



# **POLICY ADVICE ON THE BASEL III REFORMS: CREDIT RISK**

**STANDARDISED APPROACH AND IRB APPROACH**

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## Executive summary

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The European Banking Authority (EBA) welcomes and supports the final Basel III framework for credit risk. Overall, the improvements in the risk sensitivity of the S-standardised Approach (SA) make it a reliable alternative to the Internal Ratings Based (IRB) approach. At the same time, the reduction in modelling choices introduced in the IRB approach is consistent with the shortcomings experienced during the financial crisis, when the credibility of internal models was challenged. The EBA believes that these measures, together with the bottom-up repair, will help to ensure sufficiently comparable and risk-sensitive models.

This report has taken as its starting point the premise that the Basel III framework will be fully implemented by the European Union (EU). Nonetheless, the EBA has considered carefully both the implications of individual reforms and the impact of full implementation on EU banks. The EBA has found that, overall, the Basel III credit risk framework is suitable for implementation in the EU, especially as many of the changes in the framework take into consideration several existing EU practices, such as the lower risk weights (RWs) applicable to corporate small and medium-sized enterprises (SMEs), or the loan-splitting approach in the case of residential mortgages.

In addition to the assessment of the final Basel III framework, the EBA has drawn on the work undertaken to clarify the credit risk framework since the implementation of the Capital Requirements Regulation (CRR) in 2014. Consequently, this report also puts forward a number of recommendations to improve the current EU implementation. These issues include questions raised by the industry in the context of EBA's question and answer (Q&A) tool,<sup>1</sup> areas identified in reports published by the EBA, and modifications aimed at improving the clarity and the simplicity of the framework.

This report provides in total 94 policy recommendations affecting credit risk: 39 policy recommendations specifically relevant for the SA; 48 policy recommendations for the IRB approach; and seven policy recommendations applicable to both the SA and the IRB approach. The recommendations therefore cover the full final Basel III credit risk framework in significant detail and the EBA is confident that, if these recommendations are implemented, the EU can retain a credible and risk-sensitive framework.

The policy recommendations that apply to both the SA and the IRB approach include the EBA's recommendation to align the definition of corporate SMEs across the two approaches. Furthermore, the EBA recommends the removal of the current EU supporting factors applicable to SMEs and infrastructure projects because the changes in the final Basel III framework introduce a lower RW for corporate SMEs in the SA and a more granular framework for specialised lending. Finally, the EBA recommends that the current treatment of equities in Article 49(4) of the CRR be maintained.

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<sup>1</sup> See <https://eba.europa.eu/single-rule-book-qa>.

The EBA recommends that the final Basel III framework for SA is implemented in the EU, but adapted to EU conditions by exercising a number of options. Specifically, it is recommended that use of the external rating-based approach continues, as this ensures the highest degree of risk sensitivity. This means that the implementation in the EU of the so-called standardised credit risk assessment (SCRA) methodology for exposures to banks and the approach for jurisdictions where external credit ratings are not allowed for exposures to corporates cannot be recommended because of the risk of differences in assessment across banks. In addition, as regards residential mortgages, the EBA recommends the continued use of the loan-splitting approach because of its higher risk sensitivity and alignment with existing EU practices.

In addition to the above broad considerations about the SA, this report considers a significant number of more technical amendments to the framework. These include elements such as i) increased due diligence requirements, ii) continuation of the so-called 'hard test', iii) clarifications on the treatment of public sector entities (PSEs) and iv) implementation of the credit risk mitigation (CRM) framework proposed in the final Basel III framework, alongside a number of targeted fixes.

The modifications of the IRB approach developed in the final Basel III framework are also considered appropriate for implementation in the EU. It is important for the EBA to maintain the incentives for adequate modelling of credit risk, as this facilitates alignment between the prudential framework and sound risk management practices. The changes to the IRB approach will result in a capital requirement increase, which will arise from changes to the advanced IRB (A-IRB) approach, as it will no longer be possible to model loss given default (LGD) values for exposures to institutions, large corporates and financial institutions treated as corporates (so-called 'low-default' portfolios). This is an intended effect, as the move to less sophisticated modelling practices for these portfolios is the consequence of the observed challenges to modelling the credit risk of low-default portfolios.

On the other hand, while the finalisation of the Basel III framework entails additional constraints on the modelling of risk parameters, it also gives additional flexibility in the use of these sophisticated approaches. As a result, the final Basel III framework allows institutions to focus on the portfolios with sufficient data and risk knowledge, by offering the possibility of implementing simultaneously the IRB approach for only some sub-exposure classes and less sophisticated approaches for other sub-exposures classes. In addition to this increase in flexibility, the targeted fixes allow a general reduction in the conservatism of supervisory values, such as regulatory LGDs or the 1.06 scaling factor. Overall, these recalibrations moderate the capital impacts of the modelling constraints. Finally, the EBA is also proposing a significant number of more technical changes to the IRB approach. These include clarifications to ensure a consistent treatment of exposures to sovereigns, regional governments and local authorities, and public sector entities; more flexibility in the use of effective and regulatory maturities; and a number of new definitions, aimed at improving the clarity in the application of the IRB approach. Finally, the EBA recommends that the EU leaves unchanged the treatment of covered bonds and exposures secured by high-volatility commercial real estate (HVCRE).

# 1. Introduction

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1. In the past decade, a series of events in the international financial markets affecting economies across the globe (e.g. the consistent increase in bank credit to the non-financial sector as a proportion of gross domestic product (GDP) across international markets; a worrisome crisis in 2008-2009) have reduced the level of confidence in institutions' capacity to curb their risk-taking activity. It was thus more important than ever to take action and re-establish a degree of trust in institutions' business models and regulators' capacity to create a prudential framework. The main aim of this prudential framework is to limit the potential losses incurred by customers and, more generally, taxpayers in the case of an event that would set restrictions on the institutions' normal operating model. For this reason, the Basel Committee on Banking Supervision (BCBS) has initiated a revision of its full set of standards for the prudential regulation of institutions and published the final revised text in December 2017.
2. While acknowledging that the current business environment is dominated by large financial institutions, with complex business models and access to sophisticated systems that enable a better and more accurate assessment of the risks incurred, a significant number of institutions operate based on simpler business models, with a scope of application confined by geographic or sectoral factors.
3. In order to reflect this diversity in the business models of institutions, there are two approaches to computing regulatory capital for credit risk: the IRB approach and the SA. The SA consists of the simplest options for calculating risk-weighted assets (RWA) and ensures that a simple methodology remains available for a wide range of small and non-internationally active institutions, where the cost of compliance with more complex standards may not be warranted.
4. The reform of the credit risk framework is an integral part of the final Basel III reforms and was driven by several considerations. First, concerns about undue variability in own funds requirements stemming from banks using IRB models led the Basel Committee to introduce constraints on the IRB approach. Second, given the concerns about IRB models, the SA was also improved to embed additional risk sensitivity, thus providing an alternative to IRB modelling. Finally, a number of changes were introduced in the framework, especially as regards the use of the CRM framework.
5. All these considerations are in line with the approach taken by EU supervisors and regulators during the last decade. The EBA has consistently favoured the use of risk-sensitive approaches, as these allow an alignment between the prudential framework and sound internal risk management practices. However, at the same time, the EBA's work has shown that the undue variability has jeopardised the credibility of internal models. The EBA and the European supervisors have therefore embarked on a bottom-up repair plan, which

complements the Basel reforms. It is the overall view of the EBA that both elements of these reforms are necessary to restore the credibility of credit risk own funds requirements.

6. This report has therefore taken as a starting point that the EU should implement the final Basel III framework. Nonetheless, the EBA has looked carefully at the suitability of the reforms for EU banks and considered whether the framework is suitable for the EU. In this regard, concern has been raised that some elements of the final Basel III reforms are too closely based on banking models operating outside the EU. The EBA has not found any evidence of this; quite the contrary, the risk sensitivity of the credit risk framework has been increased, and calibrations, for instance of corporate SMEs, have taken into account the existing approach in the EU framework. Furthermore, in the case of residential mortgages, the loan-splitting approach is well aligned with existing EU practices and the calibration is appropriate for the risk of this asset class.
7. Based on the analysis of the EU specificities, it is in general planned to advise the Commission that the final Basel III framework should be implemented in accordance with the international agreement. However, there are a few elements which should be adjusted in order to ensure overall consistency of the framework and to avoid unintended consequences. While in some cases the European specificities which match with deviations from the Basel framework had already been incorporated in the current regulation, there may also be new elements requiring specific considerations at the EU level.
8. In its Call for Advice (CfA) to the EBA, the Commission has highlighted the need for technical input regarding several aspects of the Basel III reforms. In addition, the Commission called for the EBA to pinpoint 'any other issues or inconsistencies that competent authorities in the EU may have already identified in both the current EU rules [...] as well as the revised BCBS standards'. Hence, this report includes targeted CRR fixes, an analysis of the implementation of national discretions of the BCBS standards, as well as any other implementation issue identified by competent authorities (CAs).
9. In particular, it should be noted that the EBA has drawn on the work undertaken to clarify the credit risk framework since the implementation of the CRR in 2014, and as a result the EBA has identified several areas where the framework could be improved further. Consequently, in addition to providing an assessment of the Basel III reforms, this report also puts forth a number of recommended changes to the current CRR. Some of these issues are a consequence of questions raised by the industry using the EBA's Q&A tool, others stem from reports published by the EBA, such as the EBA report on the CRM framework, while others again are aimed at improving the simplicity in the framework, for instance by aligning the definition of SMEs across the IRB and SA frameworks.

## 1.1 Standardised approach

10. The SA for determining the minimum own funds requirements for credit risk assigns RWs to the exposure amount based on the exposure class of a given exposure. In the current

European regulatory framework, the exposure classes relevant to the SA are laid down in Article 112 of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR), whereas the provisions regarding the regulatory treatment of each exposure class are further presented in Chapter 2 (Standardised Approach) of Title II (Capital Requirements for Credit Risk), Part Three, in the CRR. Moreover, elements pertaining to the credit risk mitigation (CRM) framework are addressed in Chapter 4 of Title II, Part Three, while allocation of off-balance sheet (OBS) items is presented in Annex I to the CRR and other selected aspects are addressed throughout the CRR (e.g. deduction for credit risk on exposures to SMEs – Article 501 of the CRR).

11. The EBA has carried out several projects meant to add clarity to the functioning of the SA and connected frameworks, including:
  - a) extensive work regarding the external credit assessment institutions (ECAIs) framework;
  - b) the European Supervisory Authorities' (ESAs') report on mechanistic references to credit ratings in the ESAs' guidelines and recommendations (published in 2014);
  - c) an opinion on mortgage lending value (published in 2015);
  - d) a report on SMEs and SME supporting factors (published in 2016);
  - e) a report on the CRM framework (published in 2018);
  - f) guidelines on specification of types of exposures to be associated with high risk (published in 2019).
12. With the clear aim of seeing the capital charge under the SA based on easily verifiable and objective variables, the EBA analysed one of the main changes in the final Basel III framework: the modification of certain RW calibration methodologies. This is particularly relevant when discussing the use of external ratings in general (enhanced due diligence requirements), as well as specifically for exposures to institutions and corporates (external credit ratings approach versus standardised credit ratings approach). In addition, there is a revised approach to real estate exposures, which heavily relies on the loan to value (LTV) ratio as an indicator of RW allocation (loan-splitting approach versus whole-loan approach). Moreover, the valuation methodology for the real estate collateral is based on the value of the property at origination. Finally, the methodology for ensuring the diversification of the retail portfolio is amended.
13. The analysis of the final Basel III framework pointed out that, in order to achieve higher risk sensitivity and lower RWA variability, new sub-asset classes were introduced and the RW treatment was revised across all asset classes (with the exception of sovereign exposures – sovereigns, PSEs, multilateral development banks). Nonetheless, this does not come without challenges, particularly since, under the SA, there is a constant trade-off between simplicity and risk sensitivity.

14. Consequently, technical conclusions presented in this report with regard to newly introduced elements in the regulatory framework take into account the fact that the final Basel III agreement was calibrated as a whole and that further revisions would be required to eventually ensure a balanced outcome.

## 1.2 IRB approach

15. In the dynamic business environment of the financial sector, where strategies and products are often adapted to meet changing demand and to gain competitive advantage, the prudential regulations need to be sufficiently flexible to allow the necessary adjustments. As a result, the Basel II framework introduced the concept of own funds requirements based on internal models, with a view to increasing the risk sensitivity of own funds requirements and ensuring their adaptability to changing market conditions.
16. The IRB approach to credit risk constitutes a complex framework that allows institutions to model risk and specify risk appetite in a more precise and granular manner than the SA, which consequently should lead to a more accurate calculation of own funds requirements. The extensive flexibility in developing the internal models has consequently been justified in order to allow a high degree of risk sensitivity that is more adapted to institutions' portfolios. The flexibility of the framework makes it a superior risk management tool, one that should be closely integrated into the risk management practices of the institution.
17. The underlying premise of the IRB approach is therefore that differences in the RWs of various exposures should ideally reflect differences in the underlying risk of those exposures, including the structure of the portfolios, the characteristics of the clients and transactions, and the internal risk management and collection processes at the institutions. Given this premise, the model outcome of the IRB approach should ideally lead to similar own funds requirements across institutions with similar portfolios, and the differences in the models' output should be justified by the differences in risk profiles.
18. However, the implementation of the IRB models in practice has often led to a lack of comparability and substantial divergences across institutions in terms of model outcomes, and it appears that not all differences are justified by risk-based drivers. A substantial share of the variation in model outcomes, and subsequently RWA, is caused by non-risk-based drivers, such as differences in definitions and modelling choices. This lack of comparability results largely from the high degree of flexibility embedded in the CRR, accompanied by different supervisory practices for assessing the adequacy of internal models and differences in the use of supervisory measures.
19. In response to these challenges the EBA has undertaken a broad review of the IRB approach, based on the so-called 'IRB roadmap', with a view to addressing all identified sources of non-risk-based variability, while keeping the overall premise of preserving the risk sensitivity of own funds requirements. The objective of this work was to further improve the quality of risk management practices at the institutions supported by adequate incentives stemming from

own funds requirements and to ensure comparability of RWA between institutions functioning in a single market.

20. This work follows three parallel tracks. Firstly, the EBA pursued its role of developing regulation (in the form of technical standards and guidelines) on key aspects of the IRB approach, either as mandated by the CRR or through issuing guidelines on its own initiative. This work has now been finalised and the necessary changes in the rating systems should be implemented by the end of 2021.<sup>2</sup> Secondly, the EBA engaged in monitoring supervisory practices more broadly and promoting increases in convergence, including through regular benchmarking exercises, which then translate into greater comparability of IRB own funds requirements and supervisory measures. This work is on-going, and the EBA regularly improves the tools used for this purpose in dialogue with NCAs and the European Central Bank. Finally, the EBA will seek to enhance transparency around IRB models, in particular through adequate Pillar 3 disclosures and well-designed supervisory reporting.

### 1.3 Structure of this report

21. This report is structured in three parts. Section 2 gives an overview of the EBA's recommendations, which apply to both the SA and the IRB approach. Section 3 describes in more detail the recommendations related to the SA. Finally, Section 4 provides the policy recommendations for the IRB approach.

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<sup>2</sup> As an exception to this implementation date, the standards apply to LGD and CCF models for low-default portfolios only as of 2023.

## 2. EU-specific SA-IRB consistency issues

22. The calculation of own funds requirements for credit risk can be performed using either the SA or the IRB approach. The two approaches take a different perspective on how risks are factored into the calibration of the risk parameters: most importantly, the SA does not explicitly embed the expected loss (EL) and unexpected loss (UL) concept. Despite these differences, there is a need to ensure that the SA constitutes a suitable alternative to, and complements, the IRB approach, and, at the same time, to ensure that there is little room left for regulatory arbitrage between the two approaches. Hence, there is a need to ensure a consistent treatment of certain elements under the two approaches, which is the aim of the following recommendations.

### 2.1 Definition of SMEs

#### Recommendation CR 1: definition of SMEs

The EBA considers that, in order to achieve more consistent implementation of the regulation and better comparability of data on SMEs, the definition of SMEs should be the same in both the SA and the IRB approach. This definition should be based on the definition already provided in Article 501(2) of the CRR, but referring only to the criterion of annual turnover in Commission Recommendation 2003/361/EC.

23. Currently, a definition of the term 'SMEs' is provided only for the purposes of the application of Article 501 of the CRR (i.e. application of the SMEs supporting factor), and there is no definition for the purposes of the application of Articles 123 and 147(5) (retail definition) of the CRR. What is more, the final Basel III framework for the Standardised Approach for credit risk (CR-SA) introduces the application of an 85% RW for exposures to unrated SMEs that qualify as corporates, where such exposures are defined as 'corporate exposures where the reported annual sales for the consolidated group of which the corporate counterparty is a part is less than or equal to EUR 50 million for the most recent financial year' (see paragraph 43 in the final Basel III text for CR-SA).
24. As already presented in the EBA report on SMEs and the SMEs supporting factor, published in 2016,<sup>3</sup> the EBA considers that harmonisation of the definition of SMEs would lead to more consistent implementation of the regulation and better comparability of data on SMEs, and hence could be used for the monitoring of SME lending, riskiness and the impact of the application of other related regulatory measures (for instance, for the SME supporting factor if maintained in the EU framework; see further details in section 2.2). This would also allow the building of a more comprehensive data set on SME riskiness.

<sup>3</sup> <https://eba.europa.eu/-/eba-publishes-the-report-on-smes-and-the-sme-supporting-factor>



25. When discussing the recommendation, the potential impact of the change in the scope of the SME definition was considered. Hence, an impact analysis was carried out based on EBA supervisory data for both the SA and the IRB approach, in which the current scope of the SME portfolio was compared with the reported scope of the SME exposures subject to the SME supporting factor as per Article 501 of the CRR. The conclusion of the analysis showed a marginal reduction in the potential scope of institutions' SME portfolios based on the proposed harmonisation.
26. Finally, footnote 31 of the final Basel III framework for CR-SA offers the possibility of applying a more conservative definition of SME, '(e.g. based on a lower level of sales)', where deemed relevant. The EBA considers that there is no need to implement the option described in this footnote.

## 2.2 SME supporting factor

### Recommendation CR 2: SME supporting factor

The EBA recommends that the SME supporting factor be removed because more favourable treatment has already been introduced in the final Basel III framework (an 85% RW for unrated corporate SMEs and a 75% RW for retail SMEs under the SA) and the final Basel III framework should be implemented without any further adjustments. The risk sensitivity of the IRB approach already implies a differentiation of the risk weighting of SME exposures, and any further adjustment leads to a 'double counting' in the reduction of own funds requirements without any further risk-based justification.

27. The final Basel III framework for the SA provides for two different sets of treatments (both preferential compared to the treatment of unrated corporates) for exposures to SMEs depending on their characteristics: 1) retail SMEs receive a flat 75% RW on all their exposures and 2) unrated corporate SMEs receive a flat 85% RW on all their exposures. However, the CRR currently applies a preferential treatment in the form of an SME supporting factor, which applies, subject to conditions, to SME exposures in the corporate, real estate and retail exposure classes under both the SA and the IRB approach. The available treatments in accordance with the CRR and with the final Basel III framework are summarised in Table 1.

Table 1: Regulatory treatment of exposures to SMEs: CRR, CRR2 and Basel III

	CRR	CRR2	Basel III standards for CR-SA		Basel III standards for CR-IRB	
Capital treatment	A factor of 0.7619 is applied to capital requirement	A factor of 0.7619 is applied to RWA on part of exposure to SMEs up to EUR 2.5m  A factor of 0.85 is applied to RWA on part of exposure to SMEs exceeding EUR 2.5m	85% RW (instead of 100%)	75% RW	Corporate RW function with reduced correlation coefficient based on the value of sales	Retail RW function with correlation coefficient lower than for corporate exposures
Eligible exposures	Exposures to SMEs up to EUR 1.5m	All exposures to SMEs	All unrated exposures to corporate SMEs under SA	All retail SME exposures under SA	All exposures to corporate SMEs up to EUR 50m sales	All exposures to retail SMEs which are not secured by immovable property

28. Removing the SME supporting factor is the most appropriate recommendation from a prudential perspective. There are a number of reasons for this:

- a) The SME supporting factor was introduced under the CRR to increase lending to SMEs, which cannot easily access funding on the capital markets. Since the Basel III framework introduces a specific preferential RW for SME corporate exposures of 85%, EBA is of the view that the SME supporting factor is no longer necessary. The EBA report on SMEs and SME supporting factor published in 2016 shows that the reduced own funds requirements do not reflect the underlying credit risk of SME exposures that are part of different asset classes, particularly with regards to the retail portfolio under the IRB approach. The 85% RW was introduced in the final Basel III framework for CR-SA in order to align the framework with the treatment of corporate SMEs under the measure already incorporated in the IRB approach, in which a lower asset value correlation ( $R$ ) with the systematic risk factor is used in the RW function for exposures to SMEs with total annual sales up to EUR 50 million. This reduction in the correlation based on the total annual sales of the consolidated group is also included in paragraph 54 of the final Basel III framework, which directly reduces the RW applied to smaller counterparties. Overall, by introducing the specific preferential RW for SME corporate exposures, the SME supporting factor is no longer necessary.
- b) With regard to retail SMEs, the preferential treatment is already incorporated in both the SA and the IRB approach, recognising typically higher diversification of such portfolios. Under the SA, retail SMEs receive a preferential RW of 75%, whereas, under the IRB approach, a specific RW function is used with lower correlation coefficient than in the case of corporate exposures, leading directly to lower RWs.

- c) Furthermore, removing the SME factor would avoid a ‘double counting’ in the reduction of own funds requirements for SME exposures under the IRB approach without any further risk-based justification. In fact, any potential lower level of risk for these type of exposures would already be captured by the rating of the counterparty.
- d) Finally, as also shown in the EBA report on SMEs and SME supporting factor<sup>4</sup> published in 2016, the introduction of the SME supporting factor had not resulted, at that time, in a clear and marked decrease in SMEs’ probability of being credit constrained, despite this being its specific objective.
29. Another option, but one that would not be fully compliant with the final Basel III framework for the SA, could be to maintain the SME supporting factor, together with its extension included in the CRR2 text (see Figure 1 for the impact of this scenario on SA RWA and Figure 2 for the impact of this scenario on IRB). The regulatory revision to the CRR presents a fine-tuned implementation of the SME supporting factor, which consists of a 0.7619 coefficient applied to the RWA for exposures or parts of exposures up to EUR 2.5 million and a 0.85 coefficient applied to the RWA corresponding to exposures exceeding EUR 2.5 million. Under this option, the new 85% RW for exposures to unrated corporate SMEs should not be implemented in the EU. This treatment would effectively translate into an additional, non-risk-based capital relief for exposures up to EUR 2.5 million made up of the decreased RW of 85% on top of the 0.7619 coefficient introduced by CRR2. However, also under this option, the application of the supporting factor remains unjustified for SME exposures under the IRB approach, where preferential treatment is incorporated through correlation coefficients.

Figure 1: Percentage change in exposure class RWA due to application of SME supporting factor (relative to total current SA RWA)



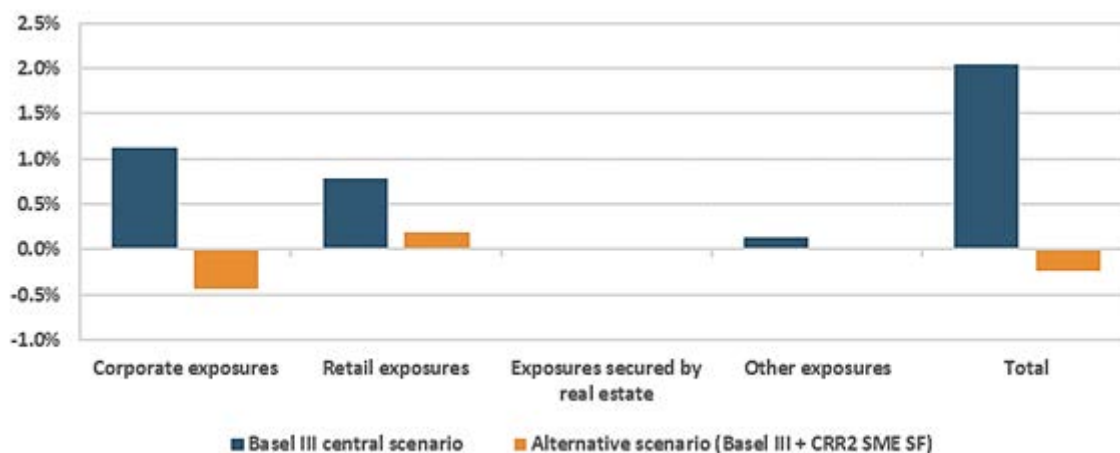
Sources:

EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 94 banks. SME SF, SME supporting factor.

<sup>4</sup> <https://eba.europa.eu/-/eba-publishes-the-report-on-smes-and-the-sme-supporting-factor>

Figure 2: Percentage change in exposure class RWA due to application of SME supporting factor (relative to total IRB RWA)



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 47 banks. SME SF, SME supporting factor.

## 2.3 Infrastructure lending supporting factor

### Recommendation CR 3: infrastructure lending supporting factor

The EBA recommends that, given that the Basel III proposal for specialised lending project finance is a similar mechanism to the CRR2 supporting factor for infrastructure lending, the final Basel III framework for specialised lending be implemented. As for the SME supporting factor, the risk sensitivity of the IRB approach already implies a differentiation of the weighting of infrastructure lending exposures; hence no further adjustment is needed.

30. Under the final Basel III framework for the SA, specialised lending exposures (SLEs) are classified as a separate sub-exposure class of the corporate exposure class, with the following subcategories: object finance and commodities finance (both with a flat 100% RW for unrated exposures), and project finance (with a 130% RW during the pre-operational phase and a 100% RW during operational phase if the exposure is unrated<sup>5</sup>). Moreover, unrated project finance exposures in the operational phase deemed to be of high quality may receive an 80% RW. Where a specialised lending exposure is externally rated, the RW is determined based on the external rating, as for any other corporate exposure.
31. Under the final Basel III framework for the IRB approach, SLEs are also classified as a separate sub-exposure class of the corporate exposure class. As such, all changes applicable to corporate exposures apply also to SLEs, including new constraints on model inputs, discussed further in section 4.2.3(i) and in section 4.2.4(iii), with the exception of the migration to the

<sup>5</sup> The operational phase is defined as the phase in which the entity that was specifically created to finance the project has (i) a positive net cash flow that is sufficient to cover any remaining contractual obligation and (ii) declining long-term debt.

foundation IRB (F-IRB) approach. In addition, given the potential difficulties in quantifying the level of risk for this type of exposure, an alternative approach is available in the IRB framework: the so-called 'slotting approach', introduced in Article 153(5) of the CRR (and maintained in the final Basel III framework, in paragraph 56). Although the final RWs applicable to each risk category and the risk factors to take into account are prescribed, the risk differentiation and the assignment of the exposures to the correct risk category are made using an internal model. Hence, the slotting approach is considered as a model approach and is in particular subject to the approval of the competent authority (CA).

32. The revised CRR framework introduces a new infrastructure supporting factor. Subject to criteria presented in Article 501a of CRR2, infrastructure projects in the pre-operational and operational phases can benefit from a 25% reduction in the associated own funds requirements. However, although the introduction of the infrastructure supporting factor (ISF) has already been agreed by the co-legislators, it can be identified as a clear deviation from the final Basel III framework. Several arguments support the proposed policy recommendation from a prudential perspective.
33. First, the introduction of a specific treatment for SLEs (particularly for unrated exposures), calibrated on default rates for project finance loans worldwide over 20 years, provides a structured prudential framework under the SA that is better adapted to those specific projects than the current CRR framework and the CRR2 ISF. The supporting factor is less risk sensitive than in the final Basel framework: it does not take into account the various phases of a project and applies the same capital relief irrespective of the risk levels for a given operation.
34. Second, the ISF applies also to rated exposures under the SA and to exposures under the IRB approach, in which the underlying credit quality of the project should already be reflected in the credit assessments of ECAs or institutions, so that the additional application of a supporting factor in these cases would be redundant.
35. In addition, at the Basel table, the 'high quality' category was introduced at the EU's request to enable a preferential treatment similar to the one proposed by the ISF and based on the same arguments. The decision to top up this already preferential treatment under the final Basel III framework with the CRR2 supporting factor without further risk-based justifications could have an additional negative impact on the EU's credibility with regard to incorporating international agreements into its regulatory framework.
36. Infrastructure projects, to which the supporting factor applies, are a subset of project finance exposures: therefore, not all project finance exposures would benefit from the supporting factor. In terms of impact assessment, the data from the quantitative impact study (QIS) sample show that very few exposures from the SA corporate and specialised lending portfolios are compliant with the eligibility criteria of the infrastructure projects supporting factor – 0% and 1% compliant exposures respectively. In relation to the overall specialised lending portfolios, 10% of exposures were found to be compliant with the eligibility criteria.

When implemented as part of the Basel III revised framework, the infrastructure projects supporting factor would decrease the average impact of the reform for the portfolios under consideration. The results are not shown in this report, and should be interpreted with caution, as they are exclusively driven by four institutions that identified compliant exposures within their portfolios. For the same reason, additional analysis using CRR2 as a baseline scenario was not conducted.

37. An alternative to the proposed policy recommendation would be to implement only the 100% and 130% RWs for the pre-operational and operational phases of project finance, but not the 80% RW for unrated high-quality project finance exposure in the operational phase as set out in the final Basel III text, and to apply the ISF for the high-quality exposures, irrespective of the phase they are in. This treatment should, however, be limited to unrated exposures, as an external rating, when available, should accurately reflect the risk of the transaction and therefore no reduction in the RW through the ISF should be needed.
38. This approach would maintain a deviation from the Basel framework, as the ISF could still be applied in the pre-operational phase (thus leading to a RW of roughly 98% rather than the 130% RW for exposures that qualify for the ISF). However, for infrastructure projects in the operational phase, own funds requirements would broadly be in line with the final Basel III framework as the RW would be reduced to only 75%, compared with 80% under the revised SA. In addition, the scope of the exposures that can benefit from the ISF is narrower than those that would qualify as high-quality project finance exposure under the final Basel III framework, as infrastructure projects are only a subset of project finance exposures, which reduces the impact of the deviation. An adverse side-effect, however, would be that other high-quality financing in the operational phase would receive higher RWs than required by the final Basel III capital framework, which might be perceived as overly conservative gold-plating.
39. Under the final Basel III framework for the IRB approach, for the same reasons as for the SME supporting factor, any potential lower level of risk for these types of exposures would already be captured by the estimates of risk parameters or slotting to an appropriate risk category. Therefore, any additional adjustment to the outcomes of the models introduces a 'double counting' in the reduction of own funds requirements.

## 2.4 Treatment of equity exposures currently risk weighted under Article 49 of the CRR

### **Recommendation CR 4: treatment of equity exposures currently under Article 49 of the CRR**

It is the EBA's view that, given the specific typology of these exposures, the treatment currently provided for in Article 49(4) of the CRR should be maintained and the applicable RWs should be aligned with the RW provided by the final Basel III framework for equity exposures under the CR SA (i.e. 250% or 400% as applicable).

40. In the context of the revisions brought to the equity exposure class (i.e. the move from the IRB approach to the SA and revised RWs under the SA), the EBA has been asked, by way of the CfA, to assess the impact of the revised treatment of equity exposures in conjunction with the current exemptions from deduction from own funds of certain equity instruments, in line with the provisions of Article 49 of the CRR (Article 49(1) – intra-conglomerate insurance holdings; Article 49(2) – intra-(banking) group holdings; and Article 49(3) – intra-network exposures to institutions part of the same institutional protection scheme (IPS)). The Basel framework requires deduction from own funds of the above-mentioned instruments, except for exposures below certain thresholds. In this section, the EBA i) analysed the impact of maintaining the current European regime and ii) sought to determine the most suitable RW treatment of the instruments exempted from deduction, provided certain conditions are met.
41. When discussing the exemptions from deduction from own funds, the first thing that needs to be clarified is the level of application (which has also been problematic from the QIS perspective). Although, at the consolidated level of the group, some of these exemptions are less visible – intra-(banking) group holdings in line with Article 49(2) of the CRR do not appear on the consolidated balance sheet of a group – the RW treatment is relevant at solo level. This is mainly due to the potential ‘double gearing’ of the own funds provided to an entity within the banking group, financial conglomerate or IPS (through the investment of the parent into own funds instruments issued by this subsidiary), and the still existing contribution of the value of this investment to own funds of the parent entity at solo level (or at the consolidated level of the banking group for holdings in non-consolidated insurance undertakings or banks within an IPS), where EUR 1 capital could be used more than once throughout the group or IPS.
42. Even in the context of maintaining provisions in Article 49 of the CRR, and based on the conservative assumption that the RW treatment of these exposures would be in line with the RW treatment for other equity exposures under CR-SA (i.e. 250% or 400% as applicable), the capital impact of increasing the RW for intra-conglomerate insurance holdings, intra-(banking) group and intra-IPS equity exposures under the SA is significant. The QIS results for exposures that are currently treated in accordance with Article 49(4) of the CRR already indicate an increase of 2.8% in total RWA, if the RW were increased to 250% (see Table 2 for QIS results).

Table 2: Percentage change in equity RWA (relative to total current SA RWA), by equity category

Panel A Equity categories classified according to the revised Basel III	Change (%)	Panel B Equity categories classified according to current CRR	Change (%)
Exposures to certain legislative programmes	0	Equity exposures classified as 'high-risk items' under Article 128	0.7
Other	2.6	Holdings of own funds instruments that are currently risk-weighted in accordance with Article 49(4)	0.8
Speculative unlisted	0.2	of which: holdings in insurance companies	0.7
		of which: exposures to institutions part of the same institutional protection scheme	0.1
		Other equity exposures	1.3
<b>Total equity</b>	<b>2.8</b>	<b>Total equity</b>	<b>2.8</b>

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

43. However, this estimate does not include the effect on intra-(banking) group equity holdings where the institution is also subject to own funds requirements at solo level, which cannot be assessed because the data are collected at the highest level of consolidation (i.e. after netting out intra-(banking) group effects). Assuming that the vast majority of intra-conglomerate insurance and intra-(banking) group or intra-IPS equity holdings are currently subject to a 100% RW, the overall impact of removing the status quo treatment is likely to be significant. On the other hand, the own funds requirements for these types of equity exposures, which are currently subject to the IRB approach, may significantly decrease, at least for those banks that apply the simple approach to RW equity exposures in line with Article 155(2) of the CRR. In this case, the RWs would change from 370% or 290% (where traded) to 250%.<sup>6</sup>
44. The increase in RW for intra-conglomerate insurance and intra-(banking) group or intra-IPS equity holdings requires more capital, both at the solo level of the group member having this equity holding<sup>7</sup> and from the consolidated perspective of the group.<sup>8</sup> However, it should be noted that, in contrast to intra-conglomerate insurance and intra-IPS equity holdings (which,

<sup>6</sup> Although, in theory, the RW could be increased for private equity exposures in sufficiently diversified portfolios, for which a simple IRB RW of 190% applies, this is not relevant in practice for intra-conglomerate insurance and intra-(banking) group or intra-IPS equity exposures, which typically do not qualify as private equity exposures.

<sup>7</sup> Unless a capital waiver applies at solo level, in which case the additional capital is required only at the consolidated level.

<sup>8</sup> The increased RW for intra-conglomerate and intra-IPS equity holdings directly increases the consolidated requirements, though this could be covered, in the case of the consolidated basis, by the additional capital required at solo level, where the capital instruments are also recognised for the consolidated basis. The increased RW for intra-(banking) group exposures does not increase the consolidated requirements, because intra-group exposures are disregarded in the case of the consolidated basis; however, in the case of the solo basis, capital additional to that needed for the consolidated requirements must be held, thus increasing the total capital needs of the group.



in most cases, directly increase own funds requirements at the consolidated basis of the group), the increased RW for intra-(banking) group holdings will have an effect only in the case of subsidiaries for which own funds requirements have not been waived (because the additional need for capital in the group arises not from an increase in consolidated requirements, but, under certain conditions, from a need for additional capital at solo level for intra-group exposures). The increased need for capital, both at solo level and for the group, might trigger unexpected decisions to reallocate capital within the group, or even to consider disinvestments where the parent would otherwise have no longer sufficient own funds – though all this needs to be seen as relating mostly to those own funds that are in any case no longer available for absorbing losses due to double gearing. Changing the current RWs might also have significant unintended effects on existing structures.

