loans the currency of the loan and the income out of which the loan will be repaid should be the same. In the case of customers (or households) receiving income in several currencies, the bank should ensure that the currency of the loan and the currency in which the borrower (or household) obtains the highest income in his total income considered for assessing his credit capacity are the same; in the case of other currencies, the bank should assume a possible depreciation by 20%.	1 January 2014	Active	National law	No
62	Poland	Komisja Nadzoru Finansowego (Polish Financial Supervision Authority)	Liquidity ratio	Maturity mismatch and market illiquidity	M1 (short-term liquidity ratio): liquidity reserves - unstable external funds ≥0 M2 (short-term liquidity ratio):liquidity reserves/unstable external funds ≥1 M3 (long-term liquidity ratio): own funds/illiquid assets ≥1 M4 (long-term liquidity ratio): (own funds+stable external funds)/(illiquid assets+assets with limited liquidity) ≥1	30 June 2008	Active	National law	No
63	Romania	Banca Naţională a României	Debt-service-to-income (DSTI)	Credit growth and leverage	In the case of consumer loans, when establishing the maximum level of DSTI, the credit institutions have to take into account the foreign currency risk, interest rate risk and income risk. The values for these risk factors are explicitly specified in the regulation: a) for foreign currency risk, the depreciation scenarios of the local currency to be incorporated are: 35.5% for EUR denominated loans, 52.6% for CHF denominated loans and 40.9% for USD denominated loans, b) for interest rate risk: 0.6 percentage points increase in interest rate and c) for income risk: 6% reduction in income. The measure is applied to both banks and non-bank financial institutions.	31 October 2011	Active	National law	No
64	Romania	Banca Naţională a României	Stress test / sensitivity test	Credit growth and leverage	Credit institutions must ensure stricter criteria for debt servicing capacity in case of foreign currency loans granted to unhedged non- financial firms even in cases of a severe depreciation of the local currency or increases in interest rates. In establishing the debt servicing capacity they should take into account the foreign currency and interest rate shocks defined for consumer loans: (a) for foreign currency risk, the depreciation scenarios of the local currency to be incorporated are: 35.5% for EUR denominated loans, 52.6% for CHF denominated loans and 40.9% for USD denominated loans and (b) for interest rate risk: 0.6 percentage points increase in interest rate. The measure is applied to both banks and non-bank financial institutions.	18 December 2012	Active	National law	No
65	Romania	Banca Naţională a României	Loan maturity	Credit growth and leverage	Consumer loans with a maturity of more than 5 years are not allowed. The measure is applied to both banks and non-bank financial institutions.	31 October 2011	Active	National law	No
66	Romania	Banca Naţională a României	Loan to value (LTV)	Credit growth and leverage	In case of housing loans, limits on the LTV ratio were imposed: 85% for local currency denominated loans, 80% to foreign currency loans granted to hedged borrowers, 75% for EUR denominated loans granted to unhedged borrowers, and 60% for other foreign currency loans granted to unhedged borrowers. In case of consumer loans, maximum LTV is 75%. LTV limits for loans granted through the governmental program Prima Casă are 95% irrespective the currency. The measure is applied to both banks and non bank financial institutions.	31 October 2011	Active	National law	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
67	Romania	Banca Naţională a României	Risk weights	Credit growth and leverage	Higher risk weights (100%) and stricter criteria than in CRR for commercial real estate exposures of banks under the standardised approach.	The measure has been introduced in the national legislation starting 1/1/2007 and has been mantained by exercising the national option under CRR	Active	Art. 124 CRR	Compulsory reciprocation under Art. 124(5) CRR
68	Slovakia	Národná banka Slovenska	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer.	1 August 30 September 2014: 1.5%; from 1 October 2014 onwards: 2.5%.	Active	Art. 160(6) CRD	No
69	Slovakia	Národná banka Slovenska	Capital conservation buffer	Credit growth and leverage	Exempting small and medium sized investment firms from maintaining a capital conservation buffer.	1 August 2014	Active	Art. 129(2) CRD	No
70	Slovakia	Národná banka Slovenska	Countercyclical capital buffer (CCB)	Credit growth and leverage	Early introduction of countercyclical capital buffer.	1 August 2014	Active	Art. 160(6) CRD	No
