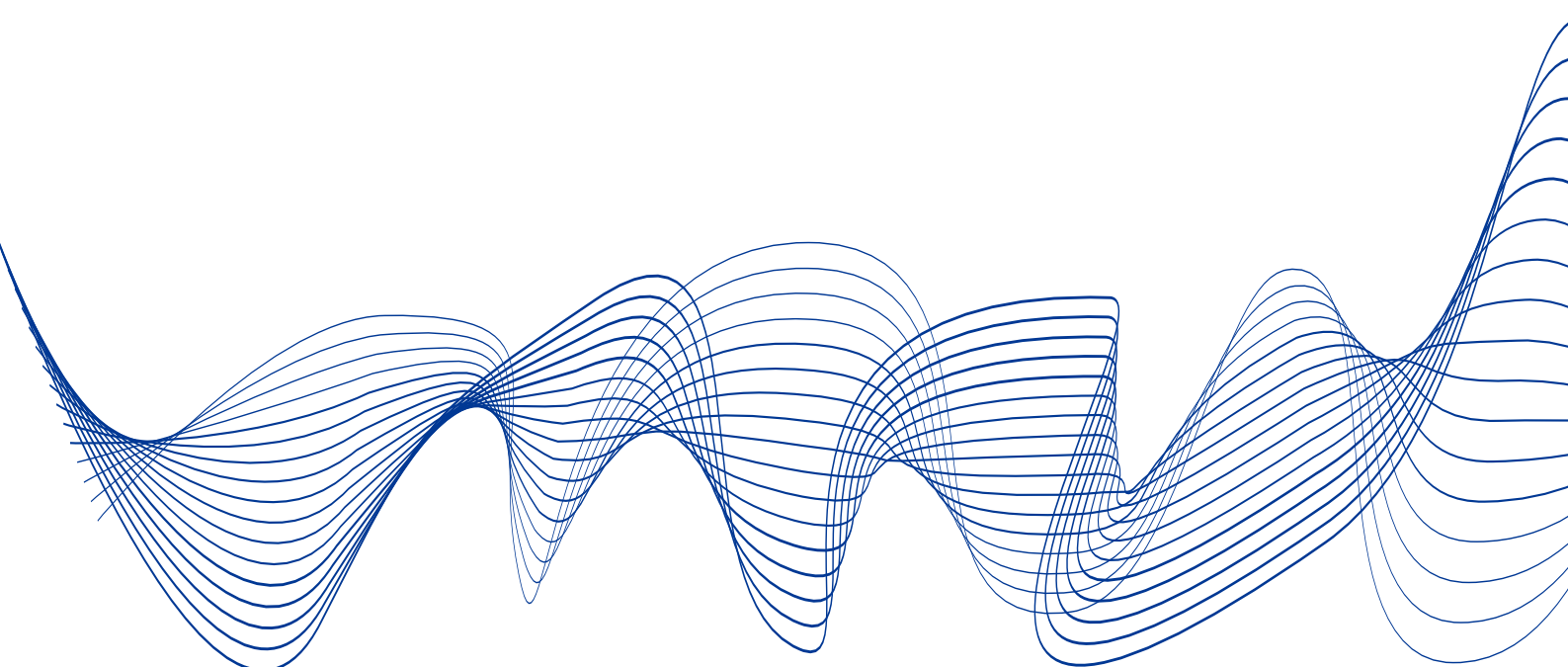# Summary compliance report

February 2023

Recommendation of the European Systemic Risk Board of 31 October 2016 on closing real estate data gaps as amended by Recommendation ESRB/2019/3 (ESRB/2016/14) – Recommendations C, D and F

Contents

1   Introduction

Recommendation ESRB/2016/14 on closing real estate data gaps[1] as amended by Recommendation ESRB/2019/3[2] (hereinafter "the Recommendation") is addressed to national macroprudential authorities[3], the European Supervisory Authorities (ESAs) and the Commission (Eurostat) and aims to harmonise the definitions and indicators used for monitoring residential real estate (RRE) and commercial real estate (CRE) markets and to address existing gaps in the availability and comparability of data on RRE and CRE markets in the Union.

In particular, in accordance with Article 17 of the ESRB Regulation[4] and recommendations C and D of the Recommendation, national macroprudential authorities were requested to deliver to the ESRB, the Commission[5], the Parliament and the Council a final report on the implementation of the relevant recommendations by **31 December 2021**, following an interim report due for delivery by 31 December 2019. **In addition, in accordance with recommendation F, the Commission (Eurostat) was requested to deliver to the ESRB**, the Parliament and the Council an interim report containing a first assessment of the implementation of recommendation F **by 31 December 2021**. The reports were submitted to the ESRB Secretariat.

This compliance report presents the outcome of the assessment of the final reports pertaining to recommendations C and D submitted by national macroprudential authorities on their implementation, as well as of the interim report pertaining to recommendation F submitted by the Commission (Eurostat). A compliance report for the assessment carried out for recommendations A and B was published in June 2021.[6]

The assessment of the reports was carried out by an Assessment Team consisting of five assessors, including one Chair, endorsed by the Advisory Technical Committee of the ESRB (ATC) (see Annex I of this note), and follows the methodology provided in the "Handbook on the assessment of compliance with ESRB Recommendations" of April 2016 (hereinafter the "Handbook"[7]).

Overall, the Assessment Team, while carrying out the assessment of the final reports, observed a large level of compliance with recommendations C and D, since all the national macroprudential authorities already have a risk monitoring framework for their domestic CRE sector and the majority of them have (or will have) a large number of relevant indicators needed for the

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[1]   **Recommendation of the European Systemic Risk Board of 31 October 2016 on closing real estate data gaps (ESRB/2016/14)**.

[2]   **Recommendation of the European Systemic Risk Board of 21 March 2019 amending Recommendation ESRB/2016/14 on closing real estate data gaps (ESRB/2019/3)**.

[3]   This includes the macroprudential authorities of the EEA EFTA countries and the United Kingdom as per the Agreement on the European Economic Area and the Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community.

[4]   Regulation (EU) 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board.