45. Based on the above-mentioned considerations, and despite the expected impact, the EBA considers it prudent to align the treatment of non-deducted equity exposures included in the scope of Article 49(4) of the CRR with the revised ‘Subordinated debt, equity and other capital instruments’ treatment in the final Basel III framework and apply to all these different types of exposures a 250% RW (or 400%, should that be the case). In addition, for addressing a potential double gearing issue that might arise in some situations, certain conditions might be envisaged.
46. The EBA has identified the following alternative that might help mitigate the impact, though the EBA does not recommend this alternative because it is not explicitly in line with the Basel standards. The CRR recognises, provided criteria are met, the specific circumstances of non-equity exposures to counterparties that are included in the same banking group or an IPS. Both the CRR<sup>9</sup> and the final Basel III framework,<sup>10</sup> for example, allow the application of a 0% RW for intra-(banking) group and intra-IPS credit exposures provided that certain conditions are met. Applying a 0% RW also to equity exposures is, however, not permitted by the final Basel III framework, as footnote 14 explicitly excludes from this treatment exposures giving rise to Common Equity Tier 1, Additional Tier 1 and Tier 2 items.<sup>11</sup> One option to mitigate the impact could be to apply to intra-conglomerate insurance, intra-(banking) group and intra-IPS equity exposures a RW of 100% under the same conditions as for the 0% RW for other intra-group and intra-IPS exposures.
47. A RW lower than 250% might be justified should sufficient extra own funds be available in the group/IPS to cover the loss risk of these equity exposures. While the equity holding itself might no longer have sufficient value to support the troubled entity if needed, additional own funds could be maintained at the group/IPS level and be made available when needed for prompt transfer or for repayment of liabilities of a troubled member. Applying a 100%

<sup>9</sup> See Article 113(6) and (7) CRR.

<sup>10</sup> See footnote 14 of BCBS/2017/D424.

<sup>11</sup> The exclusion under Basel standards might be driven by concerns about wrong-way risk for such equity exposures. Once these own funds instruments absorb the losses of the subsidiary, the value of the equity holdings on the parent’s balance sheet could deteriorate. This could hamper the parent’s ability to ensure the subsidiary’s liquidity and solvency to avoid bankruptcy just when such support becomes necessary; thus, the condition for a lower RW in footnote 14 would not be met for these specific exposures.

RW could partly cover the risk at the level of the individual entity holding the equity exposure and thereby might help ensure that own funds are distributed adequately between the members of the group/IPS.

48. In the event that such a lower RW is applied to non-deducted intra-(banking) group or intra-IPS or intra-conglomerate insurance holdings, the conditions under which this should take place should be further explored.

## 2.5 Retail exposures

### 2.5.1 Definition of retail – use of EUR 1 million threshold

#### **Recommendation CR 5: definition of retail – EUR 1 million threshold**

The EBA recommends that the calculation of the threshold under the SA and the IRB approach be aligned by specifying that, for this purpose, the total amount owed should exclude exposures secured by residential real estate (RRE) up to the value of the property, with the clarification that the property valuation used under the IRB approach should be same as used under the SA. The EBA believes that this solution would achieve the alignment objective and at the same time will have limited impact in terms of RWA. The wording referring to ‘the total amount owed to the institution’ should also be aligned, explicitly referring to ‘exposures in default’ rather than ‘past due exposures’.

49. Under both regulatory approaches, the assignment of an exposure to an exposure class is a key step in order to compute the own fund requirements: for example, it leads to a different RW granularity in the SA and to a different RW curve under the IRB approach. For some exposures, the allocation between the retail and the corporate exposure class is not obvious, and the regulatory text had to clarify the criteria for this allocation.
50. In particular, the CRR and the Basel standards specify a threshold on the maximum total amount owed by an SME or a private individual for it to be included in the retail exposure class. The scope and the calculation of these thresholds are specified differently under the SA and IRB approach:
- a) Scope as specified in the Basel capital frameworks and in the current CRR: under the SA, both private individuals and SMEs need to have a sufficiently low exposure value to qualify for retail treatment. Under the IRB approach, only SMEs need to have a sufficiently low exposure value, as private individuals automatically qualify as retail exposures. Furthermore, the definition of SMEs is different: the IRB approach allows institutions to use internal definitions,<sup>12</sup> whereas the definition of SMEs used in the SA has been clarified under the final Basel III framework and further discussed in section 2.1. The scope of

<sup>12</sup> The exact wording is ‘small businesses and managed as retail exposures’.

application is summarised in Table 3, while the different computation methods are presented in Table 4.

Table 3: The scope of application of the threshold for the definition of retail in the IRB and SA

	Basel II	Basel III	CRR
<b>IRB</b>		'small businesses and managed as retail exposures' <b>only</b> (internal definition) <i>Private individuals automatically qualify as retail exposures</i>	
<b>SA</b>	SME (no clear definition) <b>and</b> private individuals	SME (sales < EUR 50m) <b>and</b> private individuals	SME (no clear definition) <b>and</b> private individuals

- b) Calculation under the current CRR: under the SA, the total amount owed is calculated excluding exposures fully and completely secured by residential immovable property collateral, whereas under the IRB approach the total amount owed excludes exposures secured on residential property collateral, where such amount is independent of any LTV criterion. As a result, the threshold under the SA is more restrictive than the threshold under the IRB approach. In addition, under the SA it remains unclear whether defaulted exposures secured by mortgages are also excluded from the calculation of the threshold. Finally, there is a slight misalignment between the wording in the SA, which refers to the total amount owed including any 'exposures in default' under Article 123(c), and the IRB approach, which refers to the total amount owed including any 'past due exposures'.
- c) Calculation under the Basel II framework: both under the SA and under the IRB approach, the threshold applies to the gross aggregated exposure amount, with no exclusions.
- d) Calculation under the final Basel III capital framework: the calculation of the threshold under the IRB approach remains unchanged from that in the Basel II framework: there are no exclusions from the total exposure amount. However, the framework for the SA has evolved under the final Basel III framework, where an exemption of exposures secured by RRE is defined in footnote 32. That said, the final text of the Basel III capital framework is subject to different interpretations:
- i) On the one hand, this exemption defined in footnote 32 applies to the 'granularity criterion' and not to the threshold for the 'low value of individual exposures'; therefore, a strict interpretation of the text implies that the full exposure is subject to the EUR 1 million threshold.
  - ii) On the other hand, the wording of footnote 32 defines the concept of 'aggregated exposure' (which excludes RRE exposures); this is the same concept that is used for both 'low value of individual exposures' and 'granularity criterion'. It should also be

noted that under the Basel II framework the granularity criterion is introduced before the threshold on the exposure value, which also supports the interpretation that the concept of aggregated exposure is the same.<sup>13</sup>

Table 4: Calculation of the threshold for the definition of retail exposures

	Basel II	Basel III	CRR
<b>IRB</b>	Total exposure		Amount owed minus RRE exposures
<b>SA</b>	Total exposure	Total exposure (minus RRE exposures?)	Amount owed minus exposures fully and completely secured by RRE

51. Given the text of the final Basel III capital framework and the current implementation of the threshold, it seems that there are four possible calculation methods:

- a) Method 1 (the least strict with full exclusions): calculation method as currently performed under the IRB approach in CRR

According to this method, the full value of an exposure secured by immovable property will be deducted from the calculation of the aggregated exposure, even if the property provides only partial protection.

- b) Method 2 (exclude the value of the RRE): exposures secured by RRE excluded up to the value of the property

According to this method, the amount deducted from the calculation of the aggregated exposure is the lesser of the exposure value and the value of the property. This method is stricter than the method currently applied under the IRB approach and helps to avoid potential regulatory arbitrage, as described above. It is also less strict than the current method in the SA, recognising the full value of the property rather than only the fully and completely secured part of the exposure.

- c) Method 3 (partial exclusion of RRE): calculation method as currently used under the SA

According to this method, only the fully and completely secured part of the exposure is deducted from the calculation of the aggregated exposure. Based on the current CRR, this means 80% of the value of the RRE, but would go down to 55% under the revised framework.

- d) Method 4 (no exclusions): total aggregated exposure amount used, with no exclusions

<sup>13</sup> Since it makes sense to define a concept only once, it is possible that the first draft of the revised Basel framework introduced footnote 32 with the intention of defining the 'aggregated exposure' concept for both criteria, and that the order of the two criteria was then reversed (the criteria have been transposed between the Basel II framework and the revised Basel III framework) without changing the placement of the footnote, producing the current inconsistency.

According to this method, the amount compared with the threshold would include all credit obligations of the obligor, as required by the final Basel III framework. As under the SA the threshold applies not only to SMEs but also to private individuals, this would in practice mean that many obligors using mortgage loans would be treated as corporates.

52. The EBA has considered the possible calculation methods described above in the context of both the SA and the IRB approach. Although it is not possible to assess the impact of these methods in a precise quantitative manner, some qualitative considerations about advantages and disadvantages and potential implications of the methods are presented below.
53. When assessing the impact of the calculation methods it has to be kept in mind that under the final Basel III framework the concept of the value of the property is changing. The revised SA requires that the property value used for prudential purposes is more conservative than the pure market value, and, in particular, that it must exclude expectations on price increases. The requirement to have such a conservative property value does not apply to the IRB approach, which allows institutions continued flexibility with regard to the type of valuation they use and how they reflect this value in their internal models.
54. Considerations on Method 1:
  - a) In extreme cases, application of Method 1 could lead to a situation in which large exposures are treated as retail only because immovable property collateral is provided for a small part of the exposure. However, this risk of regulatory arbitrage is mitigated by other criteria that have to be met in order to classify exposures as retail (such as lack of individual management). The advantage of Method 1 is that it does not require use of the value of the property. However, it does require a specification of the concept of 'facility', which can be understood in different ways by institutions, leading to inconsistent application (further elements are discussed in section 4.3.1).
  - b) Although Method 1, as currently applied only to SMEs, has not led to any issues under the IRB approach, it is considered not appropriate for the SA, as under the SA it is not possible to properly reflect the difference in risk due to larger exposure values and hence decreased diversification. If this method was applied under the SA, it would lead to the preferential RW of 75% being applicable to a much broader scope of exposures.
55. Considerations on Method 2:
  - a) Method 2 offers a middle ground between the solutions currently applied under the SA and the IRB approach. This is, hence, the only method that envisages exclusion of exposures secured by RRE and which could be meaningfully applied both under the SA and under the IRB approach. The advantage of this method would be the alignment of the calculation of the threshold and classification of SME exposures as retail between the approaches, which is considered particularly beneficial in the context of implementation of the output floor and the necessity for IRB institutions to also calculate own funds requirements in accordance with the SA. However, the recognition of obligors as retail

would depend on the valuation approach to real estate collateral, which in this case would have to be further clarified not only for the SA but also for the IRB approach. One proposed solution to this would be to use the common and harmonised SA valuation approach (for retail classification only); this would not create additional burden for institutions using the IRB approach, given the necessity to compute the own fund requirements in accordance with the SA for all exposures for the purpose of the output floor.

- b) In terms of the impact of Method 2 on the SA, it may seem that it is less conservative than the current application. However, owing to the changes to the SA introduced in the final Basel III capital framework as described above, it seems that Method 2 would give results closer to the current status than Method 3. It is, however, not possible based on existing data to assess this potential impact in a more precise manner.

56. Considerations on Method 3:

- a) Method 3, as currently applied in the SA, is much stricter. It should be noted that, if the text of the CRR were to remain unchanged in this aspect, it would become even more restrictive than currently as a result of changes in the treatment of exposures secured by mortgages introduced in the revised SA. In particular, according to the LTV thresholds included in the final Basel III framework, the fully and completely secured part of the exposure would decrease from 80% to only 55% of the value of the property. In addition, where currently the market value is used, the value of the property would decrease owing to stricter valuation requirements. As a result, Method 3 would lead to the retail treatment being applied to much smaller scope of exposures both under the SA and under the IRB approach.
- b) In addition, Method 3 is considered unsuitable for the IRB approach not only because of its impact but also because of its construction, as it would introduce the concept of 'fully and completely secured part of exposure', which currently is not included in the IRB approach, while at the same time evolving in the SA (from 80% of the residential mortgage to 55% in the revised framework). Furthermore, the retail classification would depend on the valuation approach, which is not harmonised under the IRB approach and hence may lead to unjustified variability of RWA. In a similar manner as for Method 2, one potential way to mitigate this effect would then be to use the common and harmonised SA valuation approach.

57. Considerations on Method 4:

- a) This option could also be applied technically to both the SA and the IRB approach, while at the same time being independent of the value of the property, as all credit obligations regardless of the collateral would be taken into account in calculation of the value compared with the threshold.

- b) While it is clearly the most restrictive of the possible methods, it is unclear how significant the impact would be in terms of the RWA increase. Under the SA, the secured part of the exposures would still benefit from the same preferential RWs, and only the unsecured part of the exposures to the obligors which exceeds the threshold would be risk weighted as corporates (for an individual person, the 100% RW of the ‘other retail’ category defined in paragraph 57 of the final Basel III framework would apply to the unsecured part). Under the IRB approach, the threshold applies only to SMEs and hence the outflow of exposures from the retail to the corporate exposure class would be less significant. However, the RW function applicable to corporate exposures as specified in Article 153 of the CRR would apply to the whole exposure value and not only to the unsecured part, which generally leads to overall higher RWs.
58. Taking into account the above considerations there are two possible options for the way forward: either alignment of the calculation methods between the SA and the IRB approach or keeping the discrepancy on the ground that it is justified.
59. The EBA believes that there is merit in aligning the method for the calculation of the threshold between the SA and the IRB approach and in this way keeping consistency in the overall framework. In particular, the EBA suggests that Method 2 be adopted. This alignment is particularly appropriate in the context of the output floor, as institutions using the IRB approach will also have to calculate RWA in accordance with the SA. The alignment of the calculation method would therefore avoid the operational burden of recognising retail exposures based on two different methods. It should be noted, however, that the alignment of classification as retail will not be complete and will refer only to SMEs treated as retail, as the scope of application of the threshold remains different.
60. In addition, if the SME supporting factor specified in Article 501 of the CRR is retained in the revised framework, the same calculation method should be applied also for this purpose, even though the level of the threshold specified for this purpose may differ.

## 2.5.2 Implementation of the notion of transactors

### Recommendation CR 6: implementation of the notion of transactors

The EBA considers that the split in the regulatory retail exposure class under the SA between transactors and non-transactors is one of the components that increases the risk sensitivity in the SA, and therefore should also be introduced in the EU regulatory framework. In addition, the distinction between transactors and revolvers under the IRB approach for the qualifying revolving retail exposure class should be implemented.

61. The final Basel III framework introduces under the SA a new sub-asset class for retail exposures: transactors. In accordance with paragraph 56 of the part of the final Basel III framework dedicated to the SA, ‘transactors are obligors in relation to facilities such as credit cards and charge cards where the balance has been repaid in full at each scheduled

repayment date for the previous 12 months. Obligors in relation to overdraft facilities would also be considered as transactors if there has been no drawdowns over the previous 12 months'. This sub-asset class benefits from a reduced RW of 45% on account of the regular repayment schedule required to qualify for the preferential treatment, in contrast to the 75% RW applied to other retail exposures.

62. This notion is also introduced in the IRB approach, for the qualifying retail revolving exposures (QRREs).<sup>14</sup> The final Basel III framework introduces in paragraph 121 two different input floors for the probability of default (PD) estimates: for QRRE classified as revolvers, a 0.1% input floor is applied, whereas QRRE meeting the criteria of transactors benefit from the lower (0.05%) input floor that applies to all other exposures. It should be noted that the terms 'revolvers' and 'qualifying retail revolving exposures' apply only to the IRB approach.
63. It should be noted that the calibration by the BCBS was carried out using US data, which is not consistent with empirical evidence in the EU. Moreover, the split into transactors and revolvers is a new concept that currently does not exist in the databases of the institutions. As a consequence, several jurisdictions pointed out during the QIS that the identification of these exposures is not straightforward, thus resulting in proxies being provided via the QIS templates. While the EBA see no reason for not aligning with the final Basel III framework for retail exposures under the SA, it does flag potential difficulties in implementation, which may outweigh the benefits of the added risk sensitivity. Finally, it should also be noted that the distinction between transactors and revolvers may introduce cyclicity of the computation of own funds requirements (since the RWs would increase from 45% to 75% if borrowers do not repay as scheduled, for instance in downturn periods).
64. However, the EBA believes that the introduction of this split between transactors and revolvers increases significantly the risk sensitivity of the overall framework. Furthermore, it is the EBA's understanding that, where the implementation costs are considered too high for the institutions, they will be allowed to apply stricter measures as fall-back and apply other more restrictive treatments as specified under the SA or the IRB approach. This would give institutions incentives to improve their data and IT infrastructure.
65. During the impact assessment, the newly defined sub-category of 'transactors' is found to represent only around 4% of the total retail EU portfolio. Data on transactors were reported by only four institutions; therefore, the results in Table 5 for this sub-category should be interpreted with caution.

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<sup>14</sup> These exposures benefit from a preferential correlation coefficient of 4% in the RW function. In order to be treated as QRREs, the exposures have to meet a set of criteria specified in Article 154(4) of the CRR.



Table 5: RWA increase per exposure sub-class – retail (as a percentage of total current SA RWA)

	Other retail	Regulatory retail – non-transactors	Regulatory retail – transactors	Total retail
All	0.1%	1.7%	–0.1%	1.7%
Large	0.1%	1.8%	–0.1%	1.8%
of which: G-SII	0.0%	2.1%	–0.3%	1.8%
of which: O-SII	0.2%	1.6%	0.0%	1.7%
Medium	0.0%	1.4%	–0.1%	1.2%
Small	0.6%	1.6%	0.6%	2.8%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks: Large (98), of which G-SIIs (7), of which O-SIIs (61); Medium (59); Small (24).

## 2.6 Definition of commitment

### Recommendation CR 7: definition of commitment

It is recommended that the definition of commitment in the final Basel III framework be adopted, and that the exemptions mentioned in footnote 53 of the final Basel III text for CR-SA be implemented. Moreover, Annex I of the CRR should be completed by a language on undrawn credit facilities, and should be clarified in order to include both commitments agreed by both parties and those not yet agreed by the client. Finally, for consistency reasons, the same definition of commitment should be used under the IRB approach.

66. The definition of commitment is one of the main concepts determining the applicability of the credit risk framework to OBS items and was discussed at the Basel table also in the context of consistency between the SA and the IRB approach.
67. Commitments are explicitly defined in paragraph 78 of the CR-SA text in the final Basel III framework to mean ‘any contractual arrangement that has been offered by the bank and accepted by the client to extend credit, purchase assets or issue credit substitutes. It includes any such arrangement that can be unconditionally cancelled by the bank at any time without prior notice to the obligor. It also includes any such arrangement that can be cancelled by the bank if the obligor fails to meet conditions set out in the facility documentation, including conditions that must be met by the obligor prior to any initial or subsequent drawdown under the arrangement’. This definition is new compared to the Basel II framework, and it now explicitly includes unconditionally cancellable commitments (UCCs). However, footnote 53 of the final Basel III framework allows national discretion to be applied when exempting specific arrangements from the definition of commitments. This discretion is limited to certain arrangements for corporates and SMEs, in which case a number of conditions have to be met.
68. As the current regulatory framework does not include a definition of commitment, the inclusion of the final Basel III definition would represent an element of clarification of the

scope of OBS items. Moreover, the exemptions allowed through the implementation of footnote 53 in the final Basel III text for CR-SA are in line with the conditions mentioned in EBA Q&A 2017/3246<sup>15</sup> regarding the treatment of uncommitted lines. This Q&A states that, when the conditions are fulfilled, this uncommitted line does not constitute an OBS exposure and therefore is not included in Annex I.

69. The EBA asked in the qualitative survey circulated to banks on the occasion of the CfA about the perceived impact of implementing the final Basel III definition of commitment. Around 50% of the respondents expected a variation of less than 5% of their OBS exposures following the implementation of the new definition.
70. A discussion on the scope of the definition of commitment has highlighted the fact that, in the final Basel III framework, the definition includes only those contractual arrangements that have been offered by the institution and accepted by the client. This means that, in the absence of an acceptance by the client, the offer by the bank cannot be considered a commitment; nevertheless, it has to be considered as an OBS item according to the first sentence of paragraph 78 in the final Basel III framework for CR-SA and therefore also has to be multiplied by a credit conversion factor (CCF). Under the current regulatory framework, Annex I of the CRR also includes undrawn credit facilities, which also refer to offers that are binding for institutions but have not yet been accepted by the clients.
71. The definition of commitments refers not to an offered amount or limit, but more generally to the contractual arrangement accepted by the client. The extent of the commitment is determined by the total amount to which the institution is committed under the contractual arrangement. This could go beyond the advised limit, for example where the contractual arrangement explicitly permits overdrafts and specifies the interest rate for such overdrafts but without quantifying the maximum possible overdraft. Such included overdraft facilities have been accepted by the client when accepting the offered contractual arrangement. The extent of a commitment should therefore be further specified, as already currently in the definition of CCF in Article 4(1)(56) CRR, as being determined by the advised limit, unless the unadvised limit is higher. This would also clarify that, despite the limited scope of commitments to offers accepted by the client, the reference point for IRB CCF estimates for such commitments remains unchanged.
72. Another aspect to take into consideration in the context of the definition of commitments is the consistency of its application across the approaches. In the part of the final Basel III framework dedicated to the IRB approach it is clearly required that the definition of commitment as specified in the SA applies to the F-IRB approach. However, the text is not explicit on whether the same definition of commitment applies also to the A-IRB approach and the supervisory slotting criteria approach (SSCA) for SLEs. The EBA is of the view that, in order to avoid inconsistent application, when incorporating the final Basel III framework into

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<sup>15</sup> [https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2017\\_3246](https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2017_3246)

EU legislation, it should be made clear that the same definition of commitments is applicable, regardless of the approach used for calculating the own funds requirements.

73. Moreover, the notion of commitment directly affects the scope of modelling of the CCF;<sup>16</sup> it is therefore acknowledged that the change of definition proposed under the SA indirectly reduces the scope of exposures for which modelling of the CCF is allowed. However, the EBA believes a deviation from the final Basel III framework is not needed on this aspect, as it would imply further complexity in the text, for a very limited expected impact in practice (as discussed in section 4.2.5, the final Basel III framework already greatly reduces the scope of modelling of the CCF).

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<sup>16</sup> Paragraph 125 of the revised Basel III framework states that 'Institutions must use their own estimates of EAD for undrawn revolving commitments'.

## 3. The standardised approach

### 3.1 Due diligence and use of ratings

74. The Basel III SA puts increased emphasis on the due diligence requirements at the time of loan origination, but also as part of the ongoing monitoring of loans. Furthermore, given the global efforts to avoid overreliance on external ratings, the Basel Committee introduces two approaches: 1) external credit risk assessment (ECRA) and 2) standardised credit risk assessment (SCRA). This section evaluates these two elements.

#### 3.1.1 Enhanced due diligence requirements

##### **Recommendation CR-SA 1: enhanced due diligence requirements**

The EBA considers that the language in paragraph 4 of the final Basel III text for CR-SA should be included in the level 1 text. Moreover, a mandate should be granted to the EBA in order to specify a proportionate methodology for institutions' assessment of whether the RWs applied are appropriate and prudent.

75. The due diligence requirements in the final Basel III text, in line with requirements in Basel II, ask, in paragraph 4 of the CR-SA section, for 'due diligence to ensure that they [i.e. institutions] have an adequate understanding, at origination and thereafter on a regular basis (at least annually), of the risk profile and characteristics of their [i.e. institutions'] counterparties'. In addition, it is required that institutions 'take reasonable and adequate steps to assess the operating and financial performance levels and trends through internal credit analysis and/or other analytics outsourced to a third party, as appropriate for each counterparty'. Moreover, 'institutions must be able to access information about their counterparties on a regular basis to complete due diligence analyses'. In other words, beyond the case where external credit ratings are used for exposures to sovereigns and PSEs, institutions are required to carry out an internal analysis of whether the regulatory RWs used for the different exposure classes are appropriate and prudent.
76. With regard to the European framework, although CRD IV does provide some guidance in Article 79, this is limited to due diligence in relation to risk management requirements:

Competent authorities shall ensure that:

- a) *credit-granting is based on sound and well-defined criteria and that the process for approving, amending, renewing, and re-financing credits is clearly established;*
- b) *institutions have internal methodologies that enable them to assess the credit risk of exposures to individual obligors, securities or securitisation positions and credit risk at the portfolio level. In particular, internal methodologies shall not rely solely or mechanistically*

*on external credit ratings. Where own funds requirements are based on a rating by an External Credit Assessment Institution (ECAI) or based on the fact that an exposure is unrated, this shall not exempt institutions from additionally considering other relevant information for assessing their allocation of internal capital;*

*c) the ongoing administration and monitoring of the various credit risk-bearing portfolios and exposures of institutions, including for identifying and managing problem credits and for making adequate value adjustments and provisions, is operated through effective systems;*

*d) diversification of credit portfolios is adequate given an institution's target markets and overall credit strategy.*

77. The level 1 text should be amended to include the language in paragraph 4 of the final Basel III text for CR-SA. This would require institutions to design a rigorous internal process for challenging the credit assessments provided by ECAIs. However, it would hardly be proportionate to require SA institutions to put in place internal models for analysing whether the RWs are appropriate and prudent for a given exposure or whether the rating provided by an ECAI is coherent with the actual risk posed by a counterparty. Further detailed guidance on what institutions are actually required to do would be necessary, but providing said guidance was not feasible to develop within the timeline for this report.
78. Therefore, the EBA considers a mandate for a level 2 regulatory product necessary in order to specify the methodology for institutions' assessment of whether the RWs applied are appropriate and prudent. In addition, the EBA is aware of the need to provide regulatory technical input that is also proportionate to the level of sophistication and risk profile of different institutions.

### 3.1.2 Use of the external ratings approach

#### Recommendation CR-SA 2: use of the external ratings approach

The EBA recommends continued implementation of the external ratings approach, given:

- the established methodological and regulatory frameworks for the European system of credit rating agencies (CRAs);
- the lack of European evidence of systematic deficiencies of rating methodologies;
- the established process of continuous monitoring of the adequacy of the credit ratings issued by CRAs for regulatory purposes;
- institutions' significant investments in infrastructures incorporating external credit ratings.

79. The final Basel III text for CR-SA formalises two different approaches for the treatment of exposures to institutions, covered bonds and corporates (including specialised lending): i) the ECRA – the approach currently used in the EU; and ii) the SCRA for CR-SA. In the EU, the use

of external credit ratings is a current and widespread practice in the majority of institutions. Although ECAIs may have played a prominent role in the crisis by underestimating the risks associated with certain products and entities, steps have been taken in the EU with regard to the set-up of regulatory and supervisory frameworks that brought clarity and transparency to the functioning of ECAIs and their methodologies for providing credit ratings:

- a) Credit Rating Agencies (CRA) Regulation – Regulation (EU) No 462/2013 of the European Parliament and of the Council of 21 May 2013 amending Regulation (EC) No 1060/2009 on credit rating agencies;<sup>17</sup>
  - b) an exhaustive list of registered and authorised CRAs in the EU at any point in time;<sup>18</sup>
  - c) mapping of CRAs’ credit assessments to the credit quality steps (CQSs) provided in the CRR – Commission Implementing Regulation (EU) No 2016/1799 of 7 October 2016 laying down implementing technical standards with regard to the mapping of credit assessments of external credit assessment institutions for credit risk in accordance with Article 136(1) and 136(3) of Regulation (EU) No 575/2013 of the European Parliament and of the Council.<sup>19</sup>
80. Overall, the improvements brought to the methodological and regulatory sides of the ecosystem of CRAs have helped to build a reliable framework for ECRA in Europe. Moreover, there is no European evidence about systematic deficiencies of rating methodologies for sovereigns, institutions and corporates and there is a continuous monitoring of the adequacy of the credit ratings issued by CRAs for regulatory purposes (see EBA ongoing work on monitoring of adequacy in the ECAI-specific section<sup>20</sup>).
81. Given the extensive attention CRAs have received from regulators over the past years as well as the fact that institutions have already invested significantly in infrastructures for incorporating external credit ratings into their day-to-day practices, the EBA believes that there is enough evidence, from a prudential perspective, to continue the use of ECRA.

## 3.2 Exposures to non-central government public sector entities (PSEs)

### 3.2.1 Definition of PSEs

#### Recommendation CR-SA 3: definition of PSEs

<sup>17</sup> <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:146:0001:0033:EN:PDF>

<sup>18</sup> <https://www.esma.europa.eu/supervision/credit-rating-agencies/risk>

<sup>19</sup> <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32016R1799>

<sup>20</sup> <https://eba.europa.eu/regulation-and-policy/external-credit-assessment-institutions-ecai>

It is the EBA's view that amendments need to be brought to the definition of PSEs in Article 4(1)(8) of the CRR in order to bring further clarity to the identification process for PSEs across jurisdictions.

82. The EBA has, throughout the years, dealt with a number of Q&As concerning exposures to PSEs and a technical analysis has suggested that clarification of the definition of PSE provided in Article 4(1)(8)<sup>21</sup> of the CRR would elucidate the features that enable an entity to be classified as a PSE. While the proposed amendments would not bring material changes in the treatment of PSEs, the clarification should contribute to the harmonisation of the treatment of PSEs across the EU.
83. As a result, a streamlined version of the definition in Article 4(1)(8) of the CRR is proposed as follows:

'public sector entity' means (i) a non-commercial administrative body responsible to central governments, regional governments or local authorities, or to authorities that exercise the same responsibilities as regional governments and local authorities, or (ii) a non-commercial undertaking that is owned by or set up and sponsored by central governments, regional governments or local authorities and that has explicit guarantee arrangements. **This second type of public sector entity** may include self-administered bodies governed by law that are under public supervision;

### 3.2.2 Reciprocity of treatment of PSEs in Article 116(4) of the CRR

#### Recommendation CR-SA 4: reciprocity of treatment of PSEs

It is the EBA's opinion that the publication of a list of PSEs that are subject to preferential treatment in line with Article 116(4) will contribute to increased transparency, which will in turn enable the reciprocity of treatment regarding these specific PSEs.

84. The EBA considers that an equivalent treatment of exposures to PSEs in different national jurisdictions requires transparency regarding the PSEs that can be treated in a similar way to the central government, regional government or local authority in whose jurisdiction they are established. Since, according to Article 116(4) of the CRR, the competent authority of the jurisdiction in which the respective PSE is established has to make an assessment about the appropriate treatment of the PSE, it was proposed to introduce a requirement for the EBA to maintain a publicly available database on all PSEs that qualify for the preferential treatment, similar to the requirement in Article 115(2) of the CRR. More specifically, this list should include the name of each individual entity/group of similar entities qualifying for preferential treatment in line with provisions in Article 116(4) of the CRR.

<sup>21</sup> 'Public sector entity' means a non-commercial administrative body responsible to central governments, regional governments or local authorities, or to authorities that exercise the same responsibilities as regional governments and local authorities, or a non-commercial undertaking that is owned by or set up and sponsored by central governments, regional governments or local authorities, and that has explicit guarantee arrangements, and may include self-administered bodies governed by law that are under public supervision.

85. The proposed addition to Article 116(4) of the CRR should be the following, in line with the similar requirement for the EBA in Article 115(2) of the CRR:

EBA shall maintain a publicly available database of all public-sector entities within the Union which competent authorities in the jurisdiction where the public-sector entity is established consider as having no difference in risk as exposures to the central government, regional government or local authority in whose jurisdiction the public-sector entity is established.

### 3.3 Exposures to banks

#### 3.3.1 Treatment of rated exposures to banks

##### **Recommendation CR-SA 5: treatment of rated exposures to banks**

It is the EBA's opinion that, given the significant steps taken towards improving the reliability of the external credit ratings methodology and associated regulatory framework, as well as the lack of systematic deficiencies caused by this approach with respect to exposures to banks, the external credit rating approach should be maintained for rated exposures to banks.

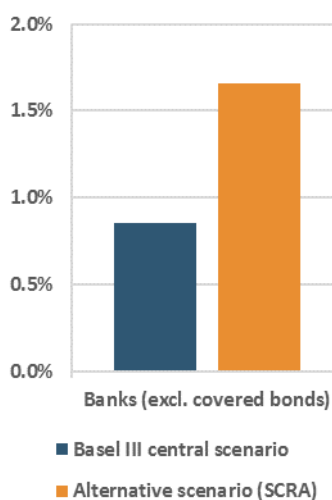
86. The current CRR framework provides, under the SA, a hierarchy for computing own funds requirements for credit risk for exposures to institutions:
- a) where a credit assessment by a nominated ECAI is available, the risk weight shall be determined by the corresponding credit quality step;
  - b) where a credit assessment by a nominated ECAI is not available, the risk weight shall be assigned according to the credit quality step of the central government of the jurisdiction in which the institution is incorporated (one category less favourable than the one assigned to exposures to sovereign);
  - c) for exposures to unrated institutions incorporated in countries where the central government is also unrated, the risk weight shall be 100%.
87. The final Basel III framework for CR SA, while also proposing a similar approach based on the ECRA approach, also provides an alternative by introducing the SCRA approach. The SCRA approach requires the segmentation of the portfolio of exposures to institutions into grades based on a series of quantitative and qualitative criteria. Moreover, with the intent to reduce over-reliance and mechanistic application of external credit ratings, the final Basel III text re-emphasises the due diligence requirements already introduced with the revision of paragraph 733 in the 2011 Basel III framework. This ensures that the own funds requirements appropriately and conservatively reflect the creditworthiness of the institutions' counterparties regardless of whether the exposures are externally rated or not. Finally, with the objective of breaking the link between institutions and their sovereigns, the revised SA requires both the exclusion of the government support from the institutions'



external ratings used for regulatory capital purposes and the elimination of the option of risk weighting bank exposures based on their sovereigns' ratings from the current framework.

88. Building on the arguments presented in section 3.1.2 above, the recommended way forward is to maintain the implementation of the ECRA approach, keeping in mind that, for unrated exposures, the only available treatment is, in any case, the SCRA approach. In addition, the implementation of the ECRA approach would be less disruptive and results in more granular RWs than the SCRA approach, which, in turn, increases risk sensitivity. Finally, this conclusion is also supported by the difference in capital impact of the two approaches, as presented in Figure 3.

Figure 3: Percentage change in exposures to banks SA RWA (relative to total current SA RWA), ECRA versus SCRA



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 67 banks.

### 3.3.2 Assumption of implicit government support

#### Recommendation CR-SA 6: assumption of government implicit support

It is the EBA's opinion that government support assumptions should be excluded from institutions' credit ratings and that competent authorities should allow institutions to use external ratings which incorporate assumptions of implicit government support for up to a period of five years from the date of the implementation of the revised European regulatory framework.

89. The final Basel III framework requires that the credit assessments to be used within the SA for credit risk must not incorporate assumptions of implicit government support, unless the rating refers to a public bank owned by its government (paragraph 18 of the final Basel III text for CR-SA). Implicit government support is defined as the notion that the government

would act to prevent bank creditors from incurring losses in the event of a bank default or bank distress.

90. In order to study the feasibility of this requirement, the EBA, in November 2018, circulated a qualitative questionnaire to all ECAs in the EU. The response rate was relatively high, at 75%, which represented around 98% of market share.<sup>22</sup> Of the six ECAs that did not reply to the questionnaire, four do not issue bank credit assessments and are therefore outside the scope of this exercise. Overall, the qualitative survey can be considered as representative of the current population of ECAs. Most of the surveyed ECAs with a bank credit rating methodology would not face implementation issues with respect to the new provision in the Basel III framework, as around 70% of the ECAs in the sample currently issue bank credit assessments without implicit government support assumptions. This covers both ECAs that do not take into account implicit government support at all (around 30%) and ECAs that simultaneously issue bank credit assessments with and without government support assumptions (nearly 40%).
91. Implementation risks seem overall limited for the five ECAs that currently exclusively issue bank credit assessments including implicit government support assumptions. Three of these ECAs report that it would be feasible for them to start producing credit assessments without implicit government support. Another ECA did not comment on the feasibility of adjusting to the Basel III requirement but noted that it produces de facto bank credit assessments without government support as an input into its analytical process, which suggests that implementation should be feasible given that the procedures and processes are already in place. Finally, one ECA considers it would be difficult to adjust its approach given the investment needed with regard to procedures, IT and approval of mappings for the new credit assessment.
92. Other regulatory measures than the elimination of government support assumption in ECAs' bank credit assessments taken in the aftermath of the crisis also help mitigate the interlinkage between institutions and sovereign, in particular the introduction of resolution regimes. The survey shows that the impact of implicit government support tends to vary by jurisdiction, with no or minimum uplift in those jurisdictions with resolution regimes in place, such as the EU. The regulatory and legal frameworks in place are indeed mentioned by ECAs as main drivers of implicit government support assumptions. Regarding bank specificities, the systemic importance of the bank is also a factor reported by ECAs. The overall impact of including implicit government support assumptions in credit assessments of banks across the sample of surveyed ECAs is limited, currently reported at slightly below one notch uplift for the average counterparty.