71	Slovakia	Národná banka Slovenska	Countercyclical capital buffer (CCB)	Credit growth and leverage	Exempting small and medium sized investment firms from maintaining a countercyclical capital buffer.	1 August 2014	Active	Art. 130(2) CRD	No
72	Slovakia	Národná banka Slovenska	Countercyclical capital buffer (CCB)	Credit growth and leverage	Full and automatic recognition of all shorter transitional periods for the countercyclical capital buffer applied in all other Member States.	1 August 2014	Active	Art. 160(6) CRD	Automatic reciprocity for all shorter transition periods applied in all Member States.
73	Slovakia	Národná banka Slovenska	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 November 2014	Active	Art. 136 CRD	No
74	Slovakia	Národná banka Slovenska	Loan amortisation	Credit growth and leverage	Recommendation: Loans with (partial) deferred payment of interest or principal should not be granted. Specified exceptions are allowed.	1 March 2015	Active	National law	No
75	Slovakia	Národná banka Slovenska	Loan maturity	Credit growth and leverage	Recommendation: Maximum maturity for new housing loans should be 30 years with no more than 10% of new loans exceeding this limit. Maximum maturity for other new loans is 9 (ultimately 8) years.	Housing loans: 1 March 2015. Other loans: 9 years from 1 March 2015 to 31 December 2015; 8 years from 1 Janauary 2016 onwards.	Active	National law	No
76	Slovakia	Národná Banka Slovenska	Loan to value (LTV)	Credit growth and leverage	Recommendation: LTV of new loans should not be more than 100%. Volume of new loans with LTV between 90% 100% should not exceed given share of total new loans. Banks should maintain a prudent approach when appraising real estate collateral.	1 November 2014. The proportionate LTV limit is gradually tightened over time (from 25% unitil 30 June 2015 until 10% from 1 January 2017 onwards).	Active	National law	No
77	Slovakia	Národná banka Slovenska	Other	Credit growth and leverage	Recommendation: Maintain a prudent approach to loan refinancing. If the loan is topped-up, it should meet all the limits recommended for new loans (LTV limit, limit for customer repayment ability, maximum maturity limit).	1 March 2015	Active	National law	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
78	Slovakia	Národná banka Slovenska	Other	Misaligned incentives	Recommendation: Maintain a prudent approach to lending through intermediaries (mortgage brokers).	Gradually, not later than the end of 2015.	Active	National law	No
79	Slovakia	Národná banka Slovenska	Stress test / sensitivity test	Credit growth and leverage	Recommendation: Set and ahere to an internal limit for the indicator of customer repayment ability. The limit should be met also in the case of an interest rate increase. Banks should verify their customers' income.	1 March 2015	Active	National law	No
80	Slovakia	Národná banka Slovenska	Stress test / sensitivity test	Credit growth and leverage	Recommendation: Banks should perform portfolio stress testing for an increase in interest rates and unemployment.	Gradually, no later than end 2015.	Active	National law	No
81	Slovenia	Banka Slovenije	Loan-to-deposit (LTD)	Credit growth and leverage	Minimum requirement on changes in loans to the non-banking sector in relation to changes in deposits from the non-banking sector (so-callled Gross Loans to Deposits Flows ratio). Ratio has to be positve for the banks with a positive annual increase in deposits.	1 June 2014	Active	National law	No
82	Slovenia	Banka Slovenije	Pillar II	Misaligned incentives	The cap on deposit interest rates measure is implemented as part of the internal capital adequacy assessment process- supervisory risk evaluation process (ICAAP-SREP) and defines a capital add-on for new deposits by the private non-banking sector where the deposit interest rate exceeds the ceiling set by the instrument.	March 2012	Active	National law	No
83	Sweden	Finansinspektionen	Capital conservation buffer	Credit growth and leverage	Shorter transitional period for the introduction of a capital conservation buffer of 2.5%.	2 August 2014	Active	Art. 160(6) CRD	No
84	Sweden	Finansinspektionen	Countercyclical capital buffer (CCB)	Credit growth and leverage	Shorter transitional period for the introduction of the CCB.	2 August 2014	Active	Art. 160(6) CRD	No
85	Sweden	Finansinspektionen	Countercyclical capital buffer (CCB)	Credit growth and leverage	Small and medium-sized investment firms are exempted from the requirement to maintain an institution-specific CCB.	13 September 2014	Active	Art. 130(2) CRD	No
86	Sweden	Finansinspektionen	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 1%.	13 September 2015 (decision to activate taken on 8 September 2014).	Not yet active	Art. 136 CRD	Reciprocation by DK, FI and UK
