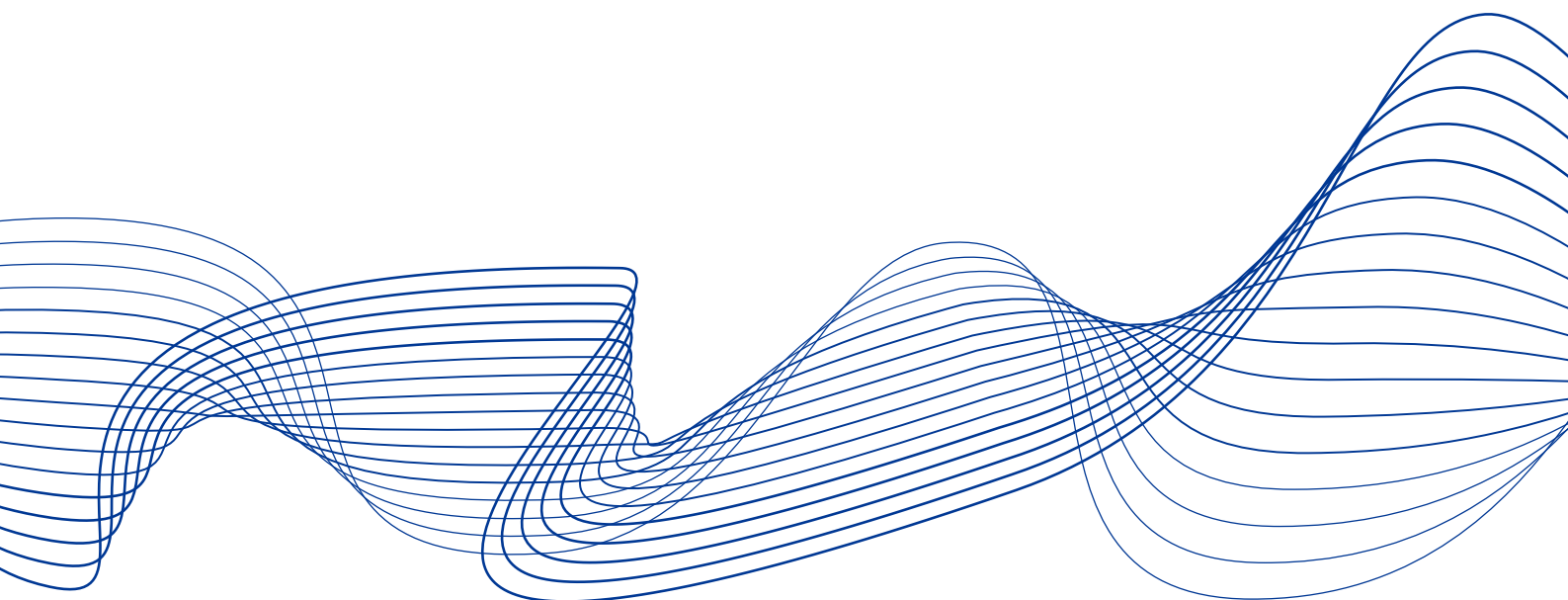


**A Review of
Macprudential Policy in
the EU in 2015**

May 2016



ESRB
European Systemic Risk Board
European System of Financial Supervision

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Abbreviations

ATC	Advisory Technical Committee
BCBS	Basel Committee on Banking Supervision
CCB	countercyclical capital buffer
CEE	Central and Eastern Europe
CESEE	Central, Eastern and South-eastern Europe
CRD	Capital Requirements Directive ¹
CRE	commercial real estate
CRR	Capital Requirements Regulation ²
DSCR	debt service coverage ratio
DSTI	debt service-to-income
DTI	debt-to-income
EAD	exposure-at-default
EBA	European Banking Authority
ECB	European Central Bank
ESRB	European Systemic Risk Board
EU	European Union
EW-GVAR	early warning global vector autoregressive model
EWM	early warning model
FFAR	foreign currency funding adequacy ratio
FSA	Financial Services Authority
FSB	Financial Stability Board
GDP	gross domestic product
G-SII	global systemically important institution
GVAR	global vector autoregressive model
HP (filter)	Hodrick-Prescott (filter)
ICAAP	internal capital adequacy assessment process
IMF	International Monetary Fund
IRB	internal ratings-based
IWG	Instruments Working Group
LCR	liquidity coverage ratio
LGD	loss given default
LTD	loan-to-deposit
LTI	loan-to-income
LTV	loan-to-value
MFI	monetary financial institution
NPL	non-performing loan
NSFR	net stable funding ratio
O-SII	other systemically important institution
PD	probability of default
PRA	Prudential Regulation Authority
PTI	payment-to-income
RRE	residential real estate
RW	risk weight
RWA	risk-weighted assets
SA	standardised approach
SII	systemically important institution
SNB	Swiss National Bank
SRB	systemic risk buffer
SREP	Supervisory Review and Evaluation Process
SDW	Statistical Data Warehouse
SSM	Single Supervisory Mechanism

1 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.

2 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.



Countries

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



Executive Summary

Compared to the previous year, 2015 saw a substantial increase in the number of macroprudential measures in the EU. This was in part due to mandatory measures under the CRD/CRR, namely the designation of systemically important institutions and the implementation of the regime of the countercyclical capital buffer. The real estate sector continued to be a highly relevant area for macroprudential policy action. The past year was marked by several initiatives to address the risks resulting from the outstanding stock of mortgage loans denominated in Swiss francs following the SNB decision to unpeg the currency from the euro. The systemic risk buffer remained a popular instrument in 2015 with 11 Member States now actively using it or planning to use it. The wide diversity in motives for countries in using this instrument is striking, reflecting the tool's flexible nature.

Some Member States opted for an early introduction of the countercyclical capital buffer in 2015. Their experiences shed light on the indicators considered by macroprudential authorities in determining their national policy under this new regime, e.g. differences in the way the credit-to-GDP gap is calculated or the additional indicators that are considered. The country experiences furthermore provide insight into the rationale for why macroprudential authorities sometimes set a buffer rate that is substantially different from that indicated by the buffer guide. All Member States are required to set the countercyclical capital buffer on a quarterly basis as of 1 January 2016.

Most Member States identified the global systemically important institutions (G-SIIs) and other systemically important institutions (O-SIIs) in their jurisdiction and set additional capital buffer requirements. G-SII and O-SII buffers are instruments specifically designed to address the risk from systemically important institutions ("too big to fail"), but some Member States also use the systemic risk buffer because of its greater flexibility. Around 150 G-SIIs and O-SIIs have been identified in the EU up to now. In some EU countries systemically important institutions account for almost the entire banking sector and multiples of GDP, while in others their importance is comparatively much smaller. The additional capital buffer requirements for such institutions vary from 0% to 3%. 18 banking groups are especially important because they include systemically important institutions in several Member States, often controlling a substantial share of the local market.

The real estate sector remains a key priority for many macroprudential authorities. Relatively few new measures were taken in the area of residential real estate in 2015, but in terms of active measures the sector remains one where vulnerabilities are most frequently addressed by macroprudential authorities. A broad suite of instruments is available to address vulnerabilities in this sector, but instrument selection, design and calibration display considerable diversity reflecting important national differences in structural and institutional features. Caps on loan-to-value (LTV), debt-service-to-income (DSTI) and loan-to-income (LTI) ratios are very commonly used instruments. The challenges for authorities are much greater in the area of commercial real estate. The experience of three countries (Hungary, Ireland and the Netherlands) sheds light on the substantial differences in the nature of the vulnerabilities originating from this sector and how they are monitored and addressed. Up to now, only Hungary has activated an instrument (the systemic risk buffer) with the aim of addressing risks related to the stock of commercial real estate exposures.



Introduction

This Review is an update and a further development of the report published by the ESRB last year.

The report “A review of macro-prudential policy in the EU one year after the introduction of the CRD/CRR” (ESRB, 2015) described the macroprudential measures adopted in the EU in the first year (that is, until the end of 2014) since the new capital rules for banks came into force. This Review is an update and further development of the first report.

This Review is structured around four sections. Section 1 provides a general overview of the national measures that are of interest to macroprudential authorities and that were adopted or planned in the course of 2015; it further aims to identify some broad trends, e.g. in terms of types of instruments used, their objectives, the countries that have used them, etc. Subsequent sections make cross-country comparisons on the use of instruments particularly relevant for 2015. Such cross-country comparisons are helpful in identifying the elements authorities take into account in determining their macroprudential actions. These comparisons cover both cyclical and structural topics, i.e. measures related to the real estate sector (Section 2), the implementation of the countercyclical capital buffer (Section 3) and capital buffers for systemically important institutions (Section 4).

In the course of 2015, the ESRB continued to do further work supporting the implementation of the macroprudential policy framework in the EU.

This ESRB work is not the focus of the Review, but since it affects the implementation of macroprudential policy at the national level, the main initiatives need to be flagged. First, the ESRB developed a policy framework to further promote the voluntary reciprocation of national macroprudential measures by other Member States and also developed an analytical framework for assessing cross-border spillovers of macroprudential policy³. Second, the ESRB designed a framework for setting and recognising countercyclical capital buffer rates for exposures to countries outside the EU⁴. The framework aims to ensure that cyclical risks coming from these countries are identified and that regulatory arbitrage is avoided. Third, procedures have been put in place⁵, in particular through a dedicated assessment team on macroprudential measures that works under the auspices of the ATC, to assist the implementation of these new frameworks. Finally, the ESRB initiated work on the concept of “macroprudential stance”, a framework that may be helpful in assessing the macroprudential measures of countries in the future.

3 Recommendation of the ESRB of 15 December 2015 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (ESRB/2015/2).

4 Recommendation of the ESRB of 11 December 2015 on recognising and setting countercyclical buffer rates for exposures to third countries (ESRB/2015/1).

5 Decision of the ESRB of 16 December 2015 on a coordination framework for the notification of national macroprudential measures by relevant authorities, the issuing of opinions and recommendations by the ESRB, and repealing Decision ESRB/2014/2 (ESRB/2015/4).



Section 1

General overview of the measures⁶

The ESRB Secretariat continues to keep track of measures of macroprudential interest and to enhance the public disclosure of such measures. The Secretariat continues to update the list of all measures of macroprudential interest⁷ based on notifications to the ESRB and input from the ATC and its substructures, in particular the Instruments Working Group (IWG) and the Assessment Team on Macroprudential Measures. This list is published on the ESRB website⁸ and updated on a monthly basis. The CRD requires designated authorities to notify to the ESRB certain information related to the setting of the countercyclical capital buffer on a quarterly basis, which is also published on the ESRB website. At the end of 2015, the ESRB Secretariat further enhanced the disclosure of this information by improving comprehensiveness and timeliness and providing a more user-friendly presentation.

This section describes the major trends in the measures of macroprudential interest of which the ESRB is aware and which were initiated in 2015. The section then discusses in greater detail measures related to residential real estate lending and, in particular, initiatives to address the risks resulting from the outstanding stock of mortgage loans in Swiss francs, which are still substantial in some EU countries. The section concludes with an overview of the use of the systemic risk buffer in the different Member States. The use of other instruments, such as the countercyclical capital buffer and the various capital buffers for systemically important institutions, are analysed more extensively in dedicated sections.

1.1 Broad trends in the measures

There was a substantial increase in the active or planned measures of macroprudential significance in 2015. In the course of 2015, 131 new measures (140 measures including Norway) were identified (Annex 1), which is an increase of around 25% compared to the previous year. This figure drops to 60 when only considering measures that are deemed to be economically substantial⁹. Therefore, as in the previous year, around half of the new measures can be considered to be of economic significance.

All reported new measures relate to the credit-intermediation sector, predominantly banks. The same observation was made in last year's Review. As macroprudential policy is still very much under development, it is natural to focus on the banking sector as the key sector in the financial intermediation process in the EU. Moreover, the CRD/CRR provided the legal basis for a common set of bank-based instruments at the Union level. Practical experience with the use of

⁶ Prepared by Frank Dierick (ESRB Secretariat) with research assistance from Daniel Karpati (ESRB Secretariat).

⁷ Because it remains challenging to define exactly what constitutes a macroprudential measure, in this report the broader concept of measure of macroprudential interest is used, see ESRB, "A review of macroprudential policy in the EU one year after the introduction of the CRD/CRR" (June 2015), p. 6 for further details.

⁸ See <https://www.esrb.europa.eu/mppa/html/index.en.html>

⁹ The last column in the overview table of Annex 1 indicates whether or not a measure has been considered as economically significant for the further analysis. All measures are deemed to be of economic significance apart from measures of a more procedural or administrative nature, such as the early introduction of the capital conservation buffer, the early introduction of the countercyclical capital buffer, setting the countercyclical 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 countercyclical capital buffer. The subsequent analysis in this Review makes a distinction between all measures adopted or announced in 2015 and those that are deemed to be economically substantial.



macroprudential instruments is also almost exclusively limited to the banking sector. However, work is presently underway in the ESRB regarding macroprudential instruments that encompass the non-banking sector such as insurance, asset management and financial infrastructure.

All reported measures were of a neutral/procedural or a tightening nature. Neutral/procedural measures include, for example, the setting of the countercyclical capital buffer rate at 0%, the exemption of small and medium-sized investment firms for the capital conservation and countercyclical capital buffer requirements, and the identification of O-SII/G-SIIs (without necessarily imposing buffer requirements yet). Tightening measures include, among others, the introduction of an LTV cap or a systemic risk buffer requirement.

The voluntary reciprocation of national measures was restricted to the countercyclical capital buffer. The few cases of voluntary reciprocation observed in 2015 are discussed in greater detail in Section 4 on the countercyclical capital buffer. In order to promote the greater use of reciprocation, in 2015 the ESRB adopted Recommendation 2015/2 that sets the framework for the assessment of cross-border effects of macroprudential policy measures and establishes a mechanism for voluntary reciprocation of these measures. The recommendation is intended to cover all macroprudential measures where reciprocation might be necessary.

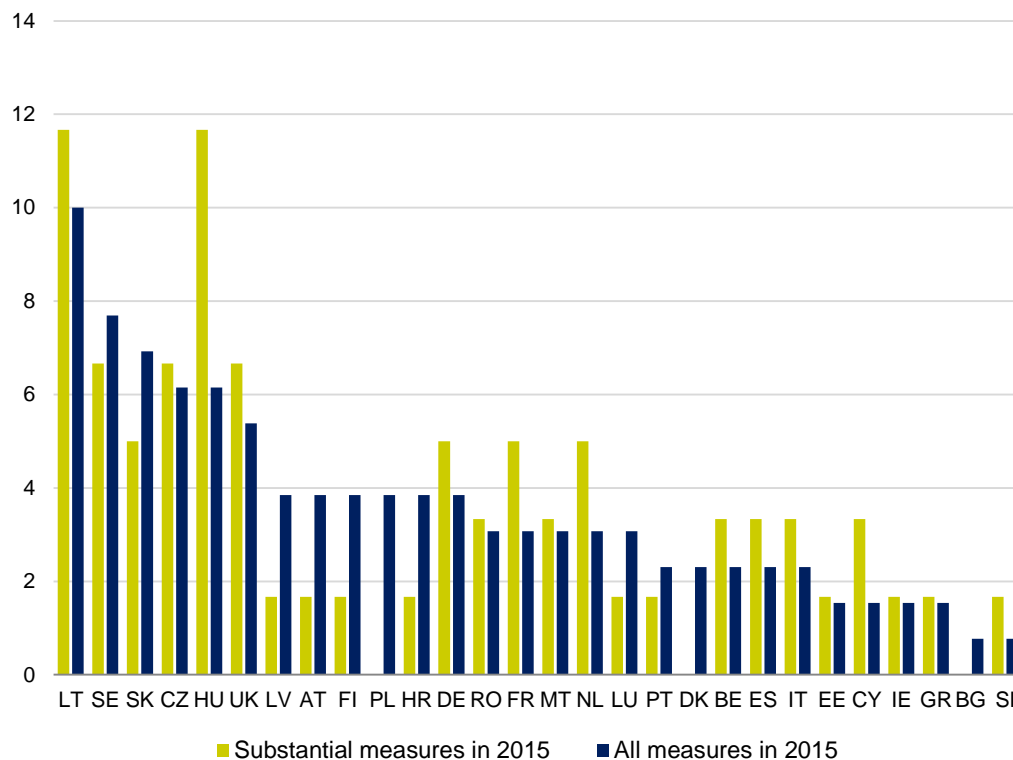
The large majority of measures were taken under the CRD/CRR framework. There were only nine measures taken under national law. They relate to prudent credit standards, for example caps on LTV, DSTI and mortgage loan maturities (Lithuania, Czech Republic and Estonia) as well as specific ratios addressing both liquidity risk and foreign currency risk (Hungary).

The introduction of the regimes of the countercyclical capital buffer and the designation of systemically important institutions are two important factors explaining the increase in the number of measures. At the end of 2015, the EU countries that had not yet opted for an early introduction of the countercyclical capital buffer now started fixing buffer rates in view of the compulsory introduction of the CCB regime in 2016. However, these countries generally set the buffer rate at 0% so as yet these measures have no real impact. Most EU countries also proceeded in the same period with the identification of G-SIIs and O-SIIs, as well as their corresponding buffer rates.

2015 once again showed wide differences across EU countries as regards the number and type of measures taken (Figure 1-1). Nonetheless, in 2015 all EU countries introduced new macroprudential measures. Counting the measures at face value across countries, ignoring the relevance or impact of the measures, the list is topped by Lithuania, Sweden, Slovakia and the Czech Republic. These four countries account for more than a quarter of all measures and a third of all substantial measures. Sweden was also in this list the previous year, whereas the other three countries were in the middle of the ranking in 2014. In 2015, all EU countries introduced measures in contrast to the previous year where only a handful took action. To a large extent this is explained by the fact that the CRD/CRR requires Member States to implement certain measures in 2016, such as the regimes for the countercyclical capital buffer and the G-SIIs/O-SIIs. This is also evidenced by the fact that many countries took action in these areas at the end of 2015 and in early 2016.



Figure 1-1
Relative frequency of use of measures by Member State
As percentage of the total measures in the respective category



Source: ESRB

Note: All measures are deemed to be substantial apart from measures of a more procedural or administrative nature, such as the early introduction of the capital conservation buffer, the early introduction of the countercyclical capital buffer, setting the countercyclical 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 countercyclical capital buffer.

Clear country differences appear in the diversity of instruments that are in active use.

Annex 2 provides a simple “tick box” overview of the different instruments that were active at the end of January 2016. As this table does not take into account the intensity of the use of the instruments or their impact, one should be cautious in interpreting the results. Nevertheless, the table indicates that up to now countries such as Sweden, Norway, the UK, Lithuania and Denmark are using a much broader range of macroprudential instruments than countries such as Austria and Greece.

Mitigation and prevention of excessive credit growth and leverage continues to be the single most important intermediate objective of macroprudential policy¹⁰.

Figure 1-2 shows that 6 out of 10 measures identified in the EU relate primarily to excessive credit growth and leverage. The picture changes completely when only the substantive measures are considered. In that case, 6 out

10 Recommendation ESRB/2013/1 defines five intermediate objectives of macroprudential policy: (i) to mitigate and prevent excessive credit growth and leverage, (ii) to mitigate and prevent excessive maturity mismatch, (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. 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.

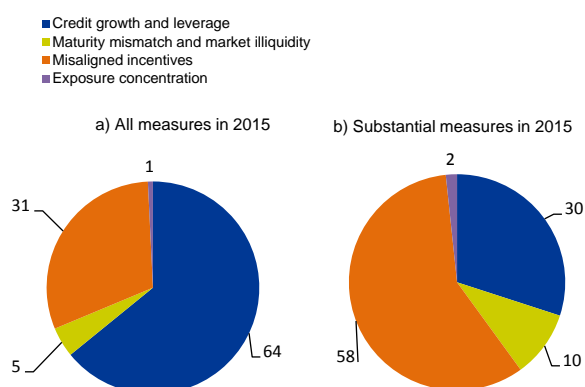


of 10 measures relate to misaligned incentives. The reason is that the many notifications of countercyclical capital buffer rates set at 0% inflate the total number of measures. Moreover, measures related to the identification of, and additional capital buffers for, systemically important institutions, dominate the substantive measures. But these measures are required to comply with the CRD and therefore do not necessarily signal that authorities see misaligned incentives as the biggest financial stability concern in their country.

Figure 1-2

Relative frequency of use of measures pertaining to various intermediary objectives

As percentage of the total measures in the respective category



Source: ESRB

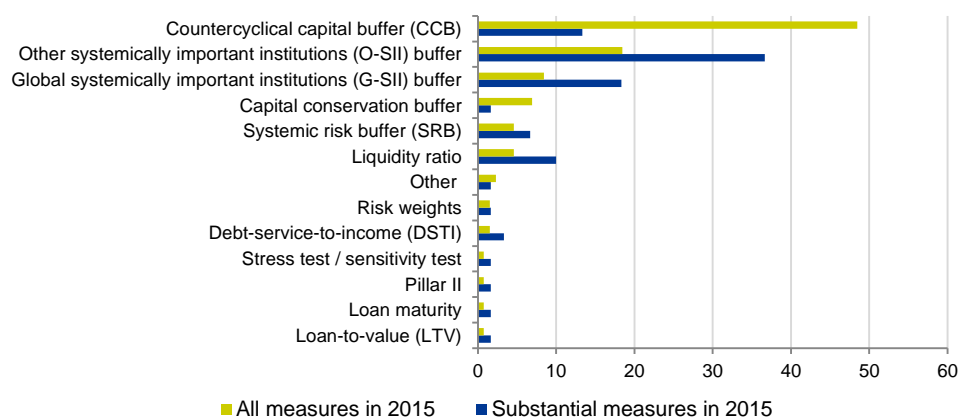
Note: All measures are deemed to be substantial apart from measures of a more procedural or administrative nature, such as the early introduction of the capital conservation buffer, the early introduction of the countercyclical capital buffer, setting the countercyclical capital buffer rate at 0% or keeping the rate unchanged, and exempting small and medium-sized investment firms from the capital conservation buffer and/or the countercyclical capital buffer.