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<sup>22</sup> Market share calculated with reference to annual turnover generated from credit rating activities and ancillary services, according to the European Securities and Markets Authority's Market Share Calculation Report, 30 November 2018, ESMA 33-9-281: <https://www.esma.europa.eu/press-news/esma-news/esma-reports-annual-market-share-credit-rating-agencies>

93. A number of ECAs indicated that removing government support assumptions may potentially reduce the risk sensitivity of the framework in jurisdictions with no resolution regimes in place, as the likelihood of government support is higher. Another potential negative effect reported is that it could create confusion in the market to present two different credit assessments addressed to the same institution, one with and one without implicit government support, although the survey reveals that around 40% of ECAs issuing bank credit assessments already do so without any negative implication reported.
94. The five years implementation window, during which supervisors should continue to allow institutions to use external ratings which incorporate assumptions of implicit government support, should further alleviate implementation risks, both from the methodological and IT points of view but also from the regulatory side. In particular, it would enable timely recognition of the newly produced credit assessments with respect to the ECAs mapping under the CRR, which is a process mandated to the Joint Committee of the European Supervisory Authorities and therefore subject to an extended joint approval process.

### 3.3.3 Definition of grades under the SCRA approach

#### Recommendation CR-SA 7: definition of grades under the SCRA approach

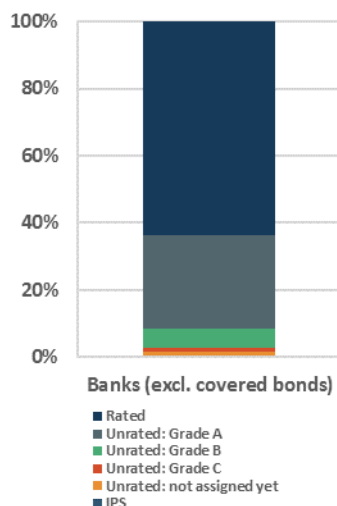
It is the EBA's view that, with regard to the criteria for classification of unrated exposures to bank into grades under the SCRA approach, it should be clarified that:

- a) the most recent information available to the lending bank should be used;
- b) regulatory minimum requirements under Pillar 1 higher than the Basel minima should be taken into account, where implemented in the jurisdiction of the counterparty bank, including any applicable buffers;
- c) where binding minimum own funds requirements under Pillar 2 exist in the jurisdiction of the counterparty bank, these should also be taken into account.

95. The implementation of the SCRA approach results in a segmentation of the portfolio of exposures to institutions to different grades according to quantitative and qualitative criteria (see also Figure 4). While it was agreed that the information required is sufficient for an accurate classification into grades, it was highlighted that there is a need for clarification with regard to the publicly available information (i.e. 'a counterparty bank must meet or exceed the published minimum regulatory requirements and buffers established by its national supervisor'):
- a) the most recent information available to the lending bank should be used;
  - b) regulatory minimum requirements under Pillar 1 higher than the Basel minima should be taken into account, where implemented in the jurisdiction of the counterparty bank, including any applicable buffers;

- c) where binding minimum own funds requirements under Pillar 2 exist in the jurisdiction of the counterparty bank, these should also be taken into account (in the EU, the recent revisions to the CRR provide for a harmonised disclosure framework for Pillar 2 requirements, which should help alleviate concerns regarding an unlevel playing field across Member States).

Figure 4: Breakdown of exposures to banks (excluding covered bonds) by rating status (percentage of exposures to banks excluding covered bonds)



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 67 banks.

### 3.3.4 Treatment of exposures to banks where the banks belong to the same institutional protection scheme (IPS)

#### Recommendation CR-SA 8: exposures to banks where banks belong to the same IPS

The EBA recommends the alignment of the treatment of exposures to banks belonging to the same institutional protection scheme with the final Basel III framework, which is also in line with the current CRR provisions in Article 113(7).

96. Footnote 14 in the final Basel III text allows a preferential treatment for exposures to institutions belonging to the same institutional protection scheme (such as cooperative or savings institutions), where institutions can apply a RW lower than that indicated by ECRA or SCRA to their intra-group or in-network exposures, provided they are members of the same effective institutional protection scheme. This sub-class of exposures to banks represents around 27% of the total exposures to banks (see Table 6) and the final Basel III treatment is in line with the current treatment in Article 113(7) of the CRR.

Table 6: Exposure class banks : exposure amounts/unrated/IPS (as a percentage of total banks' exposure amounts)

Institutions	IPS	Rated exposures	Unrated exposures	Total Banks
All	27.04%	50.30%	22.66%	100%
Large	27.22%	49.26%	23.52%	100%
of which: G-SII	0.00%	77.95%	22.05%	100%
of which: O-SII	38.11%	38.41%	23.48%	100%
Medium	23.18%	62.18%	14.65%	100%
Small	43.11%	50.08%	6.81%	100%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks: Large (98), of which G-SIIs (7), of which O-SIIs (61); Medium (59); Small (24).

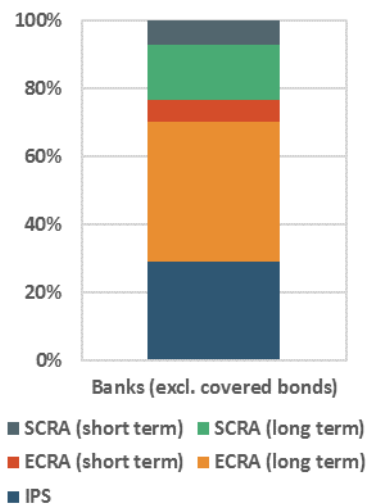
### 3.3.5 Identification of short-term exposures to banks

#### Recommendation CR-SA 9: identification of short-term exposures to banks

In the EBA's opinion, the regulatory framework should be aligned with the final Basel III framework and the original maturity should be used for the identification of the short-term exposures to banks.

97. The final Basel SA framework uses the original maturity to apply a preferential RW for short-term interbank exposures, so that all bank exposures with an original maturity of three months or less can benefit from a preferential RW. This treatment was also included in the Basel II text, with the intention not to hinder the exchange of short-term liquidity between institutions by imposing restrictive RWs on such interbank exposures, but it was not implemented under the current CRR.
98. For identifying the short-term exposures to institutions, Articles 119(2) and 120(2) of the CRR use the residual maturity of exposures, so that all types of interbank exposures, regardless of their original maturity, can benefit from a lower RW in the last three months of the life of the exposure. This deviation from Basel could have been introduced to reduce the RW in the last months of the life of the exposures – when the uncertainty of the lending and the risk of default is lower – or to further prevent any negative impact on market liquidity in interbank markets.
99. Based on data provided by QIS participants, short-term exposures to banks account for around 15% of the exposure amounts in this particular asset class (see Figure 5), when the original maturity is used. The impact on own funds requirements of the switch from residual to original maturity is of roughly 0.17% of total SA RWA (see Table 7).

Figure 5: Breakdown of SA exposure value to banks (excluding covered bonds), by sub-class and maturity (in percentages)



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 181 banks.

Table 7: Percentage change in SA of exposure to banks (relative to total current SA RWA), by sub-class and maturity

IPS	ECRA (long term)	ECRA (short term)	SCRA (long term)	SCRA (short term)	Total bank exposure
0.0	0.0	0.0	0.8	0.2	0.9

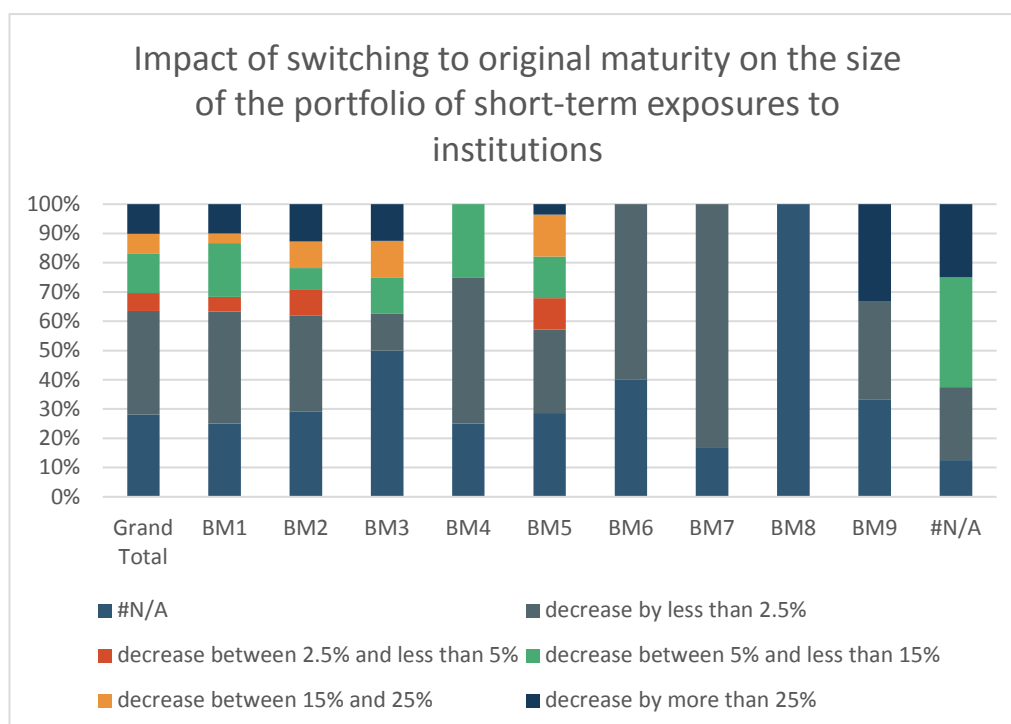
Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 181 banks.

100. The EBA studied the impact of aligning with the final Basel III provisions in the qualitative questionnaire circulated to institutions participating in the CfA QIS exercise. More precisely, the questions asked were the following:
- What maturity do you currently use for identifying short-term exposures to institutions?, and
  - If you currently use the residual maturity to identify short-term exposures to institutions, what impact do you consider it would have on the size of your short-term exposures portfolio switching to the original maturity criterion?
101. The response rate to the first question in the qualitative survey was 92%. Of those who provided a response, 84% currently use the residual maturity in line with the CRR requirements, which was to be expected. This outcome does not depend on the size of the institutions and only marginally on the business model.
102. With regard to the question about the impact of aligning with Basel on this issue, the response rate was 78%. Around 60% of respondents consider that the short-term portfolio

would decrease by less than 5%, while 24% of the sample consider that the short-term portfolio would decrease by more than 15%. The impact varies marginally as a function of the size of the institution: the proportion of small institutions expecting a small variation in the size of the short-term portfolio (69%) was higher than the proportion of large institutions expecting a small variation (51%). However, the business model<sup>23</sup> has a more direct influence on the impact expected by institutions. These results are also shown in Figure 6, where the highest impacts on the size of short-term portfolio are presented in the upper parts of the bars, in dark blue and orange.

Figure 6: Impact of switching to original maturity



Source: CfA qualitative questionnaire.

Sample size: 178 institutions.

103. Although both approaches to the identification of short-term exposures to banks rely on relevant arguments, and considering the limited impact that the switch from residual maturity to original maturity is expected to have (based on responses from participants to the CfA qualitative survey), the EBA considers that there are no significant issues with the alignment with the final Basel III framework.

<sup>23</sup> BM1 – cross-border universal institutions; BM2 – local universal institutions; BM3 – automotive, consumer credit institutions; BM4 – building societies; BM5 – locally active savings and loan associations/cooperative institutions; BM6 – private institutions; BM7 – custody institutions; BM8 – central counterparties (CCPs); BM9 – merchant institutions; BM10 – leasing and factoring institutions; BM11 – public development institutions; BM12 – mortgage institutions including pass-through financing mortgage institutions; BM13 – other specialised institutions.

## 3.4 Exposures to securities firms and other financial institutions

### 3.4.1 Reciprocity of treatment for securities firms and other financial institutions in third country jurisdictions

#### Recommendation CR-SA 10: reciprocity of treatment for securities firms and other financial institutions in third country jurisdictions

The EBA recommends that Article 107(3) of the CRR be amended in order to further align the scope of application of the reciprocity treatment to also include financial institutions, in line with the final Basel III framework for exposures to securities firms and other financial institutions. However, this should be limited to cases where those financial institutions are subject to prudential and supervisory requirements that are at least equivalent to those in the EU.

104. Paragraph 37 of the final Basel III text for CR-SA states that ‘Where the regulatory and supervisory framework governing securities firms and other financial institutions is determined to be equivalent to that applied to institutions in a jurisdiction, other national supervisors may allow their institutions to RW such exposures to securities firms and other financial institutions as exposures to institutions’. Article 107(3) of the CRR addresses a similar issue. More specifically, it states that ‘exposures to third country investment firms and exposures to third country credit institutions and exposures to third country clearing houses and exchanges shall be treated as exposures to an institution only if the third country applies prudential and supervisory requirements to that entity that are at least equivalent to those applied in the Union’.
105. The treatment proposed by the final Basel III framework is similar to the current CRR provisions, although in the CRR only investment firms are considered (this is in line with the Basel II text). In order to align the two frameworks, it would be necessary to amend Article 107(3) to also include financial institutions. However, it is important to provide clarity in the level 1 text with regard to which financial institutions should be included, as there is currently no harmonised regime for financial institutions in the EU. Hence, the level 1 text should specify that those third country financial institutions considered for equivalence should be only those which have a prudential treatment equivalent to that of institutions in that jurisdiction.
106. Consequently, the following amendment to Article 107(3) of the CRR is proposed:
- For the purposes of this Regulation, exposures to third country investment firms and exposures to third country credit institutions and exposures to third country clearing houses and exchanges, **as well as exposures to third country financial institutions authorised and supervised by third country authorities and subject to prudential requirements comparable to those applied to institutions in terms of robustness**, shall be treated as exposures to an institution only if the third country applies prudential and supervisory requirements to that entity that are at least equivalent to those applied in the Union.



## 3.5 Exposures to corporates

### 3.5.1 Use of the external credit ratings assessment (ECRA) approach

#### Recommendation CR-SA 11: use of the ECRA approach for exposures to corporates

It is the EBA's opinion that, given the significant steps taken towards improving the reliability of the external credit ratings methodology and associated regulatory framework, as well as the lack of systematic deficiencies caused by this approach with respect to exposures to corporates, the external credit rating assessment approach should be maintained for exposures to corporates.

107. According to the final Basel III framework for CR-SA, the treatment of corporate exposures depends on whether or not the use of external ratings for regulatory purposes is allowed in a specific jurisdiction:
- a) In jurisdictions that do not allow the use of external ratings, institutions will assign a 100% RW to all corporate exposures, except for 'investment grade' corporates (RW of 65%) and corporate SMEs (RW of 85%). The definition provided for 'investment grade' is broadly equivalent to exposures rated BBB or higher and limited to entities which have securities outstanding on a recognised securities exchange.
  - b) In jurisdictions allowing the use of external ratings for regulatory purposes, institutions assign a base RW varying between 20% and 150% determined by the external rating provided by an ECAI. To reduce the mechanistic reliance on ratings, however, institutions must perform due diligence requirements. If the internal due diligence shows that the risks are underestimated, institutions must assign a higher RW to reflect the creditworthiness of the exposure. Unrated corporates receive a 100% RW (except for unrated corporate SMEs, whose RW is 85%).
108. In line with the current CRR provisions, exposures to corporates are treated depending on whether external rating exists or not. Exposures which benefit from an external credit assessment are assigned a RW varying between 20% and 150%. Exposures without an available external credit assessment are assigned a 100% RW or the RW of exposures to the central government of the jurisdiction under which the entity is incorporated, whichever is the highest.
109. According to the information provided by the participants of the CfA QIS, the shares of rated and unrated exposures to corporate SMEs and non-SMEs are in line with the numbers provided in Table 8 and Table 9 below.

Table 8: Exposure class corporates (excluding SMEs): exposure amounts by rated/unrated

Institutions	Rated exposures	Unrated exposures	Total Corporate (ex. SME)
All	25.15%	74.85%	100.00%
Large	26.13%	73.87%	100.00%

Institutions	Rated exposures	Unrated exposures	Total Corporate (ex. SME)
of which: G-SII	33.49%	66.51%	100.00%
of which: O-SII	14.59%	85.41%	100.00%
Medium	15.40%	84.60%	100.00%
Small	49.70%	50.30%	100.00%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

Table 9: Exposure class corporate SMEs: exposure amounts by rated/unrated

Institutions	Rated exposures	Unrated exposures	Total Corporate SME
All	20.90%	71.04%	100.00%
Large	22.48%	69.77%	100.00%
of which: G-SII	30.83%	52.53%	100.00%
of which: O-SII	4.29%	91.28%	100.00%
Medium	6.12%	82.16%	100.00%
Small	1.57%	98.43%	100.00%

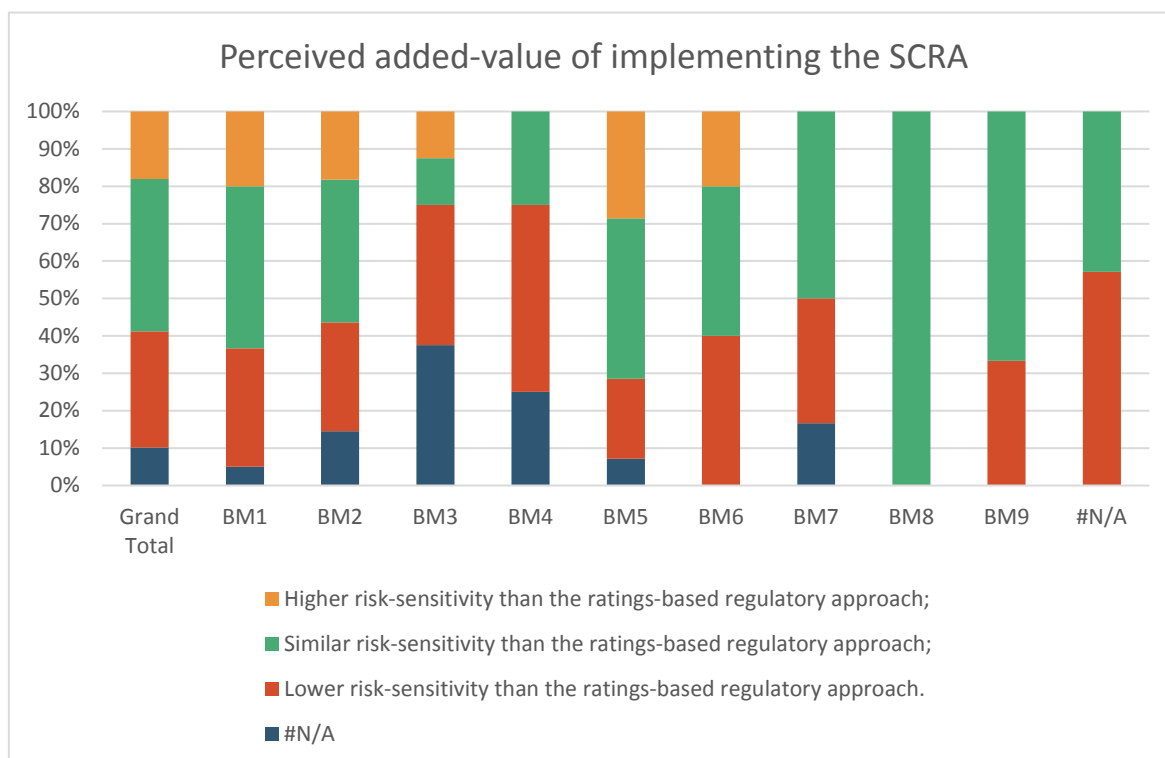
Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

110. To add to the multitude of arguments presented by the EBA in section 2.2.1 supporting the continued use of external credit ratings, the alternatives to the external credit rating approach to be used for exposures to corporates were studied using the qualitative questionnaire circulated to institutions participating in the CfA QIS exercise. More precisely, the question asked was the following:
- a) On the basis of actual corporate portfolios, do you believe that the implementation of the non-ratings based regulatory approach (see paragraphs 41 to 43 in the final Basel text for CR-SA) would result in [Higher/Similar/Lower] risk sensitivity than the ratings-based regulatory approach?
111. There was a response rate of 90% to this question. Of those who provided a response, 80% consider that the implementation of SCRA would result in a risk sensitivity similar to or lower than that of the continued use of the ECRA. This result varies marginally as a function of the size of the institution, with 71% for small institutions, compared with 83% of medium-sized institutions, responding in this way. These results are also robust with regards to the classification into business models.<sup>24</sup> Results by business model are also shown in Figure 7, which shows the expected impact on risk sensitivity of using the SCRA.

<sup>24</sup> BM1 – cross-border universal institutions; BM2 – local universal institutions; BM3 – automotive, consumer credit institutions; BM4 – building societies; BM5 – locally active savings and loan associations/cooperative institutions; BM6 – private institutions; BM7 – custody institutions; BM8 – CCPs; BM9 – merchant institutions; BM10 – leasing and factoring institutions; BM11 – public development institutions; BM12 – mortgage institutions including pass-through financing mortgage institutions; BM13 – other specialised institutions.

Figure 7: Perceived added value of implementing the SCRA

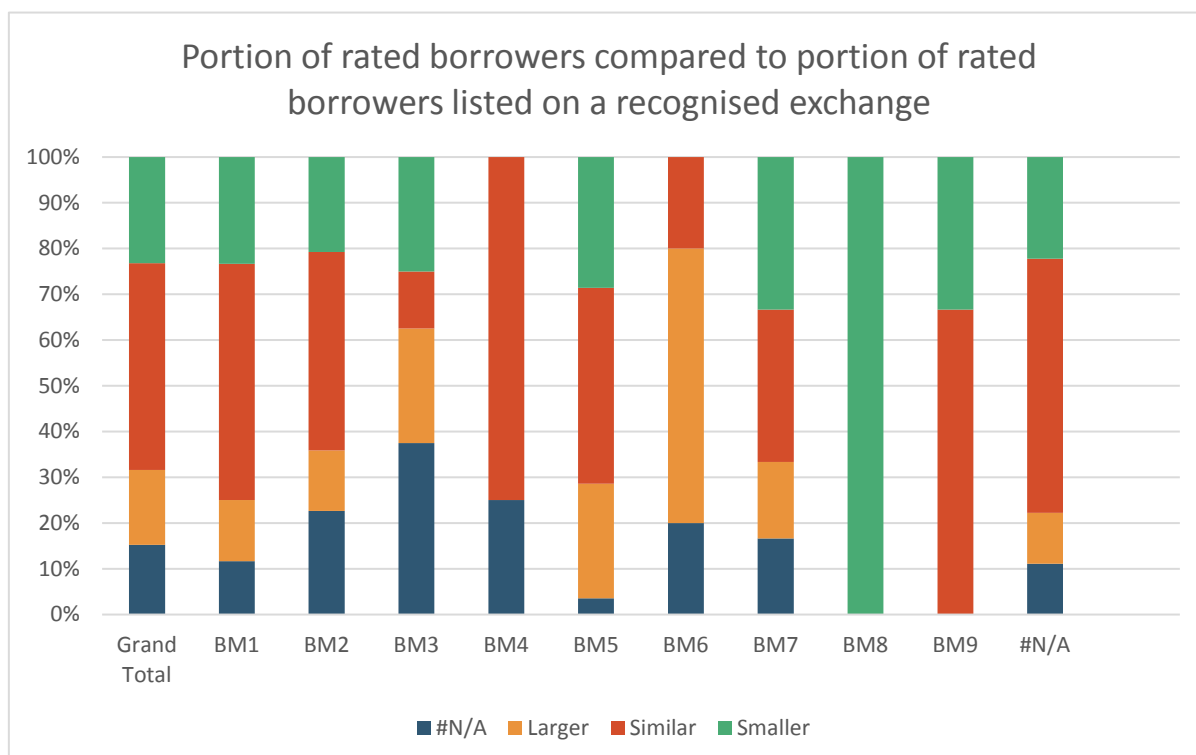


Source: CfA qualitative questionnaire.

Sample size: 177 institutions.

112. Furthermore, institutions were asked in the qualitative questionnaire whether, based on their actual corporate lending portfolio, they expect the portion of rated borrowers (when compared with the portion of borrowers – or their parent companies – listed on a recognised exchange) to be larger, similar or smaller. The EBA wanted to explore this issue as, in the proposed treatment of corporate exposures in jurisdictions that do not allow the use of external ratings for regulatory purposes (see paragraphs 41 to 43 in the final Basel text for the SA), corporate counterparties – or their parent companies – must have securities listed on a recognised exchange in order to be eligible for the ‘investment grade’ classification.
113. There was an 85% response rate to this question, with 73% of respondents reporting that the proportion of rated borrowers currently in their corporate lending portfolio is larger than or similar to the proportion of borrowers listed on a recognised exchange. This result is robust with regard to the results by size of the institution, but responses vary significantly according to the classification by business models, as presented in Figure 8.

Figure 8: Share of rated borrowers listed on a recognised exchange



Source: CfA qualitative questionnaire.

Sample size: 177 institutions.

114. The qualitative questionnaire also included a question on the availability of information that serves to assign counterparties to the 'investment grade' category. This question is relevant because the supervisory credit risk assessment is based on an 'investment grade' determination which complements and extends the due diligence requirements. 'Investment grade' means that the entity to which a bank is exposed has adequate capacity to meet financial commitments for the projected life of the asset or exposure. Such an entity should have adequate capacity to meet financial commitments if the risk of its default is low and the full and timely repayment of principal and interest is to be expected. Although the entity's repayment capacity may weaken during adverse economic or business conditions, it is expected to maintain its ability to meet its financial commitments. If the entity's repayment capacity is dependent on stable or favourable economic or business conditions, the exposure is considered to be non-investment grade. Institutions have to assess the counterparty's creditworthiness on their own, and each bank may have a specific definition of investment grade, which would increase RWA variability and make comparisons difficult.
115. During the QIS exercise, some institutions expressed the view that the definition of investment grade is very broad and leaves room for interpretation. This implies that institutions do not classify investment grade corporate exposure consistently. Some institutions were also of the opinion that the definition of investment grade is not particularly operational. The same feedback was received in the qualitative questionnaire. In response to the question asking whether institutions consider that the necessary information to assign

counterparties to ‘investment grade’ category is readily available to the institution, only 39% of respondents said that the information is readily available. This percentage dropped to 29% in the case of small institutions (compared with 44% for large institutions and 35% for medium-sized institutions). These results varied significantly across business models: 19% of locally active savings and loans associations/cooperative institutions (BM5) considering that information is readily available, but the figure increased to 50% in the case of building societies (BM4). Based on all the information analysed, it is clear that there are several issues concerning the definition of ‘investment grade’ that must be resolved, notably the clarification of the definition and guidance with regard to what is expected from institutions during the classification process, which effectively asks for the set-up of an internal rating system.

116. In addition, and in line with the conclusions presented above, based on the replies to the qualitative questionnaire section on the implementation of the final Basel III framework, 64% of respondents perceive the implementation of the CR-SA assuming that the use of external ratings for regulatory purposes is not allowed as challenging.
117. In the light of this outcome from the qualitative questionnaire, it is clear that the numbers provided in the CfA QIS need to be cautiously analysed, particularly as regards the ‘investment grade’ classification and the associated impact on SA RWA.

Figure 9: Breakdown of exposures to corporates (excluding SMEs) by rating status (percentage of exposures to corporates excluding SMEs)

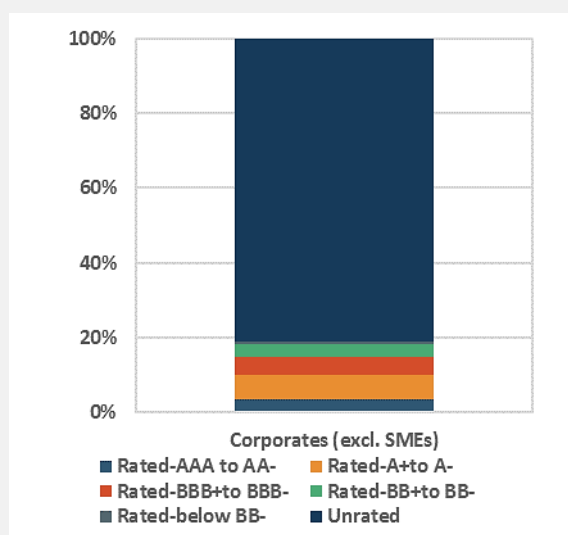
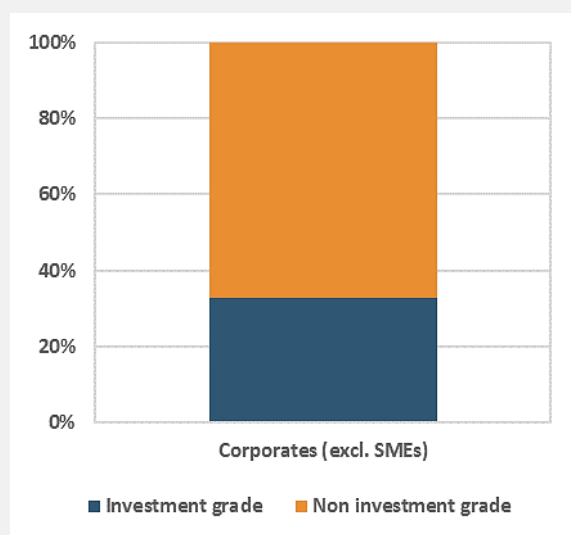


Figure 10: Breakdown of exposures to corporates (excluding SMEs) by grade (percentage of exposures to corporates excluding SMEs)



Sources: EBA 2018-Q2 QIS data and EBA calculations.

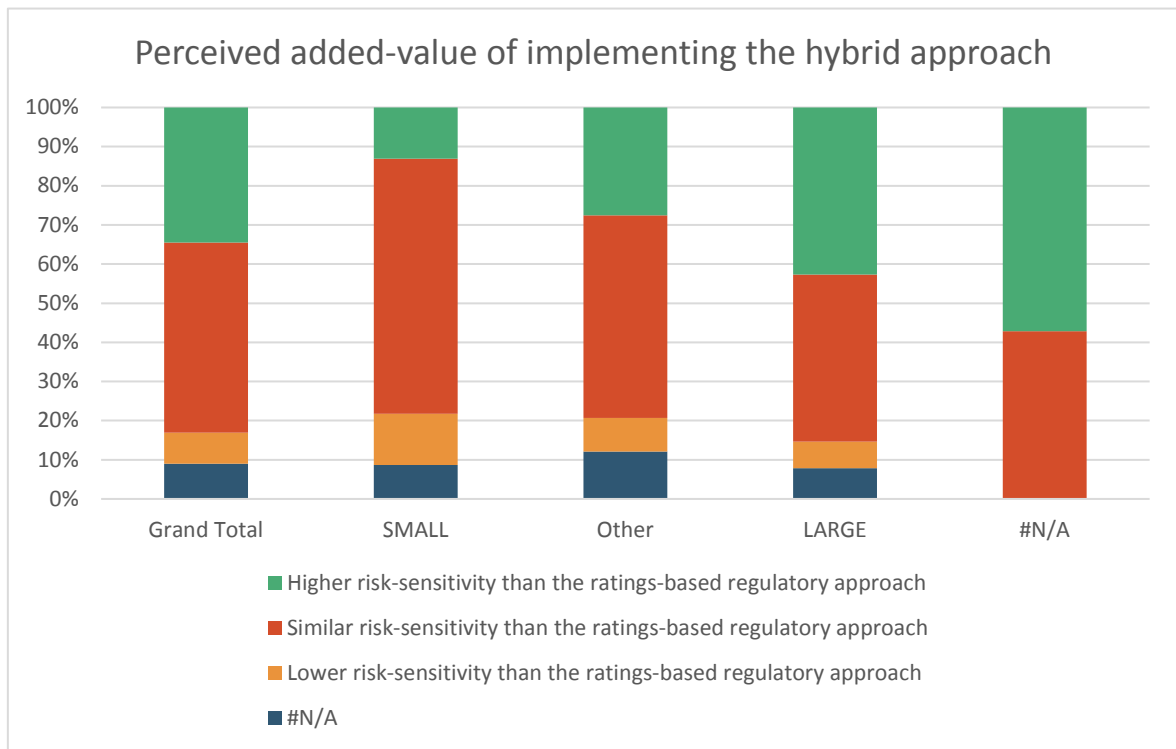
Notes: Based on a sample of 58 banks.

118. To add to the analysis, the EBA has assessed the rationale for the different calibrations proposed by the BCBS. It was pointed out that the ‘investment grade’ assessment was designed to also enable institutions in jurisdictions that do not allow the use of external

ratings (i.e. US institutions) to assign RWs of < 100% to entities that (typically) have an external rating. This should be achieved by requiring that the counterparty has securities outstanding on a recognized exchange, assuming that such entities will in most cases also be externally rated. In this sense, a hybrid approach would not be a significant improvement for unrated exposures as those exposures qualifying for a 65% RW would already have an external rating and those exposures that would not qualify (i.e. which are unrated and where the borrower does not have securities outstanding on a recognised exchange) would receive a 100% RW under both approaches anyway.

119. Despite the fact that the final Basel III framework clearly states that these two approaches (i.e. the external credit ratings-based approach and the approach where external credit ratings are not allowed) cannot be used in parallel, one alternative explored in the Commission's Call for Advice is the possibility of combining the use of external ratings for regulatory purposes for exposures to rated corporates and the application of a 65% RW for exposures to 'investment grade' unrated corporates.
120. Consequently, the EBA explored the impact of potentially implementing a hybrid approach as described above in the qualitative questionnaire circulated to institutions participating in the CfA QIS exercise. More precisely, the question asked was the following: 'On the basis of actual corporate portfolios, do you believe that the implementation of a combined approach (ratings-based for rated exposures and non-ratings based for unrated exposures) would result in [Higher/Similar/Lower] risk-sensitivity than the ratings-based regulatory approach?'.
121. There was a 91% response rate to this question. Only 38% of respondents consider that implementing a hybrid approach for exposures to unrated corporates would result in a higher risk sensitivity than the exclusive implementation of the ECRA approach. The results by size of the institution present a significant asymmetry in the responses, with large institutions considerably more likely to believe that this would be the case (46%, compared with 14% of small institutions) because large institutions can more easily identify 'investment grade' corporates as they already have in place internal rating systems (institutions reported in the qualitative questionnaire that the definition of investment grade was based on a proxy based on the internal PDs). The results are also present in Figure 11. These results also maintain the observed asymmetry when analysed by business models.

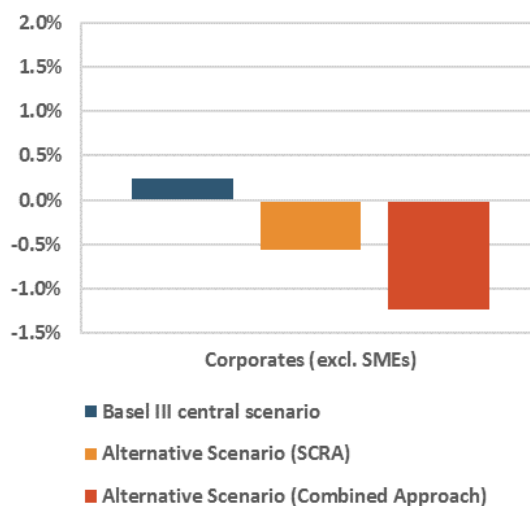
Figure 11: Perceived added value of implementing the hybrid approach



Source: CfA qualitative questionnaire.  
 Sample size: 177 institutions.

122. Based on this information, and in conjunction with the rationale for not relying on the ‘investment grade’ classification, the impact assessment information provided in the CfA QIS, and presented in Figure 12, should be analysed with caution.

Figure 12: Percentage change in exposures to corporate (excluding SMEs) SA RWA (relative to total current SA RWA), ECRA versus SCRA



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 58 banks.

123. Finally, during the technical discussion it was agreed that, in any case, the requirement to have securities listed on an exchange should not be removed because this would mean a significant deviation from the final Basel III framework and would result in the external ratings for regulatory purposes and SCRA for corporates being no longer comparable in terms of own funds requirements, which was the calibration target in Basel. Not only would this be problematic from a competition point of view (SMEs might be tempted to choose those banks that are more willing to classify them as ‘investment grade’), but it would effectively require setting up a whole new range of mechanisms to supervise and monitor banks’ ability to handle what would concretely be an IRB-like approach within the SA.