87	Sweden	Finansinspektionen	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1%.	13 December 2015 (decision to maintain the rate taken on 8 December 2014).	Not yet active	Art. 136 CRD	Reciprocation by DK, FI and UK
88	Sweden	Finansinspektionen	Liquidity ratio	Maturity mismatch and market illiquidity	LCR>100 % in USD, EUR and all currencies taken together.	1 January 2013	Active	National law	No
89	Sweden	Finansinspektionen	Loan amortisation	Credit growth and leverage	Need for new mortgage loans to repay at least 2% of loan per year until LTV is 70% and thereafter at least 1% of the loan until the LTV is 50%.	Proposal stopped for the moment, pending clarification of FI's legal mandate to impose the measure	Planned	National law	No
90	Sweden	Finansinspektionen	Loan-to-value (LTV)	Credit growth and leverage	LTV of new loans should not be more than 85%.	1 October 2010	Active	National law	No
91	Sweden	Finansinspektionen	Pillar II	Misaligned incentives	The 4 largest banking groups are subject to a Pillar II capital add-on of 2%.	1 January 2015	Active	Art. 103 CRD	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
92	Sweden	Finansinspektionen	Pillar II	Credit growth and leverage	A risk weight floor of 25% (previously 15%) for Swedish mortgage loans by IRB banks.	8 September 2014	Active	Art. 103 CRD	requested from DK
93	Sweden	Finansinspektionen	Pillar II	Credit growth and leverage	Reciprocation of tighter model requirements by Finanstilsynet (Norwegian FSA) for mortgage lending by IRB banks.	1 August 2014	Active	Art. 103 CRD	Reciprocation of NO measure
94	Sweden	Finansinspektionen	Systemic risk buffer (SRB)	Misaligned incentives	The 4 largest banking groups are subject to an SRB of 3%. Applied to all exposures on a consolidated basis.	1 January 2015	Active	Art. 133 CRD	No
95	United Kingdom	Financial Conduct Authority	Capital conservation buffer	Credit growth and leverage	Exemption of small and medium-sized investment firms from the requirement to maintain a capital conservation buffer.	1 May 2014 (practical effect from 1 January 2016 onwards)	Active	Art. 129(2) CRD	No
96	United Kingdom	Financial Conduct Authority	Countercyclical capital buffer (CCB)	Credit growth and leverage	Exemption of small and medium-sized investment firms from the requirement to maintain an institution-specific countercyclical capital buffer.	1 May 2014 (practical effect from 1 January 2016 onwards)	Active	Art. 130(2) CRD	No
97	United Kingdom	Bank of England	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	26 June 2014	Active	Art. 136 CRD	No
98	United Kingdom	Bank of England	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	2 October 2014	Active	Art. 136 CRD	No
99	United Kingdom	Bank of England	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	16 December 2014	Active	Art. 136 CRD	No
100	United Kingdom	Bank of England	Countercyclical capital buffer (CCB)	Credit growth and leverage	Reciprocation of CCB rate of 1% by Norway and Sweden.	3 October 2015	Not yet active	Art. 136 CRD	Reciprocation of NO and SE measures
101	United Kingdom	Bank of England	Leverage ratio	Credit growth and leverage	Plans to introduce a set of leverage ratio requirements and buffers for PRA-regulated banks, building societies and investment firms. Includes: (i)a minimum leverage ratio requirements, (ii) a supplementary leverage ratio buffer (for systemically important firms), and (iii) a countercyclical leverage ratio buffer.	Planned for 2018-2019 onwards.	Planned	National law	No
102	United Kingdom	Bank of England	Loan-to-income (LTI)	Credit growth and leverage	Proportionate LTI limit: new residential mortgage loans with LTI greater than 4.5 should not be more than 15% of aggregate value new residential mortgage loans. De minimis exception for lenders with mortgage lending up to GBP 100 million per annum or extending fewer than 300 mortgages. Implemented as a Pillar II measure.	1 October 2014	Active	Art. 103 CRD	No
103	United Kingdom	Prudential Regulation Authority	Risk weights	Credit growth and leverage	Application of stricter criteria for the eligibility of the 50% risk weight exposures fully and completely secured by mortgages on commercial real estate. The stricter criterion requires firms to determine whether the annual average loss rates for lending secured by mortgage on comercial real estate in the UK did not exceed 0.5% over a representative period.	1 January 2014 for UK exposures and 27 April 2015 for non-EEA exposures.	Active	Art. 124 CRR	Compulsory reciprocation under Art. 124(5) CRR for UK exposures
104	United Kingdom	Bank of England	Stress test / sensitivity test	Credit growth and leverage	Mortgage lenders need to assess whether borrowers can still afford their mortgage loans if the Bank of England's rate were 3 percentage points higher over a 5 year period than at origination of the loan.	1 June 2014	Active	National law	No