[5]   In the cases of Iceland, Norway and Liechtenstein to the EFTA Standing Committee.

[6]   According to Article 17 of the ESRB Regulation and recommendations A and B, national macroprudential authorities were requested to deliver to the ESRB a final report on the implementation of the relevant recommendations by 31 December 2020, **Summary compliance report.**

[7]   ESRB Handbook on the assessment of compliance with ESRB recommendations, April 2016, **ESRB handbook.**

monitoring of risks arising from the domestic CRE sector available. However, there are still some data gaps which could be considered relevant for some categories of indicators and breakdowns. In the assessment of the interim report submitted, a high level of compliance with recommendation F was observed for the Commission (Eurostat).

The report is structured as follows. Part I recalls the policy objectives taken into account during the process of drafting the Recommendation. Part II summarises the methodology set out in the Handbook, which establishes the procedure for assessing compliance with ESRB recommendations and presents the implementation standards drafted by the Assessment Team and used to assess compliance by the addressees with the respective Recommendations. Part III consists of general remarks regarding all Recommendations. Part IV contains the conclusions.

Annex I lists the members of the Assessment Team. Annex II and Annex III provide the text of the Recommendation and the amendment. Annex IV and Annex V contain the implementation standards. Annex VI provides the list of abbreviations.

2 Policy objectives

The Recommendation aims to harmonise the definitions and indicators used for monitoring residential real estate (RRE) and commercial real estate (CRE) markets and to address existing gaps in the availability and comparability of data on RRE and CRE markets in the European Union.

Vulnerabilities relating to the real estate sector can be a source of systemic risk and may affect financial stability both directly and indirectly. Addressing these vulnerabilities requires the implementation of a framework to monitor the developments in the real estate sector through the regular collection of comparable country data, so that real estate-related risks across Member States can be more accurately assessed and the use of macroprudential policy instruments can be compared.

The Recommendation provides target working definitions of RRE and CRE and recommends a common set of indicators that national macroprudential authorities should monitor in order to assess risks resulting from the RRE and CRE sectors, while equally specifying the dimensions and degree of granularity for each indicator, the scope of the envisaged information and the measurement of the indicators.

2.1 Content and structure

The Recommendation is divided into six recommendations (e.g. A, B, C, D, E and F), with recommendations A[8], B[9], C and D being addressed to national macroprudential authorities, recommendation E addressed to ESAs[10] and recommendation F addressed to the Commission (Eurostat). This analysis is focused on recommendations C and D, for which the final reporting obligations were due by the end of 2021, and on recommendation F, for which an interim report was requested by the end of 2021.

Recommendation C – Monitoring risks arising from the commercial real estate sector

National macroprudential authorities are recommended to implement a risk monitoring framework for their domestic CRE sector. A set of indicators is recommended for the effective monitoring of

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[8] Recommendation A recommends that national macroprudential authorities implement a risk monitoring framework for their domestic RRE sector, including information on current lending standards for domestic RRE loans and, if it were a significant source of risks, on buy-to-let housing.

[9] Recommendation B recommends that national macroprudential authorities monitor the univariate distribution and the selected joint distributions of the relevant indicators and their breakdowns as specified in Templates A (RRE loans) and B (buy-to-let housing) of Annex II of the Recommendation.

[10] Recommendation E refers to the publication by the ESAs of exposure data to national commercial real estate markets.

risks arising from the CRE market, relating to the physical CRE market[11], investments in CRE[12] and, respectively, exposures and lending standards[13].

Recommendation D – Relevant information in relation to the commercial real estate sector

National macroprudential authorities are recommended to monitor the relevant indicators as specified in Templates A, B and C of Annex III to the Recommendation, which provide guidance on the granularity of the information necessary to monitor risks arising from the domestic CRE sector.

Recommendation F – Establishment of a common minimum framework for the physical commercial real estate market

The Commission (Eurostat) is recommended to propose Union legislation establishing a common minimum framework for the development, production and dissemination of a database on indicators on the physical CRE market and to develop and promote statistical standards, sources, methods and procedures for developing the database on those indicators.

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[11]   Price index; rental index; rental yield index; vacancy rates; construction starts.

[12]   Direct and indirect CRE investment flows; valuation adjustments flows on CRE investments; direct and indirect CRE investment stocks; valuation adjustments stocks on CRE investments.

[13]   On CRE credit exposures: CRE lending flows (including property under development); flows of non-performing CRE loans (including property under development); flows of loan loss provisions on CRE lending (including property under development); flows of loan loss provisions on lending for property under development (as part of CRE lending); CRE lending stocks (including property under development); stocks of non-performing CRE loans (including property under development); stocks of loan loss provisions on CRE lending (including property under development); stocks of lending for property under development (as part of CRE lending); stocks of non-performing loans for property under development (as part of CRE lending); stocks of loan loss provisions on lending for property under development (as part of CRE lending).

   On CRE lending standards: weighted average of the LTV-O for the flows of CRE loans; weighted average of the current loan-to-value ratio (LTV-C) for the stocks of CRE loans; weighted average of the interest coverage ratio at origination (ICR-O) for the flows of CRE loans and weighted average of the current interest coverage ratio (ICR-C) for the stocks of CRE loans; weighted average of the debt service coverage ratio at origination (DSCR-O) for the flows of CRE loans and weighted average of the current debt service coverage ratio (DSCR-C) for the stocks of CRE loans.

3   Assessment methodology

Recital (20) and Article 17 of the ESRB Regulation together mandate the ESRB with the monitoring of the compliance of addressees with respect to the ESRB recommendations. To this effect, and pursuant to Article 20 of the ESRB Rules of Procedure[14], the ESRB assesses the actions and justifications undertaken and communicated by the addressees of ESRB recommendations in accordance with the "act or explain" mechanism described in Article 17 of the ESRB Regulation, whereby the addressee of a recommendation can either: (i) take action in response to a recommendation; or (ii) adequately justify any inaction. The ESRB thus analyses the information provided by addresses and assesses whether the action taken duly achieves the objective of the Recommendation, or whether the justification provided for inaction is sufficient. This analysis results in a final compliance grade being assigned to each addressee, reflecting the level of implementation by the relevant addressee.