### 3.5.2 The final Basel III provisions for specialised lending

#### Recommendation CR-SA 12: The final Basel III provisions for specialised lending

The EBA recommends the implementation of the final Basel III provisions for specialised lending in the European regulatory framework.

124. Since the corporate exposure class was considered too heterogeneous, the final Basel III framework introduces additional granularity in order to reflect risk more accurately and improve consistency with the IRB approach. For this reason, but also because empirical evidence shows that specialised lending generally exhibits higher risk and losses than other types of corporate lending, the specialised lending category was introduced as a subset of the corporate exposure class, step which also enhances consistency with the IRB approach.



125. This step was taken despite the possibility that introducing these categories might result in a significant increase in the capital charge for exposures that may currently receive a lower RW under the unrated corporate treatment (especially for exposures in the pre-operational phase). This can be seen in the structure of the specialised lending exposure amounts (Table 10).

Table 10: Exposure class Specialised Lending: exposure by sub-exposure class

	Commodity finance	Object finance	Project finance	Rated exposures	Total specialised lending
<b>All banks</b>	<b>5.6%</b>	<b>9.3%</b>	<b>81.5%</b>	<b>3.6%</b>	<b>100.0%</b>
Large	6.0%	9.9%	80.2%	3.9%	100.0%
of which: G-SIIs	14.7%	1.6%	80.9%	2.8%	100.0%
of which: O-SIIs	0.0%	16.7%	79.0%	4.3%	100.0%
Medium	0.0%	2.1%	97.9%	0.0%	100.0%
Small	0.0%	0.0%	97.9%	2.1%	100.0%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

126. However, based on the impact assessment carried out as part of the CfA QIS, it appears that the impact of the newly introduced provisions on specialised lending in CR-SA is very limited, accounting for the limited amounts this specific type of transactions represent in the SA book (Table 11).

Table 11: Percentage change of SA RWA per exposure sub-class – Specialised lending (relative to total SA RWA)

	Commodity finance	Object finance	Project finance: operational	Project finance: high quality	Project finance: pre-operational	Rated exposures	Total specialised lending
<b>All banks</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>
Large	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
of which G-SIIs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
of which O-SIIs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Medium	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%
Small	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 119 banks (only banks reporting “full template”).

127. In terms of calibration of the prudential treatment, it was recognised that the RWs for specialised lending need to account for rather complex specificities of structure and terms of the transaction. While issue-specific rated projects benefit from the corporate RWs, the treatment for unrated specialised lending exposures was calibrated on default rates for project finance loans worldwide over 20 years and provides a risk-sensitive framework under the CR-SA that is adapted to those specific projects (different RWs for different types of operations) and their life cycles.

128. Nonetheless, considering the specific risk profile of transactions in this sub-asset class, it is prudent to align the regulatory treatment with that introduced by the final Basel III framework. Furthermore, it should be pointed out that the implementation of this sub-exposure class should be further analysed from the perspective of the interaction with the CR-SA CRM provisions on recognition of physical collateral.

## 3.6 Subordinated debt, equity and other capital instruments

### 3.6.1 Revised RW treatment

#### **Recommendation CR-SA 13: revised RW treatment for subordinated debt, equity and other capital instruments**

The EBA recommends the implementation of the final Basel III RW treatment for subordinated debt, equity and other capital instruments in the European regulatory framework, recognising that the overall conservative calibration of the RWs for this exposure class reflects its risk profile.

129. The revised Basel III framework significantly amends the regulatory treatment of subordinated debt, equity and other capital instruments by i) requiring that all such exposures be treated under the CR-SA (including exposures in this class currently treated under the IRB approach) and ii) amending the RW treatment to better reflect the degree of risk associated with instruments in this exposure class.
130. Therefore, under the final Basel III framework for CR-SA, the standard RW for equity exposures increases from 100% to 250%, to reflect the fact that an institution incurs a higher risk of loss from holding, for example, an equity exposure than from holding a senior loan to the same entity. This increase in RWs follows from one of the major aims of the revision of the CR-SA, which is to increase the risk sensitivity of the framework.
131. An even higher RW of 400% is assigned to ‘speculative unlisted equity exposures [...] that are invested for short term resale purposes or are considered venture capital or similar investments [...] and are acquired in anticipation of significant future capital gains’. However, according to footnote 30 of the final Basel III text for CR-SA, exposures where ‘the bank has or intends to establish a long-term business relationship [...] would be excluded’. Arguably, the Basel category of ‘speculative unlisted equity exposures’ should be broadly equivalent to investments in private equity or venture capital firms, which under the current rules are treated as high-risk items.<sup>25</sup>
132. As an exception, equity holdings made pursuant to national legislated programmes may receive a RW of 100% subject to meeting certain qualifying criteria and the absolute amount of these holdings not exceeding 10% of a bank’s own funds.

<sup>25</sup> In the revised Capital Requirements Regulation (CRR2), Article 128 has been amended to only include those investments in venture capital and private equity that are not treated in accordance with Article 132 of the revised CRR.

Table 12: Percentage change of SA RWA per exposure sub-class – Equity (relative to total SA RWA)

	Exposures to certain legislative programmes	Other	Speculative unlisted	Total equity
<b>All banks</b>	<b>0.0%</b>	<b>2.6%</b>	<b>0.2%</b>	<b>2.8%</b>
Large	0.0%	2.1%	0.2%	2.3%
of which G-SIIs	0.0%	0.5%	0.2%	0.7%
of which O-SIIs	0.0%	2.6%	0.2%	2.7%
Medium	0.0%	6.9%	0.7%	7.5%
Small	0.0%	2.0%	0.0%	2.0%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

133. Moreover, for institutions that are currently, under the IRB approach, applying the simple risk weight approach in accordance with Article 155(2) of the CRR (i.e. the majority of institutions), own funds requirements for equity exposures will be lower, as in the overwhelming majority the RWs under the revised SA are lower than those currently prescribed under the simple risk weight approach.
134. Finally, the final Basel III framework includes a five-year phase-in period for implementing the amended regulatory treatment for this exposure class, as stated in footnote 29 of the final Basel text for CR-SA. During the phase-in period, the RW treatment would be applied in accordance with the schedule in Table 13. The associated RWA increase is presented in Table 14.

Table 13: Risk weights applicable to equity exposures during the phased-in implementation of the Basel standards

Equity category	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Speculative unlisted</b>	100%	160%	220%	280%	340%	400%
<b>Exposures to certain legislative programmes</b>	100%	100%	100%	100%	100%	100%
<b>Other</b>	100%	130%	160%	190%	220%	250%

Table 14: Percentage change in equity RWA (relative to total current SA RWA) during the phased-in implementation period

Equity Category	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Speculative unlisted	0.0	0.0	0.1	0.1	0.2	0.2
Exposures to certain legislative programs	0.0	0.0	0.0	0.0	0.0	0.0
Others	-1.6	-0.8	0.0	0.8	1.7	2.5
<b>Total equity exposures</b>	<b>-1.6</b>	<b>-0.8</b>	<b>0.1</b>	<b>1.0</b>	<b>1.8</b>	<b>2.7</b>

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

135. However, given the significant difference between the RWs that equity exposures would incur during the phase-in period and the current RW used either under the SA or under the IRB approach, it would be advisable to prevent any undue temporary fluctuation in own funds requirements, as well as to maintain consistency with the IRB approach during the phase-in period, and to align with the recommendation on the phase-in period made in the IRB section.

### 3.6.2 Treatment of equity holdings made pursuant to national legislated programmes (NLPs)

#### Recommendation CR-SA 14: treatment of equity holdings made pursuant to NLPs

In the EBA's opinion, the RW treatment of equity holdings made pursuant to national legislated programmes should be aligned with the RW associated with other equity holdings, that is 250%.

136. In the case of equity holdings in legislated programmes, the Basel II framework allowed national discretion for an unlimited use of the SA, irrespective of how material these exposures were for an IRB bank.<sup>26</sup> This provision under the Basel II framework for CR-SA resulted in application of the same 100% RW for equity holdings in legislated programmes as for senior-ranking exposures to corporates, rather than the 400% RW applied to non-traded equity exposures under the simple risk weight approach that is part of the IRB approach. The explicit purpose of this provision was to promote specific sectors of the economy, more precisely equity investments of US institutions in corporations or projects that are primarily designed to promote community welfare (e.g. the redevelopment of lower-income areas and services to support lower-income populations<sup>27</sup>).
137. National discretion was removed under the Basel III framework, and was replaced by a rule making it mandatory to apply the CR-SA to all types of equity exposures. Moreover, the SA now recognises higher risk of equity exposures than senior-ranking exposures to corporates by introducing a 250% RW as a baseline for equity exposures. However, a new area of national discretion has been introduced allowing the SA RW to be reduced to 100% in the case of equity exposures in legislated programmes.
138. In contrast to Basel II, in which national discretion was permitted only in the consideration of whether or not such equity holdings made the equity exposure class material for the bank (which would prevent permanent partial use) but did not result in a lower SA RW than for other equity exposures, in Basel III national discretion should be exercised only if equity exposures in legislated programmes are of lower risk than other equity exposures.

<sup>26</sup> This discretion has been transposed in Article 150(1)(h) of the CRR.

<sup>27</sup> Detailed descriptions are published by the Federal Reserve System ([https://www.federalreserve.gov/consumerscommunities/cdi\\_regover.htm](https://www.federalreserve.gov/consumerscommunities/cdi_regover.htm)); the applicable regulation is published by the Federal Reserve System (and by the Office of the Comptroller of the Currency (OCC) (<https://www.ecfr.gov/cgi-bin/text-idx?SID=4e00be9da29f2e03db73a39cbebd1af6&mc=true&node=pt12.1.24&rgn=div5>)).

139. One example that it may be relevant to consider is that existing legislated programmes in the USA do not suggest that the risk is reduced compared with other equity exposures.<sup>28</sup> The condition under the Basel III capital framework of ‘significant subsidies for the investment to the bank’ could be met solely by preferential tax treatment and limited distributions to the owner of the project. This would not, however, mitigate the credit risk for the investing institution if taxes or distributions to owners depend on the profitability of the project. If the project does not generate profit, the effective subsidies would be zero and, therefore, the credit risk would not be mitigated at all. Furthermore, the condition of ‘restrictions on the equity investments’ could be met simply by creating a limited list of permissible investments although this would not necessarily ensure lower risk. On the contrary, investments in lower-income areas or with lower-income population might be relatively risky investments, and the restrictions to permissible investments solely restrict such riskier investments to those where this is in the public interest. In addition, the condition of ‘government oversight’ could be met solely by requiring notification or approval for such rather risky equity investments. None of this contributes to mitigating the credit risk of such equity investments.
140. Consequently, the conditions in final Basel III framework appear to not be sufficiently specific to ensure a lower risk under all legislative programmes that formally meet these conditions. Subsequently, the EBA recommends that a 250% RW be applied to this type of equity exposure. Should the EU exercise discretion and apply a 100% RW, this would make it necessary to ensure that the conditions for the lower RW set out in the revised Basel III framework are met by the legislative programme in a way that indeed effectively reduces the loss risk sufficiently to justify a 100% RW rather than the 250% RW applied to other equity exposures. In this case, in order to ensure consistent and prudent application of the requirements, a mandate could be granted for the EBA to develop Regulatory Technical Standards (RTS) specifying how the conditions for applying a 100% RW shall be met.

### 3.6.3 Treatment of equity exposures previously classified as high risk items

#### **Recommendation CR-SA 15: Treatment of equity exposures previously classified as high-risk items**

In the EBA’s opinion, given that:

- a) the final Basel III framework deletes the previously existing exposure class for items associated with high risk;
- b) restructures the treatment of equity exposures; and

<sup>28</sup> For example, in the USA the discretion has been exercised for equity investments in corporations or projects that are primarily designed to promote community welfare, such as the redevelopment of lower-income areas and services to support lower-income populations. US regulation determines which investments are permissible and requires notice and approval, in some instances even prior approval. The rules for permissible investment allow investment in, for example, ‘projects to construct or rehabilitate low- or moderate-income housing which is financed or assisted by direct loan, tax abatement, or insurance under provisions of State or local law, [...] provided that, with respect to all such projects, the owner is, by statute, regulation, or regulatory authority, limited as to the rate of return on his investment in the project [...]’ [U.S. Regulation Y, 12 C.F.R. §225.127(c)].

- c) introduces higher-risk categories within the real estate exposure class (i.e. income-producing real estate exposures and land acquisition, development and construction exposures),

the RW treatment for the equity exposures which were classified as high-risk items in line with Article 128 of the CRR should be aligned with the RW associated with other equity holdings, that is 250%, or with the RW associated with speculative unlisted equity exposures where applicable, that is 400%.

141. Under the CRR, items associated with high risk are treated in line with Article 128. The high-risk exposure class under the CRR represents the implementation of the discretion that national supervisors are granted in paragraph 80 of the current Basel II standard, which states that national supervisors may decide to apply a 150% (or higher) RW to reflect ‘the higher risks associated with some other assets, such as venture capital and private equity investments’.
142. Additional guidance with regard to the identification of high-risk items has been provided by the EBA through the EBA guidelines on specification of types of exposures to be associated with high risk.<sup>29</sup> Despite the fact that the final Basel III framework for CR-SA no longer includes provisions on ‘high-risk items’, the EBA considered it beneficial to issue these guidelines in order to ensure the detection of high risk within institutions before the final Basel III framework is incorporated in the EU legislative framework, as well as a harmonised and consistent application of Article 128(2) and (3) of the CRR<sup>30</sup> until any revision of these provisions has to be applied by institutions, noting the BCBS timeline for the implementation of the revised framework.
143. The EBA guidelines also introduce, for their specific purpose, definitions of private equity and venture capital, as these concepts were not defined in the CRR. It could be discussed whether there is merit in maintaining these definitions and include them in the level 1 text.
144. In terms of impact, the revised RWs provided by the final Basel III framework for the equity exposures class lead to a total increase in SA RWA, of which 0.8% represents the impact of the revised RWs on exposures previously categorised as high risk.

### 3.6.4 Treatment of equities that are recorded as a loan but arise from a debt/equity swap made as part of the orderly realisation or restructuring of the debt

**Recommendation CR-SA 16: treatment of equities that are recorded as a loan but arise from a debt/equity swap**

<sup>29</sup> <https://eba.europa.eu/regulation-and-policy/credit-risk/guidelines-on-specification-of-types-of-exposures-to-be-associated-with-high-risk>

<sup>30</sup> CRR2 amends Article 128 to exclude those types of equity exposures that are treated in line with the amended Article 132.

In the EBA's opinion, the RW treatment for the equity exposures that are recorded as a loan, but arise from a debt/equity swap made as part of the orderly realisation or restructuring of the debt, should be aligned with the RW associated with other equity holdings, that is 250%, or with the RW associated with speculative unlisted equity exposures where applicable, that is 400%. Moreover, it should be clarified that this type of instrument should always be treated as equity and should never attract a capital charge lower than would apply if the holdings remained in the debt portfolio.

145. The final Basel III text clarifies in footnote 26 that 'equities that are recorded as a loan but arise from a debt/equity swap made as part of the orderly realisation or restructuring of the debt' are included in the definition of equity holdings. However, these instruments may not attract a lower capital charge than would apply if the holdings remained in the debt portfolio', which would be the case if the RW were to be 150% if equities were treated as rated debt exposure but only 100% if a qualified equity exposure were introduced. The discussion at technical level has focused on the general treatment of this type of exposure and concluded that such exposures should be treated as equity at all times. Moreover, it should be highlighted that the wording should be slightly amended in order to clarify that the last part of the footnote is not something that is subject to national discretion, but a floor for RWs applicable to set the capital charge for these instruments. Therefore, the verb 'may' should be replaced with 'should'.

### 3.6.5 Treatment of liabilities from which the return is linked to that of equities

**Recommendation CR-SA 17: treatment of liabilities from which the return is linked to that of equities**

In the EBA's opinion, since the treatment of liabilities from which the return is linked to that of equities has not been included in the current CRR provisions regarding equity exposures, neither under the SA, nor under the IRB approach, the revised Basel III provisions regarding this item should not be included in the revised European regulatory framework.

146. In the revised Basel III text, footnote 27 states that 'supervisors may decide not to require that such liabilities [i.e. liabilities from which the return is linked to that of equities] be included [i.e. in the exposure class] where they are directly hedged by an equity holding, such that the net position does not involve material risk'.
147. It was concluded at the technical discussion that, given that this treatment has not been included in the CRR IRB provisions so far (despite it being included in the Basel II text) and there is no indication of the existence of cases where this treatment is necessary or relevant, there is no reason to implement this footnote.

### 3.6.6 Treatment of debt holdings

#### Recommendation CR-SA 18: treatment of debt holdings

In the EBA's opinion, given that the treatment of debt holdings proposed by the final Basel III framework for CR-SA is already aligned with the current CRR provisions (i.e. Article 133 of the CRR), this treatment should be maintained in the revised European regulatory framework.

148. In the final Basel III text for CR-SA, footnote 28 allows a national discretion for supervisors with regard to the treatment of debt holdings. More specifically, 'the national supervisor has the discretion to re-characterise debt holdings as equities for regulatory purposes and to otherwise ensure the proper treatment of holdings under Pillar 2'. This treatment is already applied in the CRR, in Article 133, and is in line with the Basel II provisions. Therefore, it is advisable to continue applying this treatment.

### 3.6.7 Treatment of equity exposures to central banks

#### Recommendation CR-SA 19: RW for equity exposures to central banks

The EBA considers that the RW for equity exposures to central banks could be maintained at the current level of 100%.

149. Equity exposures to central banks constitute a specific instrument used in several jurisdictions in the EU that has not been recognised in the final Basel III framework because it is uncommon. However, the Basel III revisions do not change the RW treatment of sovereign exposures. Therefore, it is considered appropriate to continue to apply the current treatment of equity exposures to entities classified as sovereigns, at least until different policy decisions regarding the topic of sovereigns are made.
150. By applying the RW of 100%, the treatment of equity exposures to entities classified as sovereigns will remain unchanged also for institutions applying the IRB approach. This is in line with the provisions in Article 150(1)(g) of the CRR, according to which 'equity exposures to entities whose credit obligations are assigned a 0 % risk weight under Chapter 2 including those publicly sponsored entities where a 0 % risk weight can be applied' can currently be treated, via the permanent partial use (PPU), under the SA.

### 3.6.8 Additional risk sensitivity in the equity exposure class

#### Recommendation CR-SA 20: additional risk sensitivity in the equity exposure class

It is the EBA's opinion that, given the high-risk profile of equity and subordinated debt instruments, as well as the SA's role in ensuring that a simple methodology remains available for



a wide range of jurisdictions, singling out additional equity instruments for a more diversified RW treatment is not advisable under the SA for CR.

151. In the CfA, the EBA is asked to ‘... consider whether further clarification or refined criteria are needed to adequately reflect the riskiness of different types of equity holdings existing in the EU’. Under the current rules, any equity exposure which does not have to be deducted in the calculation of own funds of the institution is risk weighted at 100% in accordance with Article 133 of the CRR. The two exceptions to this rule are significant investments in financial sector entities, which, in accordance with Article 48 of the CRR, are not deducted and are risk weighted at 250%, and investments in private equity or venture capital firms, which under current rules are mandatorily risk weighted at 150% as high-risk items in line with Article 128 of the CRR.
152. While acknowledging that the revisions in the equity exposure class are the largest impact drivers with regard to the implementation of the final Basel III framework, from a prudential perspective it appears difficult to justify any further preferential treatment beyond what has already been analysed in the sections above. This also prevents further elaborating on a sensitivity analysis of the RW associated with this exposure class, which does not provide any additional insight in the absence of a detailed rationale on which to base a different calibration of the RWs.
153. In line with the requirements to move all equity exposures from the IRB approach to the SA, the general RW of 250% under final Basel III framework, in contrast to 100% for unrated senior exposures, maintains the Basel II calibration under the PD/LGD approach for IRB exposures to the same obligor. An IRB RW of 100% (after the 1.06 scaling factor) for senior claims would require an estimated PD of 1.06% (based on 45% LGD and 2.5 years maturity under the F-IRB approach), whereas the same estimated PD results in a RW of 267% for equity exposures (based on 90% LGD and 5 years remaining maturity under the PD/LGD approach). Thus, the new SA RW is even slightly lower.
154. Under the Basel II framework, own LGD estimates for equity exposures were not allowed; instead a mandatory 90% LGD applied across all equity exposures under the PD/LGD approach, reflecting the high loss risk in the event of default of the issuer owing to the subordination to all debt liabilities. Nevertheless, differentiation of IRB RWs was still possible because of different PDs. However, such differentiation for CR-SA RWs is not available under the Basel III capital framework. While further risk distinction for equity exposures could be based on a multiplier to the SA RW for senior claims to the same obligor, for example a multiplier of 2 based on the relationship between LGDs under the F-IRB approach and the PD/LGD approach for equity (45% LGD for senior exposures, compared with 90% LGD for equity exposures), this approach was not adopted in the Basel III capital framework. The Basel discussions concluded that debt cannot be directly compared with the RW of equities and hence introduction of the multiplier was considered inadequate.

155. This also holds true for equity exposures under Article 49 of the CRR, where the CRR allows such holdings to be risk weighted according to the rules for equity exposures under the SA or IRB approach. If this exceptional treatment were to be maintained, the new RWs for equity exposures should also be applied to these exposures. It should be noted, however, that, under the SA, applying the new RWs could lead to a substantial increase in own funds requirements for these holdings, whereas under the IRB approach this could result in a significant decrease in own funds requirements in cases where an institution currently applies the simple RW approach to equity exposures.

## 3.7 Retail exposures

### 3.7.1 Revised RW treatment

#### Recommendation CR-SA 21: revised RW treatment for retail exposures

The EBA recommends the implementation of the revised Basel III RW treatment for retail exposures in the revised European regulatory framework.

156. The final Basel III framework introduces a differentiation between ‘transactors’ (i.e. revolving facilities, such as credit cards, where the outstanding balance is repaid every period) and other revolving facilities, so-called ‘revolvers’ (where the lines of credit are typically drawn upon), applying a 45% RW to the former and leaving unchanged the 75% RW applicable to the latter. The reform also increases to 100% (from 75%) the RW applicable to ‘other retail’ exposures, which are exposures that do not meet the criteria for regulatory retail exposures. These amendments introduce granularity in the retail exposure class, which under the current CRR receives a flat 75% RW.

Table 15: Exposure class Retail - exposure by sub-exposure class

Institutions	Other retail	Regulatory retail - non-transactors	Regulatory retail - transactors	Retail
All	2.10%	93.51%	4.39%	100.00%
Large	1.69%	94.16%	4.15%	100.00%
of which: G-SII	0.07%	96.50%	3.43%	100.00%
of which: O-SII	3.16%	94.00%	2.85%	100.00%
Medium	6.71%	89.13%	4.16%	100.00%
Small	2.48%	65.29%	32.22%	100.00%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks: Large (98), of which G-SIIs (7), of which O-SIIs (61); Medium (59); Small (24).

157. In terms of impact on the SA RWA, the reform in the retail exposure class accounts for up to 1.7% of the SA RWA (see Table 16). The increase in RWA stems mostly from the sub-category of revolvers, which account for more than 90% of the European retail portfolio, and is to be driven by policy changes other than the risk weighting, most notably the introduction of a 10% CCF for unconditionally cancellable commitments. RWA decrease for ‘transactors’ and

increase for ‘other retail’ exposures, although on average these two portfolios do not have a significant EU-wide impact on retail.

Table 16: Percentage change of SA RWA per exposure sub-class – Retail (relative to total SA RWA)

	Other retail	Regulatory retail - non-transact	Regulatory retail - transactors	Total retail
<b>All banks</b>	<b>0.1%</b>	<b>1.7%</b>	<b>-0.1%</b>	<b>1.7%</b>
Large	0.1%	1.8%	-0.1%	1.8%
of which G-SIIs	0.0%	2.1%	-0.3%	1.8%
of which O-SIIs	0.2%	1.6%	0.0%	1.7%
Medium	0.0%	1.4%	-0.1%	1.2%
Small	0.6%	1.6%	0.6% <sup>31</sup>	2.8%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

### 3.7.2 Granularity criterion and additional measures for ensuring diversification

#### Recommendation CR-SA 22: measures for ensuring diversification of the retail portfolio

It is the EBA’s opinion that the proposed granularity criterion of 0.2% of the overall regulatory retail portfolio is neither necessary nor sufficient for ensuring adequate diversification of institutions’ regulatory retail portfolios. Instead, the current CRR provisions in Article 123 should be maintained in the revised European regulatory framework and further supplemented by guidance regarding appropriate diversification methods via a mandate granted to the EBA on this topic.

158. According to the final Basel III framework, a retail exposure may be assigned a 75% RW associated with regulatory retail exposures when it meets three criteria: i) the product criterion – the weighting applies only to revolving credits and lines of credit (including credit cards, charge cards and overdrafts), personal term loans and leases (e.g. instalment loans, car loans and leases, student and educational loans, personal finance) and small business facilities and commitments; ii) the criterion on low value of individual exposures – the maximum aggregated exposure to one counterparty cannot exceed an absolute threshold of EUR 1 million; and iii) the granularity criterion – no aggregated exposure to one counterparty can exceed 0.2% of the overall regulatory retail portfolio, unless national supervisors have determined another method to ensure satisfactory diversification of the regulatory retail portfolio.
159. Article 123 of the CRR provides a series of elements that serve for the identification of those exposures that should be included in the retail portfolio, including a requirement for ensuring diversification; point (b) of Article 123 clearly specifies that ‘the exposure shall be one of a

<sup>31</sup> QIS findings show a positive impact for the Retail category of transactor for small banks which however only stems from a very limited number of institutions and should therefore be interpreted with caution.

significant number of exposures with similar characteristics such that the risks associated with such lending are substantially reduced’.

160. This issue was also analysed by means of the qualitative questionnaire. It was investigated what institutions are currently doing to ensure the diversification of their retail portfolios and some questions were aimed at understanding the quantitative and qualitative criteria used, if any.
161. There was a 90% response rate to the question on the current use of a hard threshold for ensuring diversification in the retail portfolio: 71% of respondents do not use a granularity criterion, while 24% of respondents use a threshold lower than the 0.2% criterion. Based on the replies to the questionnaire, the other quantitative criteria used by institutions for ensuring diversification either comply with the EUR 1 million threshold (the majority) or fall into one of the following two categories: i) exposure to retail customers is limited to a level below that of the CRR (EUR 50 000/EUR 250 000/size of exposure cannot exceed 3% of own funds, EUR 750 000/EUR 300 000/maximum amounts defined by internal policies depending on products – for example EUR 5 000 for credit cards); or ii) an internal ‘sub-classification’ is applied, based on the counterparty’s characteristics, defined in various ways by different respondents (micro-retail/small retail/SMEs, where SMEs are defined as: an entity with turnover below EUR 5 million/ an entity with assets below EUR 43 million and turnover below EUR 50 million/ an entity with operating output below EUR 5 million).
162. There was a high response rate (81%) to the questions about qualitative criteria for portfolio diversification. Of those who replied, 41% use a criterion based on the absolute size of exposure, while 24% use the type of exposure as a criterion. Other criteria include the nature of the counterparty, the aggregated exposure, sectoral classification, score models and a minimum number of obligors in the retail portfolio. Only 8% of respondents use geographic diversification as a criterion.
163. Recognising that the granularity criterion as a stand-alone does not ensure sufficient diversification (e.g. the granularity criterion could be met by a large number of small loans to all the employees of a large specialised company, but this would not ensure any diversification in the event all the employees became unemployed at the same time as a result of insolvency of the company and if no alternative employer was available), the proposed way forward would be to use the national discretion and develop another method to ensure satisfactory diversification of the regulatory retail portfolio, in which case the EBA should be given a mandate to draft the RTS.
164. The alternative would be represented by the implementation of the ‘hard’ granularity criterion. Based on the feedback on the qualitative questionnaire, implementation of this criterion is likely to introduce significant burden for institutions and may result in a significant increase of own funds requirements for the smallest institutions in particular. However, a hard granularity criterion may be a necessary (though not sufficient) condition from a risk

perspective as the composition of the retail portfolio may be more aligned with the overall size of the balance sheet of an individual institution.

### 3.8 Real estate exposures

165. The final Basel III framework introduces further granularity in the real estate exposure class, as the current risk weighting of this exposure class has been judged as not risk sensitive enough with regard to the inherent risk posed by different types of real estate transactions and loans. The new proposed RW treatment maintains the distinction between residential and commercial real estate, but adds further granularity according to the type of financing of the loan (dependent or not on income streams generated by the collateralised property) and according to the phase the property is in (construction phase versus completed property).

Table 17: Real estate exposure class – the final Basel III framework

Residential real estate exposures								
<i>LTV bands</i>	<b>Below 50%</b>	<b>50% to 60%</b>	<b>60% to 70%</b>	<b>70% to 80%</b>	<b>80% to 90%</b>	<b>90% to 100%</b>	<b>above 100%</b>	<b>Criteria not met</b>
<i>General RRE</i>								
Whole loan approach RW	20%	25%	30%	40%	50%	70%		RW of counterparty
Loan-splitting approach <sup>2</sup> RW	20%	RW of counterparty						RW of counterparty
<i>Income-producing residential real estate (IPRRE)</i>								
Whole loan approach RW	30%	35%	45%	60%	75%	105%		150%
Commercial real estate (CRE) exposures								
<i>General CRE</i>								
Whole loan approach	<i>LTV ≤ 60%</i>			<i>LTV &gt; 60%</i>			<i>Criteria not met</i>	
	Min (60%, RW of counterparty)			RW of counterparty			RW of counterparty	
Loan-splitting approach <sup>2</sup>	<i>LTV ≤ 55%</i>			<i>LTV &gt; 55%</i>			<i>Criteria not met</i>	
	Min (60%, RW of counterparty)			RW of counterparty			RW of counterparty	
<i>Income-producing commercial real estate (IPCRE)</i>								
Whole loan approach	<i>LTV ≤ 60%</i>		<i>60% &lt; LTV ≤ 80%</i>		<i>LTV &gt; 80%</i>		<i>Criteria not met</i>	
	70%		90%		110%		150%	
<i>Land acquisition, development and construction (ADC) exposures</i>								
Loan to company/SPV	150%							
Residential ADC loan	100%							

Source: BIS

166. In the light of the proposed amendments brought about by the final Basel III framework, the Cfa QIS has analysed the impact of aligning with these provisions (Table 18).

Table 18: Percentage change of SA RWA per exposure sub-class – Exposures secured by real estate (relative to total SA RWA)

General commercial real estate	General residential real estate	Income producing	Income producing residential rea	Land acquisition, development and construction	Exposures secured by real estate
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			commercial real			
<b>All banks</b>	<b>0.6%</b>	<b>-0.5%</b>	<b>0.4%</b>	<b>0.1%</b>	<b>0.5%</b>	<b>1.1%</b>
Large	0.6%	-0.5%	0.4%	0.1%	0.5%	1.0%
of which G-SIIs	0.7%	0.1%	0.2%	0.1%	0.7%	1.9%
of which O-SIIs	0.3%	-0.8%	0.6%	0.1%	0.3%	0.5%
Medium	1.0%	-0.2%	0.2%	0.6%	0.9%	2.4%
Small	0.5%	-0.9%	0.0%	0.3%	3.9%	4.0%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 181 banks.

### 3.8.1 Implementation of the loan-splitting (LS) approach versus the whole-loan (WL) approach

#### Recommendation CR-SA 23: loan-splitting approach versus whole-loan approach

The EBA considers that, in line with the current approach to real estate exposures, the loan-splitting approach reflects the two independence criteria that ‘general’ real estate exposures have to meet: independence of the value of the property from the credit quality of the borrower and independence of the risk of the borrower from the performance of the underlying property or project. Hence, the EBA recommends the implementation of the loan-splitting approach for real estate exposures where the repayment does not materially depend on cash flows generated by the property in the revised European regulatory framework.

167. According to the Basel III final framework, the loan-splitting approach, which can be applied to both RRE and commercial real estate (CRE) exposures where the repayment does not materially depend on cash flows generated by the property, makes a distinction between a secured and an unsecured part of an exposure secured by real estate collateral, which also reflects the two independence criteria that properties falling into general real estate have to meet:

- a) The secured part of the exposure is identified by part of the exposure up to 55% of the property value and receives a flat RW that is lower than the RW for the unsecured part, but higher than zero. This calibration of the RW for the secured part (set at 20% for RRE and 60% for CRE) addresses the situation where the bank may incur additional unexpected losses even beyond the haircut that is already applied to the value of the collateral when selling the collateral in case of a default of the borrower.
- b) The unsecured part of the exposure is identified by any remaining part of the exposure going beyond 55% of the property value and receives a RW that is similar to that of a comparable exposure to the same obligor not secured by mortgages on real estate. This

approach is based on the consideration that the credit risk of the remaining part of the exposure depends not on being secured by real estate, but rather on the independent capacity of the borrower to repay the exposure from other income sources.

168. The Basel standards propose another approach for dealing with real estate exposures, one that considers real estate exposures as a specific type of exposure. According to this so-called whole-loan approach, a mortgage loan is a specific product where the amount of the loan is high relative to the yearly income of the borrower, maturity is long and interest rate is lower than for other types of loans. This is why, in terms of risk, its behaviour is specific and it also requires a specific treatment in terms of risk weighting these exposures. The whole-loan approach assigns regulatory RWs for mortgages based on their loan to value (LTV) ratio. The approach is based on two assumptions: i) that the LTV ratio is an indicator of the risk of default and ii) that the risk of default increases disproportionately as the LTV ratio increases (hence the use of different RWs based on LTV buckets). LTV is used as a simple proxy for assessing the default risk of an exposure that is also assumed to reflect a range of additional factors influencing default risk, including the loan to income (LTI) ratio.
169. Under the LS approach, collateral is always recognised only up to 55% of the property value. This means that any part of a lien or a junior lien that exceeds 55% of the property value will be fully risk weighted as a comparable exposure to the same obligor not secured by mortgages on real estate. Because of this mechanism, LS, in contrast to the WL approach, is fully reflective of the higher risk that junior liens (which give access to the remaining property value only after more senior liens are satisfied) pose to a lending bank. In addition, by applying the counterparty RW to the part of the exposure exceeding 55% LTV, the LS approach is also sensitive to the type of borrower that pledges real estate collateral to the bank, resulting in higher own funds requirements for SMEs or corporates than for individuals. This illustrates the second independence criterion, which requires that the credit risk for general real estate must not depend on the characteristics of the property and, depending on the LTV and the type of the borrower, leads to lower or higher own funds requirements for the exposures under the LS approach than under the WL approach, which also reflects a higher degree of risk sensitivity of the LS approach.
170. Moreover, the fact that in the LS approach the identification of the secured and the unsecured parts is always based on the property value preserves the dependence of RWs on LTV; nevertheless, the LS approach is more risk sensitive than the WL approach. In the case of CRE, mortgages are no longer recognised under the WL approach as securing the exposure where the LTV ratio is higher than 60%, and in case of RRE they are recognised only to a very limited extent (70% RW for LTV ratios > 100%). This increases the RW for the whole exposure, that is including the part fully secured by real estate collateral after a substantial haircut, to that of a completely unsecured loan – which inappropriately ignores the fact that the credit risk of a partially secured exposure is always lower than that of a completely unsecured exposure, especially since it is a requirement that the value of the property is independent of the creditworthiness of the borrower.

171. As explained above, technical arguments in favour of the WL approach claim that real estate exposures are specific products with long maturities and comparably high exposure values in relation to the income of the borrower, thus requiring a specific regulatory approach. However, it should be noted that, in all other parts of the SA framework, RWs are not adjusted for the amount and the maturity of the exposure. It could be argued that a large loan could lead to an increase in the loss risk for a given income and assets of a borrower; however, this again depends in the individual case and can be appropriately assessed only by including explicit income-related indicators in the framework, which was not done by the BCBS when the revised SA was finalised. Moreover, in the case of externally rated obligors, the available income should already be considered for the applicable RW.
172. Based on the results of the QIS, Figure 13 provide the structure of the real estate portfolio under the CR-SA, while Table 19 provides an overview of the main scenarios tested during the QIS.