	Country	Authority	Type of measure	Primary intermediate objective	Description of measure	Implementation date	Status of measure	Basis in Union law	Reciprocity
					EEA				
105	Norway	Finansdepartementet (Ministry of Finance)	Capital conservation buffer	Credit growth and leverage	Shorter transitional period for the introduction of a capital conservation buffer of 2.5%.	1 July 2013	Active	Art. 160(6) CRD	No
106	Norway	Finansdepartementet (Ministry of Finance)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 1%.	1 July 2015	Not yet active	Art. 136 CRD	Reciprocation by DK, FI, SE and UK
107	Norway	Finansdepartementet (Ministry of Finance)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate rate at 1%.	1 July 2015	Not yet active	Art. 136 CRD	Reciprocation by DK, FI, SE and UK
108	Norway	Finansdepartementet (Ministry of Finance)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate rate at 1%.	1 July 2015	Not yet active	Art. 136 CRD	Reciprocation by DK, FI, SE and UK
109	Norway	Finansdepartementet (Ministry of Finance)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate rate at 1%.	1 October 2015	Not yet active	Art. 136 CRD	Reciprocation by DK, FI, SE and UK
110	Norway	Finansdepartementet (Ministry of Finance)	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate rate at 1%.	1 January 2016	Not yet active	Art. 136 CRD	Reciprocation by DK, FI, SE and UK
111	Norway	Finanstilsynet	Loan-to-value (LTV)	Credit growth and leverage	Supervisory guidelines for prudent residential mortgage lending practices specify that the LTV should not be more than 85%.	1 December 2011	Active	National law	No
112	Norway	Finansdepartementet (Ministry of Finance)	Loss-given-default (LGD)	Credit growth and leverage	Increase minimum EAD weighted average LGDs for retail exposures secured by residential real estate in Norway from 10% to 20%.	1 January 2014	Active	Art. 164 CRR	Compulsory reciprocity under Art. 164(7) CRR
113	Norway	Finansdepartementet (Ministry of Finance)	Other systemically important institutions (O-SII) buffer	Misaligned incentives	O-SII buffer of 1 % on the two largest banks (DNB ASA and Nordea Bank Norge ASA), plus the credit company Kommunalbanken which is a state instrumentality lender to the local government sector in Norway.	1 July 2015	Not yet active	Art. 131 CRD	No
114	Norway	Finansdepartementet (Ministry of Finance)	Other systemically important institutions (O-SII) buffer	Misaligned incentives	O-SII buffer of 2 % on the two largest banks (DNB ASA and Nordea Bank Norge ASA), plus the credit company Kommunalbanken which is a state instrumentality lender to the local government sector in Norway.	1 July 2016	Not yet active	Art. 131 CRD	No
115	Norway	Finanstilsynet	Risk weights	Credit growth and leverage	Higher risk weights (100%) and stricter criteria than in CRR for commercial real estate exposures of banks under the standardised approach.	Consultation of EBA underway	Active	Art. 124 CRR	Compulsory reciprocation under Art. 124(5) CRR
116	Norway	Finanstilsynet	Risk weights	Credit growth and leverage	Tighter requirements for residential mortgage lending models.	1 January 2015	Active	Art. 101 CRD and Art. 144 CRR	Reciprocation by DK and SE.
117	Norway	Finansdepartementet (Ministry of Finance)	Systemic risk buffer (SRB)	Exposure concentration	SRB of 3% applied to all banks.	1 July 2014	Active	Art. 133 CRD	No