The most frequently used instruments in 2015 were the countercyclical capital buffer and the buffer requirements for systemically important institutions (Figure 1-3). This conclusion is again explained by the earlier identified major trends and remains valid for all the measures as well as only the substantial ones.

Figure 1-3

Relative frequency of use of various types of measures

As percentage of the total measures in the respective category



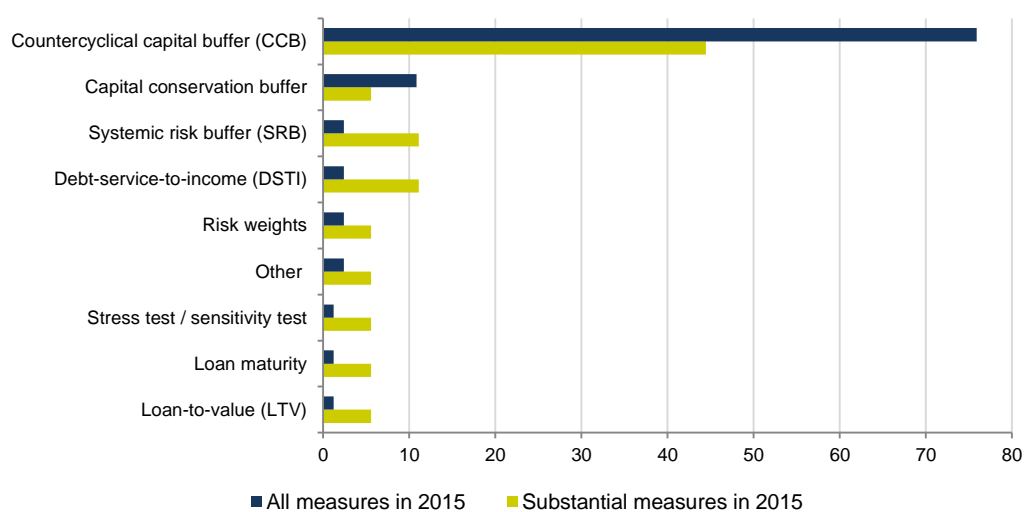
Source: ESRB

Note: All measures are deemed to be substantial apart from measures of a more procedural or administrative nature, such as the early introduction of the capital conservation buffer, the early introduction of the countercyclical capital buffer, setting the countercyclical 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 countercyclical capital buffer.



The countercyclical capital buffer and the capital conservation buffer remain the most frequently used instruments to address concerns of excessive credit growth and leverage (Figure 1-4). Again, this picture is somewhat distorted by the quarterly setting of countercyclical capital buffer rates. The systemic risk buffer (discussed in greater detail in Section 1.3) has become a frequently used CRD/CRR instrument as well¹¹. Outside the CRD/CRR framework, the most frequently used instruments are caps on the DSTI, LTV and loan maturity to address concerns related to residential mortgage lending.

Figure 1-4
Relative frequency of the use of measures for addressing credit growth and leverage
As percentage of the total measures in the respective category



Source: ESRB

Note: All measures are deemed to be substantial apart from measures of a more procedural or administrative nature, such as the early introduction of the capital conservation buffer, the early introduction of the countercyclical capital buffer, setting the countercyclical 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 countercyclical capital buffer.

1.2 Measures related to residential real estate lending

Real estate lending continues to be highly relevant for macroprudential policy action.

Section 3 discusses in greater detail developments in the residential and commercial real estate sectors as case studies. In the course of 2015, new initiatives in the residential real estate sector were taken by the Czech Republic, Lithuania and Germany (and Norway).

Czech Republic. Česká národní banka issued a recommendation that no new mortgage loan should have an LTV of more than 100% and that the share of new mortgage loans with an LTV of more than 90% cannot be more than 10% of the total amount of new mortgage loans in any given quarter (so-called proportionate LTV). In addition, it issued a series of recommendations related to prudent credit standards for residential mortgage loans.

¹¹ Some of these measures aim to increase the resilience of the banking sector. However, since this is not one of the five intermediary objectives of macroprudential policy identified in Recommendation ESRB/2013/1, they have been allocated to the intermediary objective of addressing excessive credit growth and leverage.



Lithuania. Lietuvos bankas introduced tighter DSTI rules. In addition to the existing DSTI cap of 40%, the banks also have to comply with a 50% DSTI cap when an interest rate of 5% rather than the prevailing interest rate is used; on the other hand, a higher DSTI (but capped at 60%) can be applied to a maximum of 5% of the total value of new housing loans during the calendar year (proportionate DSTI). Lietuvos bankas further shortened the maximum mortgage loan maturity to 30 years.

Germany. The Ausschuss für Finanzstabilität (Financial Stability Committee) recommended the initiation of the legislative process leading to the creation of a legal basis in Germany for the use of macroprudential instruments in the residential real estate sector (LTV, DTI, DSTI, DSCR and amortisation requirements). At the end 2015, such instruments were not yet in place. The legislative process is proceeding.

Norway. In Norway a regulation replaced existing supervisory guidelines regarding LTV caps, amortisation requirements and the borrower's debt servicing ability under an interest rate shock.

Table 1-1 and Table 1-2 give an overview of prevailing measures related to the residential real estate sector and updates similar tables published in last year's Review.

Table 1-1
Measures in place related to the residential real estate sector

Under CRD/CRR	
Risk weights	BE, IE ⁽¹⁵⁾ , LU ⁽¹³⁾ , MT ⁽⁹⁾ , SE, UK, (NO)
LGD floors (indirectly risk weights)	(NO)
Outside CRD/CRR	
Loan-to-value	CZ ⁽¹⁹⁾ , DK ⁽⁷⁾ , EE ⁽²¹⁾ , IE, CY ⁽⁸⁾ , LV ⁽²³⁾ , LT ⁽⁴⁾ , LU ⁽¹³⁾ , HU ⁽¹⁾ , MT ⁽⁹⁾ , NL, PL, RO ⁽⁵⁾ , SK, FI ⁽²⁰⁾ , SE ⁽³⁾ , (NO)
Loan-to-income / Debt-to-income	DK ⁽²⁴⁾ , IE, UK
Debt-service-to-income ⁽¹⁾ /Payment-to-income ⁽¹⁾	EE ⁽²¹⁾ , CY ⁽¹¹⁾ , LT ⁽⁴⁾ , HU, PL ⁽¹⁴⁾ , SK ⁽²¹⁾
Stress test / sensitivity test	DK ⁽²⁴⁾ , IE ⁽¹⁶⁾ , CY ⁽¹¹⁾ , LT ⁽¹⁸⁾ , LU ⁽⁶⁾ , SK, UK, PL ⁽¹⁰⁾ , (NO)
Loan maturity	CZ ⁽¹⁹⁾ , EE ⁽²¹⁾ , LT ⁽⁴⁾ , NL, PL ⁽²²⁾ , SK ⁽¹⁾
Loan amortisation ⁽²⁾	DK ⁽¹⁷⁾ , NL, SK ⁽¹⁾ , SE ⁽¹²⁾ , CZ ⁽¹⁹⁾ , (NO)

Source: ESRB
Notes:

- (1) For all debt (more than only mortgage debt)
- (2) It should not be presumed that countries not listed here followed a less active or less vigilant macroprudential policy as in some countries loan amortisation is considered the natural practice of debt servicing.
- (3) In place since October 2010
- (4) In place since September 2011 and further tightened in 2015.
- (5) The current version has been in place since October 2011
- (6) In place since July 2013
- (7) In place since November 2015
- (8) In place since November 2003
- (9) Combination of preferential risk weight and more stringent LTV (soft threshold) under Art. 124 CRR. In place since 2008
- (10) Interest rate and foreign currency stress tests, in place since July 2014
- (11) In place since December 2013
- (12) Measure expected to come into force on 1 June 2016 following an amendment to the banking law.
- (13) Combination of preferential risk weight and LTV. In place since July 2013
- (14) In place since end October 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) Regulations regarding mortgage credit institutions share of interest-only loans will be implemented from 2020 onwards.
- (18) In combination with a DSTI cap (since November 2015)
- (19) In place since June 2015.
- (20) Will be in place as of July 2016
- (21) In place since March 2015
- (22) In place since 2014.
- (23) In place since July 2007
- (24) Supervisory guidelines for areas with significant price increases. In place since January 2016



Table 1-2
LTV limits in place for residential mortgage lending

Member State	LTV limit	Basis for limit
Czech Republic ⁽¹¹⁾	100%; the share of loans with an LTV > 90% cannot be more 10% in any given quarter	Recommendation
Denmark ⁽⁵⁾	95%	Recommendation
Estonia ⁽¹³⁾	85%; 90% in the case of a KredEx guarantee	Binding regulation
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⁾	Binding regulation
Cyprus ⁽⁶⁾	70%; 80% in cases where the credit facility is granted for financing the primary permanent residence of the borrower	Binding regulation
Latvia ⁽¹⁾	90%; 95% for loans covered by a state guarantee under the Law on Assistance in Resolution of Dwelling Issues (since July 2014)	Binding regulation
Lithuania ⁽³⁾	85%	Binding regulation
Luxembourg ⁽⁸⁾	80%	Binding regulation
Hungary	Between 35% and 80% (depending on the currency denomination of the loan)	Binding regulation
Malta ⁽⁷⁾	70%	Binding regulation
Netherlands	From 106% (2012) to 100% (2018)	Binding regulation
Romania ⁽⁴⁾	Between 60% and 85% (depending on the currency denomination of the loan)	Binding regulation
Poland	90% as of 2015, 85% as of 2016 (with a further tightening over time, until 80% in 2017)	Recommendation
Slovakia	100%; the share of loans with an LTV > 90% cannot be more 20% in any given quarter (with a further tightening over time, until 10% in 2017)	Recommendation
Finland ⁽¹²⁾	90%; 95% for first-time-buyers	Binding regulation
Sweden ⁽²⁾	85%	Binding regulation
Norway ⁽¹⁴⁾	85%	Binding regulation ⁽¹⁰⁾

Source: ESRB

Notes:

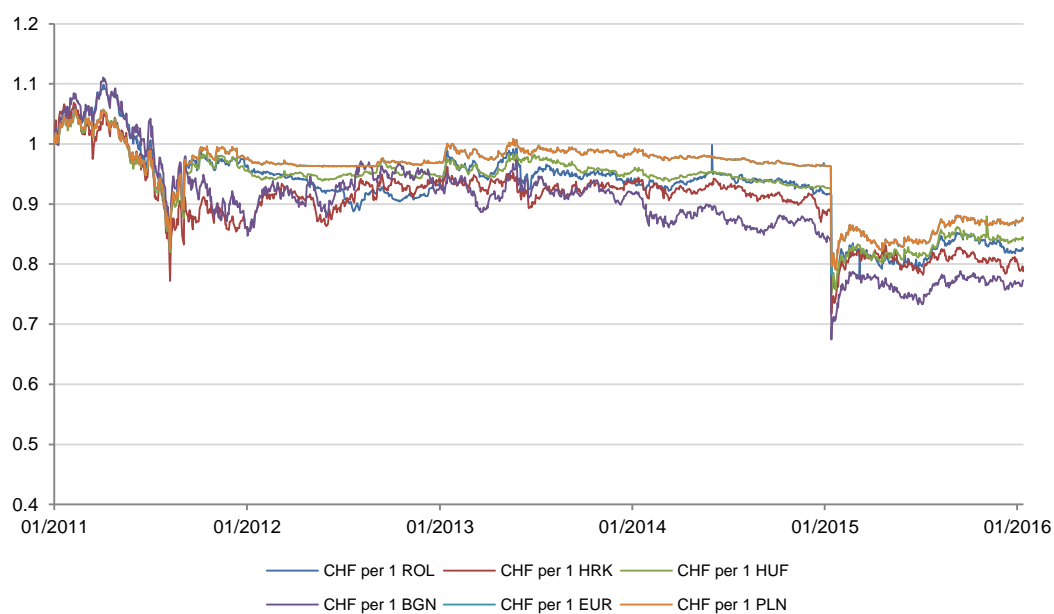
- (1) In place since July 2007
- (2) In place since October 2010 in the form of general guidelines that must be complied with
- (3) In place since September 2011
- (4) The current version has been in place since October 2011
- (5) In place since November 2015
- (6) In place since November 2003
- (7) Combination of preferential risk weight and more stringent LTV (soft threshold) under Art. 124 CRR. 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
- (10) Since 2015 replacing supervisory guidelines
- (11) In place since June 2015
- (12) Will be in place as of July 2016
- (13) In place since March 2015
- (14) The Norwegian regulation also includes a so-called speed limit. 10 percent of loans issued in a quarter may violate one or more of the requirements (LTV, stress test and amortisation).

In the course of 2015, several EU countries considered, and often also adopted, policy initiatives aimed at addressing the risks from the outstanding stock of foreign currency loans. The list includes countries from Central and Eastern Europe (CEE) such as Croatia, Hungary, Poland and Romania. The initiatives were mainly aimed at addressing the risks resulting from the still sizeable outstanding stock of Swiss franc (CHF) loans in these countries. The problems related to such loans became particularly acute from January 2015 onwards, when the Swiss National Bank decided to unpeg the Swiss franc from the euro and discontinue its policy of maintaining a minimum exchange rate of CHF 1.2 per euro. The result was an immediate and strong appreciation of the CHF, and corresponding depreciation of the euro and CEE currencies (Figure 1-5), by approximately 10% in 2015. In countries with sizeable stocks of Swiss franc loans, this translated into a higher debt service burden for CHF-indebted borrowers and a less favourable collateral position (higher LTV values). As many of these borrowers were households (through mortgage or consumer loans) this resulted in high social and political pressure in these countries to



address the debt-servicing problem. Often the banks engaged in such lending are subsidiaries of other EU banks (in particular from Austria, France and Italy).

Figure 1-5
Evolution of the euro and selected CEE currencies against the Swiss franc
(index: 3 January 2011 = 100)



Source: Bloomberg

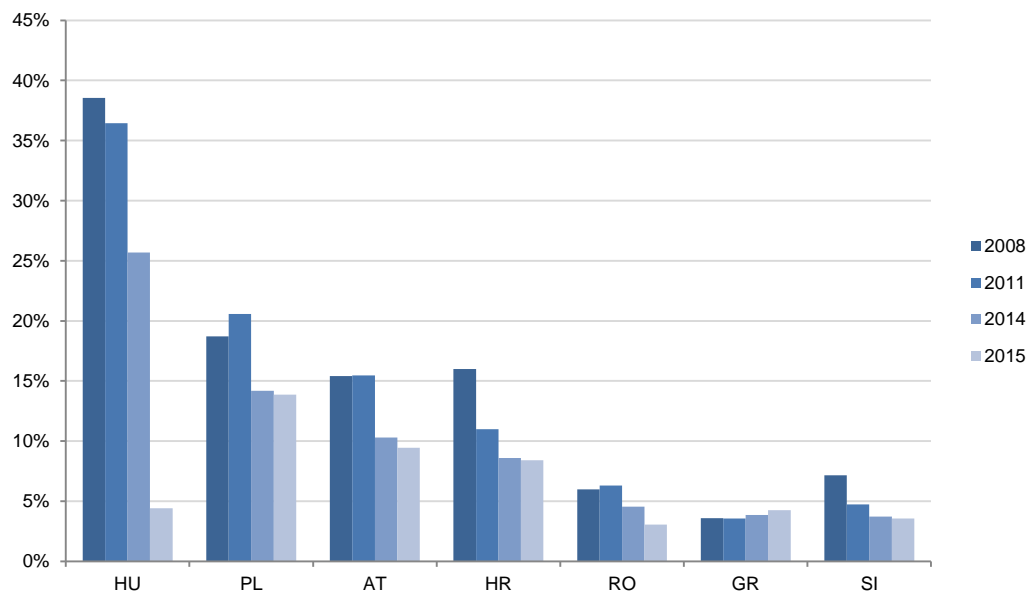
Following the ESRB recommendation on foreign currency loans, the flow of CHF loans had stopped but the stock of such loans continued to be important in several Member States.

Recommendation ESRB/2011/1 only covers new foreign currency loans (i.e. the flow of loans as opposed to the current stock) and aimed to tackle the credit risk and the risk of mispricing of such loans. The Recommendation curbed the flow of loans and thereby reduced the outstanding stock of loans as existing loans matured (Figure 1-6). However, in countries such as Hungary and Poland, the stock of CHF loans in relation to banks' total loan portfolio still remained significant. This resulted in a number of initiatives to address the related risk. Sometimes these initiatives were of a voluntary nature (e.g. a commitment by the banks to support customers), but often this proved to be insufficient thus spurring public action.



Figure 1-6

Loans to non-MFIs: share of CHF denominated loans in total loans



Source: ESRB calculation on the basis of ECB SDW data

One set of initiatives to address the stock of existing foreign currency loans aimed at enabling the conversion of such loans into local currency. Croatia, Hungary and Poland fall into this category. Often this conversion is provided for by law and can take place at favourable conditions for the borrower (e.g. only the borrower has the right to request the conversion, the conversion takes place at an advantageous exchange rate). This is the case in Croatia and Hungary (and as discussed in Poland; however, in Poland no final decision has yet been taken).

There are two polar forms of conversion, each involving costs of different nature. In the first form, the costs are born by the banks, thus affecting their profitability and solvency. If the conversion weakens the banks, this may have a negative impact on financial stability in the short term. It may further create expectations on borrowers that future losses resulting from similar forms of risk-taking may end up being subsidised. In the second form, the conversion cost is born by the government. In this case, the short-term financial stability cost is avoided (at a cost for government finances) but at the reputational cost of creating expectations of future rescues not only for final borrowers but also for banks.

Another set of measures related to stricter capital and/or risk management requirements for banks holding such loans. Romania and Hungary fall into this category. Romania considered introducing a systemic risk buffer for banks that had on their balance sheet CHF loan portfolios exceeding a certain percentage of the total stock of CHF loans in the domestic banking sector. The rationale for this envisaged measure was to cushion banks against a concentrated risk of CHF appreciation vis-à-vis the local currency. In the end, however, this measure was not pursued; rather, a systemic risk buffer was considered on banks controlled by banks from non-investment grade countries (see Section 1.3) although these banks also hold the largest share of the stock of outstanding CHF loans.

Hungary introduced a number of risk management requirements for banks that, in some way or another, are related to their (former) portfolio of CHF loans. First, following the earlier mentioned conversion of CHF loans banks became exposed to an important maturity mismatch in Hungarian



forint (HUF); hence, a minimum requirement for longer term mortgage funding for HUF denominated retail mortgage loans was introduced. Second, with the aim of preventing a repetition of the past, an overall on-balance sheet currency mismatch limit was introduced for the banking sector. Third, existing rules regarding banks' maturity mismatch in foreign currencies were further tightened.

Following such initiatives, authorities should be wary not to continue counting the risk related to CHF loans for additional capital requirements if the risk has been eliminated. For example, banks with high CHF loan exposures might have been subject to extra capital buffers (e.g. as Pillar II add-on or as a systemic risk buffer). In cases where the loans are converted into local currency loans, there would no longer be a need to have this extra capital requirement in place.

1.3 Use of the systemic risk buffer

In the course of 2015, three more Member States (Hungary, Romania and Slovakia) announced the introduction of the systemic risk buffer. Moreover in Austria, the Finanzmarktstabilitätsgremium (the Financial Market Stability Board) recommended the introduction of the systemic risk buffer to the Finanzmarktaufsicht (Financial Market Authority)¹². In all three cases, the rate was set at such a level that the intervention of the European bodies in the process would not be required. There are now in total 11 Member States (12 including Norway) implementing the systemic risk buffer (Table 1-3). The recent cases once again illustrate the wide diversity in motives of Member States in using this capital buffer. The wide and diverse application of the buffer may also carry certain risks for a European level playing field.

In Hungary the systemic risk buffer is intended to address the risk resulting from the persistently high ratio of problem exposures to the commercial real estate sector. Magyar Nemzeti Bank (MNB) will set an institution-specific buffer in the range of 0% to 2% depending on the ratio of the bank's problem exposures to the commercial real estate sector relative to its (sub-) consolidated Pillar I capital requirement (see also Section 2.2). The aim of the buffer is to increase the resilience of those banks that significantly contribute to the systemic risk resulting from this type of exposure, and which works through banks' profitability, new lending as well as collateral markets. Since the systemic risk buffer is calculated on the basis of domestic exposures only, it is cumulative to the O-SII buffer.

In Slovakia the systemic risk buffer is used as a complement to the O-SII buffer. Národná banka Slovenska (NBS) identified five O-SIIs¹³ that will be subject to the O-SII buffer. Since the CRD caps the O-SII buffer at 2%, the systemic risk buffer is used to top up the limit for three institutions where the O-SII buffer is deemed to be insufficient to address the systemic risk resulting from the bank concerned. Also here the systemic risk buffer is calculated on the basis of domestic exposures only.

With its systemic risk buffer, Romania targets a specific form of contagion risk resulting from the ownership-structure of banks. Banca Națională a României plans to introduce a 1% buffer requirement for banks whose parent bank is based in a non-investment grade country. The rationale for this measure is that an unfavourable sovereign rating of the home country of a bank

¹² Finanzmarktaufsicht (FMA) implemented the systemic risk buffer in December 2015.

¹³ Všeobecná úverová banka, Slovenská sporiteľňa, Tatra banka, Československá obchodná banka and Poštová banka.



will translate into a higher funding cost for this bank, and in turn affect its lending and the behaviour of its depositors.