Figure 13: Exposure value breakdown as a percentage of total SA real estate exposure under the revised Basel III framework

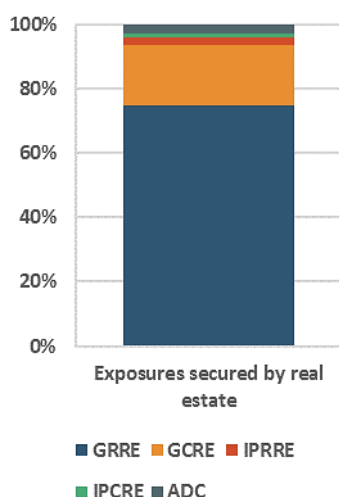


Table 19: Scenarios specification for real estate exposures

	Basel III central reform scenario	Alternative scenario (whole loan)
GRRE	Loan Splitting	Whole Loan
GCRE	Loan Splitting	Whole Loan
IPRRE	Whole Loan	Whole Loan
IPCRE	Loan Splitting if hard test passed otherwise whole loan	Whole Loan

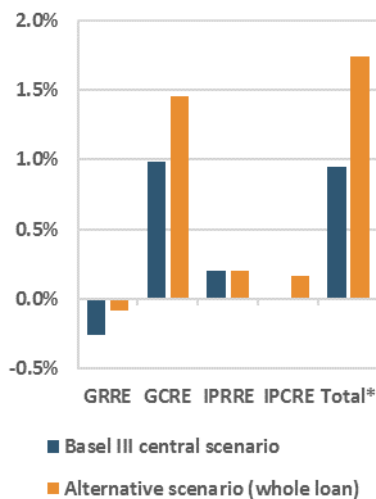
Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 96 banks. GRRE, general residential real estate, GCRE, general commercial real estate, IPRRE, income-producing residential real estate, IPCRE, income-producing commercial real estate, and ADC, land acquisition, development and construction

173. Based on the results of QIS, the impact on the SA RWA of the different approaches is as shown in Figure 14.



Figure 14: Percentage change in exposures secured by real estate SA RWA (relative total current SA RWA), loan splitting versus whole loan



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 96 banks. GRRE, general residential real estate, GCRE, general commercial real estate, IPRRE, income-producing residential real estate, IPCRE, income-producing commercial real estate, and ADC, land acquisition, development and construction.

\* Total exposures secured by real estate excluding ADC.

### 3.8.2 Implementation of hard test (HT)

#### Recommendation CR-SA 24: implementation of the hard test

The EBA considers that the use of hard test has been successful in providing an incentive for institutions to reflect real estate market deteriorations in the property values that are recognised for regulatory purposes in a timely and forward-looking manner and thus recommends maintaining its application to both income-producing commercial real estate (IPCRE) exposures as well as income-producing residential real estate (IPRRE) exposures.

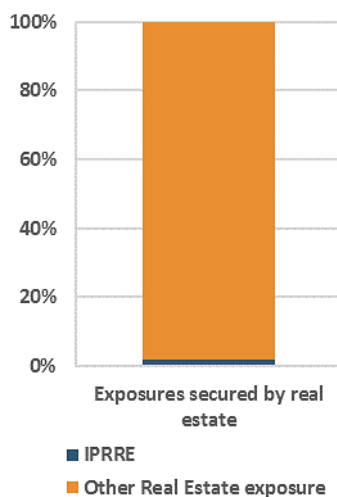
174. The CRR currently allows the application of the 'hard test' (HT) to both CRE and RRE exposures where the competent authority of that Member State has published evidence showing that a well-developed and long-established property market is present in that territory with yearly loss rates (including income-producing real estate (IPRE) exposures) which do not exceed certain thresholds. If a property market passes the HT, the RWs applied to IPRE exposures can be the same preferential RWs as applied to exposures where the risk of the borrower does not materially depend on the performance of the property, provided the properties backing the exposures are situated within the territory of a Member State. Moreover, to ensure the reliability and high quality of the evidence published by competent authorities, Article 101 of the CRR introduced binding requirements for institutions to report losses on exposures secured by real estate. The hard test thresholds provide incentives for institutions to correct property values downwards as soon as possible in order to reflect market deterioration up front. It ensures that property markets continue to meet the loss

thresholds in a downturn, when real estate prices are falling, provided banks reduce the property values that are recognised for regulatory purposes in a timely and forward-looking manner. By doing so, the part of the exposure that is treated as secured (before or after a haircut) is reduced, while the unsecured part increases, which increases the overall own funds requirements. As a consequence, realised higher losses (if any) will be absorbed by the increased part of the exposure that is treated as being unsecured and therefore no longer benefits from the preferential RW for the fully and completely secured part.

175. Since the hard test is applied to a real estate market as a whole, there could be a free rider problem, whereby an individual bank would bet on all other banks reducing their property valuations while keeping its own levels the same. However, by design the hard test enforces a system of mutual discipline on all institutions within the market: when individual banks start free-riding by not adjusting property values, this increases the risk that the system as a whole will fail the hard test and that all banks going forward will be subject to higher own funds requirements. Therefore, it is in the mutual interest of all institutions that property values are corrected downwards by each individual institution as soon as possible in order to reflect a deterioration in market values. In addition, it would be easy for the supervisor to identify any free-riding by individual institutions and to address this under Pillar 2 if necessary, as Article 101 of the CRR requires the realised loss rates to be reported on an institution-by-institution basis.
176. Under the Basel framework, a different regulatory treatment under the SA is introduced for real estate exposures where the repayment of the loan materially depends on cash flows generated by the property and exposures where this is not the case. However, under Basel III, as under the CRR, institutions are not required to assess cash flow independence for real estate collateral located in jurisdictions where the hard test is met and in this case may treat IPRE exposures in the same way as general real estate ones. The arguments set out above apply equally to IPCREs and IPRREs. Therefore, the limitation of the hard test to IPCREs as foreseen under the Basel framework does not seem justified, and as a consequence the EBA recommends maintaining its application to both IPCREs as well as IPRREs, as under the current CRR. However, footnote 46 to paragraph 67 of the final Basel III text for CR-SA does allow regulators to provide further guidance on IPRREs, setting out criteria on how material dependence on the cash flows generated by the property should be assessed for specific exposure types. This provision could be used for specifying the same hard test conditions for IPRREs as for IPCREs. Therefore, both types of properties should be treated consistently in the EU with regard to the hard test.
177. Regarding the calibration of the hard test, it should be noted that in the current CRR the same loss threshold of 0.3% is used for both CRE and RRE exposures in the first part of the test although the threshold applies to different LTV ranges (up to 50% or 60% in the case of CRE and up to 80% in the case of RRE). A rationale for applying the same loss threshold for different LTV ranges is not evident, and this could be used as an argument for requiring a recalibration of the hard test itself. However, this difference between CRE and RRE exposures will be eliminated with the implementation of Basel III if the EU opts for the loan-splitting

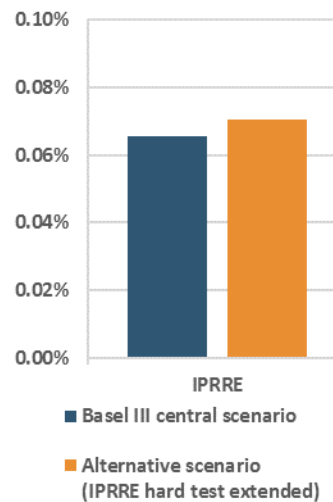
approach, as, for both types of real estate, the split between the secured and the unsecured part of the exposure is done at 55% of the property value. As a consequence, the loss threshold of 0.3% in the first part of the HT should refer to 55% for both RRE and CRE exposures to still exclusively capture the part that receives the preferential RW as being fully and completely secured by immovable property. In order to ensure that high-quality data to carry out the hard test remain available to CAs, the reporting requirements in Article 101 of the CRR need to be adjusted accordingly.

Figure 15: Share of exposures secured by IPRRE (percentage of total exposures secured by real estate)



Sources: EBA 2018-Q2 QIS data and EBA calculations.  
Notes: Based on a sample of 148 banks.

Figure 16: Percentage change in exposures secured by IPRRE SA RWA due to application of hard test to IPRRE (relative to total current SA RWA)



Sources: EBA 2018-Q2 QIS data and EBA calculations.  
Notes: Based on a sample of 148 banks. IPRRE, income-producing residential real estate.

### 3.8.3 Eligibility of property under construction

#### Recommendation CR-SA 25: eligibility of property under construction

It is the EBA's opinion that the national discretion to recognise residential property under construction as eligible collateral under the conditions mentioned in paragraph 60 of the revised SA should be exercised. A sufficiently low threshold for the number of residential housing units that could be considered eligible as residential property under this discretion should be implemented and it is the EBA's opinion that four is an acceptable number for this threshold.

178. In the final Basel III rules text, in order to benefit from the preferential RW based on the LTV ratio, the property securing the exposure must be 'fully completed' (paragraph 60 in the CR-SA section). In the Basel framework, subject to national discretion, supervisors may, however, apply a preferential RW based on an LTV ratio for 'loans to individuals that are

secured by residential property under construction, provided that the property under construction is a one-to-four family residential housing unit that will be the primary residence of the borrower (this does not include apartments within a larger construction project); or where the sovereign or PSEs have the legal powers and ability to ensure that the property under construction will be finished’.

179. The rationale for introducing this criterion in the Basel framework was that owner-occupied real estate is supposed to have a lower credit risk, since the owner will be more motivated to repay the loan if he loses his roof otherwise. To take account of the situation that sometimes people build property made up of separate housing units for themselves but also their family, the number of housing units within a property that can be recognised as collateral during the construction phase was increased to four, which is considered a sensible threshold in this regard. Moreover, in the case of larger, more complex, buildings under construction, an institution is exposed not only to the risk of the borrower defaulting but also to the risk that the developer of the project defaults and that, as a result, the construction will not be finished as planned. For this reason, such properties are not eligible as collateral during the construction phase. Technical discussions regarding this issue revealed agreement with the rationale behind the threshold, and no objections to setting a specific value of said threshold, provided it is sufficiently low. Therefore, there are no major objections to the value of up to four housing units.

### 3.8.4 Valuation requirements

#### Recommendation CR-SA 26: valuation requirements

The EBA considers that the revised European regulatory framework concerning valuation of real estate collateral should be aligned with the final Basel III capital framework.

180. The Basel II framework for commercial real estate and the CRR for both residential and commercial real estate distinguish two ways in which a bank can determine the value of its real estate collateral: based on the market value (MV) concept or based on the mortgage lending value (MLV) concept. According to the CRR, MLV can be used only in those Member States that have laid down rigorous criteria for the assessment of the MLV in statutory or regulatory provisions. The concept of a MLV is not used in many jurisdictions and is, at least in certain jurisdictions, closely linked to the requirements for collateral pools of covered bonds. The general rule is that the MLV indicates what a property is worth notwithstanding the market cycle and the features specific to a certain property. In any case, the value that is assigned to the real estate collateral for regulatory purposes can never be higher than the MV. However, the application of the two concepts in the CRR is not consistent since:
- a) for residential real estate exposures under the SA, the underlying assumption is that both values are comparable (i.e. the preferential RW of 35% is applied to the part of the exposure up to 80% of the MV or 80% of the MLV), whereas

- b) for commercial real estate exposures under the SA, the underlying assumption is that the MLV is more conservative than the MV because of the different LTV ratios applicable (i.e. the preferential RW of 50% is applied to the part of the exposure up to 50% of the MV or 60% of the MLV).
181. The revised SA according to Basel III no longer distinguishes between the two concepts, but sets out some general valuation criteria in paragraph 62:
- *Value of the property: the valuation must be appraised independently using prudently conservative valuation criteria. To ensure that the value of the property is appraised in a prudently conservative manner, the valuation must exclude expectations on price increases and must be adjusted to take into account the potential for the current market price to be significantly above the value that would be sustainable over the life of the loan. National supervisors should provide guidance setting out prudent valuation criteria where such guidance does not already exist under national law. If a market value can be determined, the valuation should not be higher than the market value.*
182. These requirements will no longer allow institutions to solely apply a MV concept as in any case they have to ‘take into account the potential for the current market price to be significantly above the value that would be sustainable over the life of the loan’, which is not required in Articles 208 and 229 of the CRR. The revised SA framework also includes only one single calibration and does not distinguish between the MV and MLV concept.
183. Thus, the requirements of paragraph 62 of the final Basel III text for CR-SA should be included directly in the level 1 text, amended by some additional specifications to clarify how a current use of either MV or MLV could be included in the definition of property value. This would allow institutions currently using either the MLV or MV concept to continue to do so, provided that the values used as input parameters under these approaches exclude expectations of price increases and are adjusted to take into account the potential for the current market price to be significantly above the value that would be sustainable over the life of the loan. In addition, the values determined under these approaches are never higher than those based on the general criteria set out in paragraph 62 of the Basel III text. Institutions currently applying an MV concept would in the future instead have to follow the general criteria set out in paragraph 62 of the Basel III text directly because market values can always decrease; thus, an MV concept cannot meet the requirement to take into account the potential for the current market price to be significantly above the value that would be sustainable over the life of the loan as it is impossible to ensure this.
184. The alignment with the final Basel III framework would not only foster an international level playing field with regard to the treatment of real estate exposures, but would also allow a practical harmonisation of valuation practices, especially where different practices exist across Members States, as well as where national regulations on the approaches exist. This harmonisation is achieved no longer by prescribing the metrics for valuation, but by presenting a series of criteria that the value used in a jurisdiction needs to comply with. A

harmonised understanding of those criteria and their consistent implementation in all Member States would require further guidance on what banks are expected to do in order to comply with paragraph 62.

185. There are, however, different valuation practices across Member States, and several jurisdictions use the market value, as in the examples below:

a) In Ireland, for example, in addition to the valuation requirements which are set out in Articles 208 and 229 of the CRR, Statutory Instrument 142/2016, which implements the Mortgage Credit Directive, requires that a creditor shall use reliable standards, such as those developed by the International Valuation Standards Council, the European Group of Valuers' Associations or the Royal Institution of Chartered Surveyors, when carrying out a valuation of residential immovable property for credit purposes, or take reasonable steps to ensure that reliable standards are applied where a valuation is conducted by a third party. In addition, 'a creditor shall ensure that internal and external appraisers conducting property valuations are professionally competent and sufficiently independent from the credit underwriting process so that they can provide an impartial and objective valuation, which shall be documented in a durable medium and of which a record shall be kept by the creditor'.

b) Denmark currently applies the market value. This principle is applied in accordance with the definition in the CRR and international valuation standards, combined with additional requirements to ensure a prudent use, in accordance with Executive Order on Valuation of Mortgages and Loans in Real Property which are Provided as Collateral for Issue of Covered Mortgage-Credit Bonds and Covered Bonds. This ensures that the valuation of the collateral considers if the circumstances are estimated to account for a special scarcity price, in which case this shall be disregarded in the final valuation, and that the valuation takes into account a current risk of changes in market conditions or structural changes.

186. Moreover, there are areas where the alignment with the valuation methodology set out in the final Basel III framework might have unintended consequences. One notable interaction that would merit further attention is the interaction with the covered bonds framework and the eligibility of assets for the pool of assets for covered bonds. More precisely, it should be further investigated whether the conditions in Article 129 of the CRR for applying preferential treatment to covered bonds would effectively result in the ineligibility of certain real estate loans once the valuation requirements are aligned. Other implications might affect certain jurisdictions individually.

### 3.8.5 Cyclical effects of valuation requirements (value at origination vs. current value)

#### **Recommendation CR-SA 27: value at origination versus current value of real estate collateral**

It is the EBA's opinion that institutions should be required to revise the property value downwards if necessary. In this regard the current monitoring requirements in the CRR should be maintained. However, regarding a potential subsequent upwards adjustment, EBA sees two

options: either capping the upwards adjustment at the value at origination of the loan; or allowing an increase in the value beyond the value at origination in line with Article 208 of the current CRR.

187. According to Article 229(1) of the CRR, real estate collateral shall be valued at below the market value, regardless of whether an institution follows an MV or an MLV concept for determining the value of its real estate collateral. In addition, Article 208(3) of the CRR requires institutions to monitor the values of properties taken as collateral on a frequent basis and review the valuation when there is an indication that the value of the property may have declined materially. As a consequence, the two provisions in combination require institutions to adjust the value of real estate collateral downwards where necessary but, at the same time, there is nothing in the CRR that would prevent an institution from assigning a value to a property that is higher than the value that was assigned to this property when it was taken as collateral for the first time, provided the institution has sufficient evidence that the market value has indeed increased. As a consequence, values of real estate collateral can move with the cycle under the CRR.
188. The final Basel III framework for CR-SA takes a different approach on this issue as, according to paragraph 60 in the final Basel III text for CR-SA, institutions must record real estate values as the value measured at origination. The value must be adjusted downwards if an extraordinary event results in a permanent reduction in the property value. This ensures that speculative elements leading to an increase in the property value above the value at origination are mitigated. However, it also reduces risk sensitivity, as any sustainable increases in the value will not be reflected in institutions' own funds requirements and, moreover, when property prices drop progressively, the collateral value will be overestimated compared with market value and the increase in credit risk could be knowingly ignored. If the value of the property was updated, the LTV ratio of the exposure would go up as the loan amount remains unchanged while the value of the property decreases, and consequently own funds requirements would also increase. To address this concern, the final Basel III framework includes a national discretion for supervisors to require institutions to revise property value downwards. If the value has been adjusted downwards, a subsequent upwards adjustment can be made, but the value cannot be higher than the value at origination.
189. Consequently, there are two options for the proposed way forward:
- a) Option 1: follow the baseline treatment according to Basel III, in other words keep the property value at origination with adjustments only if an extraordinary event resulting in a permanent reduction in the property value occurs, but exercise the national discretion for supervisors to require institutions to revise property value downwards. In this case, a subsequent upwards adjustment can be made but the value cannot be higher than the value at origination.

- b) Option 2: maintain the current approach of the CRR, which requires institutions to monitor property values, and to adjust the value of real estate collateral downwards where necessary, but at the same time allows institutions to assign a value to a property that is higher than the value that was assigned to this property when it was taken as collateral for the first time.
190. Option 1 means alignment with the final Basel III framework. As the intention is to reduce the possible cyclical effects of property valuation, there is merit in implementing a more conservative approach. Since alignment with the revised provisions is sought also regarding the implementation of methods for valuation, the differential between property values appraised in economic recession or expansion should not be significant. There could be unintended incentives for shorter minimum lending periods should upwards adjustments not be allowed. Even though the origination of new loans entails costs, institutions could try to circumvent the prohibition of increased property values by making use of early termination clauses to replace the original contract with an identical contract but based on the increased property value, or the obligor could use such clauses to change to another bank that might offer better conditions based on the increased property value. Therefore, supervisors will need to be aware of this possibility and monitor practices in this regard.
191. Option 2 could also be considered an appropriate option, especially for loans with long maturities, in which case institutions should be encouraged to monitor collateral values. Fixing a collateral value at origination for 20 to 25 years (which is the usual maturity of mortgage loans in some countries) does not appear to adequately reflect the risks of the institution over the life of the loan. The approach proposed by option 2 is considered to more accurately reflect the actual risk of the loan, while constant monitoring ensures prudent valuation.

### 3.8.6 Additional indicators for RW assignment

#### Recommendation CR-SA 28: additional indicators for valuation of real estate collateral

It is the EBA's opinion that, given the lack of harmonised implementation of different indicators across Member States, the assignment of RWs for real estate exposures should rely solely on the LTV ratio, in line with the final Basel III framework.

192. As part of the CfA, the EBA was '... invited to consider whether there is sufficient rationale to supplement LTV ratios with other factors ...' for the purposes of determining the RWs applicable to exposures secured by real estate. Indicators such as debt to income ratio or debt to service ratio were considered by the Basel Committee when the first consultation paper for the revised CR-SA was developed. However, concerns remained whether such indicators could be implemented in a consistent way across jurisdictions given that income levels, tax systems and underwriting practices are very different.



193. During the consultation, the participants welcomed the efforts of the BCBS in this respect, as they contribute to increasing risk sensitivity, but at the same time – for the reasons given above – raised concerns about the use of standardised definition and threshold. Based on these considerations, in the final Basel III rules, LTV ratio is used as the primary indicator for assigning RWs while underwriting criteria, such as an assessment of the borrower’s ability to repay the loan, have been incorporated in the operational requirements for recognising real estate collateral.
194. While it appears difficult to supplement the LTV ratio with other reliable indicators in the level 1 text, several regulatory products refer to other indicators that can be used as part of Pillar 2. Most notably, the Mortgage Credit Directive<sup>32</sup> contains provisions on the assessment of the creditworthiness of a borrower, while the upcoming EBA guidelines on loan origination provide guidance on several notable aspects: assessment of the borrower’s creditworthiness, commercial real estate lending and lending for real estate development, as well as a section on collateral valuation.

### 3.8.7 Additional guidance on underwriting policies

#### Recommendation CR-SA 29: additional guidance on underwriting policies

The EBA recommends that paragraph 61 of the final Basel III text for CR-SA be implemented without the national discretion regarding additional guidance on underwriting policies. Furthermore, the requirement in Article 125(2)(b) of the CRR regarding the assessment of the ability of the borrower to repay the loan from other sources should be extended as a mandatory requirement to all real estate exposures except land acquisition development and construction exposures.

195. According to the final Basel III framework, for a real estate loan to be eligible for the preferential treatment set out for the real estate exposure class, institutions should, among other things, assess the ‘ability of the borrower to repay’ (see paragraph 60 of the final Basel III text for CR-SA, which redirects to paragraph 61). The rules text requires institutions to ‘put in place underwriting policies with respect to the granting of mortgage loans that include the assessment of the ability of the borrower to repay’. Those policies must:
- a) delineate metrics (such as the loan’s debt service coverage ratio);
  - b) specify their corresponding relevant levels to conduct such assessment.
196. Metrics and levels for measuring the ability of the borrower to repay should mirror the principles) for sound residential mortgage underwriting practices laid down by Financial Stability Board (FSB) in April 2012<sup>33</sup> (hereinafter FSB principles). Furthermore, in accordance with the final Basel III provisions, *underwriting policies must also be appropriate when the*

<sup>32</sup> <https://eur-lex.europa.eu/eli/dir/2014/17/oj>

<sup>33</sup> [https://www.fsb.org/wp-content/uploads/r\\_120418.pdf?page\\_moved=1](https://www.fsb.org/wp-content/uploads/r_120418.pdf?page_moved=1)

*repayment of the mortgage loan depends materially on the cash flows generated by the property, including relevant metrics (such as an occupancy rate of the property).*

197. Paragraph 61 of the final Basel III text for CR-SA confers on the national supervisors the power to provide guidance setting out appropriate definitions and levels for these metrics in their jurisdictions.
198. Article 125(2)(b) of the CRR already requires institutions to ‘... determine maximum loan-to-income ratios as part of their lending policy and obtain suitable evidence of the relevant income when granting the loan ...’. However, this requirement is limited to exposures fully and completely secured by residential real estate and seems to be relevant only in Member States where the derogation in accordance with Article 125(3) of the CRR cannot be used.
199. Further, the FSB principles require lenders to evaluate not only consumers’ current income but also their income history and future ability to repay, taking into account all relevant factors and information. These principles are applicable only to loans to individuals (consumers) that are secured by residential real estate.
200. The EBA has also published a number of guidelines (guidelines on creditworthiness assessment;<sup>34</sup> guidelines on credit institutions credit risk management practices and accounting for expected credit losses;<sup>35</sup> guidelines on management of non-performing and forborne exposures<sup>36</sup>) that require institutions to assess the creditworthiness of the borrower.
201. Moreover, the EBA does not see the need to provide further guidance on appropriate definitions and levels for the metrics used in addition to what institutions have to assess under Article 125(2)(b) of the CRR. However, this requirement to ‘... determine maximum loan-to-income ratios as part of their lending policy and obtain suitable evidence of the relevant income when granting the loan ...’ should also be applied to CRE loans.

### 3.8.8 Condition for exclusion from IPRRE treatment

#### Recommendation CR-SA 30: exclusion from IPRRE treatment

It is the EBA’s opinion that, with regard to the conditions for excluding exposures from being treated as income-producing residential real estate, the condition on ‘exposures secured by an income-producing residential housing unit, to an individual who has mortgaged less than a certain number of properties or housing units’ should be implemented in a way that the number of income-producing housing units should be verified only for all exposures that already exist

<sup>34</sup> <https://eba.europa.eu/documents/10180/1092161/EBA-GL-2015-11+Guidelines+on+creditworthiness+assessment.pdf/f4812d37-06c4-42e4-a9e7-e3cf18501093>

<sup>35</sup>

<https://eba.europa.eu/documents/10180/1842525/Final+Guidelines+on+Accounting+for+Expected+Credit+Losses+%28EBA-GL-2017-06%29.pdf>

<sup>36</sup> <https://eba.europa.eu/documents/10180/2425705/Final+Guidelines+on+management+of+non-performing+and+forborne+exposures.pdf/371ff4ba-d7db-4fa9-a3c7-231cb9c2a26a>

when a bank grants a loan to a borrower. Moreover, the number of housing units should not be higher than four.

202. The revised SA, in paragraph 68, allows institutions to exclude certain types of exposures secured by residential real estate from the IPRRE treatment although they may be cash flow dependent by their nature. If an exposure falls into one of the four categories mentioned in paragraph 68 of the rules text for the revised CR-SA, institutions do not have to assess whether an exposure is indeed an IPRRE exposure but may directly apply the general real estate treatment. The reason for excluding certain types of exposures is to avoid unduly high own funds requirements in these specific cases as the types of exposure mentioned in this paragraph exhibit certain risk-mitigating characteristics compared with other IPRE exposures, such as the property being the primary residence of the borrower or the property being owned by a cooperative whose members have their primary residence in the property. The second bullet point of paragraph 68 excludes the following type of exposures from IPRRE:
- ‘An exposure secured by an income-producing residential housing unit, to an individual who has mortgaged less than a certain number of properties or housing units, as specified by national supervisors.’
203. The second consultative paper for the revised CR-SA already included a similar exemption in footnote 49 to paragraph 56, which, however, was much more specific and restrictive: ‘Exposures secured by properties where the borrower lives in one unit and rents other unit(s) within the same property will be automatically excluded from this penalised treatment (i.e. risk weighting is IPRE) as long as the number of units is not higher than 4’.
204. During the finalisation of the framework, the Basel Committee decided that, more generally, a small number of mortgaged income-producing properties, if owned by the same individual borrower, should not be included under IPRRE. Therefore, footnote 49 was changed in order to incorporate these exposures. However, the views were split on whether or not the text should be more precise regarding the number of mortgaged income-producing properties as other parts of the text (e.g. paragraph 60 (finished property) and the previous footnote 49) mention a fixed number of housing units. The final agreement was to not set a fixed number and in this way to align the rules text for the revised CR-SA with what is set out in the second bullet of paragraph 231 of the Basel II framework for the IRB approach.
205. The second consultative document already provided an indication of what the Basel Committee had in mind when allowing the exemption in paragraph 68. Similar to what is required in paragraph 60 for unfinished property, there should obviously be some de-minimis cases where an individual owns some rental property but this is clearly not his main economic activity. Most commonly, such borrowers are expected to be high-net-worth individuals, who in any case will have other sources of income and will not be reliant solely on the cash flows generated from the rental property for repaying the loan.

206. Therefore, as a way forward also for the purposes of paragraph 68, second bullet, the same approach could be chosen with respect to the ‘finished property’ requirements in paragraph 60. The objective of the Basel rule would obviously be met as long as the number of income-producing residential housing unit is sufficiently small. Unless there is strong evidence that it would not be appropriate for the European markets, the threshold of three (if we consider that based on the 2<sup>nd</sup> Basel consultation paper, the total number of housing units owned by the borrower should not be higher than four) or four additional income producing housing units is recommended for implementing the requirements of paragraph 68 of the revised CR-SA.
207. However, there is an additional problem with the Basel rules text with respect to this issue, as it does not include a direct link between the exposure in question and the collateral that is securing this exposure. In practice, this could lead to the situation where the borrower finances income-producing housing units up to the allowed threshold with one bank and then acquires additional income-producing housing units, which may be financed by another bank. This is not an issue for the second bank, as it will probably treat the exposure financing the additional housing unit as IPRE. It does, however, present a problem for the first bank, which originally treated and, in particular, priced its exposure as not being IPRRE but now may no longer be allowed to make use of the exemption mentioned in paragraph 68, second bullet, as the borrower now owns more than the allowed number of income-producing housing units. In essence, the own funds requirements of the first bank will depend on the lending decision of the second bank, as the lending decision of the second bank can increase the dependence of the payment ability of the obligor on the income produced by all the financed properties, thus, in practice, also increasing the risk for the first bank.

### 3.8.9 Treatment of exposures where the servicing of the loan materially depends on the cash flows generated by a portfolio of properties owned by the borrower

#### **Recommendation CR-SA 31: material dependence on cash flows generated by a portfolio of properties**

In the EBA’s opinion, it is not relevant whether the other sources of income of the borrower are other real estate properties or any other type of investment such as debt securities or equities. Therefore, the assessment should focus only on whether or not the servicing of a loan materially depends on the cash flows stemming from the property securing the loan.

208. Although the general criteria for classifying an exposure as IPRE foresee a one-to-one relationship between an exposure and a property securing this exposure (see paragraphs 67 and 73: ‘... prospects for servicing the loan materially depend on cash flows generated by the property securing the loan ...’), footnote 50 introduces a national discretion to carry out the material dependence assessment for IPCRE also on a portfolio basis. Originally, this discretion was also foreseen for IPRRE; it is not clear why it has been dropped in the final rules text.

209. When the Basel III framework was finalised, there were different views regarding what the introduction of the IPRE sub-category is actually supposed to achieve. One view was that IPRE should include exposures to individuals or companies whose main source of activity is renting or selling real estate. In order to capture this, material dependence should be understood on a portfolio basis: if more than 50% of the total income from the borrower used in the bank's assessment of its ability to repay is from cash flows from the portfolio of properties owned by the borrower, the exposure should be classified as IPRE. The other view was that the rules should stick to the approach in the second consultative document in which the IPRE is considered a type of specialised lending exposure. According to this view, the original intention behind its introduction in the CR-SA as well was to address situations where the risk of the borrower and of the financed property are effectively the same. Whereas the text of paragraphs 67 and 73 reflects the second view, the first view is reflected in footnote 50.
210. It is proposed not to implement footnote 50 and require assessment only of whether or not the servicing of a loan materially depends on the cash flows stemming from the property securing this loan. It is deemed irrelevant whether the other sources of income of the borrower are other real estate properties or any other type of investment such as debt securities or equities. This is especially true for larger real estate companies, which may have a well-diversified and dynamic portfolio of properties.

### 3.8.10 Land acquisition, development and construction exposures – general treatment

#### Recommendation CR-SA 32: implementation of the ADC sub-exposure class

The EBA recommends the implementation of the land acquisition, development and construction (ADC) sub-exposure class and the associated RW treatment, given the risk incurred by loans financing any of the land acquisition, development or construction of any properties where the source of repayment at origination of the exposure is either the future uncertain sale of the property or cash flows whose source is substantially uncertain.

211. With a view to introducing further risk sensitivity in the CR-SA, and particularly in the real estate exposure class, the final Basel III framework has introduced a new subset of exposures, ADC, which includes loans financing any of the land acquisition, development or construction of any properties whose source of repayment at origination of the exposure is either the future uncertain sale of the property or cash flows whose source is substantially uncertain (e.g. the property has not yet been leased to the occupancy rate prevailing in that geographic market for that type of real estate). Instead of the initial proposal to introduce ADC exposures as a sub-type of specialised lending exposures, the BCBS eventually decided to include ADC as a sub-type of real estate exposures in order to clarify the conceptual distinction between specialised lending and real estate exposures.
212. According to the CfA QIS, the impact of the introduction of this sub-exposure class accounts for 0.5% of the overall 1.1% impact of the real estate class on the RWA of the SA book. Moreover, it should be mentioned that this impact is over-estimated because it has been

assumed that the same 150% RW has been applied to both special purpose vehicles and companies, as well as residential borrowers. This is mainly because it was not feasible to set the necessary thresholds to identify those exposures that would warrant a preferential RW treatment of 100% (see section 3.8.11).

### 3.8.11 Conditions for the application of 100% RW for certain land acquisition, development and construction (ADC) exposures

#### Recommendation CR-SA 33: preferential RW treatment for certain ADC exposures

The EBA considers that, in order for certain ADC exposures to qualify for preferential treatment, their speculative character needs to be assessed, while a harmonised identification of the speculative features needs to be available across Member States. As this can be achieved only by providing thresholds separating speculative from non-speculative ADC exposures, which should be calibrated based on empirical evidence, the EBA recognises that further work is necessary and thus recommends a mandate be granted to the EBA for specifying the conditions for assigning a 100% RW to certain ADC exposures.

213. Paragraph 75 of the new Basel framework allows for a preferential RW of 100% for ADC exposures where the following two criteria are met:
- a) Prudential underwriting standards meet the requirements in paragraph 60 where applicable.
  - b) Pre-sale or pre-lease contracts amount to a significant portion of total contracts or substantial equity at risk.<sup>37</sup> Pre-sale or pre-lease contracts must be legally binding written contracts and the purchaser/renter must have made a substantial cash deposit which is subject to forfeiture if the contract is terminated. Equity at risk should be determined as an appropriate amount of borrower-contributed equity to the real estate's appraised as-completed value.
214. With regard to point (b), several clarifications are needed to ensure a clear implementation that would not result in additional variability in the SA:
- a) definition/quantification of what a 'significant' portion of total contracts means;
  - b) definition/quantification of what 'substantial' equity at risk means;
  - c) definition/quantification of what 'substantial' cash deposit means.
215. As the CfA explicitly requires the EBA to 'analyse the risk-sensitivity of the conditions for applying the 100% RW considering also the criteria currently applied in the EU for distinguishing non-speculative from speculative immovable property financing', the issue

<sup>37</sup> National supervisors will give further guidance on the appropriate levels of pre-sale or pre-lease contracts and/or equity at risk to be applied in their jurisdictions.

was explored in the qualitative questionnaire: participants were asked to fill in the amounts of the speculative immovable property portfolio which would fit into different buckets based on thresholds for pre-sale or pre-lease contracts (i.e. 0-30%, 30-40%, 40-50%, 50-70% and > 70%) and equity at risk (i.e. 0-15%, 15-20%, 20-25%, 25-30% and > 30%). Unfortunately, the rate of response by the participating institutions was low and the information provided was not very helpful – only 16 respondents provided information regarding the pre-sale or pre-lease contracts, while only three replied to the question about equity at risk. Moreover, only 27% of the respondents provided information regarding the current content of their speculative immovable property portfolio, while only 18% informed about the share of the current speculative immovable property portfolio that would qualify as ADC in the future.

216. Based on the information currently available, it is not possible to identify hard thresholds for any of the elements in paragraph 214 a), b) or c) within the CfA report timeline. However, providing clarity or specific thresholds for the above-mentioned elements is all the more important given that failure to provide further guidance would result in variability regarding the implementation of an exposure class which is characterised by its speculative features. As it is clear that more work is needed on this topic, it is proposed that a mandate be assigned to the EBA in order to frame and monitor the implementation of such criteria.

### 3.9 RW multiplier to certain exposures with currency mismatch

#### **Recommendation CR-SA 34: RW multiplier for certain exposures with currency mismatch**

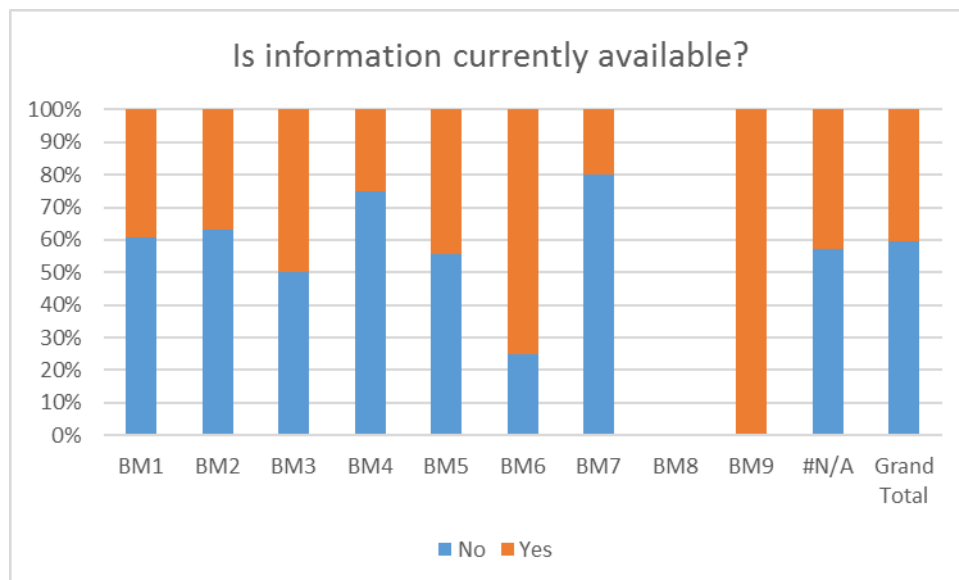
The EBA recommends the implementation of the RW multiplier for unhedged retail and residential real estate exposures to individuals where the lending currency differs from the currency of the borrower's source of income, and that this should apply both to currently existing loans and to newly originated loans. Furthermore, where institutions are unable to identify those loans with a currency mismatch, the RW multiplier should be applied to the whole stock of unhedged retail and residential real estate exposures to individuals that are denominated in a currency different from the national currency in the jurisdiction where the loan originated.