The assessment was based on the submissions made by the addressees by the reporting deadline specified in Section 2.3 of the respective recommendation (31 December 2021) and on a further dialogue between the Assessment Team and addressees in the course of the assessment process. Note that the assessment concerns data availability for the CRE sector on the basis of the information provided by the addressees and does not include any data quality checks.

The detailed procedure for the assessment of compliance is set out in the Handbook. The assessment of the Recommendations was carried out by an Assessment Team of five assessors, with one Chair, endorsed by the Advisory Technical Committee (see Annex I of this Report). The Assessment Team conducted a four-eye review, which means that compliance of each addressee was assessed by two assessors. For objectivity purposes, the assessors were not involved in grading the performance of their respective authority. Afterwards, the results of both assessors were cross-checked to prepare the final assessment.

To ensure equal treatment of the addressees and the highest degree of transparency and consistency, the Assessment Team conducted its work in accordance with the following six assessment principles mentioned in Section 4 of the ESRB Handbook:

- Fairness, consistency and transparency – equal treatment of all addressees throughout the assessment process;

- Efficiency and appropriateness of procedures with regard to available resources, while ensuring high-quality deliverables;

- Four-eyes review – compliance of each addressee is assessed by at least two assessors who have not been directly involved in assessing the performance of the national authorities they come from;

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[14]   Decision of the European Systemic Risk Board of 20 January 2011 adopting the Rules of Procedure of the European Systemic Risk Board (ESRB/2011/1) (OJ C 58, 24.2.2011, p.4).

- Effective dialogue – communication with the addressees is essential so as to close information gaps on compliance;

- Principle of proportionality – actions to be taken by the addressees are country-specific and relative to the intensity of risks targeted by the recommendation in the specific Member State;

- The ultimate objective of prevention and mitigation of systemic risks to financial stability in the Union.

Furthermore, all addressees were given the opportunity to provide further explanations and information. Thanks to the communication channels established between the Assessment Team and the addressees, the majority of the addressees provided further details during the assessment process, especially in the context of the remedial dialogue.[15] **In particular, all addressees who received a partially compliant (PC) grade or worse in at least one recommendation were given the opportunity to provide further explanations and information.** As a result, the Assessment Team re-evaluated the authorities in light of the additional information provided. The results were subsequently cross-checked to prepare the final assessment.

3.1 Assessment criteria and implementation standards

The assessment criteria applied in this evaluation are based on best practices established in previous assessments of compliance with ESRB Recommendations. The assessment criteria describe the actions that are required by the addressees in order to achieve the objectives of the Recommendations. With this in mind, the Assessment Team took due account of the implementation criteria set out in Section 2 of the respective Recommendations. Grading was then guided by the relevant implementation standards, which specify how different actions or inaction for each recommendation/sub-recommendation should be reflected in the final grade.

While conducting the assessment, the Assessment Team analysed the content/substance of the actions taken by each addressee to assess whether they had complied with all the elements of the Recommendations.

To ensure a consistent and fair analysis, the Assessment Team developed implementation standards for each recommendation/sub-recommendation, against which the responses submitted by the addressees were assessed (see Annex IV). The establishment of these implementation standards was based on the key elements of the respective recommendation and the principle of proportionality. The Assessment Team agreed on the criteria to be applied in the assessment of each element of the recommendation and the weights allocated to those criteria. Both the structure of the implementation standards for recommendations C and D and the criteria for their assessment mirror those used in the compliance assessment for recommendations A and B, which were applied to the CRE sector in this case.

Finally, the Assessment Team made a specific assumption about the assessment of the physical market indicators referred to in points (a) to (e) of sub-recommendation C(1) and point (a) of sub-

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[15] The preliminary findings of the Assessment Team were shared and discussed with the addressees over the period 9-24 June 2022.

recommendation D(2) and further specified in Template A of Annex III to the Recommendation (Annex III of this Report). More specifically, where physical market indicators are not already available, a final report should be delivered by the addressees on the implementation of recommendations C and D in relation to those indicators by 31 December 2025. Therefore, the Assessment Team agreed to assess them as available and not to apply any penalty, provided that the addressee showed efforts to work on closing existing data gaps for physical market indicators.

3.2 Grading methodology

To assign a single grade to each addressee regarding their compliance with the relevant sub-recommendation and recommendation, the Assessment Team followed a four-step grading methodology, in line with the ESRB Handbook. Such a methodology is necessary to ensure full transparency of the single overall compliance grade and a high level of objectivity in the entire assessment process, while still allowing room for a high-quality expert judgement, which can easily be identified and reviewed to understand the rationale behind the allocation of particular overall grades.

Step I – In accordance with the established implementation standards (see Annex IV), when assessing compliance with the recommendations, the implementation of each sub-recommendation is graded as either fully compliant (FC); largely compliant (LC); partially compliant (PC); or materially non-compliant (MN/NC) in the case of action; and sufficiently explained or insufficiently explained (SE/IE) in the case of inaction or non-applicable (N/A) if the sub-recommendation is not applicable.

Table 1

Grading scale

Grading scale for action	
Fully compliant (FC)	The addressee complies entirely with the requirements.
Largely compliant (LC)	The requirements have been met almost entirely and only negligible requirements remain to be implemented.
Partially compliant (PC)	The most important requirements have been met; certain deficiencies affect the adequacy of implementation, but without this resulting in a situation in which the Recommendation concerned has not been acted on.
Materially non-compliant (MN)	The requirements have only been fulfilled to a limited degree, resulting in a significant deficiency in implementation.
Non-compliant (NC)	Almost none of the requirements have been met, even if steps have been taken towards implementation.
Grading scale for inaction	
Sufficiently explained (SE)	A complete and well-reasoned explanation for not implementing the recommendation has been provided; if one or more of the sub-recommendations are intended to address a particular systemic risk that does not, however, affect any of the relevant addressees, such justification/explanation may be considered sufficient.
Insufficiently explained (IE)	The explanation given for not implementing the recommendation is not sufficient to justify the inaction.