Table 1-3
Main features of the systemic risk buffer

Member State	Level	Calculation basis	Main motivation	Implementation
Austria	Up to 2%	Twelve banks ¹⁴ All exposures (sub-)consolidated	Systemic vulnerability Systemic cluster risk	2016-2019
Bulgaria	3%	All banks Domestic exposures Solo and (sub-)consolidated	Presence of currency board and impact for monetary and fiscal policy Weak economic environment	2015
Croatia	2 rates: 1.5% and 3%	All banks All exposures Solo and (sub-)consolidated	Systemic risk resulting from O-SIIs Macroeconomic imbalances Features of real estate markets and role of real estate as collateral High concentration in the banking sector	2014
Czech Republic	3 rates: 1%, 2.5% and 3%	Four banks identified as systemically important institutions ¹⁵ All exposures Solo level	Systemic risk resulting from highly concentrated banking sector and common sectoral exposure	2015
Denmark	5 rates: 1%, 1.5%, 2%, 2.5% and 3%	Six banks identified as O-SIIs ¹⁶ All exposures Solo and (sub-)consolidated	Systemic risk resulting from O-SIIs	2015-2019
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	2014
Hungary	4 rates: 0%, 1%, 1.5% and 2%	All banks, but buffer rate depends on the ratio of the bank's problem commercial real estate exposures to its capital Domestic exposures (Sub-)consolidated	Systemic risk resulting from problem exposures to the commercial real estate sector	2017
Netherlands	3%	Three largest banks ¹⁷ All exposures Consolidated	Systemic risk resulting from systemically important institutions	2019
Romania	1%	All banks with a parent bank based in a non-investment grade country All exposures Solo and (sub-)consolidated	Contagion risk resulting from ownership structure (parent bank based in a non-investment grade country)	2016
Slovakia	Up to 1%	Three banks identified as O-SIIs ¹⁸ Domestic exposures Solo and (sub-)consolidated	Importance of the banking sector High concentration in the banking sector Small and open economy	2017-2018
Sweden	3%	Four largest banks ¹⁹ 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	2015
Norway	3%	All banks All exposures Solo and (sub-)consolidated	Exposure concentration	2013-2014

Source: ESRB

Notes: The United Kingdom is currently holding a public consultation on its systemic risk buffer framework.

14 Erste Group Bank, Raiffeisen Zentralbank, Raiffeisen Bank International, Unicredit Bank Austria, Raiffeisenlandesbank Oberösterreich, Raiffeisen-Holding Niederösterreich-Wien, BAWAG P.S.K., HYPO NOE Gruppe Bank, Vorarlberger Landes- und Hypothekbank, Hypo Tyrol Bank, Oberösterreichische Landesbank and Sberbank.

15 Česká spořitelna, Československá obchodní banka (ČSOB), Komerční banka, Unicredit Bank Czech Republic and Slovakia.

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

17 ABN Amro Bank, ING Bank, Rabobank.

18 Všeobecná úverová banka, Slovenská sporiteľňa and Tatra banka.

19 Handelsbanken, Nordea, SEB, Swedbank.



The purpose of the recommended introduction of the systemic risk buffer in Austria is to increase the resilience of banks that are particularly exposed to certain structural systemic risks prominent in the Austrian banking sector.

These risks include the large size of the banking sector, the elevated risks from exposures to the Central, Eastern and South-eastern (CESEE) region, the high degree of interconnectedness, the high concentration in the banking sector and the risks resulting from public ownership (i.e. the uneven playing field resulting from public guarantees and the difficulty of recapitalising such institutions). To address these risks a systemic risk buffer of up to 2% would be imposed on twelve institutions. A particular form of structural systemic risk results from correlated exposures of Austrian banks to the CESEE region. In the systemic risk buffer of the individual bank, a distinction is therefore made between a charge for systemic vulnerability and a charge for so-called systemic cluster risk.

Three of the four cases at hand provide for phasing in arrangements. In the case of Hungary, the buffer would become effective from 2017 onwards which would give banks the opportunity to further reduce their problem exposures and thus avoid the capital add-on. In the case of Austria and Slovakia, the introduction of the buffer would be phased in over 3 years with an increasing buffer rate over time. However, in some cases this phasing in results in a systemic buffer rate of less than 1%, at least temporarily. In that respect, it should be noted that to comply with Article 133.3 of the CRD the systemic risk buffer should be at least 1% and that, in contrast to the countercyclical capital buffer and the capital conservation buffer, no transitional provisions are provided for. In Romania, the banks concerned would be required to meet the new buffer requirement from the end of March 2016 onwards.

Finally, the Danish Ministry of Business and Growth notified the yearly setting of the systemic risk buffer in Denmark. The systemic risk buffer rates are being phased in gradually between 2015 and 2019. While ultimate requirements for 2019 will stay unchanged, actual requirements change each year until fully phased in in 2019. It should be recalled that the systemic risk buffer was introduced in Denmark to address the systemic risk related to O-SIIs. Compared to the previous year, there were no changes in the list of institutions that were identified as O-SIIs or in the level of their systemic risk buffer requirement.



Section 2

Cross-country comparison on measures related to the real estate sector

2.1 Residential real estate sector²⁰

Vulnerabilities in the residential real estate (RRE) sector were a key topic in the discussions of the ESRB in the course of 2015. Relatively few new measures addressing RRE were introduced in 2015 (Section 1). However, in terms of active measures, RRE remains one of the vulnerabilities most frequently addressed by macroprudential authorities in the EU. This may reflect the availability of instruments addressing RRE in existing EU and national regulation (see further below) but also the relatively frequent RRE-related crises in recent decades.²¹ Indeed, as reflected in the ESRB bottom-up survey for the identification of risks and vulnerabilities, ESRB members assign very high policy priority to RRE.²² This section highlights similarities and differences in the various national approaches in dealing with vulnerabilities and risks in the RRE sector.

Addressing RRE risk is characterised by distinct challenges including political sensitivity and complex transmission channels.²³ Compared to other areas of potential systemic risk, assessing RRE risk is facilitated by access to data that is more comprehensive and of better quality. However, important data challenges still remain (see further below). In addition, assessing RRE vulnerabilities is difficult due to the interactions between various structural and institutional features of RRE markets. Deciding on a macroprudential policy for the RRE sector is further complicated by its complexity in that instruments may affect households and financial institutions through various transmission channels relating to both wealth and consumption effects. In addition, RRE is an area of high political sensitivity, given the importance of real estate in wealth and expenditure of households (and indeed financial institutions).

A wide set of instruments is available to address vulnerabilities in RRE. This includes both Pillar I instruments provided for in EU-wide legislation (CRDIV/CRR), Pillar II²⁴ and additional instruments in national legislation (Table 2-1). Since some instruments can only be applied to new loans (such as amortisation requirements and caps on loan-to-income (LTI), debt service-to-income (DSTI) and loan-to-value (LTV), they are comparatively more effective in dampening a further build-up of vulnerabilities than in addressing vulnerabilities related to the stock of pre-existing exposures. Sectoral capital requirements, including increasing risk weights (RWs) and/or minimum loss-given-default values (LGDs) on RRE – on the other hand – can also be applied to the existing stock of loans. This enables macroprudential authorities to strengthen the resilience of credit institutions in

20 Prepared by Elias Bengtsson (ESRB Secretariat) with input from Sampo Alhonsuo (ESRB Secretariat) and Etienne Lepers (ESRB Secretariat)

21 See ESRB, "Residential real estate and financial stability in the EU", 2015 for further details.

22 Results from the 2016-Q1 ESRB Bottom-up Survey show that RRE vulnerabilities is the risk that has the highest policy priority from the domestic perspectives of ESRB members.

23 See also Table 3 for a stylised comparison between RRE and CRE along some key dimensions.

24 The macroprudential use of Pillar II is disputed by some countries. This is related to a number of factors including the generally lower transparency of Pillar II compared to Pillar I requirements, which is often seen as lowering the effectiveness of the requirements by reducing market discipline. Another potential problem is the need for coordination between micro- and macroprudential authorities in cases where these are separate. For a discussion, see ESRB Handbook of Macroprudential Policy in the Banking Sector (2014).



situations where vulnerabilities are already elevated. Combinations of instruments are also possible (e.g. to address vulnerabilities that are rising from already elevated levels).²⁵

Table 2-1
Available macroprudential instruments to address vulnerabilities in RRE

Instrument	Legal basis	Applicable to new or current loans	Dampen build-up/reduce existing vulnerabilities	Typology of instrument
Sectoral capital requirements	CRD/CRR: Direct: SRB, Own funds (CRR 458, Pillar II); Indirect: Increased RWs for SA (CRR 124, 164), Minimum LGDs for IRB (CRR 164)	New & current loans	Reduces existing vulnerabilities (may dampen build-up)	Bank stretch
Caps on LTI	Pillar II / National law	New loans	Dampens build-up	Income stretch
Caps on DSTI	Pillar II / National law	New loans	Dampens build-up	Income stretch
Caps on LTV	Pillar II / National law	New loans	Dampens build-up	Collateral stretch
Requirements on amortisation / loan maturity	Pillar II / National law	New loans	Dampens build-up	Income / collateral stretch

Source: ESRB

Notes: Procedural and institutional constraints apply to the use of most of these instruments. For further details, see ESRB, "Residential real estate and financial stability in the EU", 2015 and ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector (2014). Typology of instrument refers to the typology developed in Section 4 of the ESRB Report on Residential Real Estate and Financial Stability in the EU (2015).

The choices of macroprudential instruments to address RRE display considerable diversity across the EU. Increased sectoral capital requirements by raising RWs or by imposing minimum values for LGDs for RRE exposures is relatively common. Applying instruments in national law and Pillar II measures are even more common. Many countries have introduced LTV caps, but caps on DSTIs and LTIs are also relatively frequent. In addition, amortisation requirements and caps on loan maturities are also in place in a few countries. Table 2-2 outlines how individual countries have used macroprudential instruments on RRE, based on a grouping into measures that primarily dampens the build-up of vulnerabilities or reduces existing vulnerabilities. Beyond the instruments mentioned above, the table also covers the tightening of lending standards, and increased capital requirements for certain banks following RRE stress tests. Beyond what is reported in Table 2-2, several countries also reciprocate RRE instruments applied in other countries.

Table 2-2
Current use of macroprudential instruments in the EU to address vulnerabilities in RRE

Instrument categories	Instruments	Countries
Reduce existing RRE vulnerabilities	Sectoral capital requirements	BE, HR, IE, LU, SE
	Increased capital requirements following stress tests	UK
Dampen build-up of RRE vulnerabilities	Caps on LTV	CY, CZ, DK, EE, IE, LT, LV, MT ⁽¹⁾ , NL, NO, PL, RO, SE, SK, FI (forthcoming)
	Caps on DSTI	CY, CZ ⁽²⁾ , EE, LT, RO, PL ⁽²⁾ , SK
	Caps on LTI	IE, UK
	Requirements on amortisation / loan maturity	EE, LT, NL, NO, SE (forthcoming), SK, PL, CZ
	Tightened lending standards	CZ, SK, UK

Source: ESRB

Notes:

(1) Combination of preferential risk weight and more stringent LTV (soft threshold) under Art. 124 CRR.

(2) Soft recommendation. Banks should set their internal DSTI limits and pay special attention to loans above the specified threshold

Macroprudential instruments are primarily reducing existing vulnerabilities in some countries and dampening further build-up in others. A number of countries are using

²⁵ Another way of categorising RRE-related instruments is to differentiate between instruments that address borrower, collateral and banking stretch (also shown in Table 1). See further ESRB, "Residential real estate and financial stability in the EU", 2015



combinations of instruments that both strengthen the resilience of credit institutions and potentially reduce the build-up of further vulnerabilities (Ireland, Sweden and the United Kingdom). In other countries, the active instruments primarily addresses the former (Belgium, Croatia) or the latter (CY, CZ, EE, LT, LV, MT, NL, NO, PL, RO, SK, FI) objective. However, since some of the instruments that dampen further build-up of vulnerabilities have been in place for several years, they may also have reduced the levels of RRE vulnerabilities.

Diversity also characterises the calibration level of instruments, which influences how “binding” the instruments are. For RWs, measures include minimum values (25% in Sweden), add-ons to the RWs resulting from banks’ internal models (+5 percentage points in Belgium), and higher RWs for loans above certain LTV levels (Croatia, Ireland). Throughout the EU, the LTV caps imposed range between 35 and 103%, but are typically calibrated between 70 and 90% (with exemptions allowed). DSTI caps vary between 35 and 60 percent, but often depend on the currency of the loan and/or include some exemptions. LTIs are capped at 3.5 (Ireland) and 4.5 (United Kingdom) but allow for a part of the loan stock to exceed these caps. Amortisation requirements also differ significantly. In the Netherlands, tax deductibility of interest is contingent on amortisation, whereas amortisation requirements in Norway only apply to loans exceeding an LTV of 70%. In Sweden, under a planned measure households will be expected to amortise 2% of their loan annually as long as their LTV is above 70%; once they reach this level, they will be required to amortise 1% of the loan until the LTV reaches 50%.

Differences in instrument selection, calibration and design may reflect country specificities. This may relate to country differences in terms of structural and institutional features of RRE. These include characteristics in the market (fixed/variable interest rates, home ownership, etc.), taxation (interest rate deductibility, transaction taxes, etc.) as well as supply and demand side factors (land availability, construction price elasticity, etc.; demographic factors, household structure, etc.). Other important differences across countries relate to their position in the financial cycle and overall economic outlook. Banking systems also differ significantly (such as the relative importance of IRB models for RRE exposures). Finally, differences across countries in other policy areas (such as microprudential, monetary or fiscal policy) also explain cross-country differences in macroprudential policy on RRE.

Challenges relating to the availability of RRE instruments, data and analytical frameworks remain. The macroprudential frameworks in certain countries do not allow macroprudential authorities to impose limits to LTI, DSTI and LTV. Also, the existing EU capital requirements framework does not include harmonised instruments that can dampen the build-up of risk (caps on LTV, LTI and DSTI), which may hinder the reciprocation of such instruments across borders²⁶. Strengthening the regulatory framework to address these shortcomings could further strengthen macroprudential policy on RRE in the EU. Another challenge relates to analytical tools and data shortcomings. The ongoing work by ESRB to improve access to timely and accurate data is one important step towards enhanced analysis by the relevant authorities of RRE-related vulnerabilities.²⁷

²⁶ The ESRB has however introduced a framework for the coordination and voluntary reciprocation of national macroprudential measures including real estate.

²⁷ Work is underway by ESRB drafting teams on closing real estate data gaps, and which are in the process of preparing draft recommendations on harmonised definitions of key indicators (including LTV, LTI, DTI and DSTI).



2.2 Commercial real estate sector²⁸

In the course of 2015, a number of Member States were confronted with developments in the commercial real estate (CRE) sector that raised financial stability concerns. This section compares the experience of three selected countries, Hungary²⁹, Ireland³⁰ and the Netherlands³¹, to illustrate the similarities and differences in national approaches in dealing with risks from the CRE sector³².

The CRE sector poses some particular challenges for financial stability relating to data³³, market characteristics and the very limited experience with the use of macroprudential instruments. This is documented in greater detail in the ESRB report “Commercial real estate and financial stability in the EU” (2015). Table 2-3 compares the CRE sector to the better-known residential real estate sector discussed in the previous section along some key dimensions relevant for financial stability:

Table 2-3
Comparison of the RRE and CRE sectors along some key dimensions

	Residential real estate	Commercial real estate
Definitional and data issues	Comparatively fewer definitional and data problems	No commonly agreed definition and delineation concerns. Serious problems of data scarcity and data comparability
Purpose	Held for own use or for income-generating purposes (“buy to let”)	Only held for income-generating purposes
Political sensitivity	Politically sensitive (households, access to housing)	Much less politically sensitive (professional participants)
Complexity and transparency	Simpler, more transparent and homogenous, and large scope for standardisation	Complex, opaque and heterogeneous market, which poses specific risk management issues
Size of exposures	Exposures are generally more significant in bank portfolio	Exposures are generally less important in bank portfolio
Concentration risk	Lower due to higher granularity	Higher due to low granularity
Cyclicality	Comparatively less cyclical	Comparatively more cyclical
Default risk	Lower (own use, more liquid and less volatile market, recourse financing)	Higher (commercial use, less liquid and more volatile market, non-recourse financing)
Role of other economic channels	Developments may impact consumption channel	Developments may impact investment channel
Market actors	Often domestic banks dominate the market	More important role of non-banks and foreign participants
Experience with use of instruments	More experience with use of macroprudential instruments	Scarce experience with use of macroprudential instruments

Source: ESRB

28 Prepared by Frank Dierick (ESRB Secretariat) based on input provided by Tamás Borkó (MNB), Rob Nijskens (De Nederlandsche Bank), Péter Szomorjai (MNB) and Maria Woods (Central Bank of Ireland).

29 See also Magyar Nemzeti Bank (November 2015), Financial Stability Report.

30 See also Central Bank of Ireland (2015:II), Macro-Financial Review.

31 See also De Nederlandsche Bank (Fall 2015), Overview of Financial Stability in the Netherlands.

32 See Table 2-4 at the end of this section for the comparison along some key dimensions.

33 The earlier mentioned work by the ESRB drafting teams on closing real estate data gaps also covers the commercial real estate sector.



While in the three countries concerned the risk emanates from the same sector, the nature of the risk is quite different. In Hungary, the risk originates from the stock of existing (problem) CRE exposures, while in Ireland and the Netherlands, the risk relates to more current and future developments. In Hungary and the Netherlands, the risk is perceived to be rooted in more structural developments (stock of legacy CRE loans in Hungary; less demand for office and retail space due to more efficient use of space and the rise of internet shopping in the Netherlands), whereas in Ireland, the risk is seen to be more cyclical in nature (sustainability of current price and yield dynamics and the potential impact on domestic financial stability). Often the distinction between structural or cyclical is not straightforward to make as several factors play a role at the same time.

The nature of the risk is further influenced by the specific market features and national conditions. For example, in Hungary, cross-border and cross-sectoral issues are not seen as a major concern, whereas in Ireland, foreign and non-bank market participants (e.g. real estate investment trusts, investment funds, private equity funds) are important actors in the CRE market; while the latter may result in a broader dispersal of risk and diversification in funding sources, it may also leave the CRE market more exposed to changes in investor sentiment and external conditions. Conditions in Ireland and the Netherlands are influenced by the prevailing low yield environment in the euro area, especially in urban areas, whereas in Hungary this is less of an issue. These features can also influence the kind of policy actions national authorities can take as discussed in greater detail below.

The most pertinent way in which the CRE sector can affect financial stability is through banks' profitability and solvency, foremost through impairment losses on CRE loans. The specific features of CRE markets (which are less liquid, heterogeneous and lumpy in nature) are an important factor that influences the potential losses of banks in particular, when any fire sales of collateral are to take place. Indeed, potential buyers may be less readily available in CRE markets or only willing to transact at large price discounts. In markets where non-banks and foreign market participants are important, there is also a concern of contagion risk resulting from the interaction between banks and non-banks (e.g. through joint ventures). An example of such behaviour would be Ireland.

CRE risk is diverse by nature and this is reflected in the wide range of indicators used to monitor developments, and potentially activate macroprudential instruments. The primary indicators for monitoring risk largely reflect whether countries experience a stock or flow problem. Hungary focuses primarily on stock indicators, such as the relative importance of non-performing or restructured CRE loans in relation to total CRE loans, and in relation to own fund requirements (in order to capture the risk posed to individual banks). Ireland complements banking sector analyses (i.e. on new and existing portfolios) with indicators on the sustainability of CRE price developments and on market activity. It is important to track developments of the different market segments (e.g. prime vs. periphery CRE; office space vs. the industrial, residential and retail CRE sector) as their evolutions can be quite different (e.g. the booming Dublin office market in Ireland, and the dichotomy between prime and periphery real estate in the Netherlands).

All three countries share the experience of having no explicit reference values for the respective indicators. This partially reflects the serious data challenges authorities are confronted with in monitoring developments in the CRE sector (heterogeneity of the market; lack of consistent and long-run data series; lack of comprehensive official data). As a second-best solution, CRE indicators can be compared to their long-term averages, trends, model-estimates or similar indicators (e.g. for the corporate sector more broadly or for other EU countries).



Apart from aggregate indicators, granular data and soft information can be used to monitor risk. In that respect, microprudential data (e.g. bank-level or even transaction-level data) can be an important source of such information and dedicated granular data collections can be organised³⁴. Soft information, such as market intelligence (e.g. through roundtables with market participants – like in Hungary and Ireland) can also be an important source of information.

Policy makers have access to a suite of macroprudential instruments to address CRE risks, but experience with using these instruments is very limited. Of the three countries, only Hungary has committed to actively using a macroprudential instrument, namely the systemic risk buffer (from 1 January 2017 onwards). The use of the systemic risk buffer in this particular case is somewhat peculiar since its purpose is to address already materialised risks related to an existing stock of CRE exposures. Its primary purpose is to increase the loss-absorbing capacity of the targeted banks. At the same time, it provides an incentive for banks to remove existing CRE exposures from their balance sheet, thereby avoiding the buffer requirement; hence the relatively long transition period before the buffer requirement becomes effective. However, if banks are not willing or able to remove these exposures from their balance sheet after the transition period, their resilience would be increased by the additional capital buffer.

Other instruments that can be used by authorities are:

- Sectoral capital requirements (e.g. via Article 458 CRR, Articles 124 and 166 CRR, Pillar II)
- Stricter large exposures criteria for large CRE counterparties or a group of connected CRE counterparties
- Stricter lending standards (e.g. in the form of limits on the loan-to-value ratio, loan-to-cost ratio, debt-service coverage ratio or interest coverage ratio)
- Higher requirements on information disclosures
- Stress tests specifically for CRE exposures

A particular challenge, as in the case of Ireland, is the use of instruments that address foreign and non-bank participants. The reciprocity framework recently developed by the ESRB³⁵ will be helpful in addressing foreign participants in the domestic CRE market, but only to the extent that they are based in the EU. As regards non-bank players, the suite of instruments is less developed (cf. ongoing work by the IWG on non-bank instruments), but leverage ratios and exposure limits might be adequate tools.