217. The final Basel III text introduces a 1.5 RW multiplier for 'unhedged retail and residential real estate exposures to individuals where the lending currency differs from the currency of the borrower's source of income'. The resulting maximum RW to be applied is capped at 150%. This revision was introduced because institutions with a significant portion of their loans denominated in foreign currencies to borrowers with income in a different (i.e. their own domestic) currency may see the credit risk of the borrowers rise as a consequence of rapid changes in foreign exchange rates.
218. The qualitative questionnaire explored how feasible it would be for institutions to implement this recommendation. Based on the replies of the participants to the qualitative questionnaire (178 respondents), 60% do not currently have the means to monitor the currency of the borrower's source of income during the loan period. The ability to do so does

not vary significantly according to the size of the bank, but does to some extent vary based on the business model<sup>38</sup> of the respondents. Roughly the same percentage (60%) considers that it would be difficult to monitor the currency a debtor's income is paid in (see Figures 20 and 21).

219. The reasons for the difficulty in the monitoring of the information are varied: i) monitoring would require extensive IT investment; ii) sourcing the data would be complex; iii) data are available at origination only, but no monitoring is conducted; iv) other (data not deemed useful; income and currency information is looked up for SMEs and corporates, but not retail; portfolios of retail exposures in foreign currencies are very small; institutions do not have regular payment accounts, nor current accounts; some institutions have internal policies to prevent it).

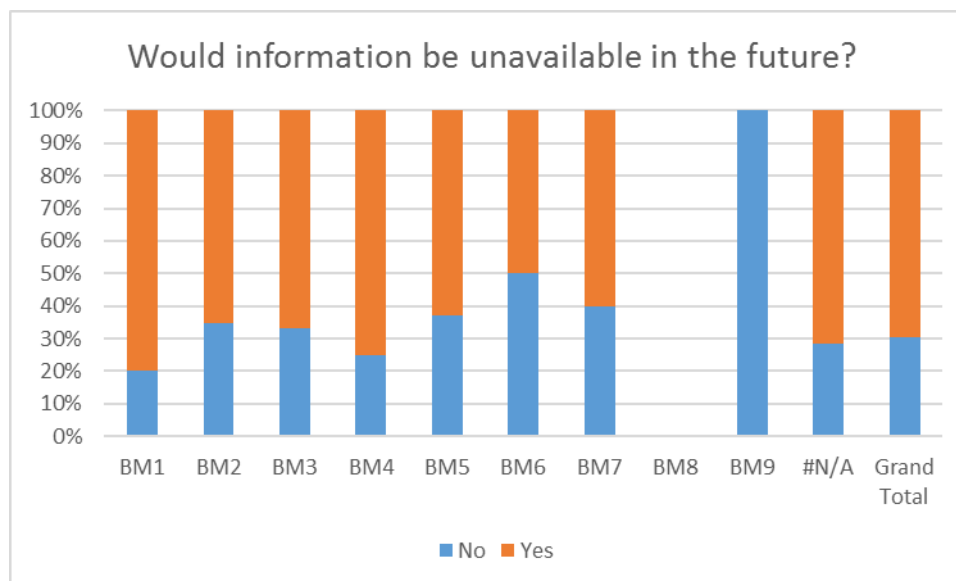
Figure 17: Availability of information



<sup>38</sup> BM1 – cross-border universal institutions; BM2 – local universal institutions; BM3 – automotive, consumer credit institutions; BM4 – building societies; BM5 – locally active savings and loan associations/cooperative institutions; BM6 – private institutions; BM7 – custody institutions; BM8 – CCPs; BM9 – merchant institutions; BM10 – leasing and factoring institutions; BM11 – public development institutions; BM12 – mortgage institutions including pass-through financing mortgage institutions; BM13 – other specialised institutions.



Figure 18: Future availability of information



220. With regard to the scope of application of this multiplier, there are concerns that applying the instrument only to newly originated loans would not solve the issue of borrowers exposed to the risk of foreign exchange (FX) rate volatility, as some jurisdictions, mainly outside the eurozone, still hold significant amounts of exposures in foreign currencies with long maturities (mainly mortgage loans). However, in some non-eurozone jurisdictions, experience of FX lending (e.g. CHF (Swiss franc) lending) exposing borrowers to FX rate volatility have resulted in CAs taking measures to encourage lending in their national currency (e.g. Hungary's decision to ban FX lending), and this is becoming increasingly common. However, significant stocks of FX loans persist, particularly long-maturity loans.
221. Since, based on the evidence provided via the qualitative questionnaire, but also on the feedback received during the QIS,<sup>39</sup> it appears difficult to track the potential currency mismatch with borrowers' currency of income, while the materiality of FX loans in the stock of loans to households in certain jurisdictions remains significant, an extension of the scope of application of the RW multiplier to institutions' full stock of FX loans should be considered. However, should institutions be able to identify those exposures with currency mismatch, the RW multiplier should be applied only to those specific exposures. This measure should be considered an incentive for institutions to adjust their policies with regard to monitoring.

### 3.10 Off-balance sheet items

#### Recommendation CR-SA 35: revised treatment for OBS items

<sup>39</sup> The QIS found that only about 0.4% of the total SA exposure in the EU would be subject to the specific measure under consideration. Accordingly, the contribution of the currency risk multiplier to the total 8% average increase in SA RWAs appears to be as low as 0.1%. But in the light of the marked difficulty in identifying the corresponding exposures, these numbers would seem to be significantly underestimated.

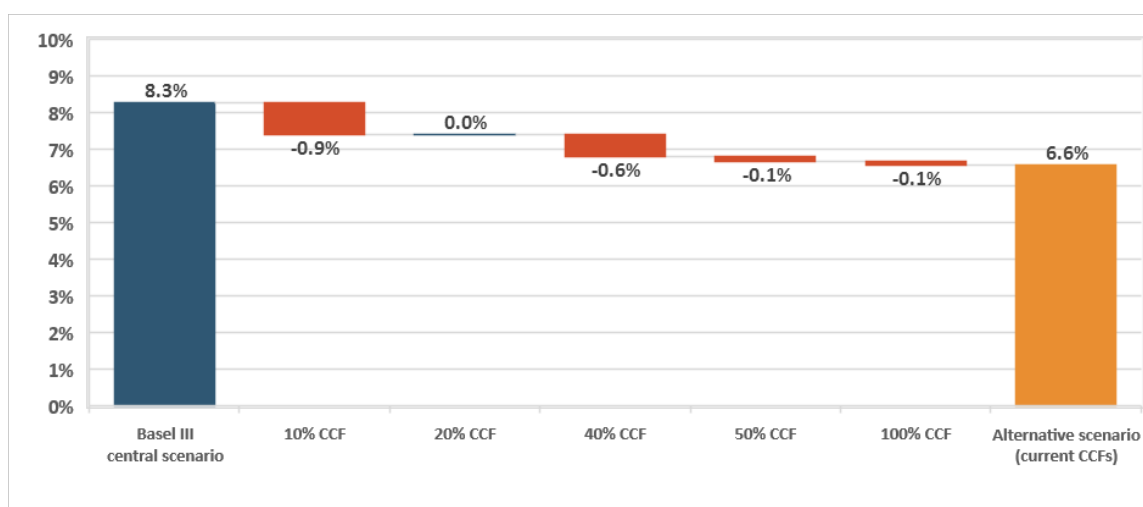
It is the EBA's opinion that new CCFs of 10% and 40% should be introduced. However, the EBA recognises that this alignment will result in a need to reassign OBS items in Annex I of the CRR in accordance with the new structure of the CCFs. Furthermore, the EBA considers that there is a need to further clarify the criteria for allocation of items to Annex I of the CRR, as well as to provide guidance on those factors that constrain the ability to cancel commitments and also to specify the process for notifying the EBA on institutions' classification of specific OBS items in Annex I categories. Hence, the EBA is asking that it be assigned a mandate for an RTS in order to further specify the treatment of OBS items.

222. The final Basel framework for CR-SA includes three CCF values that are different from those in the current CRR (of which only the first two represent changes in the Basel framework):

- a) 10% applies to unconditionally cancellable commitments – the corresponding CRR CCF is 0%;
- b) 40% applies to all other commitments, regardless of the maturity of the underlying facility – the corresponding CRR CCFs are 20% (for commitments with a maturity up to one year) and 50% (for all other commitments);
- c) 50% applies to certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions) – the corresponding CRR CCF is 20%.

223. Figure 19 shows the impact on RWA resulting from the final Basel III framework including the impact from implementing the revised CCFs for OBS exposure as well as excluding this impact. The difference in impact is provided for each CCF separately.

Figure 19: Percentage change in SA RWA due to application of revised credit conversion factors (relative to total current SA RWA)



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 94 banks. CCF, credit conversion factor.

224. Under the CRR, the elements classified as 'full risk' OBS items in Annex I map almost exactly to the items associated with a 100% CCF in the final Basel III text. In the case of the remaining categories, however, the approach differs between the two frameworks: where the CRR details the list of items qualifying for different categories, the final Basel III framework gives a loose description of the elements that should be associated with each type of CCF. Nonetheless, despite providing under the CRR a list/examples of what should be included in each CCF category under the CRR, there is an abundance of Q&As with regard to classification of items.
225. In order to better understand the challenges posed by the classification of OBS items under Annex I, an analysis of the EBA-received Q&As was carried out. The issues raised by those submitting the questions fall into two main categories: i) as Annex I provides a non-exhaustive list of items in each risk category, with the final category, 'other items', intended to cover the items that carry the same risk as the previous ones, some stakeholders have experienced difficulties in identifying the common denominator of the items listed under each category; or ii) it is not clear what the items listed in Annex I are and/or why they are included under one particular risk category rather than a different one.
226. More precisely, the analysis shows that currently 19 Q&As, mostly published, relate to the classification of OBS items. Depending on the issue addressed, the main difficulties raised by these Q&As can be summarised as follows (although often one Q&A will cover several different aspects):
- a) Is a certain item within the scope of Annex I (six Q&As)?
  - b) In what risk class should a certain item be classified according to Annex I based on its characteristics (13 Q&As)?
  - c) Is the 'full risk' category the default category if an item cannot be associated with any other risk category in Annex I (four Q&As)?
  - d) Interaction with CRM provisions (four Q&As).
  - e) Clarifications with regard to the maturity to be considered (five Q&As).
227. Several Q&As clarify the classification of credit substitute, while others deal with the definition of credit line. Yet other Q&As covered the notion of 'unconditionally cancellable commitment' and the distinction between revocable and irrevocable commitments and agreements to lend. The following specific items were also the subject of various Q&As:
- a) documentary credit and self-liquidating transactions;
  - b) uncommitted lines;

- c) committed reverse repo facilities and other committed credit facilities conditional on purchasing/receiving eligible collateral;
  - d) invoice discount facilities;
  - e) irrevocable standby letters of credit not credit substitutes, nor related to trade finance;
  - f) performance bonds;
  - g) guarantees for payment of delivered goods and services;
  - h) long-term letters of credit arising from the movement of goods;
  - i) contingent liabilities within the merchant services industry;
  - j) proposals for mortgage extensions.
228. All these different strands of discussion on the construction and content of Annex I illustrate the need to, at a minimum, carry out work on specifying the notions based on which items are allocated to Annex I (e.g. Basel III includes a definition of the term 'commitments') and better explain what should be included in Articles 1(k), 2(b)(iv), 3(b)(ii) and 4(c) of Annex I in the CRR. It is proposed that a mandate be given to the EBA in order to clarify the criteria for allocation of items to Annex I.
229. Furthermore, with regard to the newly introduced CCF of 10% for UCCs, paragraph 84 of the final Basel text for CR-SA advises that 'national supervisors should evaluate various factors in the jurisdiction, which may constrain institutions' ability to cancel the commitment in practice, and consider applying a higher CCF to certain commitments as appropriate'. It is currently unclear how institutions should proceed in the identification process. It is proposed to provide guidance on those factors that constrain the ability to cancel commitments in the mandate for the RTS on Annex I.
230. Finally, in Annex I of the CRR, Articles 2(b)(iv), 3(b)(ii) and 4(c) refer to 'other items also carrying [medium; medium/low; low] risk and as communicated to the EBA'. The notification process for these cases is not referenced in the CRR and is unclear to stakeholders (as evidenced from different questions received from eGate users):
- a) Who should notify the EBA?
  - b) What is the content and purpose of the notification?
  - c) What will be done with the information received via this notification?
231. Based on discussions regarding this notification process, it would appear that further work is needed in order to outline a process that is efficient and useful for its purposes; therefore, it is proposed that the notification process be included in the mandate for the RTS on Annex I.

## 3.11 Other assets

### 3.11.1 Gold bullion backed by bullion liabilities

#### Recommendation CR-SA 36: gold bullion backed by bullion liabilities

The EBA considers that, with regard to the treatment for other assets, the conditions for assigning a 0% RW to gold bullions in line with Article 134(4) of the CRR should be clarified. Hence, it should be specified that the gold liability rests with the entity that has the gold under custody on behalf of the owner and that the owner has a right to sort out the gold in the event of insolvency of the custodian.

232. Q&A 2017/3649<sup>40</sup> relates to the RW treatment of gold bullion that is held on the behalf of an institution by other institutions when such investment is not backed by gold bullion liabilities. While the answer clarifies that, in the event that the conditions of Article 134(4) of the CRR are not met, the counterparty RW should be applied to the gold exposure, it does not provide clarity on the conditions for applying Article 134(4) of the CRR.

### 3.11.2 Residual value of leased assets

#### Recommendation CR-SA 37: residual value of leased assets

The EBA considers that, in the case of the residual value of leased assets, the exposure value should refer directly to the accounting value at the end of the lease that remains after minimum lease payments or bargain options, while the recognition of CRM for operating leases should be aligned under both the SA and the IRB approach.

233. In the CRR, the treatment is described in one article (Article 134(7)) for the SA, but split into three different articles for the IRB approach (Article 147(9) for the classification, Article 156(b) for the RW computation and Article 166(4) for the exposure value computation). This discrepancy should be seen as an inconsistency in the presentation rather than in the treatment itself although the EU Regulatory Consistency Assessment Programme (RCAP) did notice a small difference<sup>41</sup> as follows: ‘While the IRB Approach correctly uses the term “exposure value” in the formula  $[(1/t * \text{Exposure value}]$ , the Standardised Approach uses the term ‘residual value’  $[(1/t * \text{Residual value}]$ ’. Both Basel II<sup>42</sup> and Basel III<sup>43</sup> also have an inconsistency, since there is no specific methodology to measure the ‘residual value’ under the SA.

<sup>40</sup> [https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2017\\_3649](https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2017_3649)

<sup>41</sup> See page 35 of EU RCAP.

<sup>42</sup> SA: paragraph 81 (no specific treatment); IRB: paragraph 524.

<sup>43</sup> SA: paragraph 95 (no specific treatment); IRB: paragraph 299 (no change).

234. The residual value used for the SA is obviously meant to refer to the current accounting value. The formula  $1/t * 100% * \text{residual value}$  (Article 134(7) CRR) is supposed to apply a 100% RW to the value remaining at the end of the lease, where  $t$  is the number of years remaining on the lease. This suggests the assumption of linear amortisation of the value currently recorded as residual value on the balance sheet. This is not different in substance from the IRB approach, which determines the exposure value of other non-credit obligation assets as the accounting value after specific credit risk adjustments (Article 168 of the CRR) and, thus, also as the residual value currently recorded on the balance sheet. The future formula for the exposure value should be more general than the current formulas. As explained above,  $1/t * \text{residual value}$  assumes linear amortisation over the remaining lease term. This assumption does not necessarily hold under all applicable accounting frameworks. The exposure value should therefore directly refer to the accounting value at the end of the lease that remains after minimum lease payments or bargain options, because this is the amount that remains exposed to loss risk after all payment obligations have been fulfilled.
235. Moreover, the CRR should further specify the treatment of leased assets in relation to the exposures arising from minimum lease payments in the case of operating leases. Whereas, in the case of financing leases, the leased asset is typically pledged as collateral, and, therefore, the general rules for funded CRM are applicable, in the case of operating leases the leased asset is owned by the institution itself. In this case, the minimum lease payments rather serve to cover the risk that the value of the leased asset depreciates. Nevertheless, the ownership over the leased asset achieves the same CRM in the case of failures on the minimum lease payments, and could be enforced even more easily than in the case of a leased asset 'solely' pledged as collateral in case of financing leases. This justifies treating minimum lease payments also in the case of operating leases as collateralised by the leased asset where eligible as funded CRM under the CRR. This treatment is already explicitly allowed under Basel standards for the IRB approach (Basel II, 523/d242, IRB, 298), where this is not constrained to financing leases. However, Basel standards apply additional conditions that are currently missing in the CRR, in particular that the difference between the rate of depreciation of the physical asset and the rate of amortisation of the lease payments must not be so large as to overstate the CRM attributed to the leased assets. The CRR should explicitly allow the same recognition of CRM for operating leases under both the SA and the IRB approach.

## 3.12 Credit risk mitigation framework (CRM)

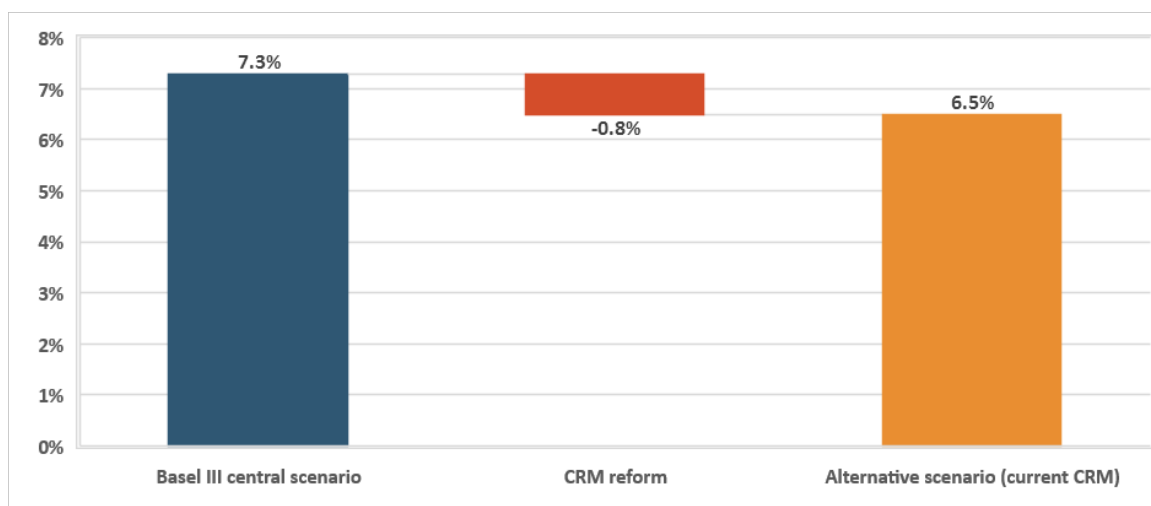
### 3.12.1 Impact of the Basel III revisions to the current CRM framework

#### **Recommendation CR-SA 38: revised CRM framework**

The EBA recommends that the CRM framework be aligned with the revised Basel III provisions for CRM under the CR-SA.

236. The final Basel III framework brings a series of changes to the CRM provisions:
- the removal of own estimates of haircuts when using the comprehensive approach for taking into account the effects of the collateral posted or received;
  - supervisory haircuts under the comprehensive approach for taking into account the effect of collateral posted or received;
  - full recognition of credit derivatives, where restructuring is not specified as a credit event;
  - no recognition of *n*th-to-default products.
237. The overall impact of the implementation of the revised CRM provisions has been studied via the QIS (Figure 20).

Figure 20: Percentage change in RWA due to the application of revised CRM provisions



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 61 banks.

238. Moreover, the EBA has also studied the perception of institutions regarding the amendments brought to the CRM framework via the qualitative questionnaire. Questions addressed separately the expected impact on the level of RWA for the SA portfolio of each of the above-mentioned amendments.
239. On the expected impact of the removal of own estimates of haircuts when using the comprehensive approach for taking into account the effects of the collateral posted or received (in line with paragraph 155 of the final Basel text for the SA), there was a response rate of 52%, with 79% of those who responded expecting a variation smaller than 0.5% of their SA RWA and 20% expecting an increase higher than 0.5%. The results vary marginally when analysed by size of the bank and by business model.
240. Regarding the impact of the proposed supervisory haircuts under the comprehensive approach for taking into account the effect of collateral posted or received (in line with

paragraphs 163 and 164 of the final Basel text for the SA), there was a 67% response rate, with 70% of those who responded expecting a variation smaller than 0.5% of their SA RWA and while 27% expecting an increase higher than 0.5%. Here, too, the analysis by size and business model does not bring added value compared with the overall results.

241. As regards the impact of the full recognition of credit derivatives, where restructuring is not specified as a credit event, but where the requirements of footnote 83 of the final SA under Basel III are met, there was a 52% response rate, with 90% of those responding expecting a marginal variation of their SA RWA amounts ( $\pm 0.5\%$ ), with these results being robust to a size and business model analysis.
242. The removal of recognition of *n*th-to-default credit derivatives was also the subject of a question in the qualitative questionnaire, the response rate to which was 52%. Only a very small minority of the respondents expect an increase of their SA RWA higher than 0.5%, a result which is robust with regard to size of the institution and business model.
243. Institutions were also asked to rank CRM amendments from the most impactful to the least impactful, and the results are similar for the overall sample as well as in the analysis by size and business model. The order is the following (from the largest expected impact to the smallest expected impact):
  - a) recalibrated haircuts;
  - b) removal of use of own estimates;
  - c) full recognition of credit derivatives;
  - d) removal of the use of *n*th to default.

### 3.12.2 Targeted fixes to the current CRM framework (in line with the EBA CRM report)

#### Recommendation CR-SA 39: CRM framework targeted fixes in line with the EBA CRM report

The EBA recommends that the targeted fixes provided in the EBA CRM report published in 2018<sup>44</sup> be implemented.

#### (i) Guarantor's repayment schedule after default of the obligor

**Policy recommendation:** align the CRR with Basel on the treatment of guarantees, more specifically with paragraph 194(a) in the final Basel III text for credit risk under SA, which allows the guarantor either to make one lump sum payment or to assume the future payment obligations of the counterparty covered by the guarantee.

244. Q&A 3576 enquires whether the timely payment requirement for unfunded credit protection (UFCP) is fulfilled in a situation where the main obligor defaults and the whole amount of the

<sup>44</sup> <https://eba.europa.eu/documents/10180/2087449/EBA+Report+on+CRM+framework.pdf>



loan becomes due and payable for him prior to the original scheduled payment dates, but the guarantor has the contractual right to pay according to the original scheduled payment dates of the hedged loan. In particular, it is not clear whether, in order to ensure eligibility of the credit protection, the lending institution has to be able to claim the immediate repayment of the whole amount from the guarantor when the whole repayment of the loan becomes immediately due in the event of a default of the main obligor (or for any other reason that triggers the acceleration clause).

245. The answer reflects the view, whereby, in principle, the guarantee is eligible if it covers any payment due by the obligor, in the sense that the guarantee contract refers to the main obligation, but it is not required to cover also additional clauses that are applicable to the main obligor. Thus, the guarantee should be considered to be eligible irrespective of whether or not the institution's contract with the obligor contains additional clauses under which the loan becomes due according to terms different from the originally scheduled payment dates, as it would be, for example, in the case of a close-out netting agreement.

#### (ii) Treatment of on-balance sheet netting (OBSN) with regard to currency mismatch

246. Article 95 of the CRR regarding on-balance sheet netting (OBSN) sets out that OBSN is limited to reciprocal cash balances between the institution and the counterparty. There is no intended limitation of eligibility with regard to currency mismatches.
247. However, Article 19 of the CRR clarifies that loans and deposits with the lending institution 'denominated in the same currency' are to be treated by the institution as cash collateral. It is therefore unclear whether OBSN still applies in the case of currency mismatch, and which would be the appropriate regulatory treatment in this case.
248. The EBA considers that the phrase 'denominated in the same currency' in Article 219 of the CRR ensures that zero haircuts are applied for the purposes of the Financial Collateral Comprehensive Method (FCCM) in the case of OBSN when there is no currency mismatch. However, this phrase is not necessary and could lead to confusion, as the loans and the deposits should also be treated as cash collateral where there is a currency mismatch, with the only difference being that under the FCCM a volatility adjustment for currency mismatch applies in line with Article 224(1) of the CRR, Table 4.
249. To recognise the effects of OBSN, one can also apply the Financial Collateral Simple Method (FCSM). In this case, should a currency mismatch occur, the RW assigned to the collateralised portion of the exposure shall be at least 20% (as per Article 222(3) of the CRR), which is expected to mitigate said currency mismatch.

**Policy recommendation:** it is advised that Article 219 of the CRR be amended as follows:

Loans to and deposits with the lending institution subject to on-balance sheet netting are to be treated by that institution as cash collateral for the purpose of calculating the effect of funded credit protection for those loans and deposits of the lending institution subject to on-balance sheet netting ~~which are denominated in the same currency.~~

#### (iii) Cash assimilated instruments used as a technique of credit risk mitigation

250. Under Article 4(1)(60) of the CRR, a cash assimilated instrument (CAI) is defined as a ‘certificate of deposit, a bond, including a covered bond, or any other non-subordinated instrument, which has been issued by an institution, for which the institution has already received full payment and which shall be unconditionally reimbursed by the institution at its nominal value’.
251. In Q&A [2015 1917](#) it is clarified that ‘an unconditionally drawable letter of credit held directly by an institution as beneficiary cannot be treated as cash assimilated instruments, to the extent that it is issued by a party different from the lending institution (and guarantees a payment obligation vis-à-vis the latter).’ The underlying rationale is that, in order for this technique of CRM to be considered similarly to cash on deposit with the lending institution for the purposes of Article 197(1)(a) of the CRR, it should be issued by the lending institution.
252. This interpretation is consistent with the treatment of cash on deposit with the lending institution and CAIs referred to in Article 197(1)(a) of the CRR as cash collateral under the FCCM (i.e. zero volatility adjustments apply, unless there is a currency mismatch). In the same way, for the purposes of the FCSM under Article 222(6)(a) of the CRR, the collateralised part of the exposure would be assigned a zero RW. This follows from the fact that the lending institution would not need to liquidate the collateral upon default of the obligor (as it effectively issued it), and thus to capitalise the risk that the collateral could default or lose value while liquidating, but would instead just directly offset the loss resulting from the borrower with its liability on the CAI, which is no longer needed to reimburse to external parties.<sup>45</sup> It is therefore recommended that the level 1 text be amended to clarify that the CAIs referenced in Article 197(1)(a) of the CRR are only those issued by the lending institution.
253. In addition, for the purposes of the CAIs mentioned in Article 200(a) of the CRR and used as a form of other funded credit protection (OFCP), it would be useful to clarify in the level 1 text that such CAIs should be only those issued by the lending institution. The requirements and CRM mechanics envisaged for these CAIs are described in Articles 212(1) and 232(1) of the CRR, and such CAIs are therefore treated as a guarantee provided by the third party institution holding them. The suggestion that it be clarified that those CAIs be only those issued by the lending institution is motivated by the fact that the lending institution, which upon default of the obligor will be paid the CAI held by the third party institution mentioned in Article 200(a) of the CRR, bears the risk that the CAI is defaulted at the time of the payment by the third party institution (and thus may receive no protection), and this risk is not recognised as part of the mechanics to recognise the CRM effects, unless it is in fact the lending institution that has issued itself the CAI.

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<sup>45</sup> On the contrary, it would not be appropriate to allow – under Article 197(1)(a) CRR – CAIs which are issued by institutions other than the lending institution, as they would otherwise be assigned either a zero risk weight under the FCSM (see Article 223(6) CRR) or zero volatility adjustments under the FCCM, yet those instruments are still subject to credit risk and possible deterioration in value, and should therefore be treated similarly to other types of financial collateral.

254. In support of this rationale, it is also noted that the above understanding was reflected in Directive 2006/48/EC by the definition of CAI specified in Article 4(35) of that directive: ‘“cash assimilated instrument” means a certificate of deposit or other similar instrument **issued by the lending credit institution**’, which effectively limited CAIs to instruments issued by the lending institution.

**Policy recommendation:** it is advised that Article 4(1)(60) of the CRR be amended as follows:

‘certificate of deposit, a bond, including a covered bond, or any other non-subordinated instrument, which has been issued by ~~the lending institution-an institution~~, for which the **lending** institution has already received full payment and which shall be unconditionally reimbursed by the **lending** institution at its nominal value’.

255. While the proposed amendment in Article 4(1)(60) of the CRR would ensure an adequate CRM treatment for CAIs referred to in Articles 197(1)(a) and Article 200(a) of the CRR, it is nevertheless noted that, should this amendment not be directly introduced in Article 4(1)(60) of the CRR, relevant Articles affecting CAIs used under the CRM Framework should be amended to reflect the above understanding. For example, an alternative could be to clarify in Article 192 of the CRR that CAIs mentioned in Chapter 4 refer exclusively to CAIs issued by the lending institution.

#### (iv) Cash assimilated instruments used as a form of OFCP

256. Consistent with the above understanding regarding the use of CAIs as referred to in Article 200(a) of the CRR, it should be clarified that Article 232(1) of the CRR also references these instruments. It is therefore proposed that Article 232(1) of the CRR be amended with a view to providing clarification in this regard.

**Policy recommendation:** It is proposed that Article 232(1) of the CRR be amended as follows:

Where the conditions set out in Article 12(1) are met, cash on deposit with, or cash assimilated instruments held by, a third party institution **in a non-custodial arrangement and pledged to the lending institution**, may be treated as a guarantee provided by the third party institution.

#### (v) Forms of gold eligible under Article 197(1)(g) of the CRR

257. Clarification was sought on the definition of ‘gold’ under Article 197(1)(g) of the CRR: the lack of further specification may give way to different interpretations of the term, thus resulting in national interpretation of the forms of gold which could be considered eligible under Article 197(1)(g) of the CRR.

258. For example, it was enquired if synthetic exposures towards gold (e.g. exchange traded funds (ETFs) tracking the gold price) may be considered ‘gold’ in the context of Article 197(1)(g) of the CRR. The EBA has therefore considered whether or not a specification or amendment of the term in Article 197(1)(g) of the CRR would be beneficial to ensure further clarity and harmonisation of this term.

259. Under the SA, direct exposures towards gold are treated under Article 134(4) of the CRR, which refers to ‘gold bullion’. In this context, [Q&A 2016 3011](#) provides further clarification on the forms of gold understood by ‘gold bullion’. The term ‘gold bullion’ refers to gold in the

form of a commodity (e.g. gold bars, ingots, coins, etc.) commonly accepted by the bullion market, where liquid markets for bullion exist, and whose value is determined by the value of the gold content, defined by purity and mass, rather than by its interest to numismatists.

260. However, the CRR does not provide a detailed definition of gold (e.g. on the basis of its technical composition<sup>46</sup>) for the purposes of direct exposures towards gold under Article 134(4) of the CRR. For this reason, it might not be appropriate to introduce a definition limited to gold that may be used under Article 197(1)(g) of the CRR.
261. On the other hand, forms of gold under Article 197(1)(g) of the CRR are also expected to be gold in the form of a commodity that the institution receives as collateral on its exposures, rather than synthetic instruments whose value is associated with the gold price. As a consequence, it is proposed to substitute the term ‘gold’ in Article 197(1)(g) of the CRR with ‘gold bullion’, which would ensure consistency with the term and understanding of gold specified in Article 134(4) of the CRR.

**Policy recommendation:** It is proposed that Article 197(1)(g) CRR be amended as follows:

*gold bullion*

**(vi) Eligibility of financial collateral based on credit assessments of non-nominated ECAIs**

262. Article 197(1) of the CRR sets out the types of collateral which are eligible under all approaches and methods for the determination of minimum own funds requirements for credit risk. According to points (b), (c), (d) and (e) of this paragraph, this includes debt securities issued by central governments or central banks, institutions and other entities which are required have a credit assessment by an ECAI (or an ECA in the case of debt securities issued by a central government or a central bank) that corresponds to at least a certain minimum credit quality step as determined by the EBA according to the rules set out under the standardised approach for credit risk.
263. For the determination of RWs for direct exposures, Article 138 of the CRR is clear that for this purpose institutions may use credit assessments only of ECAIs that they have explicitly nominated for this purpose. In contrast, what appears not to be clear from the text of the CRR is whether institutions may rely on a credit assessment issued by any ECAI with respect to a certain debt security for determining if the required minimum credit quality step is met or whether this determination may also be done based on credit assessments issued only by ECAIs or ECAs that are explicitly nominated by the bank for this purpose. Moreover, the text of point (b) of Article 197(1) on this aspect differs from that of points (c), (d) and (e).

**Policy recommendation:** It is advised that Article 97(1)(b) of the CRR be amended as follows:

*debt securities satisfying each of the following conditions:*

<sup>46</sup> Such as a definition similar to the one provided in Article 344 of Council Directive 2006/112/EC.

1. *are issued by central governments or central banks;*
2. *have a credit assessment carried out by an ECAI or export credit agency, which credit assessment (i) is recognised as being eligible for the purposes of Chapter 2 and (ii) has been determined by EBA to be associated with credit quality step 4 or above under the rules for the risk weighting of exposures to central governments and central banks under Chapter 2;*

It is advised that Article 197 (1)(c) of the CRR be amended as follows:

*debt securities satisfying each of the following conditions:*

1. *are issued by institutions;*
2. *have a credit assessment carried out by an ECAI, which credit assessment (i) is recognised as being eligible for the purposes of Chapter 2 and (ii) has been determined by EBA to be associated with credit quality step 3 or above under the rules for the risk weighting of exposures to institutions under Chapter 2;*

It is advised that Article 197(1)(d) of the CRR be amended as follows:

*debt securities satisfying each of the following conditions:*

1. *are issued by other entities;*
2. *have a credit assessment carried out by an ECAI, which credit assessment (i) is recognised as being eligible for the purposes of Chapter 2 and (ii) has been determined by EBA to be associated with credit quality step 3 or above under the rules for the risk weighting of exposures to corporates under Chapter 2;*

It is advised that Article 197 1)(e) of the CRR be amended as follows:

*debt securities having a short-term credit assessment carried out by an ECAI, which credit assessment (i) is recognised as being eligible for the purposes of Chapter 2 and (ii) has been determined by EBA to be associated with credit quality step 3 or above under the rules for the risk weighting of short-term exposures under Chapter 2;*

#### **(vii) Loan commitments contingent on collateral**

264. Given several pending Q&As on the topic, it was discussed whether (contingent) collateral to be posted before a loan already committed by the bank is drawn can be recognised as a credit risk mitigant in the calculation of own funds requirements for the corresponding OBS item. In other words, the question is whether, under the condition that a loan will only be paid out when the collateral is available to the bank, the corresponding OBS item may be risk weighted as if being already collateralised even though the collateral is not yet posted to the bank.

265. In this context, it was considered that the own funds requirements for OBS items should reflect their relative riskiness when they become on-balance sheet items. This should be reflected by both their CCF (which has an impact on the exposure value) and their RW. Therefore, where an unsecured OBS item will become an on-balance sheet item only once it is secured, that is the bank will not pay out on its commitment unless collateral has been posted, this OBS item may already be risk weighted as if it were collateralised before the collateral is posted to the bank.

**Policy recommendation:** It is advised that Article 193 of the CRR be amended by introducing the following paragraph:

*Where collateral satisfies all eligibility requirements set out in Chapter 4, it can be recognised as such even for exposures associated with undrawn facilities. Where drawing under the facility is conditional on the prior or simultaneous purchase or reception of collateral to the extent of the institution's interest in the collateral once the facility is drawn, such that the institution does not have any interest in the collateral to the extent the facility is not drawn, such collateral can already be recognised for the exposure arising from the undrawn facility.*

#### (viii) Requirement in Article 199(6)(d) of the CRR regarding eligibility of physical collateral

266. Paragraph 6 of Article 199 of the CRR sets out eligibility requirements for other physical collateral. One of these requirements is that institutions demonstrate that the valuation of the types of physical collateral used by the institution is sufficiently stable. More specifically, point (d) of that paragraph requires that: 'The institution demonstrates that the realised proceeds from the collateral are not below 70 % of the collateral value in more than 10 % of all liquidations for a given type of collateral. Where there is material volatility in the market prices, the institution demonstrates to the satisfaction of the competent authorities that its valuation of the collateral is sufficiently conservative'.