Step II – Compliance grades for every sub-recommendation are converted into a numerical grade (see Table 2.2). These numerical grades are then weighted and aggregated into a single numerical grade for each recommendation.

Table 2.1

Conversion table: compliance grades to numerical grades

Compliance grade	Numerical grade
Fully compliant (FC)	1
Largely compliant (LC)	0.75
Partially compliant (PC)	0.5
Materially non-compliant (MC)	0.25
Non-compliant (NC)	0
Sufficiently explained (SE)	1
Insufficiently explained (IE)	0

Step III – The numerical grades for recommendations C, D and F are weighted and aggregated into a single numerical grade for the entire Recommendation.

When establishing the weights for each recommendation and sub-recommendation, the Assessment Team took into consideration the relative importance of each sub-recommendation and recommendation in relation to the achievement of the policy objectives of the Recommendation as outlined in Section 2 of this Report. To this effect, the Assessment Team determined a balanced set of weights to reflect the spirit of the Recommendation, while making sure that the overall assessment grade is not overly sensitive to changes in the weighting system. Accordingly, the weights assigned by the Assessment Team for each recommendation and sub-recommendation are set out in Table 2.3.[16]

Table 2.2

Weights assigned for recommendations C and D

Recommendations	Weights	Sub-recommendations	Weights
Recommendation C	0.4	Sub-recommendation C(1)	0.15
		Sub-recommendation C(2)	0.15
		Sub-recommendation C(3)	0.3
		Sub-recommendation C(4)	0.4
Recommendation D	0.6	Sub-recommendations D(1) and D(2)	0.75
		Sub-recommendation D(3)	0.25

Table 2.3

Weights assigned for recommendation F

Recommendation	Weights	Sub-recommendations	Weights
Recommendation F	1	Sub-recommendation F(1)	0.5
		Sub-recommendation F(2)	0.5

Step IV – Finally, the overall compliance grade is determined by converting the single numerical grade for the entire Recommendation into a final grade for compliance using the conversion table below (see Table 2.4).

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[16] The Assessment Team decided to calculate the data coverage for each sub-recommendation by assigning the same weight to the single indicators. In the case of recommendation D, not only the main indicators, but also the breakdowns and submarkets are included in the calculation. In the specific case of sub-recommendations D(1) and D(2), the coverage is given by a weighted sum of two main categories, which are the physical market and the credit segment respectively (i.e. lending to CRE and lending standards), where the weight of the credit segment is twice the weight of the physical market. The final coverage is calculated by taking into account the principle of proportionality, where the breakdown is considered not to be relevant for the addressee.

Table 2.4

Conversion table: numerical grades to compliance grades[17]

Compliance grades	Numerical grades
Action	
FC	(0.9-1>–
LC	(0.67-0.9>
PC	(0.4-0.67>
MN	(0.158-0.4>
NC	(0-0.158>

The level of compliance is ultimately expressed in colour-coded form (see Table 2.5).

Table 2.5

Colour codes for levels of compliance

Positive grades	Mid-grade	Negative grades
Fully compliant (FC) – Actions taken fully implement the recommendation		Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation
Largely compliant (LC) – Actions taken implement almost all of the recommendation	Partially compliant (PC) – Actions taken only implement part of the recommendation	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation
Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification		Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification

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[17] This table includes only those cases of actions where no overall grades of SE or IE were given.

4 Overall results

The overall assessment of compliance with the implementation of recommendations C and D shows that of the 30 national macroprudential authorities assessed, 15 are graded as fully compliant, 11 as largely compliant and four as partially compliant. The assessment of compliance with the implementation of recommendation F showed that the European Commission (Eurostat) is fully compliant.

According to the assessment results, all national macroprudential authorities already have a risk monitoring framework in place for their domestic CRE sectors and the majority either already have, or will have, all or most of the relevant CRE indicators available in line with recommendations C and D. The positive grade is mainly owed to the large coverage of CRE lending indicators, whereas there are still some data gaps for physical market indicators[18] and lending standards, especially for the interest coverage ratio (ICR) and debt service coverage ratio (DSCR). As for recommendation F, the Commission worked on promoting and developing physical market indicators and, although a legislative framework has not yet been established, the actions taken have formed a reasonable basis for a future common minimum framework for these indicators.

The country-specific overall results for recommendations C and D and the Commission's (Eurostat) results for recommendation F are presented in the colour shaded Table 4.1.

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[18]   With regard to physical market data, the poor coverage from a large number of addressees did not negatively affect the grade, as a final report on the implementation of recommendations C and D for physical market indicators should be delivered to the ESRB by 31 December 2025 at the latest, or earlier if available. A large number of macroprudential authorities is involved in ongoing projects to close these data gaps at national and European levels.

Table 4.1

Overall compliance grades for individual countries and the Commission (Eurostat)

Addressees		OVERALL GRADE	Addressees		OVERALL GRADE
AT	NMA	LC	IS	NMA	LC
BE	NMA	FC	IT	NMA	LC
BG	NMA	LC	LI	NMA	LC
CY	NMA	FC	LT	NMA	FC
CZ	NMA	FC	LU	NMA	FC
DE	NMA	LC	LV	NMA	FC
DK	NMA	FC	MT	NMA	FC
EE	NMA	PC	NL	NMA	LC
ES	NMA	FC	NO	NMA	PC
FI	NMA	PC	PL	NMA	FC
FR	NMA	LC	PT	NMA	FC
GR	NMA	FC	RO	NMA	FC
HR	NMA	LC	SWE	NMA	PC
HU	NMA	LC	SI	NMA	FC
IE	NMA	LC	SK	NMA	FC
Eurostat		FC			

Source: Assessment Team, based on a country by country assessment in line with the relevant implementation standards.
Note: NMA stands for national macroprudential authority.

4.1   Observations for compliance with recommendation C

All national macroprudential authorities have implemented a risk monitoring framework for their domestic CRE sectors. When assessing the existence of a risk monitoring framework for the domestic CRE sector, as well as the calculation of indicators and monitoring frequency, 18 national macroprudential authorities are graded as fully compliant and 12 as largely compliant.