Finally, policy makers need to be aware that other policy areas influence conditions in the CRE market. Monetary and microprudential policy were mentioned earlier as being relevant for the CRE sector. This especially concerns the inability of microprudential instruments to address the systemic risk concerns in Hungary and the role of the very low interest environment in fuelling the CRE market in Ireland and parts of the Netherlands. Any other policies that may impact the construction sector (e.g. taxes, land regulation) should also be taken into account.

34 For example, in Hungary the MNB has organised a quarterly consolidated data collection on CRE project loans (at contract level) and other relevant CRE exposures since Q3 2014.

35 Recommendation of the ESRB of 15 December 2015 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (ESRB/2015/2).



2.3 Concluding considerations

The RRE sector is an important and promising area for further analysing the use of macroprudential instruments. First, the most recent and past financial crises have demonstrated that developments in the RRE market may have severe repercussions for financial stability and the real economy. Second, it is an area where many EU countries have already taken policy action and where experience is building up. Third, it is also an area where there is quite a lot of scope for policy-making informed by more quantitative approaches, given the available data, indicators and ongoing modelling efforts.

The RRE case also further illustrates the importance of some of the challenges related to macroprudential policy-making. These include, for example, the need to be clear on the objectives of macroprudential policy (e.g. reducing existing vulnerabilities or increasing the resilience of the financial system vs. managing the house-price cycle) in order to assess the appropriateness of macroprudential policy. The RRE area also demonstrates the role of other policies that influence conditions in the financial system (e.g. monetary policy, tax regime, land and rental regulation, microprudential policy) and their interaction with macroprudential policy.

The CRE area, by contrast, is much more in the infancy phase of macroprudential policy-making. Data availability and quality - some of the preconditions for good policy-making - are a much bigger concern here. Moreover, the practical experience of policy-making and the set of available instruments seem to be much more limited.



Table 2-4

Country comparison of the macroprudential approach to risks resulting from the CRE sector

	Hungary	Ireland	Netherlands
Financial stability concern	<ul style="list-style-type: none"> - High stock of problem CRE exposures (loans and CRE held for sale) - Concentration (geographical and at level of individual institutions) of problem CRE exposures 	<ul style="list-style-type: none"> - Sustainability of CRE price/yield dynamics - Potential reversal of foreign CRE investments leading to price volatility - Sensitivity of market participants and domestic financial stability to market adjustment and potential for increased risk-taking 	<ul style="list-style-type: none"> - High and rising vacancy rates and the expectation that they will further increase because of structural developments - Increasing dichotomy between developments in prime and periphery CRE
Financial stability channels	<ul style="list-style-type: none"> - Bank profitability via impairment losses, the tying down of resources and increased risk premium on bank financing - Risk of system-wide fire sales of CRE collateral in moderately liquid market - Drag on new lending 	<ul style="list-style-type: none"> - Bank profitability: price volatility resulting from the reversal of investments of non-banks and foreign investors may impact collateral value and repayment capacity of borrowers - Contagion from joint ventures between bank and non-bank investors 	<ul style="list-style-type: none"> - Bank profitability via impairment losses due to a fall in collateral value and declining repayment capacity
Objective	<ul style="list-style-type: none"> - Increasing the shock absorbing capacity of banks - Reducing the stock of problem CRE loans 	<ul style="list-style-type: none"> - Sustainable CRE price developments - Resilience of market participants to market-adjustment 	<ul style="list-style-type: none"> - Reducing the risks and cyclicalities of bank portfolios - Internalising the structural developments in valuation and risk management
Indicators / information used	<ul style="list-style-type: none"> - Stock of non-performing project loans and its ratio over project loans (both for total and domestic loans) - Stock of restructured project loans and its ratio over project loans (both for total and domestic loans) - Stock of problem project loans and its ratio over project loans (both for total and domestic loans) - Total domestic problem project exposures over domestic Pillar 1 capital requirements - Concentration of problem project exposures - Both level and evolution over time of indicators are considered 	<ul style="list-style-type: none"> - Indicators of CRE price (price, price-to-rent ratio, property yield) misalignment - Indicators of supply-side conditions - Transaction level data on CRE investment and CRE loan level data in addition to aggregated credit/portfolio analysis - Bank-level results of ICAAP - Risk appetite and credit policies for new CRE lending - Market intelligence 	<ul style="list-style-type: none"> - Level and (structural) evolution of vacancy rates - LTV levels - Performance of prime vs. periphery CRE prices and vacancy rates - Demand developments following structural macroeconomic developments
Reference values indicators	<ul style="list-style-type: none"> - No explicit reference values, but comparison with similar indicators for corporate loans 	<ul style="list-style-type: none"> - No explicit reference values, but CRE price misalignment would be based on statistical indicators (deviations from long-run averages and trends) and model-based indicators 	<ul style="list-style-type: none"> - No explicit reference values, but prices and LTV values compared to long-run averages can be considered
(Possible) use of macroprudential instruments	<ul style="list-style-type: none"> - Use of systemic risk buffer 	<ul style="list-style-type: none"> - Assessed no new instruments currently warranted. Ongoing intensive microprudential oversight of CRE-related lending and initiatives to bridge data gaps on supply and market activity 	<ul style="list-style-type: none"> - Possible use of stress test specifically for CRE
Cross-border / cross-sectoral issues	<ul style="list-style-type: none"> - No particular concerns. 	<ul style="list-style-type: none"> - Importance of non-banks and foreign investors - Close links with the RRE sector (multi-unit residential and mixed use units) 	<ul style="list-style-type: none"> - Importance of non-banks and foreign investors - Link with residential real estate and the current shortage on the Dutch market for rental housing
(Interaction with) other relevant policy areas	<ul style="list-style-type: none"> - Tax and legal issues related to the resolution of CRE problem loans - Microprudential policy 	<ul style="list-style-type: none"> - Impact of prevailing monetary policy stance at European level - (Fiscal) policies aimed at construction industry - Microprudential policy 	<ul style="list-style-type: none"> - Impact of prevailing monetary policy stance at European level - Zoning regulations - Microprudential policy
Challenges	<ul style="list-style-type: none"> - Using an instrument for an already realised risk - Clear definition of targeted loans to prevent circumvention of measure and negative effect on corporate lending - Data gaps, hence the need to introduce a new reporting template - Lack of demand / low liquidity in CRE market 	<ul style="list-style-type: none"> - Data gaps (heterogeneity market, absence of consistent and long-run data, lack of official data) 	<ul style="list-style-type: none"> - Absence of an instrument to address CRE problems of a structural nature - Data gaps (heterogeneity of the market, absence of consistent and long-run data, lack of official data)

Source: ESRB on the basis of input by the respective countries.



Section 3

Cross-country comparison on the implementation of the countercyclical capital buffer³⁶

3.1 General framework

The regime of the countercyclical capital buffer (CCB) is part of a set of macroprudential instruments designed to help counter procyclicality in the financial system. Under this regime, capital is accumulated in periods of excessive aggregate credit growth stemming from the private, non-financial sector when systemic risk associated with it is judged to be increasing. In this way, buffers are created that increase the resilience of the banking sector during periods of stress when credit losses materialise. This will help maintain the supply of credit and dampen the downswing of the financial cycle. The regime can also help dampen excessive credit growth during the upswing of the financial cycle.

The ESRB has a role to play in the application of the CCB regime in Member States. First, on the basis of the notifications received from Member States, the ESRB is required to publish on its website all notified buffer rates and related information (Article 136.7 CRD). Since early 2014, the ESRB has published such notifications, as well as a regularly updated overview table of all the rates that apply. In view of the requirement of all Member States to implement the CCB regime from 1 January 2016 onwards, the ESRB further improved this published information. Second, the ESRB has given guidance by way of recommendation on setting buffer rates (Article 135 CRD, Recommendation ESRB/2014/1). Third, the ESRB has recently developed a framework for setting and reciprocating buffer rates applying to exposures outside the EU (Articles 138 and 139 CRD, Recommendation ESRB/2015/1 and Decision ESRB/2015/3).

The CCB regime follows the principle of guided discretion. The designated authority responsible for setting the buffer combines a rules-based approach with the exercise of discretionary powers. Accordingly, the authority is required to publish a buffer guide on a quarterly basis as a reference benchmark rate to guide its decision but it is also encouraged to exercise judgement when setting the buffer rate.

The deviation of the credit-to-GDP ratio from its long-term trend (“standardised credit-to-GDP gap”) calculated according to the BCBS methodology forms the basis for determining the benchmark buffer rate. Under Recommendation ESRB/2014/1, the designated authority can in addition calculate another benchmark buffer rate according to a methodology that differs from the one of the BCBS. In that case, the designated authority needs to select as buffer guide the benchmark buffer rate that best reflects the specificities of the respective national economy. This additional credit-to-GDP ratio and gap, as well as the corresponding benchmark buffer rate and data sources, need to be disclosed.

The designated authority is recommended to take account of a range of quantitative and qualitative information in addition to the credit-to-GDP gap. Recommendation ESRB/2014/1 lists a number of variables that should be monitored by designated authorities under the

³⁶ Prepared by Frank Dierick (ESRB Secretariat) and Ieva Sakalauskaite (ESRB Secretariat) with research assistance from Kanya Paramaguru (ESRB Secretariat)



quantitative information (e.g. measures of potential overvaluation of property prices, credit developments, external imbalances, strength of bank balance sheets).

All Member States have now designated an authority for the setting of the CCB rate. In the large majority of Member States, the central bank is the designated authority. In a minority of cases, it is either the supervisory authority if different from the central bank (Austria, Germany, Finland and Sweden) or the Government (Denmark, Poland³⁷ and Norway). In France, the Haut Conseil de stabilité financière³⁸ (HCSF) sets the rate, while in Luxembourg the supervisory authority sets the rate in close cooperation with the central bank and on the basis of a recommendation from the Comité du Risque Systémique³⁹ (CRS).

During the course of 2015, three more Member States (Finland, Latvia and Lithuania) opted for an early introduction of the countercyclical capital buffer. The group of early adopters now includes Croatia, the Czech Republic, Denmark, Finland, Latvia, Lithuania, Slovakia, Sweden and the United Kingdom (and Norway). Just like in 2014, Sweden (and Norway) had a buffer rate different from 0% in place; both countries also increased the rate from 1% to 1.5% in 2015⁴⁰. In addition, in December 2015 the Czech Republic decided to increase its buffer rate from 0% to 0.5%⁴¹.

There are different practices among Member States as regards the implementation date of an early introduced CCB rate set at 0%. Article 136.5 CRD requires an implementation of no more than 12 months after the date the buffer setting is announced when the CCB rate is set above zero for the first time, or where, thereafter, the prevailing rate is increased. If the implementation is less than 12 months after the increased buffer setting is announced, the shorter deadline for application needs to be justified on the basis of exceptional circumstances. This implies that when the rate is set at 0%, the implementation date can be shorter than 12 months and even coincide with the decision or publication date without the need for the existence of exceptional circumstances (Finland, Lithuania, Slovakia and the United Kingdom). Other Member States (Croatia, Czech Republic and Latvia), by contrast, opted for an implementation delay of 12 months also for a rate set at 0%.

A number of Member States have opted for excluding small and medium-sized investment firms from the CCB requirements. The CRD allows Member States to exempt small and medium-sized investment firms from the requirement to maintain a CCB (Article 130.2) and capital conservation buffer (Article 129.2) if it does not threaten the stability of the country's financial system. Several Member States have now made use of this possibility (Table 3-1).

The countercyclical capital buffer remains the instrument where most voluntary reciprocity initiatives were observed going beyond what is required under the CRD/CRR⁴² (see Annex 1). Belgium, Lithuania, Slovakia, Sweden and the United Kingdom announced that they

37 In Poland the Financial Stability Committee (FSC) is responsible for macroprudential supervision and it is the FSC that recommends the CCB rate. The Ministry of Finance is responsible for the implementation of the CCB and the CCB rate implemented by the Ministry of Finance may be different from that recommended by the FSC.

38 The HCSF is chaired by the Finance Minister and has as its members the Governor of Banque de France (and President of the ACPR), the Vice-President of the ACPR, the President of the AMF, the President of the ANC (the accounting standards setter) as well as three members appointed because of their expertise in the economic, financial or monetary area.

39 The Comité du Risque Systémique (CRS) is chaired by the Finance Minister and has as its members the Director General of BCL, the Director General of CSSF and the Director of CAA. The Director General of BCL replaces the Chair of the CRS when the Chair is absent.

40 The increased buffer rate applies for both countries from June 2016 onwards.

41 The increased buffer rate applies from January 2017 onwards.

42 From 1 January 2016 onwards, certain automatic reciprocity arrangements apply for the CCB.



would recognise the shorter transitional period for the introduction of the countercyclical capital buffer in other Member States. France and the United Kingdom notified the ESRB that they would recognise the buffer rates of 1.5% set by Sweden and Norway; the United Kingdom in addition decided to recognise the 0.625% rate set by the Hong Kong Monetary Authority for Hong Kong.

This section further reviews some of the first experiences with the regime, especially by the early adopters. Member States were required to implement the CCB regime in 2016 and the ESRB received many notifications at the end of 2015 and in early 2016 regarding the coming into force of this new regime in 2016.

Table 3-1
Exemption of small and medium-sized investment firms from the countercyclical capital buffer or the capital conservation buffer

Member State	Countercyclical capital buffer	Capital conservation buffer
Croatia	1 January 2014	1 January 2014
Denmark	31 March 2014	31 March 2014
Italy	1 January 2016	1 January 2014
Lithuania	30 June 2015	-
Luxembourg	1 January 2016	1 January 2016
Poland	1 January 2016	1 January 2016
Sweden	13 September 2014	13 September 2014
United Kingdom	1 May 2014 (practical effect from 1 January 2016 onwards)	1 May 2014 (practical effect from 1 January 2016 onwards)

Source: ESRB

Note: The dates represent the actual implementation dates.

3.2 Buffer rate vs. buffer guide

In the majority of cases where the early adopters activated or re-evaluated the CCB rate, it was set at 0% which was consistent with the buffer guide. In principle the buffer rate can be set higher or lower than the buffer guide. In the majority of cases observed up to now where there was such a difference, the actual rate was set at a lower level than the buffer guide. This implies that in three Member States (Czech Republic, Finland and Sweden) the designated authority was of the view that actual risk to financial stability was lower than suggested by the buffer guide or that there were other reasons to set the rate at a lower level. A notable exception is Norway which set the buffer rate above the zero-level guideline.

The difference between the CCB rate and the buffer guide can be quite substantial. For example, it was 2 percentage points in the case of the Czech Republic for the first buffer rate setting. Various explanations are given by the designated authorities for these differences:

- The measure of the credit-to-GDP gap does not adequately capture the specific features of the national economy, in particular due to the limited length of the available times series, the structural breaks caused by the banking crisis in the late 1990s and the trends typical of converging economies (Czech Republic)
- The expected evolution, in this case decrease, in the credit-to-GDP gap (Finland)
- The differences in evolution in credit across economic sectors, in particular household credit growing faster than GDP while this was not the case for corporate credit (Sweden)
- The higher buffer rate as indicated by the additional credit-to-GDP gap under the buffer guide (Norway).

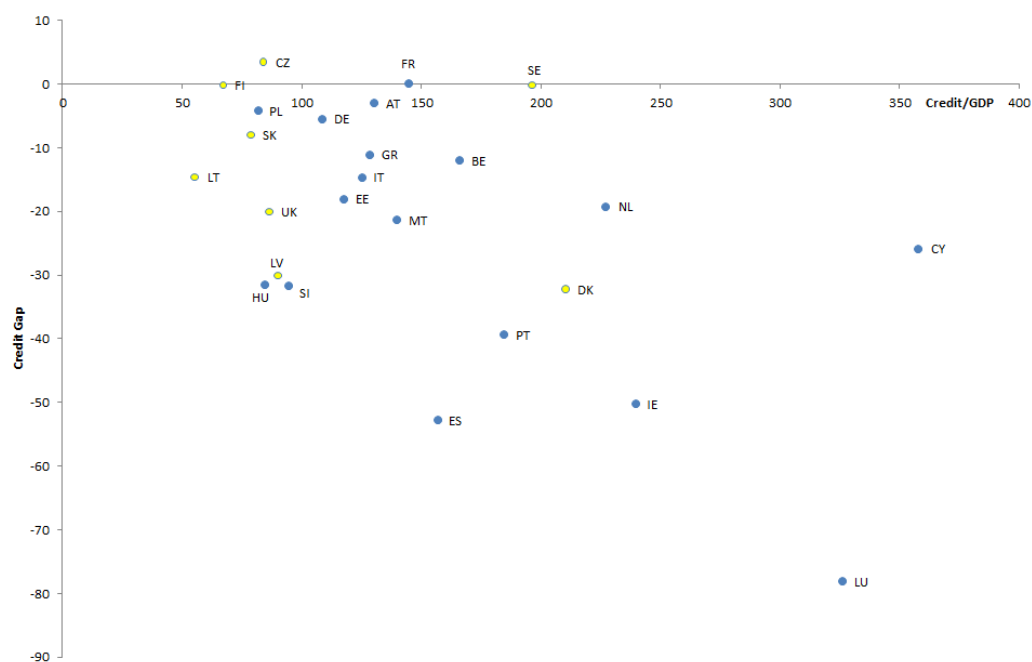


3.3 Use of quantitative indicators

The credit-to-GDP ratio and the deviation from its long-term trend (credit-to-GDP gap) are key indicators that designated authorities are required to announce on a quarterly basis.

There does not seem to be a relationship between the level of credit-to-GDP and Member States' decision to activate the countercyclical capital buffer (Figure 3-1). This is in line with this buffer being a countercyclical instrument rather than the one tackling structurally high credit levels.

Figure 3-1
Credit gap and credit-to-GDP ratio in 2015-Q3



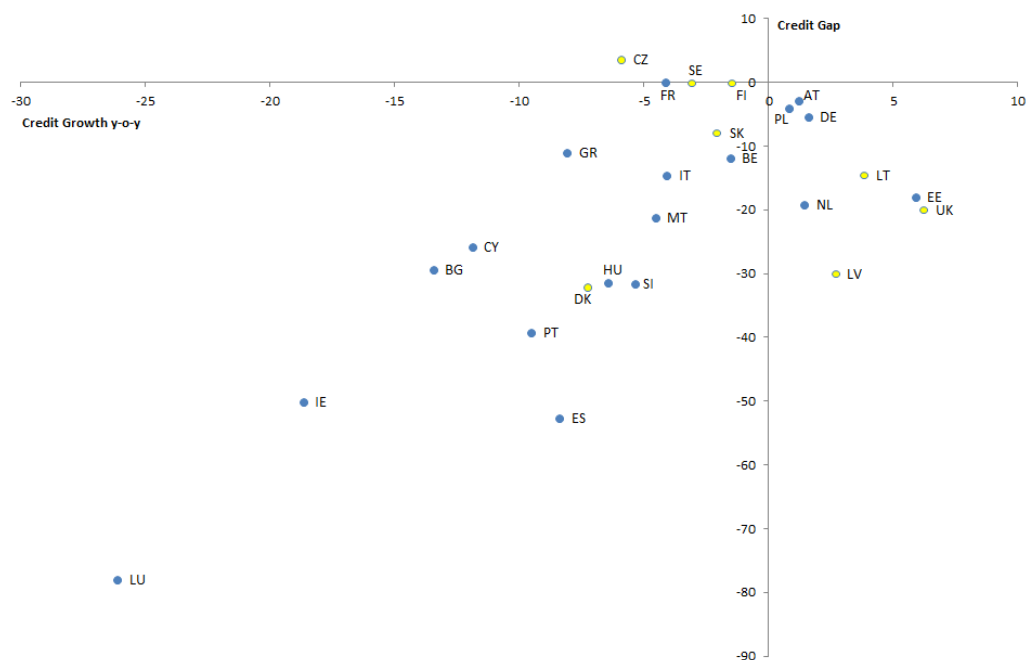
Source: ESRB Risk Dashboard (ECB Statistical Data Warehouse)

Notes: Credit gap is estimated using the standard method and is expressed in percentage points. Credit/GDP is expressed in percentage. The yellow-labelled countries have already activated the CCB. Data for Romania is not available.

Besides the level of credit-to-GDP gap, its evolution over time is also taken into account by the designated authorities (Figure 3-2). The majority of Member States with low but increasing credit gap levels have opted for an early introduction of the countercyclical capital buffer (lower-right area of Figure 3-2) but set the rate at 0%. This could be consistent with countries introducing the buffer counter-cyclically with a view to setting it at positive levels when the credit gap reaches higher levels in the future. Having the buffer activated at 0% could also make adjusting the buffer rate upwards easier in the future.



Figure 3-2
Credit gap in 2015-Q3 and its change from 2014-Q3



Source: ESRB Risk Dashboard (ECB Statistical Data Warehouse)

Notes: Credit gap is estimated using the standard method and is expressed as percentage points. The change in credit gap is the difference between 2015-Q3 and 2014-Q3 values. The yellow-labelled countries have already activated the CCB. Some countries are excluded because of extreme variable values. Data for Romania is not available.