267. The assumed intention of this requirement is that an institution should provide evidence that, in at least 90% of all liquidations of a given type of collateral, the difference between the value of the collateral and the proceeds stemming from the liquidation of that collateral is less than 30% of the collateral value.

268. However, it was noted that the rule text may be ambiguous since it could be read as requiring that, (only) in more than 10% of all liquidations, the realised proceeds shall not be below 70% of the collateral value; in other words, the requirement would be fulfilled if the difference between the collateral value and the proceeds stemming from the liquidation of that collateral is less than 30% of the collateral value in less than 90% of all liquidations. This ambiguity resulted in wrong translations of the CRR.<sup>47</sup>

269. Taking into account the assumed intention of this requirement, a slight amendment of the relevant rule text in Article 199(6)(d) CRR is suggested to avoid the above interpretative doubts.

**Policy recommendation:** It is advised that Article 199(6)(d) of the CRR be amended as follows:

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<sup>47</sup> As an example, the German translation of the CRR implements a wrong understanding of this provision.

The institution demonstrates that *in at least 90% of all liquidations for a given type of collateral the realised proceeds from the collateral are not below 70 % of the collateral value* ~~*in more than 10% of all liquidations for a given type of collateral.*~~ Where there is material volatility in the market prices, the institution demonstrates to the satisfaction of the competent authorities that its valuation of the collateral is sufficiently conservative.

#### (ix) Insurance against the risk of damage

270. Article 10(i) of the CRR on the requirements for other physical collateral specifies: ‘the collateral taken as protection shall be adequately insured against the risk of damage and institutions shall have in place procedures to monitor this’. Currently, there are no types of ‘other physical collateral’ for which institutions can automatically assume that the conditions referred to in points (a) and (b) of Article 199(6) of the CRR can be met.<sup>48</sup> Instead, institutions shall document the fulfilment of these conditions in accordance with the second subparagraph of Article 199(6) of the CRR.
271. On the other hand, for immovable property collateral, a similar requirement is specified in Article 208(5) of the CRR, which reads: ‘Institutions shall have in place procedures to monitor that the property taken as credit protection is adequately insured against the risk of damage’.
272. The EBA analysed whether it would be useful to provide further guidance on the requirement in Article 210(i) of the CRR by indicating if the institution should elaborate in its internal rules on the type of damages to be insured against, the payment limit or on how the validity of insurance can be proved. However, given the specificities of ‘other physical collateral’, it was concluded that it would not be appropriate to develop a uniform approach for all types of collateral.
273. Instead, it is suggested that the wording in Articles 210(i) and 208(5) of the CRR be brought into alignment. Although both provisions cover risk of damage, the wording in Article 210(i) of the CRR appears stronger, as it requires that the collateral be insured against the risk of damage in any circumstance, whereas Article 208(5) of the CRR refers to monitoring only. Consequently, it is recommended that the wording in Article 208(5) of the CRR be amended to align with that in Article 210(i) of the CRR.

**Policy recommendation:** It is advised that Article 208(5) of the CRR be amended as follows:

~~*Institutions shall have in place procedures to monitor that*~~ *The immovable property taken as credit protection shall be-is adequately insured against the risk of damage and institutions shall have in place procedures to monitor this.*

#### (x) Requirements for the valuer of immovable property collateral

274. The requirements for the valuer in Article 208(3)(b) of the CRR in the context of on-going valuation specify that the review of the property valuation is performed by ‘a valuer who possesses the necessary qualifications, ability and experience to execute a valuation and who is independent from the credit decision process’. However, equivalent requirements for the independent valuer are not specified for the purposes of valuation under Article 229(1) of

<sup>48</sup> Please refer to the following EBA web page: <https://www.eba.europa.eu/supervisory-convergence/supervisory-disclosure/rules-and-guidance>

the CRR. As a consequence, the EBA suggests that these requirements for the independent valuer be reflected also in Article 229(1) of the CRR.

**Policy recommendation:** It is advised that Article 229(1) of the CRR be amended as follows:

*For immovable property collateral, the collateral shall be valued by an independent valuer **who possesses the necessary qualifications, ability and experience to execute a valuation and who is independent from the credit decision process** at or less than the market value. An institution shall require the independent valuer to document the market value in a transparent and clear manner.*

#### (xi) Alignment of the terminology for exposures secured by immovable property

275. It has been noted that different terminologies are used across the CRR under the SA and the IRBA when referring to exposures secured by immovable properties. For example, the CRR uses the terms ‘mortgage on immovable property’, ‘exposure secured by immovable property collateral’, or ‘exposures secured by [residential/commercial] property’.

276. In this context, the [Q&A 2015\\_2376](#) clarifies that the term ‘exposures secured by immovable property’ incorporates ‘exposures secured by mortgages on immovable property’ and, as a generic term, could also include exposures secured by mechanisms other than mortgages but economically equivalent and recognised as collateral on immovable property under the Member States’ pertinent legislation setting out the conditions for the establishment of those rights.

277. With a view to enhancing harmonisation in the usage of terms and their understanding across the CRR, it is considered beneficial to align the terms used to refer to immovable property collateral. For this purpose it is suggested that the more general term ‘exposures secured by [residential/commercial] immovable property’ be used to refer to immovable property collateral under the SA and IRB approach.

**Policy recommendation:** It is advised that the more general term ‘exposures secured by [residential/commercial] immovable property’ be used when referring to refer to exposures collateralised by immovable property collateral, and align the terminology under the SA and IRB approach to credit risk.

#### (xii) Exposures guaranteed by central governments and central banks

278. Article 235(3) of the CRR specifies: ‘Institutions may extend the treatment set out in Article 114(4) and (7) to exposures or parts of exposures guaranteed by the central government or central bank, where the guarantee is denominated in the domestic currency of the borrower and the exposure is funded in that currency’.

279. Article 114(4) of the CRR specifies: ‘Exposures to Member States’ central governments, and central banks denominated and funded in the domestic currency of that central government and central bank shall be assigned a risk weight of 0 %’.

280. Article 114(7) of the CRR specifies: ‘When the competent authorities of a third country which apply supervisory and regulatory arrangements at least equivalent to those applied in the Union assign a risk weight which is lower than that indicated in paragraphs 1 and 2 to



exposures to their central government and central bank denominated and funded in the domestic currency, institutions may risk weight such exposures in the same manner’.

281. In addition, Article 495(2) CRR specifies: ‘In the calculation of risk weighted exposure amounts for the purposes of Article 114(4), until 31 December 2017 the same risk weight shall be assigned in relation to exposures to the central governments or central banks of Member States denominated and funded in the domestic currency of any Member State as would be applied to such exposures denominated and funded in their domestic currency.’
282. It was suggested that there is an inconsistency between Articles 114(4) and 235(3) of the CRR regarding the different treatment that could be applied between direct or indirect<sup>49</sup> exposures towards the central government (CG) or central bank (CB), although the underlying credit risk towards the CG or the CB bank would be the same in both situations.
283. As an example, imagine that an Italian institution has an exposure in euros towards a Swedish client (which, being established in Sweden, would use Swedish kronor as currency), and that said exposure is funded with liabilities denominated in euros. If the Italian bank receives a guarantee denominated in euros from the Italian CG or CB, the guaranteed part of the exposure would not benefit from the preferential RW assigned to direct exposures to the Italian CG or CB, despite the fact that the underlying credit risk for the guaranteed part of the exposure would not have changed from the perspective of the lending institution (in contrast to a direct exposure to the Italian CG or CB). This is because Article 235(3) of the CRR specifies that the 0% RW treatment may be extended to exposures or parts of exposures guaranteed by the CG or CB provided that the guarantee is denominated in the domestic currency of the borrower (which in this case is Swedish kronor) and the exposure is funded in that currency (i.e. Swedish kronor). As in this case the guarantee is denominated in euros, which is a currency different from that of the borrower, the preferential treatment is not applicable. This occurs irrespective of whether the provision in Article 495(2) of the CRR is also applicable to indirect exposures.
284. However, the wording used in Article 235(3) of the CRR yields unintended outcomes because of the various combinations of countries’ CGs and CBs and currencies involved. For the purposes of this article and in the light of the reference to Article 114(4) and (7), the CG and CB involved may be the CG or CB of any Member State, or a CG or CB of a country which applies supervisory and regulatory arrangements at least equivalent to those applied in the EU and which has assigned lower RWs to its CG and CB in accordance with Article 114(7) of the CRR.
285. From a policy perspective, the rationale for allowing a preferential RW to exposures (either direct or indirect) towards a CG or CB is associated with the requirement for the exposure towards the CG or CB to be denominated and funded in the currency of the CG or CB. When this is not the case, any currency mismatch between the currency of the original exposure (which may be different from domestic currency of the obligor) and the currency in which

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<sup>49</sup> Indirect exposure means exposure to an entity in the role of guarantor/protection provider.

the guarantee is denominated would be addressed via the currency haircut required under Article 233(3) of the CRR.

**Policy recommendation:** It is advised that Article 235(3) of the CRR be amended as follows:

*Institutions may extend the preferential treatment set out in Article 114(4) and (7) to exposures or parts of exposures guaranteed by the central government or the central bank as if they were direct exposures to the central government or the central bank, provided the conditions in Article 114(4) or (7), as applicable, are met for such direct exposures.*

#### (xiii) Deletion of the mandate under Article 194(10) of the CRR

286. Article 194(10) of the CRR mandates the EBA to develop draft RTS to specify what constitutes sufficiently liquid assets and when asset values can be considered sufficiently stable for the purposes of Article 194(3) of the CRR.
287. In the context of the CRM framework, the CRR effectively merged, in Part Three, Title II, Chapter 4, the sections on general requirements for CRM previously specified in Title V, Chapter 2, Section 3, Subsection 3, of Directive 2006/48/EC, with the specific requirements for CRM techniques and methods in Annex VIII of that same directive. Whereas Article 194 of the CRR reflects the general requirements for eligible collateral, which were set out in the main text of the directive, the more specific requirements for the liquidity of assets usable for CRM purposes and the stability of the value of these assets over time previously set out in Annex VIII are now explicitly or implicitly covered by the various particular requirements on those assets set out in the various articles in Part Three, Title II, Chapter 4.
288. As an example with respect to financial collateral, the existence of volatility adjustments (i.e. haircuts) under the FCCM or the minimum 20% RW under the FCSM, together with the various requirements under Articles 197, 198 and 207 of the CRR, are designed to also address both the stability of the value of the assets taken as collateral by institutions over time and the liquidity risk of these assets.
289. Regarding immovable property collateral, the requirements on monitoring of property values together with the other requirements set out in Articles 199, 208 and 229 of the CRR should address concerns around the stability of the value and the liquidity of immovable property recognised as collateral by institutions. It should also be noted that, under Articles 124(2), 164(5) and 458 of the CRR, competent authorities may address issues related to the immovable property sector, which would function as a backstop in cases of concern regarding property values.
290. In a similar manner, for other physical collateral, receivables and leasing, the CRR sets out, in Articles 199, 209, 210, and 211, requirements which address concerns around the stability of the value of the collateral as well as liquidity risks. Finally, it is noted that minimum LGD values prescribed in Article 230 of the CRR may be applied only once a minimum level of overcollateralisation is achieved, which results in implied haircuts for the collateral. This also accounts for concerns around the stability of the value of the collateral and liquidity risks.

291. With respect to forms of other funded credit protection (FCP) mentioned in Article 200 of the CRR, these techniques of CRM effectively are recognised in the same way as UFCP (e.g. as a guarantee). In this case, the lending institution is interested in the credit risk of the protection provider rather than the liquidity risk (which would instead be associated with instruments held as a mean of FCP and which could be subject to liquidity risks in the event that it was necessary to liquidate the collateral).
292. By taking into account the observations above, it is considered that the particular requirements for the various techniques of FCP outlined in Part Three, Title II, Chapter 4 of the CRR are already addressing, either explicitly or implicitly, both the stability of the value of the assets taken as collateral by institutions and the liquidity risk of these assets. Given the existence of these specific requirements, it is not clear that prudential or proportionate benefits would accrue from additional requirements to be developed through the RTS under Article 194(10) of the CRR.
293. More specifically, developing RTS to set out additional requirements in this context could introduce redundancies or undue duplications or lead to inconsistencies between the CRR and the RTS, taking into account that, in addition to Article 194(3) of the CRR, specific requirements for the individual types of assets to be used for CRM purposes are included in Part Three, Title II, Chapter 4, of the CRR.

**Policy recommendation:** It is advised that the mandate in Article 194(10) of the CRR which requires the EBA to develop draft RTS to specify what constitutes sufficiently liquid assets and when assets values can be considered sufficiently stable for the purposes of Article 194(3) of the CRR be deleted. It is recommended that institutions assess independently the sufficient liquidity and the price stability over time of the eligible assets held as collateral as required under Article 194(3) of the CRR, together with satisfying the other CRR requirements relevant for those assets for the purposes of CRM.

## 4. The Internal Ratings Based Approach

### 4.1 Basel reform and modelling incentives

#### Recommendation CR-IR 1: incentives to use the IRB approach

The prudential regulation should ensure adequate incentives for institutions to manage their risks in an appropriate manner. Given that the IRB approach leads to better understanding of risk and enhanced risk managements practices, the regulation should in general retain the incentives for institutions to use this approach where adequate.

294. While the EBA was working on the comprehensive review of the IRB approach, the BCBS was finalising its Basel III capital framework, constituting the response to the financial crisis of 2008-2010, which also took into consideration consistency in institutions' risk weighting practices. The EBA welcomes the revised standards, as the variability of the model outcomes is not just a European issue, and considers this reform as complementary to the review carried out in European Union (EU). While the EBA's regulatory review of the IRB approach took a bottom-up perspective, focusing on identifying the sources of non-risk-based variability and addressing them through providing adequate clarifications, the BCBS tackled the issue in a top-down manner, by specifying limitations to the scope of modelling and to model outcomes. The main measures in that regard introduced in the final Basel III framework include i) limited applicability of the most advanced approaches (only the F-IRB approach is available for portfolios typically characterised by a small number of observed defaults, obligation to use SA for the equity exposures); ii) input floors limiting the estimates of parameters for obligors and individual exposures; and iii) output floor limiting the overall level of RWA.
295. It should be noted that the implementation and maintenance of the IRB approach requires significant investment and resources from institutions. These costs are justified by improved risk management, as the IRB approach requires that institutions have access to appropriate and high-quality data as well as robust internal policies, including credit, collateral management, recovery and collection, internal monitoring and reporting policies. As a result of these improvements, institutions may benefit from a potential reduction in the own funds requirements by a more precise measurement of risk based on internal models.
296. Although the final Basel III capital framework limits institutions' flexibility in terms of applying the most advanced approaches and the outcomes of the estimation, at the same time it increases their flexibility in that it allows them to apply the IRB approach only to selected exposure classes, rather than to the whole credit portfolio. As a result, the impact of the implementation of the new IRB approach in the final Basel III capital framework has to be considered i) in the context of the impact on existing portfolios under the IRB approach; (ii) in the context of incentives for institutions to maintain the current approach or to revert to less sophisticated approaches; (iii) and, finally, in the context of incentives for institutions

that currently do not make use of the IRB approach but may decide to implement it given the new flexibility in terms of roll-out. These decisions will be taken by institutions based on their assessments of the costs and benefits of the available approaches.

297. The process of reverting to a less sophisticated approach would be operationally relatively easy for institutions and will be further facilitated by the output floor requirement, as a result of which all institutions will have to fully implement the revised SA for all portfolios, even where they apply the IRB approach for prudential purposes. This ensures that institutions will implement the IRB approach for the exposure class only if the of modelling will outweigh the cost of maintaining the model. This is particularly relevant for the low-default portfolios, where the gap between the enhanced new standardised approach and an internal model based on limited observation is narrowed under the final Basel III framework. However, any change in the scope of modelling will require approval by the competent authority based on its assessment, and in particular the possibility of potential regulatory arbitrage should be investigated. Further considerations on the future scope of modelling are discussed in section 4.1.1.
298. The reverse process, should institutions decide to apply the IRB approach again in the future, would not be an easy task, especially if they were to stop collecting all the detailed data necessary for modelling purposes. It is possible that after reverting to the SA institutions may consider as no longer justified the costs necessary to collect and store all necessary information and to maintain high-quality risk management practices such as independent validation. In this case, the future application of the IRB approach would not be straightforward, and institutions would have to go through all the steps of IRB modelling and validation in a similar manner as if implementing the IRB approach for the first time. Another possible scenario would be that institutions maintain the models for internal purposes and calculation of economic capital only, but apply the SA for the Pillar 1 own funds requirements. This would enable them to maintain the estimates in the risk management processes, but at the same time avoid strict estimation requirements, rigorous monitoring and validation processes and supervisory assessments, leading to deteriorations in the quality of the risk measurement systems over time.
299. The incentives for maintaining the current approach or reverting to less sophisticated approaches can be analysed from the following perspectives: i) the overall own funds requirements compared to the overall costs, ii) the offsetting effects between different portfolios and between different types of risk, and iii) the benefits of the A-IRB approach as compared with the F-IRB approach. These elements are further analysed below.
300. The output floor limits the overall level of RWA for all types of risk to 72.5% of the RWA calculated according to the revised standardised approach to be used for all the risks in the Basel III framework. This level of the floor in general keeps the incentive to maintain the models as long as the RW calculated using modelling approach is within the range of 72.5-

100% of the RW calculated under the standardised approaches,<sup>50</sup> assuming that the benefit in terms of capital relief is not overcome by the additional costs of maintaining the IRB approach. Implementation of the final Basel III framework increases the overall costs of maintaining the approaches based on internal models because of the additional requirement to implement in parallel the SA for the purpose of the output floor. However, until 31 December 2017, a similar requirement existed under Article 500 of the CRR: the so-called Basel I floor.

301. However, the analysis of the overall level of RWA is not sufficient to understand the implications of the introduction of the output floor on modelling incentives, as institutions will also take into consideration any possible netting effects between different portfolios and between different types of risk. In particular, institutions may have an incentive to introduce further models only as long as it will bring them additional marginal benefit in terms of the overall own funds requirements. This could create an incentive for institutions which are constrained by the output floor to maintain only those models which bring them the highest overall capital relief, and drop the models which do not bring additional benefits as a result of the output floor constraint. In addition, in the case of existing roll-out plans, institutions may choose not to develop the rating systems as previously planned if they expect that these additional rating systems will not bring benefits in the form of lower capital requirements. Finally, it should be noted that, regardless of the capital implications, banks may still choose to implement IRB models due to the integration with internal risk management procedures and overall risk strategy.
302. Furthermore, under the final Basel III capital framework, even if institutions decide to retain the IRB approach, in the case of exposures to corporates belonging to a group with total consolidated annual revenues below EUR 500 million, the application of the F-IRB approach might become more beneficial than the A-IRB approach for institutions in some cases, given that:
- a) LGD estimation is particularly challenging in terms of the scope of the necessary data, and burdensome with respect to the maintenance of the models, taking into account the accompanying requirements related to collateral management and valuation necessary to recognise the effect of the collateral in the model.
  - b) The scope of estimation of CCFs and possible levels of estimates are limited in the final Basel III capital framework. As a result, the potential benefits in terms of capital relief which can be gained through modelling of CCFs are more limited: this aspect is further described in section 4.2.5.

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<sup>50</sup>However, owing to the aggregated nature of the floor, institutions may still have incentives to maintain models with outcomes lower than 72.5% of the RW under the SA, as a result of offsetting of other portfolios and risk types, including the dilution effect of RWA already computed under a standardised approach. In addition, the output floor applies only to the reduction of own funds requirements; in other words, developing models can still allow institutions to decrease own funds requirement up to 72.5% of the RWA computed with the standardised approaches.

c) The final Basel III capital framework introduces floors for the individual LGD estimates which take into account only the type of collateral eligible for the F-IRB approach. At the same time, the regulatory LGD value for unsecured senior claims to corporates decreases from 45% to 40% and the regulatory LGD values for secured exposures are substantially reduced. As a result, the potential benefits of own LGD estimates that are lower than regulatory LGD values are *de facto* limited and, in some cases, own estimates of LGD could be higher than regulatory values. More details on the regulatory LGD values and LGD floors are presented in section 4.2.4.

303. However, there are still incentives to opt for an A-IRB model, since there is still a significant difference between the A-IRB LGD floors and the regulatory LGD values under the F-IRB approach, higher haircuts for collateral under the F-IRB approach and additional eligible collateral under the A-IRB approach. In fact, conditional on the implementation of the technical adaptation discussed in the following sections, the EBA believes that final Basel III capital framework strikes an appropriate balance between the need to maintain incentives and risk sensitivity in the overall framework and the need to constrain the use and outcomes of internal models to ensure the appropriateness of own funds requirements.

304. In order to analyse these aspects, the qualitative survey conducted for the purpose of this report included questions regarding the potential implications of the final Basel III framework for the choice of approaches by institutions. However, it is clear that the results of this survey have to be read with caution, as most institutions have yet to make a final decision.

#### 4.1.1 Change in the PPU philosophy

##### Recommendation CR-IR 2: new PPU philosophy

The mandates for the EBA to develop RTS to determine conditions for the appropriate nature and timing of the roll-out of the IRB approach across exposure classes and for the application of the permanent partial use (PPU) of the SA as well as to develop guidelines related to the application of PPU to sovereign exposures are no longer relevant and should be deleted.

305. Whereas the general philosophy of the Basel II framework and the CRR has been that ‘once a bank adopts an IRB approach for part of its holdings, it is expected to extend it across the entire banking group’, the final Basel III framework introduces further granularity to the expectations of the IRB implementation: ‘once a bank adopts an IRB approach for part of its holdings **within an asset class**, it is expected to extend it across all holdings **within that asset class**’.<sup>51</sup> This change of paradigm is very relevant in the context of the EU RCAP, given that the possibility of a PPU of the SA for certain types of exposures in accordance with Article 150 of the CRR was mentioned as a material deviation,<sup>52</sup> especially as institutions have the option of not implementing the IRB approach for sovereign exposures (i.e. exposures to central governments and central banks).

<sup>51</sup> It should be noted that ‘asset class’ is Basel terminology for ‘exposure class’, which is more commonly used in the EU.

<sup>52</sup> <https://www.bis.org/bcbs/publ/d300.pdf> (see p. 38).

306. Furthermore, in Articles 148(6), 150(3) and 150(4), the CRR specified mandates for the EBA to develop RTS to determine conditions for the appropriate nature and timing of the sequential roll-out of the IRB approach across exposure classes, for the application of PPU of the SA, as well as to develop guidelines related to the application of PPU to the said exposures to central governments and central banks. The EBA has so far not been able to deliver the requested RTS, and it informed the Commission of this in a letter dated 18 December 2015.<sup>53</sup> The development of the standards was not finalised as it was considered counterproductive from a supervisory perspective and costly for the EU banking system to force institutions to implement models, especially for the types of exposures which are less suited to modelling. Now that the Basel III framework has been finalised, it is possible to address the final decisions regarding the criteria for the roll-out plans and PPU of the SA and the corresponding mandates, in a manner consistent with the final framework.
307. In order to reflect this new philosophy of the IRB implementation, Articles 148 and 150 of the CRR would have to be modified. This would largely solve the issues described above and institutions would be allowed to apply the IRB approach to only a selected set of exposure classes. The following modifications to the mandates for the EBA would be needed:
- a) The mandate included in Article 148(6) of the CRR to specify conditions for the roll-out plans would become obsolete and hence should be dropped. The qualitative criteria have already been specified in Article 7 of the final draft RTS on the specification of the assessment methodology for CAs regarding compliance of an institution with the requirements to use the IRB approach in accordance with Articles 144(2), 173(3) and 180(3)(b) of Regulation (EU) No 575/2013 (hereinafter: 'RTS on IRB assessment methodology').<sup>54</sup> These criteria are considered sufficient for the appropriate assessment of the roll-out plans by CAs.
  - b) The mandate included in Article 150(3) of the CRR to specify conditions for PPU would no longer be relevant and hence should also be dropped. The part of the mandate referring to the conditions of application of points (a) and (b) of Article 150(1) of the CRR is no longer relevant as these points refer to specific exposure classes for which institutions will already have the discretion to decide whether or not to apply the IRB approach. With regard to the part of the mandate referring to conditions of application of point (c), the aspect of materiality of certain specific portfolios remains relevant, but only within a single exposure class. Therefore, it should be further clarified that institutions would still be allowed to apply PPU to certain immaterial business units and types of exposures, subject to certain conditions. These conditions have already been set out indirectly as Article 8 of the RTS on IRB assessment methodology specifies the conditions to be verified by the CA in assessing an institution's compliance with the conditions for PPU of the SA. The EBA believes that these conditions are sufficient. Furthermore, under the general

<sup>53</sup><https://eba.europa.eu/documents/10180/1349330/Letter+to+Olivier+Guersent+DG+FISMA+re+Postponement+EBA+products.pdf/014df70e-4530-4655-bb67-5f102d5b311d>

<sup>54</sup><https://eba.europa.eu/documents/10180/1525916/Final+Draft+RTS+on+Assessment+Methodology+for+IRB.pdf/e8373cbc-cc4b-4dd9-83b5-93c9657a39f0>



approach of the final Basel III framework, the conditions should be assessed at the level of an exposure class; no further mandate is needed.

- c) The mandate included in Article 150(4) of the CRR to develop guidelines and recommend limits for the application of the PPU to exposures to counterparties listed in Article 150(1)(d) of the CRR seems no longer relevant and should also be dropped. Since the final Basel III framework allows the IRB approach to be applied only to selected exposure classes, institutions will be allowed to treat sovereign exposures fully under the SA.

308. Once the Basel III framework is incorporated in the CRR, the EBA intends to review the RTS on IRB assessment methodology, and in particular the articles on the PPU and the sequential implementation of the IRB approach in order to make sure that they fit with the change in philosophy in the implementation of the IRB approach. Therefore, it is important to maintain the mandate specified in Article 144(2) of the CRR in order to allow for the necessary revisions.

#### 4.1.2 Reversal to less sophisticated approach: application of Article 149

##### **Recommendation CR-IR 3: conditions for reversal to less sophisticated approaches**

The entry into force of the final Basel III framework should be considered as an extraordinary circumstance for reverting to less sophisticated approaches in order to ensure a level playing field for institutions and to avoid creating a last mover advantage with respect to the implementation of the IRB approach. However, in all cases, return to a less sophisticated approach should require permission from a competent authority.

309. Paragraph 8 of the final Basel III framework adapts the conditions applicable to revert to less sophisticated approaches introduced in paragraph 261 of the Basel II framework. Under the final Basel III framework, the conditions apply at the level of the exposure class rather than at an overall level: ‘Banks adopting an IRB approach for an asset class are expected to continue to employ an IRB approach for that asset class. A voluntary return to the standardised or foundation approach is permitted only in extraordinary circumstances, such as divestiture of a large fraction of the bank’s credit-related business in that asset class, and must be approved by the supervisor’.
310. The EBA believes that the implementation of the modelling restrictions in the final Basel III framework should be considered as ‘extraordinary circumstances’ for the purpose of reverting to less sophisticated approaches, either with regard to the whole IRB implementation or with regard to rating systems for selected exposure classes. The main reason for this interpretation is that the costs related to the maintenance of IRB models can be significant, and require a detailed cost-benefit analysis, as described in section 4.1. Furthermore, this interpretation ensures that the framework does not grant institutions currently without IRB permission an advantage, in terms of flexibility of implementation, over institutions with an already approved IRB model.

311. However, it must also be stressed that decisions regarding the scope of application of the IRB approach, both in the context of initial applications for permission to use the IRB approach and in the context of potential returns to less sophisticated approaches, should not be motivated by a desire to minimise own funds requirements. This requirement is in line with paragraph 46 of the final Basel III framework and should remain valid even under the extraordinary circumstances described above. Therefore, the return to less sophisticated approaches should in any case require supervisory approval in accordance with Article 149 of the CRR.
312. The EBA carried out a qualitative survey in order to assess the impact of this new PPU philosophy on the scope of use of the IRB approach. However, at this stage most institutions do not seem to have a final view on the exact future perimeter of application of the IRB approach, given the complexity of a comprehensive cost-benefit analysis for such a short timeframe.

#### 4.1.3 Sovereign exposures

##### (i) Applicability of the final Basel III framework to exposures to central governments and central banks.

#### **Recommendation CR-IR 4: consistency of treatment of sovereigns and other exposure classes**

In order to ensure the consistency of the overall framework it is necessary to apply some of the changes introduced in the IRB approach also to exposures to central governments and central banks. These changes are limited in scope to those considered as non-substantive and do not include the main parts of the reform such as limited scope of modelling of PD and LGD modelling or PD and LGD input floors.

313. The final Basel III framework does not address the treatment of sovereign exposures, which it is assumed are unchanged from the current implementation of the Basel II framework. However, in order to ensure the consistency of the overall framework, some of the changes introduced in the IRB approach may also have to be rolled out to the sovereign exposure class.<sup>55</sup> Under the EU framework, the sovereign exposure class (defined in paragraph 19 of the final Basel III framework) is denominated as ‘exposures to central government and central bank’, and is described in Article 147(3) of the CRR. Although the exposures belonging to this exposure class under the CRR and under the final Basel III framework are generally the same, a specific treatment for regional governments and local authorities (RGLA) and PSE exposures may have to be introduced, as further discussed in section 4.2.2. The EBA supports the introduction of these limited changes, considered non-substantive, also in relation to exposures to central governments and central banks.

<sup>55</sup> As defined in paragraph 19 of the final Basel III framework, ‘this asset class covers all exposures to counterparties treated as sovereigns under the standardised approach. This includes sovereigns (and their central banks), certain PSEs identified as sovereigns in the standardised approach, MDBs [multilateral development banks] that meet the criteria for a 0% risk weight and referred to in footnote 11 of the standardised approach, and the entities referred to in paragraph 10 of the standardised approach’.

314. The most significant and most impactful changes to the IRB approach include the removal of the A-IRB approach for certain exposure classes that are typically associated with only a small number of defaults, as well as the introduction of LGD floors for exposures under the A-IRB approach. It is clear that, in accordance with the final Basel III capital framework, these elements should not be applicable to exposures to central governments and central banks. As a result, institutions would still be able to apply the SA, F-IRB approach or A-IRB approach to such exposures, and neither PD estimates nor own estimates of LGD would be restricted by the input floors. The implications of these provisions for exposures to RGLA and PSE are further discussed in section 4.2.2.
315. Another aspect of the IRB approach where the final Basel III capital framework introduces significant changes is the method of calculating LGD values and values of regulatory LGD values applicable under the F-IRB approach. Instead of a general overcollateralisation requirement, the revised standards introduce a set of haircuts specific to the types of collateral and the calculation formula, which allows recognition of multiple collaterals. These changes are expected to have a significant impact, especially on securities in the corporate exposure class, but also on unsecured corporate exposures, with the value of LGD for unsecured senior claims decreasing from 45% to 40%. However, these changes in the F-IRB approach are not considered significant for exposures to central governments and central banks, as these exposures are usually unsecured and the value of LGD for this type of exposures remains at the level of 45%.
316. The above analysis is supported by the results of the QIS and is further discussed in section 4.2.4. Taking into account the expected insignificant impact on own funds requirements, and in order to avoid inconsistencies in the overall requirements, the EBA is of the opinion that the final F-IRB approach should also be applicable to exposures to central governments and central banks.
317. In any case, the treatment of exposures to central governments and central banks would not be completely unchanged as the final Basel III framework implies that any changes to CCFs as well as to the CRM eligibility requirements and recognition methods will also apply to exposures to central governments and central banks. Similarly, the 1.06 scaling factor in the RW function in the IRB approach has been removed for all exposure classes, including for exposures to central governments and central banks.
318. Moreover, the final Basel III framework introduces a number of less significant changes and clarifications that, if not applied to all relevant exposure classes, would lead to inconsistencies and possibly misinterpretation of the overall framework. Table 22 presents the scope of changes, which in the view of the EBA should be implemented comprehensively, that is, they should apply also to exposures to central governments and central banks.

Table 20: List of changes from the final Basel III framework and applicability to central government and central bank exposures

	<b>Basel III credit risk change</b>	<b>Paragraphs in the final Basel III capital framework on the IRB approach and CRM</b>	<b>Articles of the CRR specifying current application</b>	<b>Change applicable to sovereigns</b>
1	CCF changes	78-89 SA	111, 166, Annex I	Yes
2	CRM changes	117-205 SA	192-241	Yes
<b>3</b>	<b>The removal of A-IRB for low-default portfolios</b>	<b>34</b>	<b>151</b>	<b>No</b>
<b>4a</b>	<b>The new PD input floors</b>	<b>68</b>	<b>160, 163</b>	<b>No</b>
<b>4b</b>	<b>The new LGD input floors</b>	<b>85-86</b>	<b>161, 164</b>	<b>No</b>
<b>4c</b>	<b>The new exposure at default (EAD) input floors</b>	<b>105</b>	<b>166</b>	<b>No</b>
5	Removal of the 1.06 scaling factor	53	153, 154	Yes
6	New IRB approach roll-out requirements	44-50	148	Yes
7	New Basel III methodology for determining the LGD for collateralised exposures under the F-IRB approach (including the use of models to calculate the exposure value for counterparty credit risk exposures)	70-83	161, 221, 225, 226	Yes
8	Removal of PD adjustment option for the recognition of guarantees (double default treatment)	90-91	153(3), 154(2)	N/A
9	The new requirement that exposures guaranteed by an SA (or F-IRB approach) guarantor be subject to the SA (or F-IRB approach)	93, 96, 255	N/A	Yes
10	The prohibition on the recognition of <i>n</i> th-to-default other than first-to-default credit derivatives as CRM	97	183	Yes
11	The new SA CCF that apply to IRB exposures as a result of the IRB text cross-referring to them	102	166(8)-(10)	Yes

	<b>Basel III credit risk change</b>	<b>Paragraphs in the final Basel III capital framework on the IRB approach and CRM</b>	<b>Articles of the CRR specifying current application</b>	<b>Change applicable to sovereigns</b>
12	The requirement that EAD can be modelled only for undrawn revolving commitments	105	151, 166	Yes
13	The prohibition on institutions using the repayment date on current drawings for the determination of the maturity parameter	109	162	Yes
14	The new guidance regarding the specification of ratings systems used in PD estimation	182	170	Yes
15	The new requirements regarding the minimum data used to calculate PDs	230-231	180	Yes
16	The new requirements regarding institutions' EAD estimates, such as the requirement to use the 12-month fixed horizon approach and the requirement not to cap EAD reference data at the principal amount outstanding or the facility limits	242, 245-248	182	Yes
17	The new guidance regarding when conditional guarantees can be recognised	257-258	183	Yes
18a	The additional specification of the conditions for the recognition of real estate collateral	283	208	Yes
18b	The additional specification of the conditions for the recognition of physical collateral	295-296	210	Yes
19	The recognition of general security agreements that was introduced in Basel III.	297	210	Yes

319. The impact of implementing the technical clarifications was assessed using a qualitative questionnaire. The results are presented in the different sections related to each of the risk parameters (sections 4.2.3, 4.2.4 and 4.2.5).

(ii) **Application of the PD and LGD floors to exposures with sovereign guarantees**

**Recommendation CR-IR 5: application of the input floors to exposures with sovereign guarantees**

Clarification should be provided on the application of the rule that the floors that apply to risk components do not apply to the part of exposure covered by the sovereign guarantee. In

particular, when institutions recognise the effect of the guarantee through the modelling approach, it should be clarified that the 0% floor should apply only to those parameters that are adjusted to reflect the effect of the guarantee.