According to the assessment, 23 of the 30 national macroprudential authorities have no issues or minor issues with the overall representativeness of the available data. For the remaining seven countries, a narrow (or limited, in one case) set of indicators is included in the risk monitoring framework.

With regard to CRE investment exposures, 14 of 30 national macroprudential authorities have a complete or almost complete set of indicators in place, as required under the recommendation, whereas 13 other authorities specifically did not implement a separate risk monitoring framework for this segment, as this did not represent a significant source of financing for their country and they provided justification which was considered both adequate and sufficient. For the remaining three authorities, the CRE investment segment was relevant, but only a narrow or limited risk monitoring framework was available.

Almost all addressees have fully or largely adopted the recommended methods for the calculation of the risk monitoring indicators. Where alternative methods were used for the calculation of the relevant indicators, the addressee has provided full information on the method. With regard to the frequency, almost all national macroprudential authorities are monitoring developments in the domestic CRE sector at the recommended frequency on the basis of the available indicators.

The country-specific overall results for compliance with recommendation C are presented in the colour shaded Table 4.2.

Table 4.2
Overall compliance grades for individual countries for recommendation C

Addressees		REC. C GRADE	Addressees		REC. C GRADE
AT	NMA	LC	IS	NMA	LC
BE	NMA	FC	IT	NMA	LC
BG	NMA	LC	LI	NMA	FC
CY	NMA	FC	LT	NMA	FC
CZ	NMA	FC	LU	NMA	FC
DE	NMA	LC	LV	NMA	FC
DK	NMA	FC	MT	NMA	FC
EE	NMA	LC	NL	NMA	FC
ES	NMA	FC	NO	NMA	LC
FI	NMA	LC	PL	NMA	FC
FR	NMA	FC	PT	NMA	FC
GR	NMA	FC	RO	NMA	FC
HR	NMA	LC	SWE	NMA	LC
HU	NMA	LC	SI	NMA	FC
IE	NMA	FC	SK	NMA	FC

Source: Assessment Team, based on the country by country assessment in line with the relevant implementation standards.
Note: NMA stands for national macroprudential authority.

4.2 Observations for compliance with recommendation D

When considering the availability of the CRE risk indicators and breakdowns recommended, 11 national macroprudential authorities were graded as fully compliant, 12 as largely compliant, six as partially compliant and one as materially non-compliant.

According to the assessment findings, 23 of the 30 national macroprudential authorities already have, or will have, available almost all of the relevant CRE risk indicators in line with recommendation D. The remaining national macroprudential authorities have only a narrow (or limited) set of indicators available. For almost all of the national macroprudential authorities, there are some breakdowns that are not available; however, in the majority of cases, addressees stated that these details were not relevant for their particular CRE market. Based on this assumption, the

Assessment Team applied the principle of proportionality when assessing those particular addressees and decided that the missing information should not have a negative impact on the overall grades assigned.

With regard to the availability of recommended risk indicators for the CRE investment sector, 16 of 30 national macroprudential authorities collected this information. Six of these collected the full set of recommended indicators, three collected almost all data and seven collected a narrower set of risk indicators. Of the remaining national macroprudential authorities, 13 did not yet have this set of indicators available, but they provided sufficient justification for not making it available on account of its immateriality.

The country-specific overall results for the availability of CRE risk indicators are presented in the colour shaded Table 4.3.

Table 4.3

Overall compliance grades for individual countries for recommendation D

Addressees		REC. D GRADE	Addressees		REC. D GRADE
AT	NMA	LC	IS	NMA	LC
BE	NMA	LC	IT	NMA	LC
BG	NMA	LC	LI	NMA	PC
CY	NMA	FC	LT	NMA	LC
CZ	NMA	FC	LU	NMA	FC
DE	NMA	LC	LV	NMA	FC
DK	NMA	FC	MT	NMA	FC
EE	NMA	PC	NL	NMA	PC
ES	NMA	FC	NO	NMA	MN
FI	NMA	PC	PL	NMA	FC
FR	NMA	PC	PT	NMA	FC
GR	NMA	FC	RO	NMA	LC
HR	NMA	LC	SWE	NMA	PC
HU	NMA	LC	SI	NMA	FC
IE	NMA	LC	SK	NMA	LC

Source: Assessment Team, based on the country by country assessment in line with the relevant implementation standards.
Note: NMA stands for national macroprudential authority.

4.3 Observations for compliance with recommendation F

The overall grade for recommendation F is fully compliant.

With regard to the establishment of a common minimum framework for physical CRE market indicators, the addressee has not, as yet, proposed Union legislation. However, although more work is needed and some challenges remain, all actions taken by the addressee so far were

assessed as forming the basis for possible future legislation on a common minimum framework for physical CRE market indicators. Therefore, for sub-recommendation F(1), the grade assigned is sufficiently explained.

The addressee has also worked on promoting and developing statistical standards, sources, methods, and procedures for developing the indicators, ensuring their quality and minimising the reporting burden. Therefore, for sub-recommendation F(2), the grade assigned to the addressee is fully compliant.

Table 4.4

Eurostat – Overall compliance grade for recommendation F

Addressees	OVERALL GRADE	GRADE F(1)	GRADE F(2)
Eurostat	FC	SE	LC

5 Conclusions

The Assessment Team assessed compliance of the 30 EEA countries with recommendations C and D and of Eurostat with recommendation F. The assessment shows large compliance with recommendations C and D, both in terms of a risk monitoring framework for the domestic CRE sector and of the availability of CRE risk indicators, even though there are still some data gaps, and, in some cases, they could be considered significant. As for recommendation F, the assessment also shows a high level of compliance.

A risk monitoring framework for the domestic CRE sector is in place in all 30 EEA countries. The assessment shows a broadly large availability of CRE indicators on lending, whereas coverage of lending standards is limited. While, on the one hand, almost all addressees provide information on LTV ratios within their relevant frameworks, only some have implemented internal coverage ratio (ICR) and debt service coverage ratio (DSCR) indicators at the requested granularity under paragraph 7 in Annex V of the Recommendation (i.e. at. property level). Instead, the majority include aggregate indicators at firm level only. Even though this aggregate information is useful, it may not be fully in line with the purpose of the Recommendation, which is to monitor the CRE sector.