When setting the buffer rate, designated authorities also use variations of the standard credit-to-GDP gap or discretion when applying it. Several methods are used by the early adopters to measure credit growth. Such additional measures are the additional credit-to-GDP gap (Norges Bank and Lietuvos bankas calculate an additional credit gap using a forecast-augmented HP filter) and bank credit-to-GDP gap. Furthermore, the time series used for estimating the trend credit-to-GDP ratio is chosen with discretion if the trend is highly affected by previous imbalances. For example, the above-mentioned Czech Republic uses shorter series to account for the financial crisis of the late 1990s. Similarly, the Bank of England observes that the current negative credit gap in the UK could be related to the high credit growth before the crisis period.

The (expected) developments of the credit-to-GDP gap over time and across economic sectors rather than an overall one-time measure are also consulted. A closing credit-to-GDP gap could warrant a lower buffer rate than a widening one, while the length of the transmission mechanism also suggests looking at forecasts. For instance, in Croatia the Hrvatska Narodna Banka notes that besides being negative, the standardised credit-to-GDP ratio had been on a downward path. The Finanssivalvonta (Finnish FSA) also noted the expected decrease in credit-to-GDP gap as one of the reasons for not imposing a buffer rate. The differences in credit growth across sectors also need to be taken into account as illustrated by the Swedish case mentioned earlier.

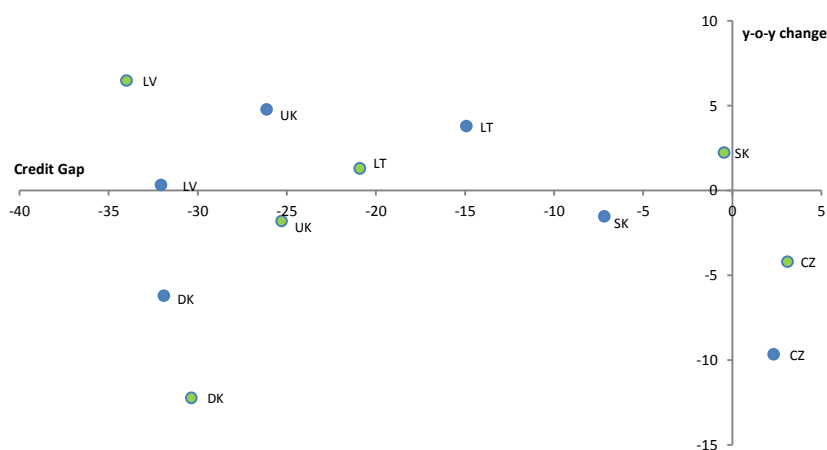
In line with Recommendation ESRB/2014/1, designated authorities consider bank balance sheet and non-bank indicators that could provide information on risks developing both within and outside of the banking systems. The Bank of England considered bank leverage, capital ratio and dependency on short-term wholesale funding, as well as non-bank indicators such as developments in the current account, corporate bond yield spreads, and real equity prices. Finansinspektionen (the Swedish FSA) further consulted tier 1 capital in relation to risk-weighted-



assets for banks as well as public sector financial savings. With regards to exposures to specific sectors, they also took into consideration house prices to income, current account and the share of household income spent on interest expenses. Lietuvos bankas looked at the house price-to-income ratio gap from its long-term trend as well as bank loan-to-deposit ratio and current account to GDP ratio. These additional data were by and large consistent with the information provided by the credit gap and did not result in rate changes. Finally, structural factors such as exchange rate regimes, economic development/maturity are important in interpreting the results (cf. the case of the Czech Republic mentioned earlier).

In terms of data used for calculating the standard credit-to-GDP gap, it appears that the approach is still not completely standardised yet. The credit gap calculated by the ECB differs from the one provided by the Member States in some cases (Figure 3-3). This could be attributed to differences in the credit data available to the ECB and the national authorities, as well as differences in the length of series used to measure the trend of credit-to-GDP ratio. The reference period used for setting the rate is not yet synchronised, likely because of the different time lags at which new data on domestic credit becomes available.

Figure 3-3
Differences between ECB and national calculations of credit-to-GDP gap (2015-Q2 data) and year-over-year change



Source: ESRB Risk Dashboard (ECB Statistical Data Warehouse), national authorities

Notes: The green data points correspond to information provided by the national authorities. The blue data points correspond to the ECB data. Credit gap is estimated using the standard method and is expressed as percentage points. Both data points for LV correspond to 2014-4 and 2014-2 for SE. Change is calculated as the difference between 2015-Q1 and 2014-Q4 in Finland and 2015-Q and 2014-Q2 in Slovakia; 2014-4 and 2013-4 in Latvia.

The transparency and communication of the rate decisions is increased by the harmonised methods of data presentation employed by several Member States. The data on credit-to-GDP used when setting the countercyclical capital buffer is made accessible to the public by several early adopters (e.g. Lithuania, Denmark). The comparable methods of data presentation provided in designated areas of the responsible national authorities' websites allows for the comparison of credit developments and policy-making by those countries.

The extent to which the decision of the buffer rate is an outcome of discussion between various stakeholders differs across Member States. Sweden and Norway, countries that set non-zero rates, both provide comprehensive information about the opinions of the various affected groups and authorities. This is not necessarily the case in the other countries that set the rate at 0%.



The information provided in the public disclosure and the notifications to the ESRB on the setting of the buffer rates can be further improved. The CRD requires that the publication and the notification to the ESRB should at least include the applicable buffer rate, the relevant credit-to-GDP ratio and its deviation from the long-term trend, the buffer guide, and a justification for that buffer (Article 136.7 CRD). However, the credit-to-GDP ratio is sometimes provided in the form of a chart rather than an actual figure. In addition, it is not always clear from the information provided exactly when the rate in question will begin to apply. Another difficulty is that the application of the buffer rate does not necessarily coincide with the beginning or end of a calendar quarter, which further complicates the calculation for the institutions subject to the buffer. The introduction of a standardised reporting system on CCB notifications by the ESRB at the end of 2015 will help to address some of these issues.

3.4 Concluding considerations

The implementation of the CCB regime offers an interesting cross-country case study because it relates to a macroprudential instrument laid down in Union law. Each Member State is also required to implement the instrument and set buffer rates on a quarterly basis, which offers a large scope for cross-country comparisons. The case further illustrates the limitations of the “rules-based approach” in macroprudential policy-making. Despite a shared methodology and buffer guide, simple cross-country comparisons are still hard to make for the use of this instrument. In this respect, the challenge is somewhat similar to comparing risk-weighted assets of banks that use internal models. A further cross-country analysis, investigating some of the underlying raw data and methodologies in greater detail, could be helpful in further understanding the macroprudential policy of Member States. Finally, while the instrument is designed to address concerns related to aggregate credit growth, it is less suited to dealing with credit growth concerns restricted to certain sectors (e.g. residential real estate).



Section 4

Cross-country comparison on the additional capital buffers for systemically important institutions⁴³

4.1 Identification and importance of systemically important institutions⁴⁴

Most EU countries identified and introduced buffer requirements for systemically important institutions in 2015. Three types of measures can be used under the CRD's Pillar I to introduce such requirements: (i) buffers for global systemically important institutions (G-SIIs), (ii) buffers for other systemically important institutions (O-SIIs) and, (iii) the systemic risk buffer. While the G-SII and O-SII buffers are tools specifically designed to address the risk resulting from systemically important institutions, in practice Member States are also using the systemic risk buffer as a substitute for the O-SII buffer because of its greater flexibility. Accordingly, in this Review, the term "systemically important institution" (SII) also includes institutions on which the systemic risk buffer have been applied in such manner.

At the end of 2015, only Bulgaria and Poland had not yet notified the ESRB of any initiatives regarding systemically important institutions. If one also takes into account the countries that only made a G-SII notification (the G-SII identification is largely determined by a BCBS/FSB process), the United Kingdom has to be added to this list. Moreover, Austria also is still in the process of identifying its O-SIIs. But since Austria applies the systemic risk buffer for a limited set of institutions, in the further analysis it has been assumed that these institutions are systemically important, although it is probable that not all of these institutions will be deemed as such by the national authority⁴⁵.

Around 150 banks have up to now been identified as O-SIIs or G-SIIs (see Annex 3). This list will further change as Austria, Bulgaria, Poland and the United Kingdom will make their notifications in the course of 2016⁴⁶. The identification of an institution as systemically important can result from a formal qualification as G-SII or O-SII, but also when the systemic risk buffer is applied to a relatively small set of individual institutions⁴⁷. The preliminary figures already offer some noticeable

43 Prepared by Frank Dierick (ESRB Secretariat) and Stéphanie Stolz (ESRB Secretariat) with research assistance from Daniel Karpati (ESRB Secretariat) and Kanya Paramaguru (ESRB Secretariat).

44 In the CRD 'systemically important institution' is defined as 'an EU parent institution, an EU parent financial holding company, an EU parent mixed financial holding company or an institution the failure or malfunction of which could lead to systemic risk'. Mostly banks fall under this definition and banks are the focus of this Review. On the other hand, the FSB has also designated a number of insurers as systemically important. The relevant EU institutions are Aegon (NL), Prudential (UK), Aviva (UK), AXA (FR) and Allianz (DE). See <http://www.fsb.org/wp-content/uploads/FSB-communication-G-SIIs-Final-version.pdf>.

45 In setting the systemic risk buffer, the Austrian authorities take into account the systemic vulnerability and the systemic cluster risk of the institution concerned.

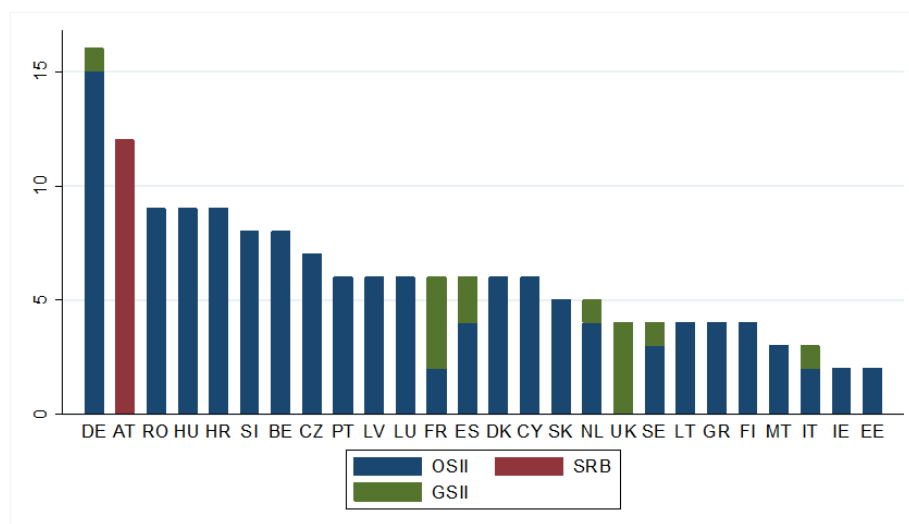
46 Following public consultation, in February 2016 the UK's PRA set out its approach to identifying O-SIIs and designated 16 institutions as O-SIIs in 2015.

47 This distinction is not always easy to make. For example, Hungary and Romania also apply the systemic risk buffer to a limited set of institutions but with the aim to address specific systemic risks (in the case of Hungary, the risk resulting from the outstanding stock of commercial real estate exposures; in the case of Romania the contagion risk resulting from a parent bank located in a non-investment grade country). In such cases, the systemic risk has not been considered as a substitute for the O-SII buffer in the further analysis.



differences across countries in terms of the number of such institutions, ranging from 16 institutions in Germany to only two institutions in Estonia and Ireland (Figure 4-1).

Figure 4-1
Number of systemically important institutions by Member State
(as notified to the ESRB by the end of 2015)



Source: ESRB

Notes: No data for BG and PL were available at the end of 2015; data for UK are incomplete because of missing O-SII notification at the end of 2015. For AT, it has been assumed for the analysis that the institutions subject to the systemic risk buffer are also systemically important. In case a bank is subject to multiple qualifications / buffer requirements, it has been allocated to the most specific category. E.g. in case of a qualification as G-SII and O-SII, the institution has been allocated to the G-SII category; in case of a qualification as O-SII that is also subject to a systemic risk buffer, the institution has been allocated to the O-SII category. It follows that in the systemic risk buffer category (SRB), the institutions are allocated that are only subject to a systemic risk buffer imposed on a limited set of banks and that are further not formally qualified as O-SII or G-SII.

There are formal processes in place to identify systemically important institutions. In November 2015, the FSB published its list of global systemically important banks (G-SIBs)⁴⁸ based on the assessment methodology developed by the BCBS. This list includes 13 European banking groups⁴⁹ (Table 4-1). Subsequently, the ESRB was also notified by the designated authorities of the identification of G-SIIs. The EBA has developed guidelines to specify the criteria as regards the assessment of O-SIIs⁵⁰. Finally, concerning the use of the systemic risk buffer to address the systemic risk posed by individual institutions, the general requirements for the systemic risk buffer apply (cf. Article 133 of the CRD).

48 <http://www.fsb.org/wp-content/uploads/2015-update-of-list-of-global-systemically-important-banks-G-SIBs.pdf>

49 The total increases to 14 if one also takes into account BBVA (ES) that has been identified by its supervisor as a G-SII.

50 EBA, "Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs)", December 2014, see [https://www.eba.europa.eu/documents/10180/930752/EBA-GL-2014-10+\(Guidelines+on+O-SIIs+Assessment\).pdf](https://www.eba.europa.eu/documents/10180/930752/EBA-GL-2014-10+(Guidelines+on+O-SIIs+Assessment).pdf).



Table 4-1

G-SIBs in the EU allocated to buckets corresponding to required level of additional loss absorbency (November 2015)

Bucket (required level of additional loss-absorbency capacity)	Name European G-SIB (home country)
5 (3.5%)	
4 (2.5%)	HSBC (UK)
3 (2%)	Barclays (UK) BNP Paribas (FR) Deutsche Bank (DE)
2 (1.5%)	
1 (1%)	[BBVA ¹⁾ (ES)] Groupe BPCE (FR) Groupe Crédit Agricole (FR) ING Bank (NL) Nordea (SE) Royal Bank of Scotland (UK) Santander (ES) Société Générale (FR) Standard Chartered (UK) Unicredit Group (IT)

Source: FSB (2015) and ESRB

Notes:

(1) BBVA is not included in the FSB list of November 2015, but has been added to the G-SII list on the basis of the supervisory judgment by Banco de España.

Most Member States adopted the EBA threshold with respect to the designation of O-SIIs.

The EBA guidelines detail a scoring model for the designation of O-SIIs using indicators that gauge the systemic importance of the institution. The indicators fall into four broad categories (size, importance, complexity/cross-border activity, interconnectedness), and particularly into ten sub-categories, each with an associated indicator and sub-score. The sub-scores are calculated by dividing the indicator value (such as total assets) of the relevant individual entity by the aggregate amount of the respective indicator value totalled across all institutions in the Member State. The resulting proportion is converted to basis points by multiplying by 10,000. The sub-scores are aggregated to a total score using a pre-determined weighting.⁵¹ In principle, an institution should be designated once the total score surpasses a certain threshold. The default threshold is set to 350 basis points, but Member States can adjust it up to 425 basis points (fewer institutions are designated) or down to 275 basis points (more institutions are designated). In a second step, relevant authorities may also designate other institutions based on supervisory judgement. Figure 4-2 shows that most Member States use the threshold proposed by EBA; however, four Member States use a lower threshold and two a higher threshold.

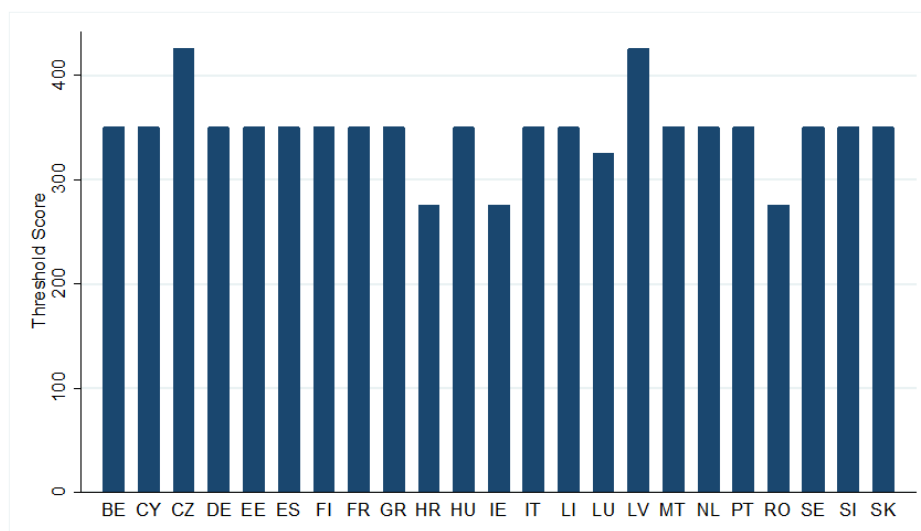
Banks may be subject to multiple qualifications and buffer requirements all aimed at addressing the risk resulting from them being deemed systemically important.

A bank qualified as G-SII can also be qualified as O-SII, and at the same time may also be subject to a systemic risk buffer imposed on a small set of institutions (thereby in effect acting as a type of O-SII buffer). This is for example the case for Nordea, which has been qualified as both a G-SII and an O-SII but is also subject to a systemic risk buffer requirement of 3% (just like the three other largest Swedish banking groups). An interesting case is Denmark, which has up to now exclusively used the systemic risk buffer to impose additional buffer requirements on its O-SIIs.

51 For details please consult the EBA Guidelines referenced in a previous footnote.



Figure 4-2
Threshold score for the designation of O-SIIs
basis points

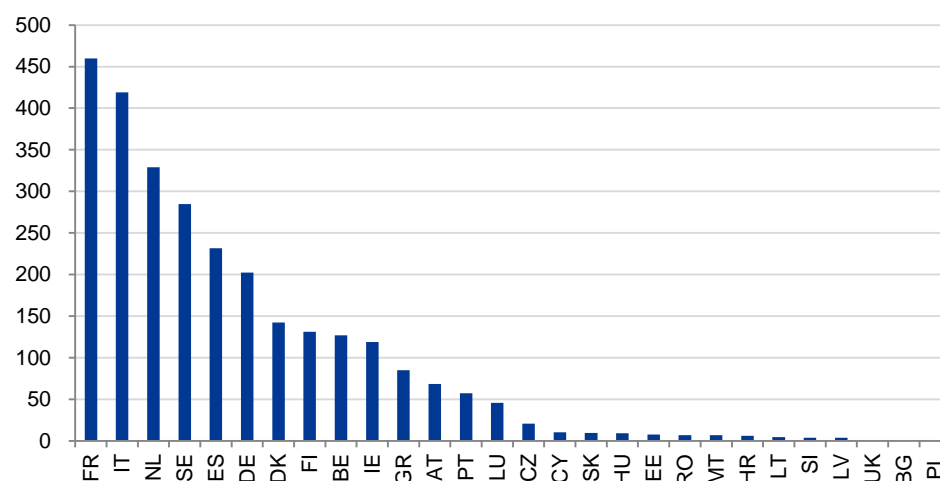


Source: ESRB.

Notes: The threshold scores are the scores, as defined by the EBA (2014), that the national authorities used as threshold to designate a financial institution as an O-SII. Countries without a score have either used a different methodology (DK) or had not yet implemented the O-SII framework end 2015 (AT, BG, PL, UK). The threshold for the identification of O-SIIs in DE is 350 bp in the first step using the EBA scores and 100 bp in the second step using the scores of the national methodology. In the UK, the PRA consulted on its approach to O-SII identification (October 2015), proposing to maintain the 350 threshold.

The reported systemically important institutions differ substantially in size across Member States. Figure 4-3 shows that their average total assets vary from more than EUR 460bn in France to EUR 4bn in Latvia and that, unsurprisingly, larger countries are home to larger other systemically important institutions.

Figure 4-3
Average total assets of other systemically important institutions by Member State
EUR billion



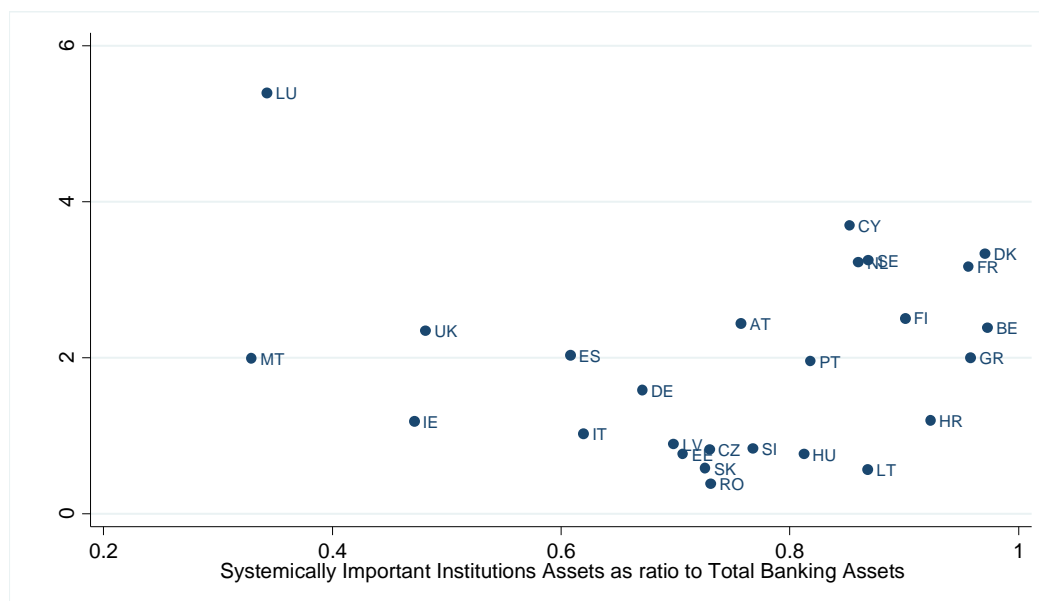
Source: ESRB and SNL Financial.