Annex 2
Counter-cyclical capital buffer rates

CCB rates (according to the year and the quarter when the rate was announced)

The buffer rate indicated in a given quarter is the rate that was publicly announced in this quarter. The exact announcement date in the quarter can vary depending on the Member State. EU Member States are listed in alphabetical order in English. Situation as of May 2015.

(percentage)

Country	Authority responsible for setting the rate	2013				2014				2015			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Austria	Finanzmarktaufsicht	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	Banque Nationale de Belgique Nationale Bank van België	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	Българската народна банка (Bulgarian National Bank)	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	Hrvatska narodna banka	-	-	-	-	-	-	-	0	0	-	-	-
Cyprus	Central Bank of Cyprus	-	-	-	-	-	-	-	-	-	-	-	-
Czech Republic	Česká národní banka	-	-	-	-	-	-	0	-	0	-	-	-
Denmark	Erhvervs-og Vaekstministeriet (Ministry of Business and Growth)	-	-	-	-	-	-	-	0	0	-	-	-
Estonia	Eesti Pank	-	-	-	-	-	-	-	-	-	-	-	-
Finland	Finanssivalvonta	-	-	-	-	-	-	-	-	0	-	-	-
France	Haut Conseil de Stabilité Financière	-	-	-	-	-	-	-	-	-	-	-	-
Germany	Bundesanstalt für Finanzdienstleistungsaufsicht	-	-	-	-	-	-	-	-	-	-	-	-
Greece	Bank of Greece	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	Magyar Nemzeti Bank	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	Central Bank of Ireland	-	-	-	-	-	-	-	-	-	-	-	-
Italy	Banca d'Italia	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	Finanšu un kapitāla tirgus komisijas (Financial and Capital Market Commission)	-	-	-	-	-	-	-	-	0	-	-	-
Lithuania	Lietuvos bankas	-	-	-	-	-	-	-	-	-	-	-	-
Luxembourg	Commission de Surveillance du Secteur Financier / Banque centrale du Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-
Malta	Central Bank of Malta	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	De Nederlandsche Bank	-	-	-	-	-	-	-	-	-	-	-	-
Poland		-	-	-	-	-	-	-	-	-	-	-	-
Portugal	Banco de Portugal	-	-	-	-	-	-	-	-	-	-	-	-
Romania	Banca Naţională a României	-	-	-	-	-	-	-	-	-	-	-	-
Slovakia	Národná banka slovenska	-	-	-	-	-	-		0	0	-	-	-
Slovenia	Banka Slovenije	-	-	-	-	-	-	-	-	-	-	-	-
Spain	Banco de España	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	Finansinspektionen	-	-	-	-	-	-	1	1	1	-	-	-
United Kingdom	Bank of England	-	-	-	-	-	0	0	0	0	-	-	-
Norway	Finansdepartementet (Ministry of Finance)	-	-	-	1	-	1	1	1	-	-	-	-

CCB rates (according to the year and the quarter when the rate is implemented)

The buffer rate indicated in a given quarter is the rate that was or will be introduced in this quarter. The exact date of introduction in the quarter can vary depending on the Member State. EU Member States are listed in alphabetical order in English. Situation as of May 2015.

(percentage)