A major data gap was identified for physical market indicators. Only a few national macroprudential authorities have already implemented a risk monitoring framework for their physical CRE market. Most national macroprudential authorities are involved in projects at national and European levels to close these data gaps (including, inter alia, work carried out by Eurostat). In accordance with the Recommendation, national macroprudential authorities that do not currently provide the relevant information for those indicators may submit a final report to the ESRB by the end of 2025, which is why missing data on physical market indicators has not been assessed negatively by this Assessment Team, provided the addressee showed that work is ongoing to close such data gaps.

The ongoing work on physical market indicators was also discussed in the context of recommendation F. A survey carried out by Eurostat in 2021 on the development of physical CRE indicators by EEA countries revealed many cross-country differences in terms of data sources, methodologies applied and progress made[19]. This significant progress was achieved thanks to the work initiated by Eurostat in developing physical CRE indicators, albeit this progress was not consistent across all indicators and/or EEA countries, with challenges remaining. The assessment showed that all actions taken by Eurostat will ultimately help to form the basis for possible future Union legislation on a common minimum framework for physical CRE market indicators.

While a risk monitoring framework for the domestic CRE sector was in place in all 30 EEA countries, only 23 national macroprudential authorities already have, or will have, the majority of the relevant CRE risk indicators and relative breakdowns available in line with

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[19] In 2021, Eurostat carried out a **survey** on the development of four commercial real estate indicators by EU Member States and EFTA countries, including price indices, rental indices, rental yield indicators and vacancy rates. The questionnaire was sent to the National Statistical Institutes (NSIs) in 27 EU Member States and three EFTA countries. This complemented a similar survey for construction starts and works completed carried out in 2018.

recommendation D. This result showed the need for further progress in terms of data availability for the domestic CRE sector in the remaining seven national macroprudential authorities. In most cases, missing data referred to breakdowns, in particular for social housing, lender/investor type and nationality or property location. However, addressees generally reported that such breakdowns were not relevant for their market, therefore no penalty was applied by the Assessment Team in line with the principle of proportionality.

The CRE investment segment is not deemed to be material/significant in 13 of the 30 EEA countries assessed for which there is no risk monitoring framework in place. For this reason, the inactions of addressees were assessed to be sufficiently explained, provided the justification was deemed appropriate by the Assessment Team. Moreover, in a few cases, the part of the monitoring framework related to CRE investment was assessed either as materially non-compliant or only partially compliant, implying that there were still some more serious data gaps for this segment.

In conclusion, the overall level of compliance is high for almost all EEA Member States, but there are still some unresolved issues on data gaps. Moreover, even though in most cases a risk monitoring framework for the CRE sector was already in place and the definitions adopted seemed to comply with the Recommendation, further work was still necessary in terms of data quality (especially for new data sources), as well in terms of developing a fully harmonised set of indicators across EEA countries. As for physical market indicators, Eurostat has carried out extensive work to promote and develop statistical standards, sources, methods and procedures for developing physical market indicators, ensuring their quality and minimising the reporting burden. Depending on the risk developments, Eurostat should consider establishing a risk monitoring framework for the CRE investment segment and make the relevant risk indicators for this segment available, should the importance of CRE investment increase and should the risk level of this segment increase significantly. EEA Member States should continue further monitoring risks arising in their domestic CRE sectors.

Annexes

Annex I
Composition of the Assessment Team

(Approved by the Advisory Technical Committee via written procedure ATC/WP/2022/016)

Chairperson	Institution
Federica Ciocchetta	Banca d'Italia

Assessment Team	Institution
Remo Croci	European Commission
Sara Ferreira Filipe	Banque centrale du Luxembourg
Moritz Stieglitz	Bundesbank
Maria Vergeti	Bank of Greece

Secretariat	Institution
Jari Friebel	ESRB Secretariat
Carlotta Donetti	ESRB Secretariat
Amanda Trinh	ESRB Secretariat

Annex II
Link to Recommendation ESRB/2016/14

Annex III
Link to Recommendation ESRB/2016/14 as amended by Recommendation ESRB/2019/3

Annex IV
Implementation Standards for Recommendation ESRB/2016/14 as amended by Recommendation ESRB/2019/3 – Recommendations C and D

Recommendation C

	C(1) implementation of a risk monitoring framework for domestic CRE sector	
	Indication for the assessment	**The assessors should check if the monitoring framework is in place and relies on different indicators for CRE markets, including physical market, lending to CRE and lending standards as reported in the Recommendation C (the very existence of the framework should be assessed here).** To avoid any double counting, no penalization should be considered if some details are missing. The assessors should however take into account whether the addressee duly considered their use but eventually decide otherwise. Note that hat the physical market indicators listed in Recommendation C(1) (letters from a to e) should be available at the latest by the end of 2025. if they have not been available yet, but the addressee is working in order to complete the framework by the given deadline, no penalty is applied by the AT.
Positive grades	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee implemented a risk monitoring framework for domestic CRE sector. The full set of indicators listed in the Recommendation C(1) are used.
	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee implemented a risk monitoring framework for domestic CRE sector. Almost all of the indicators listed in the Recommendation C(1) are used.
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	• The addressee does not implement a risk monitoring framework for domestic CRE sector, however, the addressee provides justification which is considered as adequate. • The addressee does not use some of the required indicators; however, the addressee provides justification which is considered as adequate for the missing indicators.
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee implemented a risk monitoring framework for domestic CRE sector. A narrower set of the indicators are used.
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee implemented a risk monitoring framework for domestic CRE sector. Only a limited number of the indicators listed in the Recommendation C(1) are used.
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	• The addressee does not implement a risk monitoring framework for domestic CRE sector; no justification provided.
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	• The addressee does not implement a risk monitoring framework for domestic CRE sector; the addressee provides justification which, however, is inadequate. *(This grade is unlikely as information is not given the grade would be NC).*