Notes: The list of underlying banks can be found in Annex 3. The figure excludes banks identified as G-SIIs. The figure includes the Austrian banks subject to the systemic risk buffer, which for the analysis have been assumed to be systemically important. No data for BG and PL were available, and the O-SII notification for the UK was missing at the end of 2015. Figures refer to last available accounting date (2015-Q1 or 2014-Q4).



The relative importance of the reported systemically important institutions varies greatly across Member States. Several metrics can be used to gauge this. Figure 4-4 expresses the total assets of all systemically important institutions identified in each EU country in relation to the total banking assets and GDP of the country. Again, these figures have to be interpreted with caution given the incomplete set of reported systemically important institutions. Nevertheless, some important differences across countries can be identified.

Figure 4-4
Relative economic importance of systemically important institutions



Source: ESRB and ECB consolidated banking data (total banking assets by Member State).
Notes: No data for BG and PL was available; data for the UK is incomplete due to the lack of notification of O-SIIs. For AT, it has been assumed for the analysis that the institutions subject to the systemic risk buffer are also systemically important.
Assets for institutions refer to the last available accounting date. GDP refers to 2015-Q3 (Annual). Total banking assets refers to: year-end 2014. Total banking assets by Member State includes assets of domestic banking groups and stand-alone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches.

In some, especially the smaller, EU countries the systemically important institutions cover almost the entire domestic banking sector, whereas in the larger ones their share is usually between 60 and 70 percent. In the first group, countries with SII assets covering nearly all banking assets, we find Belgium, Denmark, Greece and Croatia, but also France as an exception to the small country characteristic. Besides larger countries such as Germany, Italy and Spain, the second group is comprised of countries with a banking centre characterised by a large presence of foreign banks such as Ireland, Malta and Luxembourg. Notwithstanding these variations across countries, the systemically important institutions represent a very important segment of the domestic banking sector in all countries as in no country is their combined share less than 30%.

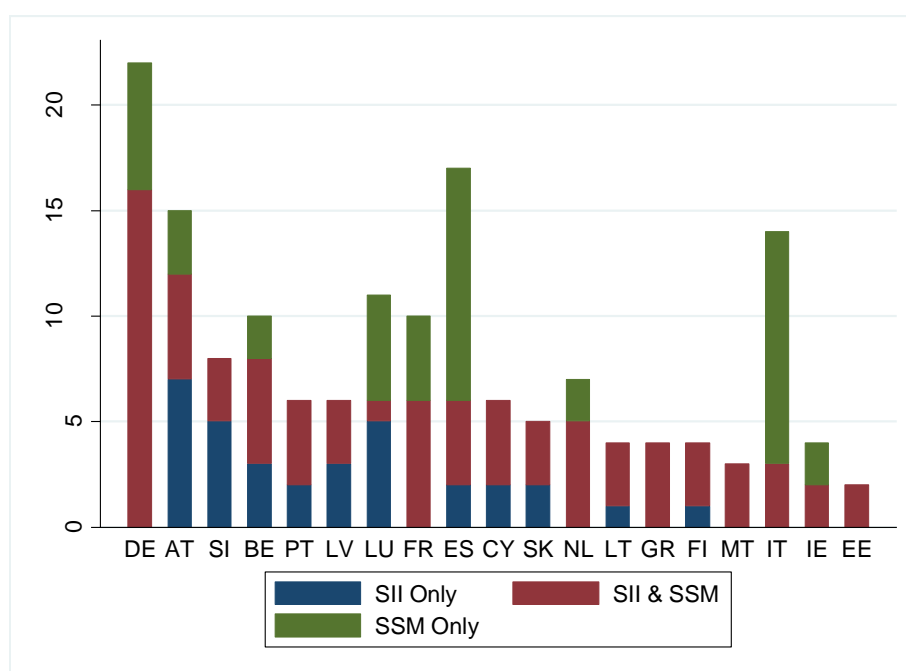
In some EU countries the assets of the systemically important institutions account for multiples of the GDP, in others they represents just a fraction. Obvious is the exceptional position of Luxembourg in the European banking landscape with the assets of its systemically important institutions exceeding more than five times the country's GDP. The great importance of systemically important institutions in some smaller and middle-sized countries such as Denmark, Sweden, Finland, the Netherlands, Austria and Belgium is also undeniable. For some of the largest EU countries, notably Spain, Germany and Italy, the relative importance of such institutions is substantially lower than for some of the smaller and medium-sized countries. While in CEE countries the systemically important institutions represent often a very important share of the



domestic banking assets, when using the GDP as a reference point their combined total assets are frequently lower than the country's GDP. The ongoing financial deepening process in these EU countries may explain this latter phenomenon.

For the countries participating in the Single Supervisory Mechanism (SSM), the overlap between reported systemically important institutions and the institutions directly supervised by the ECB is only partial. Within the SSM, the ECB assumed the direct supervision of significant banks. Institutions are significant in SSM terms either because they meet the pre-defined criteria of the SSM regulation⁵² or because the ECB deems them significant for other reasons. Figure 4-5 shows that the views by Member States of what a systemically important institution is and by the ECB of what a significant institution is, fully overlap in Greece, Malta, and Estonia. On the other hand, in Luxembourg, the overlap in classifications seems minimal. What is also striking is that, for some countries (e.g. Spain and Italy), many additional institutions are classified as significant by the ECB but which are not O-SIIs. The opposite is also true: some countries designate many non SSM-supervised institutions as an O-SII (Slovenia) or subject many additional institutions to a tailored SRB (Austria).

Figure 4-5
Number of systemically important institutions and/or significant institutions directly supervised by the ECB



Source: ESRB and ECB.

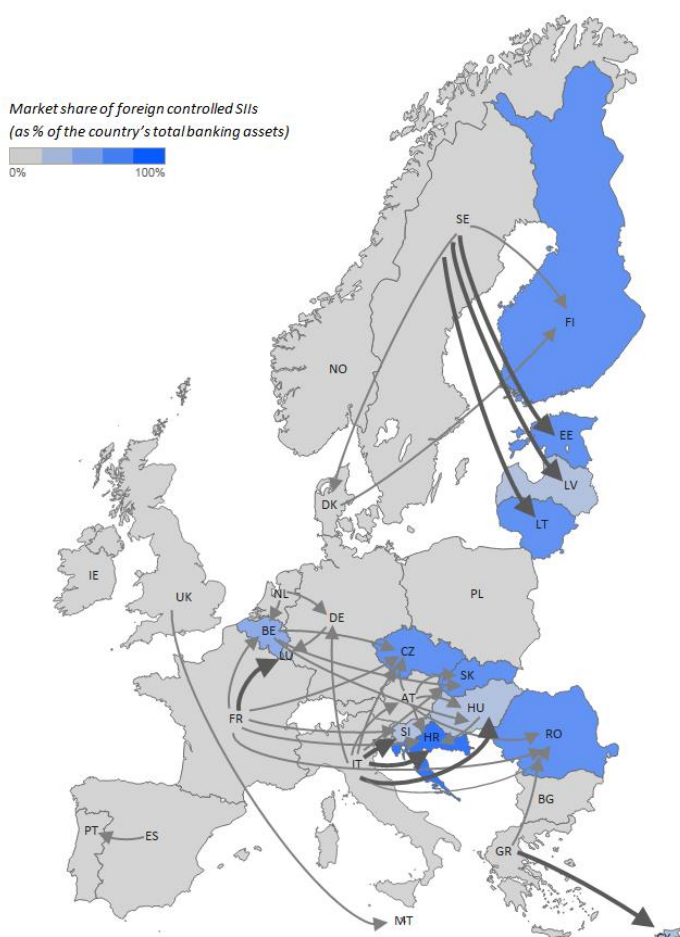
Notes: The figure depicts the number of institutions that are designated either exclusively as an SII ("SII Only"), exclusively as a significant institution directly supervised by the ECB ("SSM Only") or both ("SII & SSM"). The qualification as significant institution directly supervised by the ECB refers to the situation as of 30 December 2015. The figure depicts specifically identified institutions irrespective of their consolidation level or the designation of their parent group. For AT, it has been assumed for the analysis that the institutions subject to the systemic risk buffer are also systemically important.

52 These criteria include, for example, size, importance for the economy, cross-border activities, whether the bank benefits from certain public assistance, and the requirement that at least three most significant banks per jurisdiction need to fall under direct supervision of the ECB. Hence, the concepts of significant institution and systemically important institution do not, by definition, fully coincide.



Banking groups that are systemically important in one Member State can also have systemically important establishments in several others. Such banks are therefore especially relevant in assessing cross-border contagion risk. Annex 4 lists the systemically important banking groups that have several systemically important establishments in the EU. There are 18 such banking groups and those that have the most cross-border systemic establishments, in particular in CEE, are Unicredit (IT), Société Générale (FR), Erste (AT) and Intesa Sanpaolo (IT). Of the large Member States, France and Italy are often the home country of such cross-border European groups, while Germany and Spain are in this respect much less present. Of the smaller and medium-sized EU countries, the cross-border activity of the Belgian, Dutch and Swedish banking groups stands out. The table in Annex 3 further shows that the Russian Sberbank has establishments subject to higher capital requirements because of systemic risk considerations in two EU countries (AT, SI). Figure 4-6 graphically illustrates how the banking systems of different EU countries are connected through the presence of systemically important institutions that are part of the same banking group.

Figure 4-6
Cross-border links between Member States through the presence of systemically important institutions



Source: ESRB and SNL Financial (ownership and total assets)
 Notes: The arrow between countries indicates the link between the home country of SIs that control SIs in another country (host country). The thickness of the arrow is proportional to the number of such links. The colour of a country reflects the share of its banking market being controlled by foreign-owned SIs (the darker the colour, the larger the share based on total assets). No data for BG and PL were available at end 2015; data for UK are incomplete because of missing O-SII notification at the end of 2015. For AT, it has been assumed for the analysis that the institutions subject to the systemic risk buffer are also systemically important.



4.2 Buffer requirements for systemically important institutions

The various buffers that can be used for systemically important institutions might be combined. First, because of the nature of the identification process, G-SIIs often qualify also as O-SII at the consolidated level. Second, G-SII or O-SII buffers can be combined with a systemic risk buffer. The CRD has laid down the accumulation rules for such cases:

- *Combination of G-SII and O-SII buffer:* the higher of the G-SII buffer and the O-SII buffer at consolidated level applies
- *Combination of G-SII or O-SII buffer with systemic risk buffer:*
 - *Systemic risk buffer applies at the same level as the G-SII or O-SII buffer and covers all exposures:* the higher of the two buffers applies
 - *Systemic risk buffer applies at the same level as the G-SII or O-SII buffer and covers only domestic exposures:* the two buffers apply simultaneously

In practice it can often be observed that when the G-SII or O-SII buffer is combined with the systemic risk buffer, the higher of the two applies. Indeed, in most cases the systemic risk buffer is determined on the basis of all exposures, the exception being Bulgaria, Hungary and Slovakia where it is calculated using domestic exposures only. This rule gives Member States the possibility to go beyond the O-SII buffer, which is capped at 2%, by using the systemic risk buffer (e.g. in Sweden and the Netherlands).

A number of EU countries identified systemically important institutions but did not, at least at this juncture, impose additional capital requirements on all such institutions. These countries include Estonia, Italy, Latvia, and Spain. Estonia indicated that it will set the O-SII buffers for its two O-SIIs (Swedbank AS, AS SEB Pank) in the first half of 2016. Italy did not impose an O-SII buffer on its three O-SIIs⁵³, on the grounds that these institutions are already subject to more intense supervision and an additional 1% buffer as they are included in the ECB's comprehensive assessment; moreover, any additional buffer requirement is seen to pose a substantial danger to the sluggish economic recovery and financial stability. Latvia will consider the buffers to be set for its six O-SIIs during the course of 2016. Spain imposed an O-SII buffer of 0% on two (Popular, Sabadell) of its six identified O-SIIs⁵⁴.

Fully phased-in additional buffer requirements generally range between 0.5% and 3% (Figure 4-7). Around one out of ten institutions is at the higher end of the distribution of the buffer requirements (buffer of 3%); the same proportion also applies to the distribution's lower end (buffer of 0%).

Large cross-border banking groups are often subject to capital requirements for systemically important institutions both at the consolidated and the local level (see Annex 4). Unicredit Group and Société Générale are cases in point, having multiple establishments, especially in CEE, subject to separate buffer requirements, sometimes higher than the one imposed on the group as a whole.

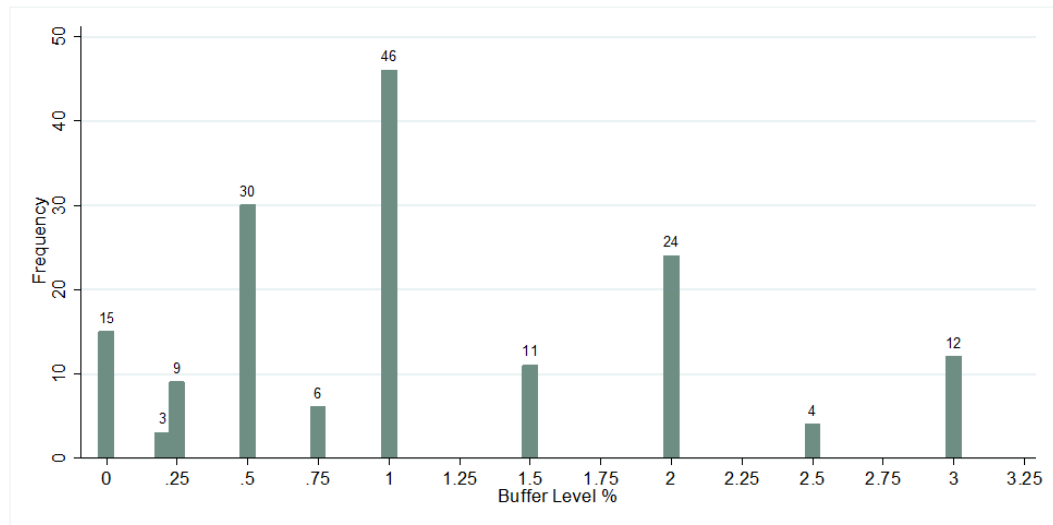
53 One of these O-SIIs (Unicredit Group) is also a G-SII and therefore subject to a G-SII buffer (1%).

54 Two of these six O-SIIs are also a G-SII (BBVA, Santander) and therefore subject to a G-SII buffer (1%).



Figure 4-7

Frequency of buffer requirements (number of systemically important institutions)



Source: ESRB

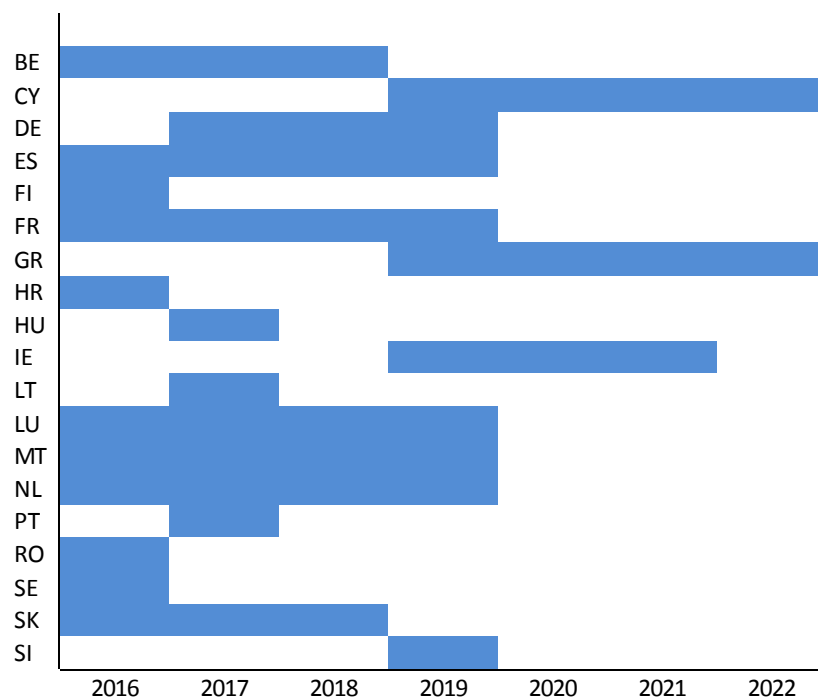
Notes: No data for BG and PL were available at end 2015; 2015 data for UK are incomplete. For AT, it has been assumed for the analysis that the institutions subject to the systemic risk buffer are also systemically important.

Substantial cross-country differences exist as regards the phasing-in arrangements for the buffer requirements (Figure 4-8). For G-SII buffers, Union law prescribes a four-year phase-in period starting in 2016. Such provisions do not exist for O-SII buffers and systemic risk buffers. Member States can therefore choose whether and how to phase them in, and a wide variety of approaches has emerged (Figure 4-8). For instance, Cyprus, Ireland and Greece amongst others, set a phase-in period for O-SII buffers that goes beyond 2019, and the latest date notified is 2022 (Cyprus, Greece). In most cases, however, a phasing-in of O-SII buffers or systemic risk buffers will take place until 2018 or 2019. Buffers are often phased in in equal steps of $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 or $\frac{1}{2}$, $\frac{3}{4}$, 1. But there are also Member States that opt for a quick and early introduction of the additional capital requirements, such as Croatia, Finland, Romania and Sweden for the O-SII buffer and the Czech Republic and Sweden for the systemic risk buffer. Phasing-in arrangements are influenced by factors such as the prevailing and desired solvency situation of the banks concerned.



Figure 4-8

Phasing in of O-SII buffer requirements from 2016



Source: ESRB

Notes: No O-SII information for AT, BG, PL and UK was available at the end of 2015. EE and LV have not yet introduced O-SII buffer requirements. IT set the O-SII buffer requirement at 0%. CZ and DK identified O-SIIs but did not impose O-SII buffer requirements (only a systemic risk buffer requirement). The coloured area indicates the period when the buffer requirement is phased in.

Substantial cross-country differences also exist as regards the aggregate buffer requirement.

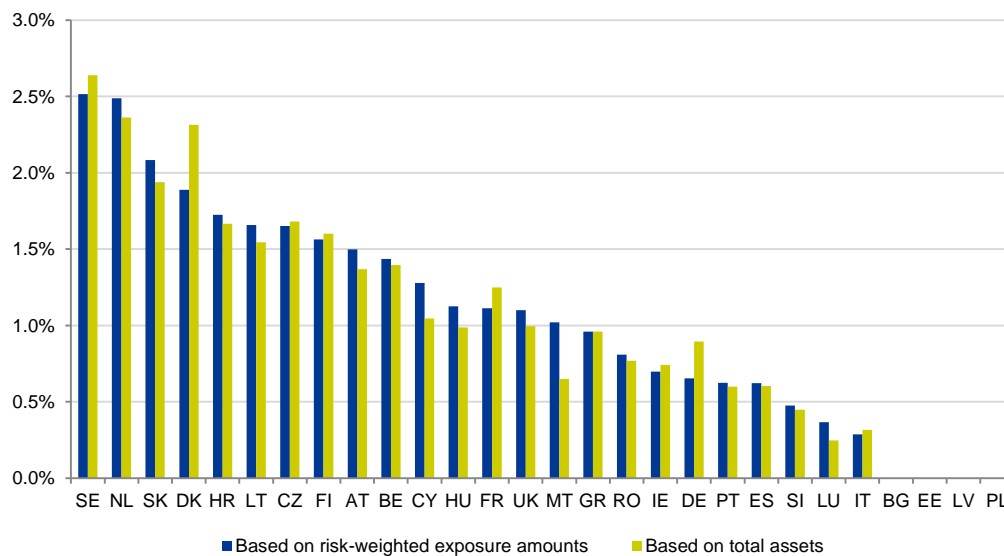
The aggregate buffer requirement is a proxy of the aggregate economic effect of SII buffer requirements in a given country. Figure 4-9 shows that the aggregate buffer requirement ranges from zero to 2.5% across Member States, with the maximum buffer rates for individual institutions reaching 3%. They are the highest in Sweden and the Netherlands, which results from both a high buffer requirement and a high share of SIIs in the respective banking sectors. They are zero in Estonia and Latvia, which have not yet assigned a buffer requirement to their designated O-SIIs. For the EU as a whole, SIIs have to hold EUR 166bn of capital to satisfy the SII requirements.



Figure 4-9

Economic significance of fully phased-in SII buffer requirements

SII requirement weighted by the respective measures over the country aggregates of the respective measures



Source: ESRB, ECB (CBD, 2015-Q2), and SNL (RWA and Total assets, latest available quarterly or annual data)

Notes: The figure shows the average SII requirement weighted by both the total risk-weighted exposure amounts and the total assets of SII's over, respectively, the aggregated total risk-weighted exposure amounts and the total banking assets of the given country. This measure is a joint measure of the size of the SII buffer requirements and the share of SII's in the banking sector assets of a given country. It therefore is a proxy of the aggregate economic effect (regarding additional demanded regulatory capital) of SII buffer requirements in a given country. AT, BG, PL and UK did not identify O-SII's before the closing date of this report. For AT, the systemic risk buffer has been used.

4.3 Concluding considerations

The analysis above illustrates the diversity in national approaches in dealing with systemically important institutions.

In the context of the powers granted to the ECB by the SSM Regulation, work is underway in designing a methodology to provide the ECB with the analytical basis to calibrate buffers for systemic institutions. Such work may be used as a basis for the ECB to assess national measures and eventually to impose higher requirements under its so-called “topping-up” power⁵⁵. This should also result in a more consistent treatment of similar situations.

Conceptually, the case of additional capital buffers for systemically important institutions raises some questions regarding the most appropriate intermediate objective of macroprudential policy for the instrument.