Country	Authority responsible for setting the rate	2014				2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Austria	Finanzmarktaufsicht	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	Banque Nationale de Belgique Nationale Bank van België	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	Българската народна банка (Bulgarian National Bank)	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	Hrvatska narodna banka	-	-	-	-	-	-	-	-	0	0	-	-
Cyprus	Central Bank of Cyprus	-	-	-	-	-	-	-	-	-	-	-	-
Czech Republic	Česká národní banka	-	-	-	-	-	-	-	0	0	-	-	-
Denmark	Erhvervs-og Vaekstministeriet (Ministry of Business and Growth)	-	-	-	-	-	-	-	-	0	-	-	-
Estonia	Eesti Pank	-	-	-	-	-	-	-	-	-	-	-	-
Finland	Finanssivalvonta	-	-	-	-	0	-	-	-	-	-	-	-
France	Haut Conseil de Stabilité Financière	-	-	-	-	-	-	-	-	-	-	-	-
Germany	Bundesanstalt für Finanzdienstleistungsaufsicht	-	-	-	-	-	-	-	-	-	-	-	-
Greece	Bank of Greece	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	Magyar Nemzeti Bank	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	Central Bank of Ireland	-	-	-	-	-	-	-	-	-	-	-	-
Italy	Banca d'Italia	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	Finanšu un kapitāla tirgus komisijas (Financial and Capital Market Commission)	-	-	-	-	-	-	-	-	0	-	-	-
Lithuania	Lietuvos bankas	-	-	-	-	-	-	-	-	-	-	-	-
Luxembourg	Commission de Surveillance du Secteur Financier / Banque centrale du Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-
Malta	Central Bank of Malta	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	De Nederlandsche Bank	-	-	-	-	-	-	-	-	-	-	-	-
Poland		-	-	-	-	-	-	-	-	-	-	-	-
Portugal	Banco de Portugal	-	-	-	-	-	-	-	-	-	-	-	-
Romania	Banca Naţională a României	-	-	-	-	-	-	-	-	-	-	-	-
Slovakia	Národná banka slovenska	-	-	-	0	0	-	-	-	-	-	-	-
Slovenia	Banka Slovenije	-	-	-	-	-	-	-	-	-	-	-	-
Spain	Banco de España	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	Finansinspektionen	-	-	-	-	-	-	1	1	1	-	-	-
United Kingdom	Bank of England	-	0	0	0	0	-	-	-	-	-	-	-
Norway	Finansdepartementet (Ministry of Finance)	-	-	-	-	-	-	1	1	1	-	-	-

Abbreviations

Countries

BE	Belgium	**HR**	Croatia	**PL**	Poland
BG	Bulgaria	**IT**	Italy	**PT**	Portugal
CZ	Czech Republic	**CY**	Cyprus	**RO**	Romania
DK	Denmark	**LV**	Latvia	**SI**	Slovenia
DE	Germany	**LT**	Lithuania	**SK**	Slovakia
EE	Estonia	**LU**	Luxembourg	**FI**	Finland
IE	Ireland	**HU**	Hungary	**SE**	Sweden
GR	Greece	**MT**	Malta	**UK**	United Kingdom
ES	Spain	**NL**	Netherlands	**NO**	Norway
FR	France	**AT**	Austria		

In accordance with EU practice, the EU Member States are listed in this report using the alphabetical order of the country names in the national languages.

Others

AIFMD	Alternative Investment Fund Managers Directive[38]
ATC	Advisory Technical Committee
CCB	counter-cyclical capital buffer
CCP	central clearing counterparty
CRD	Capital Requirements Directive[39]
CRR	Capital Requirements Regulation[40]
DSTI	debt service-to-income
DTI	debt-to-income
EAD	exposure-at-default
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Economic Area
EFTA	European Free Trade Association
ESRB	European Systemic Risk Board
EU	European Union
FFAR	foreign currency funding adequacy ratio
FSA	Financial Services Authority

38 Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010.

39 Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms.

40 Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

GMPI	global macro-prudential policy instruments (database)
G-SII	global systemically important institution
ICAAP	internal capital adequacy assessment process
IMF	International Monetary Fund
IRB	internal ratings-based
LCR	liquidity coverage ratio
LGD	loss given default
LTD	loan-to-deposit
LTI	loan-to-income
LTV	loan-to-value
NSFR	net stable funding ratio
O-SII	other systemically important institution
PD	probability of default
PTI	payment-to-income
SRB	systemic risk buffer
SREP	Supervisory Review and Evaluation Process
SSM	Single Supervisory Mechanism

Postal address
60640 Frankfurt am Main
Germany

Telephone
+49 69 1344 0

Website
www.esrb.europa.eu

The cut-off date for the data included in this report was May 2015.

ISBN 978-92-899-1909-8 (online)
EU catalogue number QB-01-15-446-EN-N (online)
Digital object identifier: 10.2866/21865 (online)