C(2) Additional indicators on CRE investment exposures

Indication for the assessment		On the basis of the provided information, the assessor should decide if the investment exposures are a significant part of the CRE financing. If the answer is yes, a similar approach to the one used for C(1) should be used.
Positive grades	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee includes the full set of indicators on CRE investment exposures ad listed in the Recommendation C(2) where investments are deemed to represent a significant share of CRE financing.
	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee includes almost all of the additional indicators on CRE investment exposures listed in the Recommendation C(2).
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	• The addressee does not include any of the additional indicators on CRE investment exposures, however, the addressee provides justification which is considered as adequate. • The addressee does not include some of the additional indicators on CRE investment exposures; however, the addressee provides justification which is considered as adequate for the missing indicators *(SE grade is very unlikely here)*.
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee includes a narrower set of the additional indicators on CRE investment exposures.
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee includes only a limited number of the additional indicators on CRE investment exposures.
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	• The addressee does not include any of the additional indicators on CRE investment exposures; no ustification provided.
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	• The addressee does not include any of the additional indicators on CRE investment exposures; the addressee provides justification which, however, is inadequate. *(This grade is unlikely as information is not given the grade would be NC)*.

C(3) Calculation of indicators using guidance from Annex V and, where appropriate for CRE, Annex IV

	Indication for the assessment	The assessors should only check for consistency in calculating the indicators which are being monitored by the addressee (to avoid double counting). The Assessment (range/tolerance) is based on the weighted share of indicators complying with the methodology set out in the Annex IV (when appropriate for CRE) and Annex V, with respect to the indicators available (i.e. 100% is assigned to the sum of the available indicators). If a different method for calculation of indicators is used, but is assessed as fully adequate, this is treated as being calculated in line with the Annexes IV and V.
Positive grades	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee calculated the indicators based on the guidance provided in Annexes IV (when appropriate for CRE) and V. **The range/tolerance is 95-100%** • In cases where another method is used in addition to that specified in Annexes IV and V for the calculation of the relevant indicators, the addressee should report on the method's technical features and its effectiveness in monitoring risks arising from the CRE sector.
	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee adopted the methods specified in Annexes IV and V for the calculation of almost all the indicators. **The range/tolerance is 80-95%** • The addressee provided sufficient information for the usage of additional methods. • However, some minor information is missing.
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	N/A
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee adopted the methods specified in Annexes IV (when appropriate) and V for the calculation of a narrower set of the indicators. **The range/tolerance is 50-80%.** • The addressee provided some information for the usage of additional methods. However, some essential information is missing.
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee adopted the methods specified in Annexes IV (when appropriate) and V for the calculation of only a limited number of the indicators. **The range/tolerance is 20-50%.** • The addressee provided insufficient information for the usage of additional methods. Most of the essential information is missing.
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	The addressee did not adopt the methods specified in Annexes IV (when appropriate) and V for the calculation of the indicators. **The range/tolerance is below 20%.**
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	N/A

C(4) Monitoring frequency of indicators		
Indication for the assessment		**The assessors should only assess monitoring frequency of the indicators which are available by the addressee (to avoid double counting).** Assessment (range/tolerance) is based on the share of indicators used for monitoring at the requested frequency with respect to the indicators available (i.e. 100% is assigned to the sum of weights of available indicators). Due to the complexity of the templates for CRE, differently from the final assessment of Recommendations A and B, here the single indicators have all the same weight. Note that the coverage is calculated for two parts - physical market and credit (lending to CRE & lending standards) - and then the overall coverage is given by a weighted sum of the two. Consistently with previous assessments of CRE (in the interim report), the weight of the credit part is twice the weight of physical indicators. Borderline cases (for instance 80%) should be graded in a higher category.
Positive grades	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee ensures that the following indicators are used to monitor risks in the CRE sector at least quarterly: physical market indicators, lending flows and the corresponding lending standards listed in Recommendation C(1); the investment flows listed in Recommendation C(2). • The addressee ensures that the following indicators are used to monitor risks in the CRE sector at least annually: stocks of loans and the corresponding lending standards listed in Recommendation C(1); stocks of investments listed in Recommendation C(2).
	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee collects almost all the indicators at the required frequency for the domestic monitoring framework. **The range/tolerance is 80-95%**
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	N/A
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee collects a narrower set of the indicators at the required frequency for the domestic monitoring framework. **The range/tolerance is 50-80%**
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee collects only a limited number indicators at the required frequency for the domestic monitoring framework. **The range/tolerance is 20-50%.**
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	• The addressee is not able to monitor the market at least annually or the monitoring is not sufficient. **The range/tolerance is below 20%.**
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	N/A

Recommendation D

D (1&2) Relevant information in relation to domestic CRE sector		
Indication for the assessment		**Recommendations D1 and D2 are merged and assessed jointly**. A degree of compliance is assessed on the basis of the share of available indicators to all indicators specified in the Annex III. When calculating the final weighted share of available indicators, the assessors should follow the **principle of proportionality** and take into account specific conditions in each country (these should however be clearly explained by the addressees). If there is a good reason to apply the proportionality principle for some indicators, they should be treated (graded) as being available. Note that hat the **physical market indicators listed in Recommendation C(1) (letters from a to e) should be available at the latest by the end of 2025.** If they have not been available yet, but the addressee is working in order to complete the framework by the given deadline, no penalty is applied by the AT.
Positive grades	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee monitors risks in relation to the different indicators on the basis of the information specified in templates A, B and C of Annex III.
	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee monitors risks on the basis of almost all key indicators. **The range/tolerance is 80-95%.**
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	• NA (SE should be applied only if all indicators are missing, but it is unlikely. In other cases where a subgroup of indicators are mssing, the justification of their absence can be taken into account using the principle of proprtionality)
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee monitors risks on the basis of a narrower set of the key indicators. **The range/tolerance is 50-80%**
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee monitors risks on the basis of only a limited number of the key indicators. **The range/tolerance is 20-50%**
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	• The addressee does not monitor any of the indicators for the domestic CRE sector; no justification provided. **The range-tolerance is below 20%.**
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	NA