In last year's Review, the more general point was already made that capital measures with the direct aim of increasing the resilience of financial intermediaries do not easily fit the present framework of five intermediate objectives as defined in Recommendation ESRB/2013/1⁵⁶. In the specific case of G-SII and O-SII buffers, the most appropriate intermediate objective under this framework seems to be “limiting the systemic impact of misaligned incentives with a view of reducing moral hazard”. However, the concerns one wants to address seem to go beyond this objective alone and also include the size of the systemic externalities related to the failing of such an institution.

55 Article 5(2) of the 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.

56 See p. 12.



Annex 1

List of measures of macroprudential interest (as notified to the ESRB in 2015)

Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Austria	Finanzmarktstabilitätsgremium	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Austria	Finanzmarktstabilitätsgremium	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Recommendation to FMA to set CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Austria	Finanzmarktstabilitätsgremium	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Recommendation to FMA to enact an O-SII buffer of between 1% and 2%.	1 July 2016	Planned	Art. 131 CRD	No	No
Austria	Finanzmarktstabilitätsgremium	2015	Systemic risk buffer (SRB)	Misaligned incentives	Recommendation to FMA to enact a systemic risk buffer of up to 3%, composed of a buffer of 1% for systemic vulnerability and a buffer of up to 2% to address systemic cluster risk.	1 July 2016	Planned	Art. 133 CRD	No	No
Austria	Finanzmarktaufsicht	2015	Systemic risk buffer (SRB)	Misaligned incentives	Phasing in of a systemic risk buffer of up to 2% for 12 banks, composed of a buffer of up to 1% for systemic vulnerability and a buffer of up to 1% to address systemic cluster risk.	1 January 2016	Active	Art. 133 CRD	No	Yes
Austria	Finanzmarktaufsicht	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Belgium	Banque Nationale de Belgique / Nationale Bank van België	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Belgium	Banque Nationale de Belgique / Nationale Bank van België	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of 8 O-SIIs and their corresponding O-SII buffer rates. There are 2 O-SII buffer rates (1.5% and 0.75%) and these rates will be phased in over 3 years, starting from 1 January 2016 onwards.	1 January 2016	Active	Art. 131 CRD	No	Yes
Belgium	Banque Nationale de Belgique / Nationale Bank van België	2015	Risk weights	Credit growth and leverage	Consultation to extend the stricter national measure under Article 458 CRR for residential mortgage loans by one year.	28 May 2016	Planned	Art. 458(9)CEE	Reciprocity by NL	Yes
Bulgaria	Българска народна банка (Bulgarian National Bank)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Croatia	Hrvatska narodna banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 April 2016	Not yet active	Art. 136 CRD	No	No
Croatia	Hrvatska narodna banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 July 2016	Not yet active	Art. 136 CRD	No	No
Croatia	Hrvatska narodna banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 October 2016	Not yet active	Art. 136 CRD	No	No
Croatia	Hrvatska Agencija za Nadzor Financijskih Usluga (HANFA)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Exemption of small and medium-sized investment firms from the countercyclical capital buffer.	1 January 2014	Active	Art. 130(2) CRD	No	No
Croatia	Hrvatska narodna banka	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of nine O-SIIs with corresponding buffer rates.	1 February 2016	Active	Art. 131 CRD	No	Yes
Cyprus	Central Bank of Cyprus	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of six O-SIIs and corresponding buffer rates.	1 January 2019	Approved and scheduled to be implemented	Art. 131 CRD	No	Yes
Cyprus	Central Bank of Cyprus	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	On 30 December 2015 the Countercyclical capital buffer rate at 0% for the period 1 January 2016 to 31 March 2016, on the total risk exposure amount of licenced credit institutions.	1 January 2016	Active	National law	No	Yes
Czech Republic	Česká národní banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Czech Republic	Česká národní banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 April 2016	Not yet active	Art. 136 CRD	No	No



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Czech Republic	Česká národní banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 July 2016	Not yet active	Art. 136 CRD	No	No
Czech Republic	Česká národní banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 October 2016	Not yet active	Art. 136 CRD	No	No
Czech Republic	Česká národní banka	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Increasing the CCB rate to 0.5%.	1 January 2017	Not yet active	Art. 136 CRD	No	Yes
Czech Republic	Česká národní banka	2015	Loan-to-value (LTV)	Credit growth and leverage	Recommendation to have residential mortgage loans with an LTV > 90% for not more than 10% of the total amount of such loans in any given quarter. No residential mortgage loans with LTV > 100%.	1 June 2015	Active	National law	No	Yes
Czech Republic	Česká národní banka	2015	Other	Credit growth and leverage	Series of recommendations related to prudent credit standards for residential mortgage loans, including: assessment of client to service loans and withstand increased stress, maximum loan maturity, the provision of loans with a non-standard repayment schedule, loan refinancing, lending through intermediaries and the finance of buy-to-let property.	1 June 2015	Active	National law	No	Yes
Czech Republic	Česká národní banka	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of seven O-SIIs.	1 January 2015	Active	Art. 131 CRD	No	Yes
Denmark	Erhvervs-og Vækstminister (Minister of Business and Growth)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	No implementation date set	Active	Art. 136 CRD	No	No
Denmark	Erhvervs-og Vækstminister (Minister of Business and Growth)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	No implementation date set	Active	Art. 136 CRD	No	No
Denmark	Erhvervs-og Vækstminister (Minister of Business and Growth)	2015	Systemic risk buffer (SRB)	Misaligned incentives	Yearly setting of SRB of between 1% and 3% for O-SIIs depending on the level of systemic importance of each institution.	1 January 2016	Active	Art. 133 CRD	No	No
Estonia	Eesti Pank	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Estonia	Eesti Pank	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of two O-SIIs.	1 January 2016	Active	Art. 131(5) CRD	No	Yes
Finland	Finanssivalvonta	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	16 March 2015	Active	Art. 136 CRD	No	No
Finland	Finanssivalvonta	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	30 June 2015	Active	Art. 136 CRD	No	No
Finland	Finanssivalvonta	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	28 September 2015	Active	Art. 136 CRD	No	No
Finland	Finanssivalvonta	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	21 December 2015	Active	Art. 136 CRD	No	No
Finland	Finanssivalvonta	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of four O-SIIs and the corresponding O-SII buffer rates.	7 January 2016	Active	Art. 131(5) CRD	No	Yes
France	Haut Conseil de Stabilité Financière	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Reciprocation of the CCB rates of Sweden and Norway.	1 January 2016	Active	Art. 136 CRD	Reciprocation of SE and NO measure	Yes
France	Haut Conseil de Stabilité Financière	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
France	Autorité de Contrôle Prudentiel et de Résolution	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of BNP Paribas, Société Générale, Groupe BPCE and Groupe Crédit Agricole as G-SIIs.	2014	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
France	Autorité de Contrôle Prudentiel et de Résolution	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of six O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(5) CRD	No	Yes
Germany	Bundesanstalt für Finanzdienstleistungsaufsicht	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Germany	Bundesanstalt für Finanzdienstleistungsaufsicht	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of Deutsche Bank as G-SII.	G-SII buffer phased in from 1 January 2016	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
Germany	Bundesanstalt für Finanzdienstleistungsaufsicht	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of Deutsche Bank as G-SII.	O-SII buffer phased-in from 1 January 2017	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
Germany	Bundesanstalt für Finanzdienstleistungsaufsicht	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of 16 O-SIIs and corresponding buffer rates.	Phased-in from 1 January 2017	Not yet active	Art. 131(5) CRD	No	Yes
Germany	Ausschuss für Finanzstabilität	2015	Other	Credit growth and leverage	Recommendation to create the legal basis for the use of macroprudential instruments in the real estate sector: LTV, amortisation requirement, DTI, DSTI and DSCR. The instruments should allow for de minimis exemptions and the exemption of a pro rata new loan quota.					No
Greece	Bank of Greece	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Greece	Bank of Greece	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of four O-SIIs and corresponding buffer rates.	1 January 2016	Active	Art. 131(5) CRD	No	Yes
Hungary	Magyar Nemzeti Bank	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Hungary	Magyar Nemzeti Bank	2015	Liquidity ratio	Maturity mismatch and market illiquidity	The definition of the Foreign exchange Funding Adequacy Ratio (FFAR) is tightened (e.g. long-term FX swaps are no longer recognised as long-term stable FX funding) and the 100% level for the ratio is to be reached from 1 January 2016 (26/2015 (VII.30), MNB Decree).	1 January 2016	Active	National law	No	Yes
Hungary	Magyar Nemzeti Bank	2015	Liquidity ratio	Maturity mismatch and market illiquidity	Introduction of a Mortgage Funding Adequacy Ratio (MFAR), which requires a minimum level of HUF denominated mortgage-backed liabilities relative to the amount of residential mortgage loans in HUF. The minimum ratio is set at 15% (20/2015, (VI.29) MNB Decree).	1 October 2016	Planned	National law	No	Yes
Hungary	Magyar Nemzeti Bank	2015	Liquidity ratio	Maturity mismatch and market illiquidity	Introduction of a Foreign Exchange Coverage Ratio (FECR) whereby the overall on-balance sheet currency mismatch of credit institutions is limited to 15% of their balance sheet total (25/2015, (VII.30) MNB Decree).	1 January 2016	Active	National law	No	Yes
Hungary	Magyar Nemzeti Bank	2015	Liquidity ratio	Maturity mismatch and market illiquidity	Acceleration of the gradual increase of the required liquidity coverage ratio so that the 100% requirement is met by 1 April 2016 (rather than 1 January 2018). Repeal of two existing short-term liquidity regulations in force (balance sheet coverage ratio, deposit coverage ratio) (35/2015, (IX, 24) MNB Decree).	1 April 2016	Planned	Art. 412(5) CRR and national law	No	Yes
Hungary	Magyar Nemzeti Bank	2015	Liquidity ratio	Maturity mismatch and market illiquidity	The short-term liquidity requirement on deposit coverage ratio (DCR) and/or balance sheet coverage ratio (BCR) become unnecessary because of the LCR thus this regulation will be repealed on 1 January 2016. (35/2015 (IX.24) MNB Decree)	1 January 2016	Not anymore active	National law	No	Yes
Hungary	Magyar Nemzeti Bank	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of nine O-SIIs and corresponding O-SII buffer rates. The list of O-SIIs and their differentiated O-SIIB rates are published on the MNB's website.	1 January 2017	Not yet active	Art. 131 CRD	No	Yes



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Hungary	Magyar Nemzeti Bank	2015	Systemic risk buffer (SRB)	Credit growth and leverage	Institution-specific systemic risk buffer set in the range of 0% to 2%, depending on the contribution of the institution to the systemic risk stemming from problem project exposures.	1 January 2017	Not yet active	Art. 133 CRD	No	Yes
Ireland	Central Bank of Ireland	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Ireland	Central Bank of Ireland	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of two O-SIIs and corresponding O-SII buffer rates.	1 July 2019	Active	Art. 131(5) CRD	No	Yes
Italy	Banca d'Italia	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Italy	Banca d'Italia	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of Unicredit Group as G-SII.	2014	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
Italy	Banca d'Italia	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of Unicredit Group as G-SII.	2015	Active	Art. 131 CRD	No	Yes
Latvia	Finanšu un kapitāla tirgus komisija (Financial and Capital Market Commission)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 February 2016	Active	Art. 136 CRD	No	No
Latvia	Finanšu un kapitāla tirgus komisija (Financial and Capital Market Commission)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 May 2016	Not yet active	Art. 136 CRD	No	No
Latvia	Finanšu un kapitāla tirgus komisija (Financial and Capital Market Commission)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 August 2016	Not yet active	Art. 136 CRD	No	No
Latvia	Finanšu un kapitāla tirgus komisija (Financial and Capital Market Commission)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 November 2016	Not yet active	Art. 136 CRD	No	No
Latvia	Finanšu un kapitāla tirgus komisija (Financial and Capital Market Commission)	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of six O-SIIs.	1 January 2016	Active	Art. 131(5) CRD	No	Yes
Lithuania	Lietuvos bankas	2015	Capital conservation buffer	Credit growth and leverage	No transitional provisions for the capital conservation buffer. Buffer rate is set at 2.5%.	30 June 2015	Active	Art. 160(6) CRD	No	No
Lithuania	Lietuvos bankas	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	No transitional provisions for the countercyclical capital buffer. Reciprocity of buffer rates by other Member States that have imposed a shorter transitional period.	30 June 2015	Active	Art. 160(6) CRD	Yes	No
Lithuania	Lietuvos bankas	2015	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.	30 June 2015	Active	Art. 129(2) CRD	No	No
Lithuania	Lietuvos bankas	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	30 June 2015	Active	Art. 136 CRD	No	No
Lithuania	Lietuvos bankas	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	CCB rate of 0% continues to apply.	30 September 2015	Active	Art. 136 CRD	No	No
Lithuania	Lietuvos bankas	2015	Debt-service-to-income (DSTI)	Credit growth and leverage	A credit institution can apply a DSTI of more than 40% of the borrower's income, but overall capped at 60%, for the amount of housing loans that is not higher than 5% of the total value of new housing loans granted by that credit institution during the calendar year.	1 November, 2015	Active	National law	No	Yes
Lithuania	Lietuvos bankas	2015	Debt-service-to-income (DSTI)	Credit growth and leverage	DSTI of not more than 50% of borrower's net income when an interest rate of at least 5% is used for the calculations. This requirement is combined with the 40% DSTI requirement (calculated on the basis of the actual interest rate).	1 November, 2015	Active	National law	No	Yes



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Lithuania	Lietuvos bankas	2015	Loan maturity	Credit growth and leverage	Maturity of new housing loans should not be more than 30 years.	1 November, 2015	Active	National law	No	Yes
Lithuania	Lietuvos bankas	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of four O-SIIs and corresponding O-SII buffer rates.	31 December 2016	Active	Art. 131(5) CRD		Yes
Lithuania	Lietuvos bankas	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	31 December 2015	Active	Art. 136 CRD	No	No
Lithuania	Lietuvos bankas	2015	Liquidity ratio	Maturity mismatch and market illiquidity	LCR not less than 100 %.	1 January 2015	Active	Art. 412(5) CRR and national law	No	Yes
Lithuania	Lietuvos bankas	2015	Stress test / sensitivity test	Credit growth and leverage	Included in Responsible lending regulations. When issuing a housing loan, a credit institution has to conduct a sensitivity test on borrower's DSTI: DSTI of a borrower must be not more than 50% of borrower's net income when an interest rate of at least 5% is used for the calculations. This requirement is combined with the 40% DSTI requirement (which is calculated on the basis of the actual interest rate).	1 November, 2015	Active	National law	No	Yes
Lithuania	Lietuvos bankas	2015	Pillar II	Exposure concentration	Capital add-ons for banks.	Q3 2015	Active	Art. 103 CRD	No	Yes
Luxembourg	Commission de Surveillance du Secteur Financier	2015	Capital conservation buffer	Credit growth and leverage	Exemption of small and medium-sized investment firms from the capital conservation buffer.	1 January 2016	Active	Art. 129(2) CRD	No	No
Luxembourg	Commission de Surveillance du Secteur Financier	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Exemption of small and medium-sized investment firms from the countercyclical capital buffer.	1 January 2016	Active	Art. 130(2) CRD	No	No
Luxembourg	Commission de Surveillance du Secteur Financier	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Luxembourg	Commission de Surveillance du Secteur Financier	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of six O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(5) CRD		Yes
Malta	Malta Financial Services Authority	2015	Capital conservation buffer	Credit growth and leverage	Exempting small and medium-sized investment firms from maintaining a capital conservation buffer.	1 January 2016	Active	Art. 129(2) CRD	No	Yes
Malta	Malta Financial Services Authority	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Exempting small and medium-sized investment firms from maintaining a countercyclical capital buffer.	1 January 2016	Active	Art. 129(2) CRD	No	No
Malta	Central Bank of Malta	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Malta	Central Bank of Malta and Malta Financial Services Authority	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of three O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(5) CRD	No	Yes
Netherlands	De Nederlandsche Bank	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Netherlands	De Nederlandsche Bank	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of ING as G-SII.	2014	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
Netherlands	De Nederlandsche Bank	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of ING as G-SII.	2015	Active	Art. 131 CRD	No	Yes
Netherlands	De Nederlandsche Bank	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of five O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(5) CRD		Yes



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Norway	Finansdepartementet (Ministry of Finance)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1%.	1 April 2016	Not yet active	Art. 136 CRD	Reciprocity by DK, FI, SE and UK	No
Norway	Finansdepartementet (Ministry of Finance)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Increasing the CCB rate to 1.5%	30 June 2016	Not yet active	Art. 136 CRD	Reciprocity by DK, FI, SE and UK	Yes
Norway	Finansdepartementet (Ministry of Finance)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1.5%	30 September 2016	Not yet active	Art. 136 CRD	Reciprocity by DK, FI, FR, SE and UK	No
Norway	Finansdepartementet (Ministry of Finance)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1.5%	30 December 2016	Not yet active	Art. 136 CRD	Reciprocity by DK, FI, FR, SE and UK	No
Norway	Finansdepartementet (Ministry of Finance)	2015	Loan-to-value (LTV)	Credit growth and leverage	Regulation based on supervisory guidelines. LTV for residential mortgage loans is capped at 85%. 10% of the volume of a lender's approved loans per quarter are allowed not to meet the regulatory requirements.	1 July 2015 (until in principle 31 December 2016).	Active	National law	National law	Yes
Norway	Finansdepartementet (Ministry of Finance)	2015	Loan amortisation	Credit growth and leverage	Regulation based on supervisory guidelines. Residential mortgage loans with an LTV greater than 70% need to be amortising. 10% of the volume of a lender's approved loans per quarter are allowed not to meet the regulatory requirements.	1 July 2015 (until in principle 31 December 2016).	Active	National law	National law	Yes
Norway	Finansdepartementet (Ministry of Finance)	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	DNB ASA, Nordea Bank Norge ASA and Kommunalbanken AS continue to be designated as systemically important financial institutions.	1 July 2015	Active	Art. 133 CRD	No	Yes
Norway	Finansdepartementet (Ministry of Finance)	2015	Stress test / sensitivity test	Credit growth and leverage	Regulation based on supervisory guidelines. When assessing a borrower's debt-servicing ability, the lender needs to make allowance for an interest rate increase of 5 percentage points. 10% of the volume of a lender's approved loans per quarter are allowed not to meet the regulatory requirements.	1 July 2015 (until in principle 31 December 2016).	Active	National law	National law	Yes
Norway	Finansdepartementet (Ministry of Finance)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1.5%	31 December 2016	Not yet active	Art. 136 CRD	Reciprocity by DK, FI, FR, SE and UK	No
Poland	Komitet Stabilności Finansowej (Financial Stability Committee)	2015	Capital conservation buffer	Credit growth and leverage	Exempting micro, small and medium-sized investment firms from maintaining a capital conservation buffer.	1 January 2016	Active	Art. 129(2) CRD	No	No
Poland	Komitet Stabilności Finansowej (Financial Stability Committee)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Exempting micro, small and medium-sized investment firms from maintaining a countercyclical capital buffer.	1 January 2016	Active	Art. 130(2) CRD	No	No
Poland	Komitet Stabilności Finansowej (Financial Stability Committee)	2015	Capital conservation buffer	Credit growth and leverage	Shorter transitional period for capital conservation buffer. Buffer rate is 1.25% between 1/1/16 and 31/12/17, and 1.875% between 1/1/18 and 31/12/18.	1 January 2016	Active	Art. 160(6) CRD	No	No
Poland	Komitet Stabilności Finansowej (Financial Stability Committee)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Shorter transitional period for countercyclical capital buffer.	1 January 2016	Active	Art. 160(6) CRD	No	No
Poland	Komitet Stabilności Finansowej (Financial Stability Committee)	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Portugal	Banco de Portugal	2015	Capital conservation buffer	Credit growth and leverage	Early introduction of capital conservation buffer of 2.5% for all banks	1 January 2016	Active	Art. 160(6) CRD	No	No
Portugal	Banco de Portugal	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Portugal	Banco de Portugal	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of seven O-SIIs and corresponding O-SII buffer rates.	1 January 2017	Not yet active	Art. 131(5) CRD	No	Yes
Romania	Banca Națională a României	2015	Capital conservation buffer	Credit growth and leverage	Recommendation of National Committee for Financial Stability to implement the capital conservation buffer in four equal steps of 0.625% per annum in period 2016-2019.	1 January 2016	Active	Art. 160 CRD	No	No
Romania	Banca Națională a României	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of the CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Romania	Banca Națională a României	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of nine O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(5) CRD	No	Yes
Romania	Banca Națională a României	2015	Systemic risk buffer (SRB)	Credit growth and leverage	Planned introduction of systemic risk buffer.	31 March 2016	Not yet active	Art. 133 CRD	No	Yes
Slovakia	Národná banka Slovenska	2015	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	No
Slovakia	Národná banka Slovenska	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	2 February 2015	Active	Art. 136 CRD	No	No
Slovakia	Národná banka Slovenska	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	30 April 2015	Active	Art. 136 CRD	No	No
Slovakia	Národná banka Slovenska	2015	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	No
Slovakia	Národná banka Slovenska	2015	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.	Yes
Slovakia	Národná banka Slovenska	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	14 July 2015	Active	Art. 136 CRD	No	No
Slovakia	Národná banka Slovenska	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	20 October 2015	Active	Art. 136 CRD	No	No
Slovakia	Národná banka Slovenska	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of five O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(3) CRD	No	Yes
Slovakia	Národná banka Slovenska	2015	Systemic risk buffer (SRB)	Misaligned incentives	Systemic risk buffer for certain O-SIIs, applied to domestic exposures and on solo as well as (sub)consolidated basis. Phase-in: 0% from 1.1.2016, 1% from 1.1.2017	1 January 2016	Active	Art. 133 CRD	No	Yes
Slovenia	Banka Slovenije	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Slovenia	Banka Slovenije	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of eight O-SIIs and corresponding O-SII buffer rates.	1 January 2019	Active	Art. 131(5) CRD	No	Yes
Spain	Banco de España	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Setting of CCB rate at 0%.	1 January 2016	Active	Art. 136 CRD	No	No
Spain	Banco de España	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of Santander and BBVA as G-SIIs.	2014	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
Spain	Banco de España	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of six O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(5) CRD	No	Yes



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
Sweden	Finansinspektionen	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1%.	17 March 2016 (decision to maintain the rate taken on 16 March 2015).	Active	Art. 136 CRD	Reciprocation by DK, FI and UK	No
Sweden	Finansinspektionen	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Raising the CCB rate from 1% to 1.5%.	27 June 2016 (decision to raise the rate taken on 22 June 2015).	Not yet active	Art. 136 CRD	Reciprocation by DK, FI and UK	Yes
Sweden	Finansinspektionen	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1.5%.	7 September 2016 (decision to maintain the rate taken on 7 September 2015).	Not yet active	Art. 136 CRD	Reciprocation by DK, FI and UK	No
Sweden	Finansinspektionen	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 1.5%.	14 December 2016 (decision to keep the rate taken on 14 December 2015).	Not yet active	Art. 136 CRD	Reciprocation by DK, FR, FI and UK	No
Sweden	Finansinspektionen	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Reciprocity of CCB rates up to 2.5% of EEA countries.	9 July 2015	Active	Art. 136 CRD	Reciprocation of CCB rates of EEA countries	Yes
Sweden	Finansinspektionen	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of Nordea as G-SII.	2014	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
Sweden	Finansinspektionen	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of four O-SIIs and corresponding O-SII buffer rates.	1 January 2016	Active	Art. 131(5) CRD	No	Yes
Sweden	Finansinspektionen	2015	Risk weights	Credit growth and leverage	Continuation of practice since 2007 to apply a risk weight of 100% for exposures secured by mortgages on commercial immovable property.	Consultation of EBA underway	Active (continuation of existing practice).	Art. 124 CRR.	Compulsory reciprocity under Art. 124(5) CRR	No
Sweden	Finansinspektionen	2015	Other	Misaligned incentives	Increased transparency in capital requirement for Swedish banks (disclosure of actual capital requirements for the ten largest Swedish banks and credit institutions, including Pillar II).	25 November 2015	Active	National law	No	No
Sweden	Finansinspektionen	2015	Other systemically important institutions (O-SII) buffer	Misaligned incentives	Identification of four large Swedish banking groups as O-SII (decision taken by FI's Board on 12 October 2015)	1 January 2016	Active	Art. 131 CRD	No	No
United Kingdom	Bank of England	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	26 March 2015	Active	Art. 136 CRD	No	No
United Kingdom	Bank of England	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Reciprocation of CCB rate of 0.625% by Hong-Kong.	27 January 2016	Not yet active	Art. 139(3) CRD and Art. 140(3) CRD	Reciprocation of measure by Hong-Kong	Yes
United Kingdom	Bank of England	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Reciprocation of CCB rate of 1.5% by Norway and Sweden.	27 July 2016 (Sweden) and 30 July 2016 (Norway)	Not yet active	Art. 136 CRD	Reciprocation of NO and SE measures	Yes
United Kingdom	Bank of England	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	1 July 2015	Active	Art. 136 CRD	No	No
United Kingdom	Bank of England	2015	Countercyclical capital buffer (CCB)	Credit growth and leverage	Keeping the CCB rate at 0%.	28 September 2015	Active	Art. 136 CRD	No	No



Country	Authority	Year initiative	Type of measure	Primary intermediate objective	Description of measure	Date when measure becomes active	Present status of measure	Basis in Union law	Reciprocity	Considered as substantial for the purpose of this report
United Kingdom	Prudential Regulation Authority	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of HSBC, Barclays, Royal Bank of Scotland and Standard Chartered as G-SIIs.	2014	Active	Art. 7 Regulation No. 1222/2014 of 8 October 2014	No	Yes
United Kingdom	Prudential Regulation Authority	2015	Global systemically important institutions (G-SII) buffer	Misaligned incentives	Identification of HSBC, Barclays, Royal Bank of Scotland and Standard Chartered as G-SIIs.	2015	Active	Art. 131 CRD	No	Yes



Annex 2

Macroprudential instruments active in the EU and Norway

Situation end January 2016

Measures	AT	BE	BG	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HR	HU	IE	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK	UK	Total
Capital conservation buffer ⁽⁴⁾			x	x	x		x	x		x			x			x	x	x	x	x		x	x	x	x	x		x	x	19
Countercyclical capital buffer (CCB)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	29
Debt-service-to-income (DSTI)				x				x						x			x						x		x			x		7
Global systemically important institutions (G-SII) buffer						x			x		x					x						x				x		x		7
Liquidity ratio														x			x						x			x				4
Loan amortisation																					x	x						x		3
Loan maturity								x									x						x		x			x		5
Loan-to-deposit (LTD)																											x			1
Loan-to-income (LTI)															x														x	2
Loan-to-value (LTV)				x	x		x	x						x	x			x	x	x	x	x	x		x	x		x		15
Loss-given-default (LGD)						x																x								2
Other					x											x							x			x		x		5
Other systemically important institutions (O-SII) buffer		x		x ⁽¹⁾	x ⁽²⁾	x ⁽¹⁾	x ⁽³⁾	x ⁽²⁾	x	x	x	x ⁽¹⁾	x	x ⁽¹⁾	x ⁽¹⁾	x ⁽²⁾	x ⁽²⁾	x	x ⁽²⁾	x	x ⁽¹⁾	x		x ⁽¹⁾	x	x	x ⁽¹⁾	x		25
Pillar II		x		x			x										x									x	x			7
Risk weights		x											x		x			x		x	x	x				x	x		x	9
Stress test / sensitivity test				x												x	x					x						x	x	8
Systemic risk buffer (SRB)	x		x		x		x	x					x									x	x				x		x	10
Total	2	4	3	7	6	3	7	7	3	3	3	2	5	5	7	4	9	5	4	5	7	9	7	3	8	10	4	10	6	

Source: ESRB

Notes: The table is derived from the list of measures of macroprudential interest maintained and published by the ESRB; it may therefore not be exhaustive.

(1) The O-SII buffer is not yet applicable in 2016.

(2) The O-SIIs have been identified but no non-zero buffer rate has been set.

(3) The O-SIIs have been identified and a systemic risk buffer has been set.

(4) The capital conservation buffer measures in this table refer to the early introduction of the capital conservation buffer or the use of a shorter transitional period (compared to Art. 160 CRD).



Annex 3

Systemically important institutions in the EU

ID	Country	G-SII/OSII	Bank	Total Buffer
1	BE	O-SII	ABE	0.75%
2	BE	O-SII	BNYM	0.75%
3	BE	O-SII	Belfius	1.50%
4	BE	O-SII	BNPP Fortis	1.50%
5	BE	O-SII	Euroclear	0.75%
6	BE	O-SII	ING Belgie	1.50%
7	BE	O-SII	KBC Group	1.50%
8	BE	O-SII	Argenta Spaarbank	0.75%
9	CY	O-SII	Eurobank Cyprus Ltd	0.50%
10	CY	O-SII	RCB Bank Ltd	1.00%
11	CY	O-SII	Alpha Bank Cyprus Ltd	0.50%
12	CY	O-SII	Hellenic Bank Plc	1.50%
13	CY	O-SII	Cooperative Central Bank Ltd	0.50%
14	CY	O-SII	Bank of Cyprus Plc	2.00%
15	CZ	O-SII	Ceska sporitelna	3.00%
16	CZ	O-SII	Ceskoslovenska obchodni banka	3.00%
17	CZ	O-SII	Komerchini banka	2.50%
18	CZ	O-SII	Unicredit bank czech republic and slovakia	1.00%
19	CZ	O-SII	Jakabovic & Tkac	No Buffer
20	CZ	O-SII	PPF FH B.V.	No Buffer
21	CZ	O-SII	Raiffeisen bank a.s.	No Buffer
22	DE	G-SII&O-SII	Deutsche Bank AG (DE)	2.00%
23	DE	O-SII	Commerzbank AG	1.50%
24	DE	O-SII	Unicredit Bank AG	1.00%
25	DE	O-SII	DZ Bank AG, Zentral-Genossenschaftsbank	1.00%
26	DE	O-SII	Landesbank Baden-Wuerttemberg	1.00%
27	DE	O-SII	Landesbank Hessen-Thuringen Girozentrale	1.00%
28	DE	O-SII	Bayerische Landesbank	1.00%
29	DE	O-SII	Norddeutsche Landesbank Girozentrale	1.00%
30	DE	O-SII	DekaBank Deutsche Girozentrale	0.50%
31	DE	O-SII	Volkswagen Financial Services AG	0.50%
32	DE	O-SII	HSN Nordbank AG	0.50%
33	DE	O-SII	WGZ Bank AG Westdeutsche Genossenschafts-Zentralbank	0.50%
34	DE	O-SII	NRW Bank	0.50%
35	DE	O-SII	ING DiBa AG	0.50%
36	DE	O-SII	Landwirtschaftliche Rentenbank	0.50%
37	DE	O-SII	Landesbank Berlin Holding AG	0.50%
38	DK	O-SII	Dankse Bank	3.00%
39	DK	O-SII	DLR Kredit	1.00%
40	DK	O-SII	Jyskebank	1.50%
41	DK	O-SII	Nordea Bank Danmark	2.00%
42	DK	O-SII	Nykredit Realkredit	2.00%
43	DK	O-SII	Sydbank	1.00%
44	EE	O-SII	AB SEB Pank	No Buffer
45	EE	O-SII	Swedbank AS	No Buffer
46	ES	G-SII&O-SII	BBVA	1.00%
47	ES	O-SII	Caixabank	0.25%
48	ES	O-SII	Banco Popular	0.00%
49	ES	O-SII	Sabadell	0.00%
50	ES	G-SII&O-SII	Santander	1.00%
51	ES	O-SII	Bankia	0.25%
52	FI	O-SII	Danske Bank plc	0.50%
53	FI	O-SII	Municipality Finance	0.50%
54	FI	O-SII	Nordea Bank Finland	2.00%
55	FI	O-SII	OP Group	2.00%
56	FR	G-SII&O-SII	BNP Paribas	2.00%
57	FR	O-SII	Crédit Mutuel	0.50%
58	FR	G-SII&O-SII	Group BPCE	1.00%
59	FR	G-SII&O-SII	Crédit Agricole	1.00%
60	FR	O-SII	LA BANQUE POSTALE	0.25%
61	FR	G-SII&O-SII	SOCIÉTÉ GÉNÉRALE	1.00%
62	GR	O-SII	Europbank Ergesias	1.00%
63	GR	O-SII	National Bank of Greece	1.00%
64	GR	O-SII	Piraeus Bank	1.00%
65	GR	O-SII	Alpha Bank	1.00%
66	HR	O-SII	Sberbank	0.20%
67	HR	O-SII	Hrvatska poštanska banka	0.20%
68	HR	O-SII	OTP banka Hrvatska	0.20%
69	HR	O-SII	Société Générale-Splitska banka	2.00%
70	HR	O-SII	Hypo Alpe-Adria-Bank	2.00%
71	HR	O-SII	Raiffeisenbank Austria	2.00%
72	HR	O-SII	Erste & Steiermärkische Bank	2.00%
73	HR	O-SII	Privredna Banka	2.00%
74	HR	O-SII	Zagrebačka banka	2.00%
75	HU	O-SII	OTP Bank Nyrt.	2.00%
76	HU	O-SII	K&H Bank Zrt	1.00%
77	HU	O-SII	UniCredit Bank Hungary Zrt	1.00%



78	HU	O-SII	Erste Bank Hungary Zrt	0.50%
79	HU	O-SII	Raiffeisen Bank Zrt	0.50%
80	HU	O-SII	Magyar Takarékszövetkezeti Bank Zrt	0.50%
81	HU	O-SII	MKB Bank Zrt	0.50%
82	HU	O-SII	CIB Bank Zrt	0.50%
83	HU	O-SII	FHB Jelzálogbank Nyrt	0.50%
84	IE	O-SII	Allied Irish Bank	1.50%
85	IE	O-SII	Bank of Ireland	1.50%
86	IT	O-SII	Gruppo Intesa Sanpaolo	0.00%
87	IT	O-SII	Gruppo Monte dei Paschi di Siena	0.00%
88	IT	G-SII&O-SII	Unicredit	1.00%
89	LT	O-SII	AB Šiaulių bankas	0.50%
90	LT	O-SII	DNB bankas	2.00%
91	LT	O-SII	AB SEB bankas	2.00%
92	LT	O-SII	Swedbank	2.00%
93	LU	O-SII	BGL BNP Paribas S.A.	0.50%
94	LU	O-SII	CACEIS Bank Luxembourg S.A.	0.50%
95	LU	O-SII	Deutsche Bank Luxembourg S.A.	1.00%
96	LU	O-SII	Banque et Caisse d'Épargne de l'État Luxembourg	0.50%
97	LU	O-SII	Banque Internationale à Luxembourg S.A.	0.50%
98	LU	O-SII	Société Générale Bank & Trust S.A.	1.00%
99	LV	O-SII	AS DNB banka	No Buffer
100	LV	O-SII	ABLV Bank AS	No Buffer
101	LV	O-SII	Citadele banka	No Buffer
102	LV	O-SII	Rietumu Banka	No Buffer
103	LV	O-SII	SEB banka	No Buffer
104	LV	O-SII	Swedbank AS	No Buffer
105	MT	O-SII	Bank of Valletta Group (BOV)	2.00%
106	MT	O-SII	HSBC Bank Malta plc (HSBC)	1.50%
107	MT	O-SII	Medifin Holdings (MED)	0.50%
108	NL	O-SII	ABN Amro	3.00%
109	NL	G-SII&O-SII	ING Bank	3.00%
110	NL	O-SII	Cooperatieve centrale Raiffeisen-Boerenleenbank	3.00%
111	NL	O-SII	SNS Bank	1.00%
112	NL	O-SII	N.V. Bank Nederlandse Gemeenten	1.00%
113	PT	O-SII	Banco BPI	0.50%
114	PT	O-SII	Banco Comercial Português	0.75%
115	PT	O-SII	Caixa Geral de Depósitos	1.00%
116	PT	O-SII	Novo Banco	0.75%
117	PT	O-SII	Caixa Económica Montepio Geral	0.25%
118	PT	O-SII	Santander Totta - SGPS	0.50%
119	RO	O-SII	Banca Comerciala Romana	1.00%
120	RO	O-SII	Bancpost	1.00%
121	RO	O-SII	Alpha Bank Romania	1.00%
122	RO	O-SII	CEC Bank	1.00%
123	RO	O-SII	Raiffeisen Bank	1.00%
124	RO	O-SII	BRD Groupe Société Générale	1.00%
125	RO	O-SII	Unicredit Bank	1.00%
126	RO	O-SII	Banka Transilvania	1.00%
127	RO	O-SII	Garanti Bank	1.00%
128	SE	O-SII	Svenska Handelsbanken	3.00%
129	SE	G-SII&O-SII	Nordea	3.00%
130	SE	O-SII	SEB	3.00%
131	SE	O-SII	Swed Bank	3.00%
132	SK	O-SII	Slovenská sporiteľňa	3.00%
133	SK	O-SII	Všeobecná úverová banka	3.00%
134	SK	O-SII	Poštová banka	2.00%
135	SK	O-SII	Československá obchodná banka	2.00%
136	SK	O-SII	Tatra banka	2.50%
137	SI	O-SII	Abanka	0.25%
138	SI	O-SII	Banka Koper	0.25%
139	SI	O-SII	Nova Kreditna Maribor Banka	0.25%
140	SI	O-SII	Nova Ljubljanska banka	1.00%
141	SI	O-SII	Sberbank banka	0.25%
142	SI	O-SII	SID-Slovenska izvozna in razvojna banka	0.50%
143	SI	O-SII	SKB Banka	0.25%
144	SI	O-SII	Unicredit Banka Slovenija	0.50%
145	UK	G-SII	Barclays	2.50%
146	UK	G-SII	Royal Bank of Scotland	1.50%
147	UK	G-SII	Standard Chartered	1.00%
148	UK	G-SII	HSBC	2.50%

Source: ESRB

Notes: no data on O-SIIs and G-SII were available for AT, BG and PL at end 2015; 2015 data for UK are incomplete because of missing O-SII notification at the end of 2015. For DE, the identification of the listed institutions as O-SIIs is still pending German administrative procedures. AT has imposed a systemic risk buffer on twelve institutions, some of which may ultimately also be designated as O-SIIs: Erste Group Bank, HYPO NOE Gruppe Bank, Oberösterreichische Landesbank, Hypo Tirol Bank, Raiffeisenlandesbank Oberösterreich, Raiffeisen Zentralbank, RaiffeisenBank International, Raiffeisenlandesbank Niederösterreich-Wien, Sberbank, UniCredit Bank Austria, Vorarlberger Landes- und Hypothekenbank, BAWAG P.S.K.. For the analysis in this Review, it has been assumed that these institutions are also systemically important.

Total buffer refers to a fully phased in institution-specific buffer requirement (e.g. a systemic risk buffer that applies to all institutions is not taken into account). Where multiple buffer requirements apply, the CRD accumulation rules have been applied. In the case of SK, for calculation purposes and by way of approximation, the systemic risk buffer has been assumed to apply to all exposures rather than domestic exposures only. "No buffer" (in contrast to a buffer of 0.00%) refers to the case where the institution has been identified as systemically important but no decision on a buffer rate has been taken yet.



Annex 4

Systemically important cross-border institutions in the EU

Parent Group	Subsidiaries	Country	Buffer
Unicredit Group* (1.00%)(IT)	UniCredit Bank Austria	AT	2.00%
	Unicredit bank Czech republic and Slovakia	CZ	1.00%
	Unicredit Bank AG	DE	1.00%
	Zagrebačka banka	HR	2.00%
	UniCredit Bank Hungary Zrt	HU	1.00%
	Unicredit Bank	RO	1.00%
	Unicredit Banka Slovenija	SI	0.50%
Société Générale*(1.00%) (FR)	Komerční banka	CZ	2.50%
	Société Générale-Splitska banka	HR	2.00%
	Société Générale Bank & Trust S.A.	LU	1.00%
	BRD Groupe Société Générale	RO	1.00%
	SKB Banka	SI	0.25%
Raiffeisen Zentralbank (AT) (consolidated)**(2.00%)	Raiffeisen bank a.s.	CZ	0.00%
	Raiffeisenbank Austria	HR	2.00%
Raiffeisen Bank International (AT) (sub-consolidated)**(2.00%)	Raiffeisen Bank Zrt	HU	0.50%
	Raiffeisen Bank	RO	1.00%
Erste Group (2.00%) (AT)**	Tatra banka	SK	2.50%
	Ceska sporitelna	CZ	3.00%
	Erste Bank Hungary Zrt	HU	0.50%
	Banca Comerciala Romana	RO	1.00%
	Slovenská sporiteľňa	SK	3.00%
Intesa Sanpaolo (0.00%) (IT)	Privredna Banka	HR	2.00%
	CIB Bank Zrt	HU	0.50%
	Banka Koper	SI	0.25%
	Všeobecná úverová banka	SK	3.00%
SEB (3.00%) (SE)	AB SEB Pank	EE***	0.00%
	AB SEB bankas	LT	2.00%
	SEB banka	LV	0.00%
KBC Group (1.5%) (BE)	Československá obchodná banka	CZ	3.00%
	K&H Bank Zrt	HU	1.00%
	Československá obchodná banka	SK	2.00%
Swedbank (3.00%) (SE)	Swedbank AS	EE	0.00%
	Swedbank	LT	2.00%
	Swedbank AS	LV	0.00%
ING Group*(3.00%) (NL)	ING België	BE	1.50%
	ING DiBa AG	DE	0.50%
Nordea* (3.00%) (SE)	Nordea Bank Danmark	DK	2.00%
	Nordea Bank Finland	FI	2.00%
BNP Paribas*(2.00%) (FR)	BNPP Fortis	BE	1.50%
	BGL BNP Paribas S.A.	LU	0.50%
Santander* (1.00%) (ES)	Santander Totta - SGPS	PT	0.50%
OTP Bank (2.00%) (HU)	OTP banka Hrvatska	HR	0.20%
HSBC* (2.50%) (UK)	HSBC Malta	MT	1.50%
Alpha Bank (1.00%) (GR)	Alpha Bank Romania	RO	1.00%
	Alpha Bank Cyprus Ltd	CY	0.50%
Dankse Bank (3.00%) (DK)	Danske Bank plc	FI	0.50%
Deutsche Bank* (2.00%) (DE)	Deutsche Bank Luxembourg S.A.	LU	1.00%
Europbank Ergesias (1.00%) (GR)	Eurobank Cyprus Ltd	CY	0.50%

Source: ESRB and Bankscope

Notes: The table lists the SII that control SII in other Member States, as well as at the fully phased in additional buffer requirements for the different institutions following their qualification as being systemically important. No data for BG and PL were available at end 2015; data for UK are incomplete because of missing O-SII notification at the end of 2015. For AT, it has been assumed for the analysis that the institutions subject to the systemic risk buffer are also systemically important. "Global Ultimate Owner" as defined by Bankscope has been used for the definition of the parent group.

* Indicates G-SIIs.

** Raiffeisen Bank International, Raiffeisen Zentral Bank and Erste Group are not subject to a buffer requirement for SII, but are subject to the systemic risk buffer.

*** In EE, a systemic risk buffer of 2% applies to all credit institutions. The O-SII buffer rates will be decided in the first half of 2016.