Indication for the assessment		The sub recommendation D3 should be assessed in full detail only if the investment part is a significant source of risk for the country.
Positive grades	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee includes in the domestic risk monitoring framework an additional set of indicators in relation to CRE investments, as specified in Template B of Annex III, where investments represent a significant share of CRE financing.
	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee monitors risks on CRE financing on the basis of almost all additional indicators. **The range/tolerance is 80-95%**
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	" The addressee does not include any of the additional indicators on CRE investment exposures, however, the addressee provides justification which is considered as adequate.
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee monitors risks on CRE financing on the basis of a narrower set of additional indicators. **The range/tolerance is 50-80%**
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee monitors risks on CRE financing on the basis of only a limited number of the additional indicators. **The range/tolerance is 20-50%**
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	• The addressee does not use any of the additional indicators in Template B of Annex III; no justification provided. **The range-tolerance is below 20%**
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	NA

Annex V
Implementation Standards for Recommendation ESRB/2016/14 as amended by Recommendation ESRB/2019/3 – Recommendation F

Recommendation F

F(1) Common minimum framework for indicators on the physical CRE market		
Positive	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee proposes Union legislation establishing a common minimum framework of indicators for the CRE physical market with the aim of harmonising such indicators. The indicators are based on the definitions and breakdowns for the CRE market currently used within the Member States and those for supervisory/financial stability purposes. The overall harmonization of indicators is at a high level.

	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee proposes Union legislation establishing a common minimum framework of indicators for the CRE physical market. The indicators are largerly based (or a large part of the indicators are based) on the definitions and breakdowns for the CRE market currently used within the Member States and those for supervisory/financial stability purposes. The overall harmonization of indicators is not complete but an appropriate level.
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	• The addressee does not complete the Union legislation on a common framework for the CRE physical market market; however, the addressee provides justification which is considered as adequate.
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee proposes Union legislation establishing a common minimum framework of indicators for the physical CRE market. However, the indicators are only partially based (or only a part of the indicators are based) on the definitions and breakdowns for the CRE market currently used within the Member States and those for supervisory/financial stability purposes. The overall harmonization of indicators is partial. OR • The addressee works to an Union legislation establishing a common minimum framework for CRE indicators, but further work should be done to improve harmonization and the compliance with the definitions currently used within the Member States or those for supervisory/financial stability purposes.
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee proposes Union legislation establishing a common minimum framework for the development, production and disemination of a database on the relevant indicators. The harmonisation is limited or the legislation is based only marginally on the definitions and breakdowns for the CRE market currently used within the Member States or those for supervisory/financial stability purposes. OR • The addressee starts to work to an Union legislation establishing a common minimum framework for CRE indicators, but the progress made is limited.
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	• The addressee does not propose Union legislation establishing a common minimum framework for the development, production and disemination of a database on the relevant indicators for the CRE physical market OR • The addressee works to an Union legislation establishing a common minimum framework for CRE indicators, but the definitions are not compliant with the defintions currently used within the Member States or those for supervisory/financial stability purposes.
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	• The addressee does not work on the Union legislation establishing a common minimum framework for the development, production and disemination of a database on the relevant indicators; the addressee provides justification which, however, is inadequate.

F(2) Development and promotion of statistical standards, sources, methods and procedures for indicators on the physical CRE market

Positive grades	Fully compliant (FC) – Actions taken fully implement the recommendation	• The addressee promotes and develops statistical standards, sources the methods and procedures for indicators on the physical CRE market, ensuring the quality of the relevant indicators.
	Largely compliant (LC) – Actions taken implement almost all of the recommendation	• The addressee promotes and develops statistical standards, sources the methods and procedures for indicators on the physical CRE market. The overall coverage is large and the data quality appropriate.
	Inaction sufficiently explained (SE) – No actions were taken, but the addressee provided sufficient justification	• The addressee doese not promote and develops statistical standards, sources the methods and procedures for indicators on the physical CRE market; however, the addressee provides justification which is considered as adequate.
Mid-grade	Partially compliant (PC) – Actions taken only implement part of the recommendation	• The addressee promotes and develops some statistical standards, sources, methods and procedures for indicators on the physical CRE market. The overall coverage is partial and some improvements should be done in terms of data quality.
Negative grades	Materially non-compliant (MN) – Actions taken only implement a small part of the recommendation	• The addressee promotes and develops only few statistical standards, sources, methods and procedures for indicators on the physical CRE market. The overall coverage is limited an/or several improvements should be done in terms of data quality.
	Non-compliant (NC) – Actions taken are not in line with the nature of the recommendation	• The addressee does not develop statistical standards, sources, methods and procedures for indicators on the physical CRE market.
	Inaction insufficiently explained (IE) – No actions were taken and the addressee did not provide sufficient justification	• The addressee does not develop statistical standards, sources, methods and procedures for indicators on the physical CRE market. The addressee provides justification which, however, is inadequate.

Annex VI
Abbreviations

I. Grades

FC	fully compliant
LC	largely compliant
PC	partially compliant
MN	materially non-compliant
NC	non-compliant
IE	inaction insufficiently explained
SE	inaction sufficiently explained
N/A	Not applicable

II. Countries/Addressees

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

III. Other abbreviations

CRE	Commercial real estate
EEA	European Economic Area
ESAs	European Supervisory Authorities
ESRB	European Systemic Risk Board
ESRB Regulation	Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board
EU/Union	European Union
Handbook	Handbook on the assessment of compliance with ESRB Recommendations (April 2016)
NMA	National macroprudential authority as defined in Recommendation ESRB/2011/3
Recommendation ESRB/2016/14	Recommendation of the European Systemic Risk Board of 31 October 2016 on closing real estate data gaps
Recommendation ESRB/2019/3	Recommendation of the European Systemic Risk Board of 21 March 2019 amending Recommendation ESRB/2016/14 on closing real estate data gaps
RRE	Residential real estate

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