320. The final Basel III framework introduces input floors on the individual LGD estimates, and increases the level of PD input floors. The impacts of these floors on other exposure classes are further discussed in sections 4.2.3 and 4.2.4. In accordance with paragraph 66 of the final Basel III framework ‘the floors that apply to risk components do not apply to the part of exposure covered by the sovereign guarantee’; however, no further explanation on how this should be applied in practice is provided.
321. The rule is equivalent to the application of a 0% floor to both PD and LGD estimates. The EBA believes that the two following points should be clarified when incorporating the final Basel III framework into the CRR:
- a) In order to disregard the floors, the guarantee should meet the eligibility criteria as applicable under the F-IRB approach. The EBA notes that, in the case of sovereign guarantees which do not meet the eligibility criteria, the PD and LGD floors which should apply should be those used for unsecured exposures, in the same way as for all other non-eligible guarantees from other protection providers.
  - b) In determining the secured portion of the exposure, all haircuts applicable under the F-IRB approach should be applied.
322. Furthermore, how this waiver should be applied by institutions which recognise the effect of the guarantee through the modelling approach should be further clarified, in other words whether the 0% floor should apply to both parameters (PD and LGD) or just one of them. This should ensure that the same guarantee is not recognised more than once. Taking into account the possible approaches for the recognition of the effect of the guarantee, the following principles could be specified:
- a) Under the substitution approach both the PD and LGD estimates for the part of the exposure covered by the eligible sovereign guarantee could benefit from the 0% floor. It should, however, be made clear that the part of the exposure that is not covered by the guarantee remains subject to the relevant floors.
  - b) Under the modelling approach the PD and LGD parameters reflect the risk of the obligor and of the transaction to the obligor; therefore, only the parameter which is adjusted to reflect the effect of the guarantee could benefit from the 0% floor (e.g. as the adjustment is typically incorporated in the LGD parameter, the floor would only be waived for LGD, whereas for the PD the floor as applicable for the obligor would continue to apply).
323. In any case, the EU should continue to monitor any further developments and guidance coming from the BCBS on the application of the floors. In practical terms, in the case of exposures partially covered by the guarantee, in applying the LGD floor formula specified in

paragraph 86 of the final Basel III framework, the eligible sovereign guarantees should be treated similarly to financial collateral with a 0% floor.<sup>56</sup>

## 4.2 Specific recommendations

### 4.2.1 Quantitative impact study: main impacts of the different parts of the reform

324. The EBA has conducted a QIS in order to collect evidence on the expected impact of the reform. Not only was the reform assessed in terms of its overall impact, but the marginal impact of each of the main changes was also assessed by means of an ‘all but one’ analysis. This means that institutions were asked to report the RWA after applying all the provisions of the final Basel III framework except for the one specifically analysed. This methodology was necessary in order to deal with the highly non-linear impacts of combining the changes, as the order in which the different measures are applied significantly influences the impact of those measures.<sup>57</sup> This allows policy-makers to assess the impact of not implementing one specific measure, as well as to present the results in an objective manner (without any subjective ordering of the parts of the reform). The reference date for the data collection was the 30 June 2018. The following elements of the final Basel III framework were assessed in this manner based on the said ‘all-but-one’ analysis:

- a) migration of exposures to less sophisticated approaches (i.e. the A-IRB approach no longer available for large corporates, financial institutions treated as corporates and institution exposures, obligation to use the SA for the equity exposures);
- b) increase in PD input floors;
- c) introduction of LGD input floors;
- d) increase in PD input floors and introduction of LGD input floors (this scenario is a simple combination of the two previous scenarios);
- e) change in the regulatory LGD values (under the F-IRB approach);
- f) clarification on the calculation of the effective maturity ( $M$ ) risk parameter;
- g) change in the treatment of guarantees provided by guarantor risk weighted under the F-IRB approach and the SA;

<sup>56</sup> This clarification is relevant for partial guarantees. The proposed treatment ensures the consistency between the substitution and the modelling approaches. Under the substitution approach, only the LGD of the uncovered part will be floored at the usual LGD values, while the covered part will not be floored. This requirement is equivalent to ‘average LGD floor’, applied at the facility level, defined as the exposure-weighted average of the usual LGD floors (for the uncovered part) and the 0% floor (for the covered part). This weighted average is equivalent to the formula in paragraph 86 of the final Basel III framework for financial collateral, and should therefore apply to exposures with an LGD estimated via the modelling approach.

<sup>57</sup> For instance, the change in the regulatory LGD values (applicable only to F-IRB exposures) has a higher scope of application (and, therefore, a higher impact) if applied after the migration from the A-IRB approach to the F-IRB approach of large corporates, financial institutions treated as corporates and institutions.

- h) change in the treatment of CCFs (including change in the modelling scope, new regulatory values, introduction of input floors and clarification in the requirements for estimation).

325. Two sets of impacts are presented for each element of the reform:

- a) The ‘contribution impact’, that is, for each sub-exposure class, the differences between the RWAs calculated under a given scenario and the RWA calculated under the current framework **expressed as a percentage of the total RWA calculated under the current IRB approach**. This metric combines the relative impact of a given exposure class with a volume effect, taking into account the materiality of the exposure class.
- b) The ‘relative impact’, that is, for each sub-exposure class, the differences between the RWAs calculated under a given scenario and the RWA calculated under the current framework **expressed as a percentage of the total RWA calculated under the current IRB approach of the exposure class and a given approach (A-IRB or F-IRB)**.

326. These impacts are discussed in detail in the subsequent sections of the report, along with the specific recommendations. However, the results should be interpreted with caution:

- a) First, this isolated analysis of specific aspects of the reform does not take into account interactions with the requirement of the output floor, which may fully or partially offset these marginal impacts of specific aspects of the reform.
- b) Second, it has to be stressed that this analysis of marginal impacts has certain shortcomings in terms both of data and methodology. In particular, the analysis has been performed on a limited sample of institutions and numerous data quality issues<sup>58</sup> were identified which may indicate that the results may not be fully accurate. In addition to the data quality checks performed to compute the total impact of the IRB reforms, only institutions with strictly positive RWA in both scenarios have been considered.
- c) As a consequence of the second point, the sample of institutions differs depending on the specific aspect of the reform under study and these samples also differ from the sample used to determine cumulative total IRB impact, and therefore the impacts may vary depending on the graph considered. The number of institutions used for each marginal analysis is given in Table 26.<sup>59</sup>

<sup>58</sup> For example, some institutions reported apparently impossible results, such as RWA with current PD floors higher than the RWA with future PD floors. As a result, the EBA has adjusted some of the reported figures.

<sup>59</sup> The report presents impacts only for the exposure classes directly affected by the considered elements of the reform. For example, although the recalibration of the regulatory LGD values may indirectly impact the exposures currently classified as retail exposures (via F-IRB guarantors), the observed impact on these exposure classes was very limited and is therefore not shown in the graphs in this report. These elements are in italic in Table 21,



Table 21: Sample size for the marginal scenario

	<b>Central scenario</b>	<b>PD</b>	<b>LGD</b>	<b>PD LGD</b>	<b>Regulatory LGD</b>	<b>Migration</b>
Sovereigns	29	17	17	17	16	24
Banks	46	26	26	26	28	41
Financial institutions treated as corporates	34	23	23	23	23	28
Large corporates	61	36	36	36	40	51
Specialised lending excluding slotting	44	29	27	27	31	36
Specialised lending slotting	13	8	8	8	6	11
Mid corporates	65	40	40	39	46	55
Corporate SMEs	64	39	39	39	43	55
Other retail	64	37	37	37	44	55
Residential mortgages	67	40	40	40	46	58
Qualifying revolving retail exposures	29	19	19	19	19	26
Eligible purchased receivables	8	6	5	6	5	7

327. Figure 21 summarises the main results of the analysis of isolated marginal impacts at an aggregated level.

Figure 21: Expected impacts from the main elements of the finalisation of the final Basel III framework (based on QIS results)

Total A-IRB	Migration	PD floors	LGD floors	LGD values	CCF	1.06
Sovereigns						
Institutions						
FI treated as Corp					SFT	
Large Corporates	LGD floor *					
Specialised Lending						
Mid Corporates						
SME (corp & retail)						SME Supporting factor
Retail - other & QRRE						
Retail - Mortgages						
Equity (3 approaches)						

<b>Strong impacts</b> >+10%	<b>Moderate impact</b> [10%; 5%]	<b>≈ no impact</b> [+5%; -5%]	<b>Negative impact</b> <-5%	<b>Not applicable</b>	<small>*the RWA calculated under the future F-IRB approach are higher than the RWA calculated under the current A-IRB approach, but similar to the RWA calculated under the A-IRB approach with LGD floors</small>
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Total F-IRB	PD floors	LGD values	CCF	1.06
Sovereigns				
Institutions				
FI treated as Corp			SFT	
Large Corporates				
Specialised Lending				
Mid Corporates				
SME (corp)				SME Supporting factor

<b>Strong impacts</b> >+10%	<b>Moderate impact</b> [10%; 5%]	<b>≈ no impact</b> [+5%; -5%]	<b>Negative impact</b> <-5%	<b>Not applicable</b>
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#### 4.2.2 Scope of modelling: migration

328. The final Basel III framework limits the scope of modelling by migrating some exposures to less sophisticated approaches. These restrictions are introduced in paragraph 34 of the final Basel III framework on the IRB approach, with the following main changes:

- a) The IRB approach is no longer available for equity exposures, which should now be risk weighted in accordance with the SA. The treatment of exposures currently falling under the treatment of Article 49 of the CRR is described in section 2.4.

- b) The A-IRB approach is no longer available for exposures to large corporates with total consolidated annual revenues greater than EUR 500million.
- c) The A-IRB approach is no longer available for exposures to financial institutions treated as corporates.
- d) The A-IRB approach is no longer available for exposures to institutions. This also indirectly applies to exposures to some domestic PSEs not treated as exposures to central governments and central banks under the SA, which includes some RGLA exposures according to footnote10 of paragraph 12 of the final Basel III framework on the SA.

(i) **Migration of exposures to large corporates, financial institutions and institutions to the F-IRB approach**

**Recommendation CR-IR 6: limited scope of application of the A-IRB approach**

As proposed in the final Basel III framework, exposures to large corporates, financial institutions treated as corporates and institutions should migrate to the F-IRB approach in order to reduce the undue variability of the outcomes of internal models.

329. The impact of the migration of exposures to less sophisticated approaches as reported in the QIS conducted by the EBA is shown in Figure 22 and Figure 23.

Figure 22: Marginal impact of the migration to F-IRB (contribution)

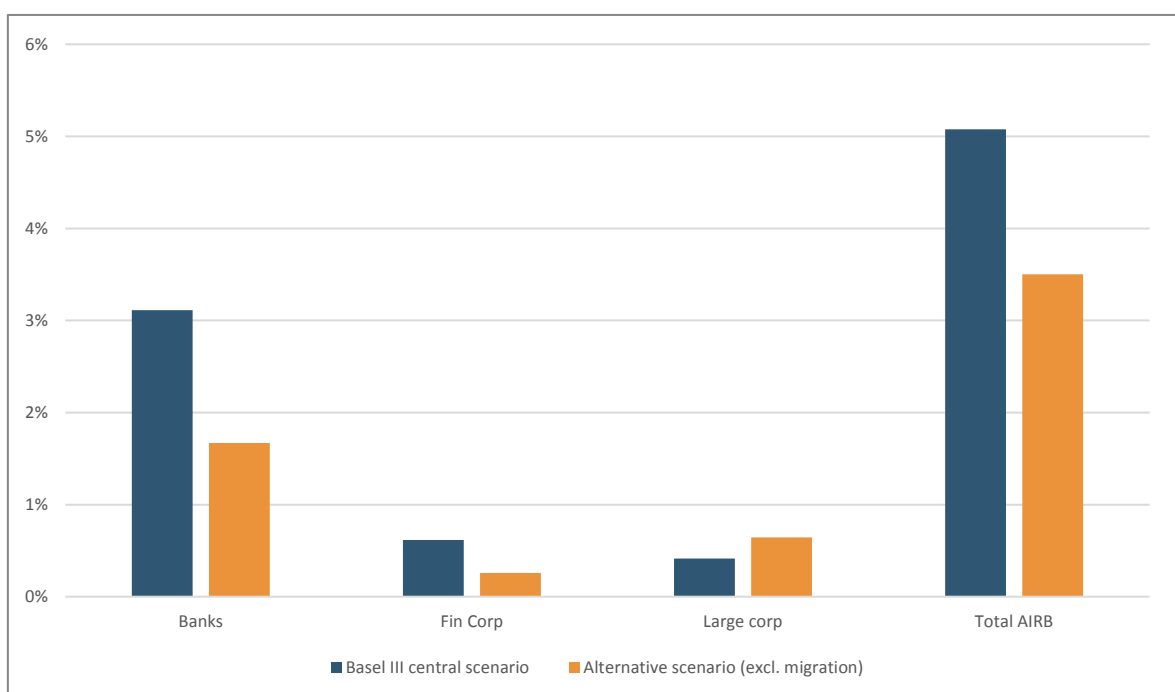
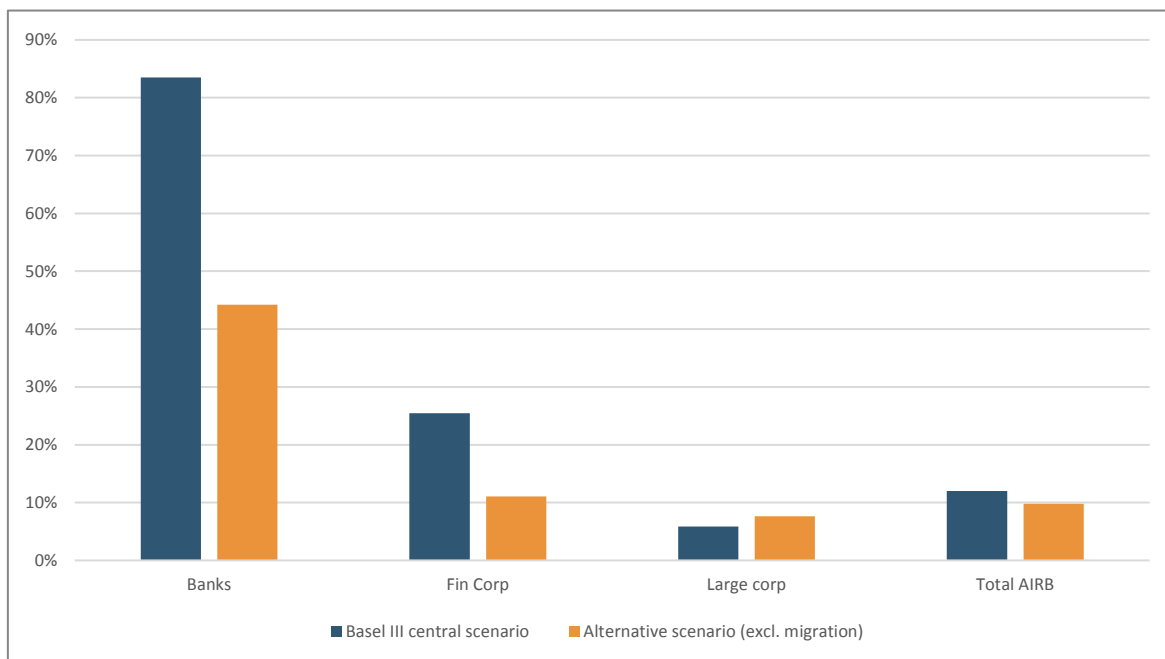


Figure 23: Relative impact of the migration to F-IRB (A-IRB portfolios)



330. The migration to the F-IRB approach increases own funds requirements to exposures to institutions and to financial institutions treated as corporates. This is an intended consequence of the final Basel III framework, since such migration is expected to affect mainly low-default portfolios (LDPs) in order to reduce undue variability in RWA for such exposures. In this case, the increase in own funds requirements is a necessary trade-off arising from the migration to less sophisticated approaches. The impact is very limited for exposures to large corporates. This can be explained by the recalibration of regulatory LGD, in particular for senior unsecured exposures, which is reduced from 45% to 40% under the final Basel III framework (further analysis of this change can be found in section 4.2.4). In addition, the scenario ‘all-but-migration’ incorporates (fictive) LGD input floors, and highlights the fact that the average of regulatory LGD values is similar to the average of LGD values estimated under the A-IRB approach with LGD floors. It should, however, be noted that the LGD values calculated under the future F-IRB approach are higher than the LGD values calculated under the current A-IRB approach. In addition, migration to the F-IRB approach entails the use of regulatory CCFs rather than modelled CCFs. The observed impacts of these changes are further discussed in section 4.2.6.
331. Regarding the migration of exposures to large corporates, financial institutions and institutions from A-IRB to F-IRB approach, the EBA believes that this measure is consistent with the intention to limit the variability of model outcomes, since these portfolios typically show severe shortages of default data. Indeed, the availability of empirical observations for

LGD estimation is problematic for LDPs, since the realised LGD can be observed only on defaulted exposures.<sup>60</sup>

332. In addition, the EBA would like to point out that the terminology used in the framework is inconsistent, with three different terms used, apparently interchangeably, as the basis for various thresholds: ‘turnover’, ‘revenue’ and ‘sales’. In order to avoid misinterpretations, the same terminology should be used to express the same concept. As the CRR already refers to ‘consolidated sales’, the same wording should be used when introducing the new threshold for large corporates.

(ii) Migration of equity exposures to the standardised approach

**Recommendation CR-IR 7: migration of equity exposures to the SA**

As proposed in the final Basel III framework, equity exposures should migrate to the SA in order to reduce undue variability in the outcomes of internal models. Institutions should be allowed to use a five-year linear phase-in arrangement in a consistent manner for all equity exposures. If institutions choose not to apply the phase-in arrangements, they should apply the full treatment under the SA from the date of application of the final Basel III framework in the EU.

333. With regard to the migration of equity exposures to the SA, the EBA believes this will contribute to a reduction in RWA variability without significantly limiting the risk sensitivity of the framework. It is considered that the treatment of equity exposures does not play an essential role in the IRB approach and should be aligned with the treatment under the SA. In accordance with the current IRB approach, equity exposures are currently risk weighted in one of three ways:
- a) The simple RW approach, set out in Article 155(2) of the CRR, is conceptually closer to the SA since RWs are fixed and determined in accordance with prescribed observable characteristics. However, the RWs are different (higher) than those applicable under the SA. This approach is currently used to compute the RWA for around 80% of equity exposures.
  - b) The PD/LGD approach, as described in Article 155(3) of the CRR, is conceptually closer to F-IRB approach, where the LGD is fixed at 65% or 90% and  $M$  is set to five years. However, it is not always easy to apply the definition of default to equity exposures, and if institutions do not have sufficient information to use the definition of default set out in Article 178 of the CRR a scaling factor of 1.5 is assigned to the RW. This approach is currently used to compute the RWA for around 20% of equity exposures.

<sup>60</sup> However, the EBA supports the use of the F-IRB approach for exposures to institutions, financial institutions and large corporates, subject to the application of all the requirements already in place in the current EU framework. Indeed, a ‘low-default portfolio’ is not necessarily a ‘low-data portfolio’ in the context of PD modelling, and valid modeling techniques can still be used.

- c) The internal models approach, described in the CRR Article 155(4), builds on the concept of value-at-risk, which is closer to internal market risk models than to credit risk models. This approach is currently used to compute the RWA for less than 1% of equity exposures.

334. The fact that there exist three alternative approaches resulting in significantly different RWs for equity exposures contributes to the variability of RWA. Therefore, the EBA supports the removal of equity exposures from the scope of the IRB approach.
335. At the same time the EBA supports the five-year linear phase-in arrangement from the date of implementation of the standard, as introduced in footnote 9 of paragraph 42 of the final Basel III framework. It should be noted that, depending on the composition of the equity portfolios and the approach currently in use, the migration of these exposures to the SA may lead to either increases or decreases in RWA for individual institutions. As the phase-in arrangements are designed specifically to address sharp increases in own funds requirements,<sup>61</sup> the application of such arrangements should be at the discretion of each institution. However, in any case the phase-in arrangement should be used consistently across all equity exposures in order to limit the scope for arbitrage opportunities. If institutions choose not to apply the phase-in arrangements they should apply the full final treatment under the SA from the date of application of the final framework in the EU.

### (iii) Treatment of PSE and RGLA exposures

#### **Recommendation CR-IR 8: consistent treatment of PSE and RGLA exposures**

The IRB exposure class segmentation should be based on the nature of the obligor and not on its riskiness. In order to ensure a consistent treatment, all exposures to RGLA and PSE should be assigned to the same exposure class, regardless of the treatment applied under the SA.

336. The EBA notes in particular the increased importance of the classification of RGLA and PSE exposures, which depends on the classification set by the CA. Depending on their treatment under the SA, exposures to such entities are categorised either as exposures to institutions or as exposures to central governments and central banks. The segmentation criteria are set out in Article 147(3)(a), 147(4)(a) and 147(4)(b) of the CRR, which implement in the EU paragraph 229 of the Basel II framework (unchanged under the final Basel III framework, in paragraph 19). It should be noted that the conditions for treating exposures to RGLA and to PSEs as exposures to the central government and central banks are slightly different in the CRR and in the Basel capital framework:
- a) The central government treatment can be applied for PSEs only in exceptional circumstances, 'where in the opinion of the CA of this jurisdiction there is no difference in risk between such exposures because of the existence of an appropriate guarantee by the central government, regional government or local authority' (Article 116(4) of the

<sup>61</sup> The EBA believes that this justifies the marginal increase in the complexity of the framework, as well as the small delay in the implementation of the final rules.

CRR). This national discretion is also present in paragraph 58 of the Basel II framework, and remains unchanged in the final Basel III framework (see paragraph 12).

- b) The central government treatment can be applied for RGLA 'where there is no difference in risk between such exposures because of the specific revenue-raising powers of the former, and the existence of specific institutional arrangements the effect of which is to reduce their risk of default' (Article 115(2) of the CRR). This national discretion is also reflected in footnote 23 of the Basel II framework, and remains unchanged under footnote 10 of the SA of the final Basel III framework.<sup>62</sup>

337. This classification directly affects the option for institutions to estimate own LGD as well as the application of PD input floors, since the treatment of sovereign exposures is unchanged on these aspects from the Basel II framework. Furthermore, from a practical perspective, the lack of consistent classification of RGLA and PSE exposures in one exposure class may lead to the need to fully redevelop the internal rating systems for RGLA and PSE exposures. In particular, where the LGD model covers all exposures to RGLA and PSEs, of which some are classified as exposures to central governments and central banks and some as exposures to institutions, these models will have to be redeveloped by limiting the scope of their application to only those RGLA and PSEs which are treated as sovereigns; in the case of other RGLA and PSE exposures classified as institution exposures, only the F-IRB approach will be available. Although these types of exposures are typically characterised by a small number of defaults, reducing the scope of application will result in the LGD estimates being based on an even smaller sample of observations.

338. Table 27 presents the impact of the final Basel III framework on exposures to RGLA and PSEs, depending on whether they are currently classified as i) exposures to central governments and central banks; or ii) exposures to institutions. The results indicate that, in the case of those exposures treated as exposures to central governments and central banks, implementation of the final the Basel III framework will result in declining own funds requirements, stemming mostly from the elimination of the 1.06 scaling factor in the IRB RW formula. However, in the case the PSE/RGLA exposures classified as institutions exposures, there will be a large positive impact. This results from the migration of these portfolios to the F-IRB approach, as a result of which the exposures will become subject to a fixed LGD parameter and increased PD floors.

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<sup>62</sup> This requirement is, however, implemented in a slightly different manner, since PSE exposures are defined as a category of RGLA exposures in the Basel framework despite the fact that the requirements on the specific revenue-raising power as well as specific institutional arrangements are mentioned in the text.

Table 22: observed impact of the RGLA and PSE exposures depending on their classification

	<i>Currently classified as exposures to central governments and central banks</i>		<i>Currently classified as institutions</i>	
	<b>PSEs</b>	<b>RGLA</b>	<b>PSEs</b>	<b>RGLA</b>
<b>All institutions</b>	<b>-28%</b>	<b>-10%</b>	<b>78%</b>	<b>78%</b>
Large	-28%	-10%	78%	78%
of which: G-SII	-6%	-1%	150%	259%
of which: O-SII	-25%	-4%	63%	92%
Medium	0%	0%	0%	0%

339. The EBA believes that the inconsistent treatment of RGLA and PSE exposures under the IRB approach leads to disproportionate impacts and adds unnecessary complexity to the framework. As a result, the IRB classification should be based on the nature of the obligor and not on its riskiness, and the differences in riskiness should rather be reflected through appropriate estimates of risk parameters. As the SA rules do not envisage *classification* of RGLA and PSEs as central governments or institutions but only the *treatment* based on the same RW, there is no need to base the IRB classification on the SA treatment. Finally, given that the classification is a decision taken by the CA of the relevant jurisdiction, the large difference in the impact introduces unintended incentives to supervisors in the making of their decision.
340. Therefore, the EBA believes that all exposures to RGLA and PSEs should be grouped into an additional, separate, exposure class, for which the A-IRB approach would remain available. This solution also ensures that, unless specified otherwise, the general approach regarding PD and LGD floors would apply to all RGLA and PSE exposures. The EBA believes that these floors are necessary to ensure that the LGD modelling of these portfolios does not hinder the purpose of reducing RWA variability. However, the EBA notes that introducing a threshold on sales, as in the case of the corporate exposure class, poses potential difficulties in the application for some PSEs that do not report turnover figures. Furthermore, the introduction of a specific exposure class would naturally increase the possibility of PPU of the SA for RGLA and PSEs in accordance with the new philosophy under the final Basel III framework, irrespective of the approach used for institution exposures. This is deemed justified given the very different nature of these obligors compared to institutions or corporate entities. The EBA notes that splitting RGLA and PSE exposures into two separate sub-exposure classes increases the flexibility of use of the PPU of SA and could also simplify the reporting of these exposures by a closer alignment with the SA.
341. As a variant to the proposed previous treatment, the EBA believes that the current classification of RGLA and PSE exposures as exposures to central governments and central banks could be maintained, making it necessary to introduce the new exposure class only for the RGLA and PSE exposures currently classified as exposures to institutions. This would mean, in practice, that PD and LGD floors would, by construction, not apply to the former



exposures, and the approach (IRB approach or SA) for these exposures should be the same as that used for exposures to central governments and central banks.

342. Should it be considered that the treatment of RGLA and PSE exposures needs further refinements, the EBA stands ready to further assist the Commission on the most appropriate regulatory requirements to be developed.
343. As a consequence, the impact on PSE and RGLA exposures should be close to the scenario ‘all but migration’, with the only difference not captured being the introduction of PD and LGD floors on exposures currently classified as exposures to central governments and central banks. Apart from increasing the consistency of the overall framework (in term of exposure classes in the SA and the IRB approach), the alternative treatment proposed by the EBA allows for a reduction in the impact on own funds requirements for RGLA and PSEs classified as institutions. Compared with the previous approach, this ensures that no substantive changes are applied to counterparties treated as sovereign under the SA, although the framework would be introducing a clear Basel deviation for counterparties treated as institutions under the SA.<sup>63</sup>

#### 4.2.3 Impact on risk parameters – PD

##### (i) PD input floors

###### **Recommendation CR-IR 9: PD input floors**

The PD input floors should be raised from 3 basis points to 5 basis points as proposed in the final Basel III framework in order to reduce undue variability and keep a conservative minimum level of the outcomes of internal models.

344. The final Basel III framework raises the current PD input floors from 3 basis points to 5 basis points. The impact reported in the quantitative impact study conducted by the EBA is shown in Figure 24 and Figure 25.

<sup>63</sup> In contrast to the approach with a single exposure class, where the common treatment of all RGLA and PSE exposures under implementation in the EU would imply a more conservative treatment for some exposures (those assimilated to sovereigns under the SA) and a less conservative treatment for others (those assimilated to institutions under the SA), with therefore no clear direction of the deviation.

Figure 24: Marginal impact of the PD floors (contribution)

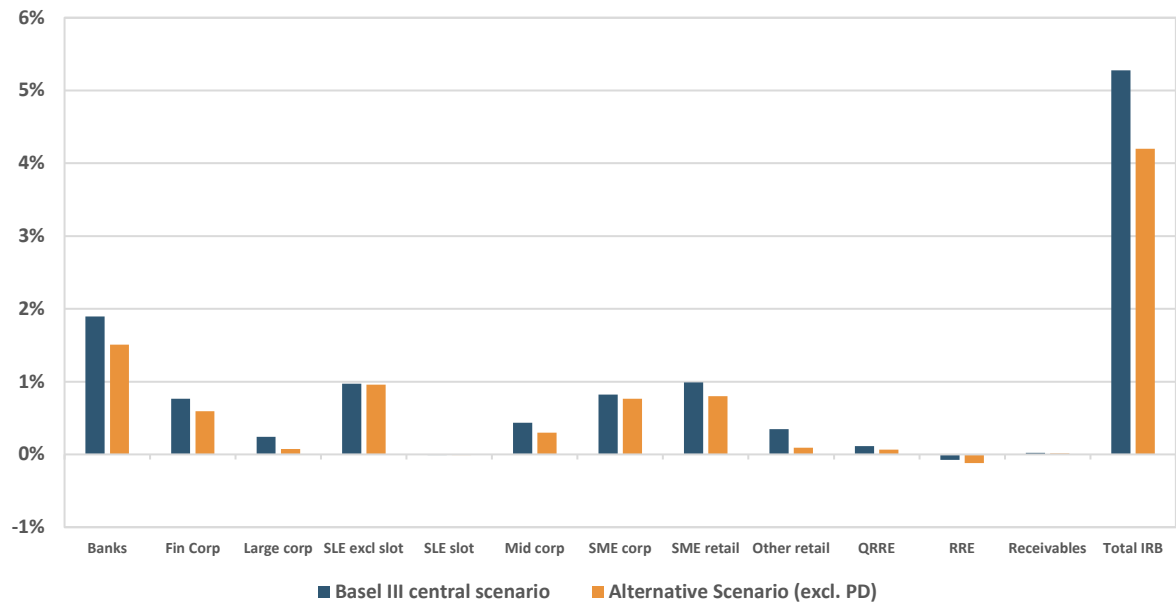
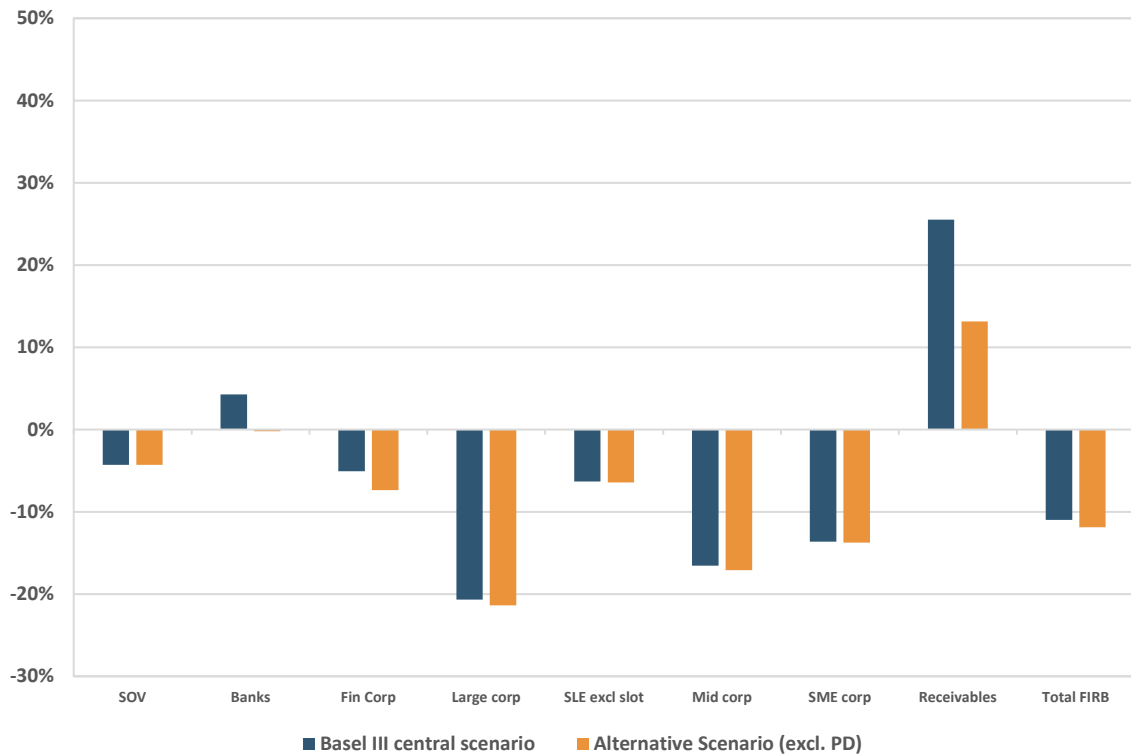
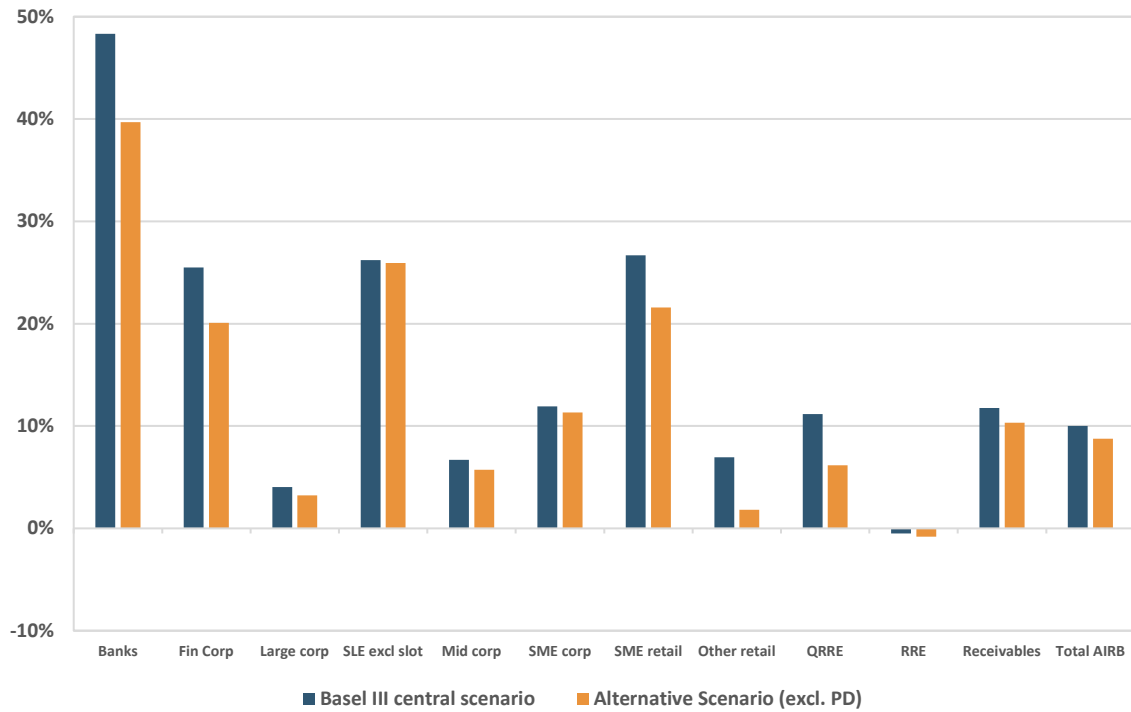


Figure 25: Relative impact of the PD floors (split by regulatory approach: A-IRB portfolios above, F-IRB portfolios below)



345. The impact of the measure (the difference between the blue and orange bars) is positive but remains low. It is slightly higher for exposures to institutions, financial institutions treated as corporates and large corporates. In the same manner as for the impact of the migration to the F-IRB approach, this is an intended consequence of the final Basel III framework, since the main impacts are expected to be on LDPs, in order to reduce undue variability in RWA. As a result, the PD floors ensure a minimum conservatism in the own funds requirements, in particular when limited data are available for a proper risk quantification.

(ii) **Additional clarifications on the PD modelling**

**Recommendation CR-IR 10: clarifications on PD estimation**

The additional clarifications and enhancements related to the estimation of PD should be implemented as proposed in the final Basel III framework in order to reduce undue variability in the outcomes of internal models.

346. The effects of additional clarifications on the PD modelling introduced in the final Basel III framework have been assessed in the qualitative survey. Institutions were asked to provide a qualitative assessment of the impact,<sup>64</sup> separately for exposures to central governments and central banks and for the institution, corporate and retail exposure classes. The assessment related specifically to the following clarifications in the final Basel III framework:

- a) horizon of the rating assignment (IRB, paragraphs 182 and 183);
- b) computation of the one-year default rate (IRB, paragraph 230);
- c) underlying data for the PD estimation reflecting good and bad years (IRB, paragraphs 231 and 234);
- d) indirect impact from changes in the SA: no assumptions of implicit government support in the ECAI rating (SA, paragraph 18).

347. The number of respondents varied depending on the exposures class and the question, with about 45 responses for exposures to central governments and central banks and exposures to institutions, 60 for corporate exposures and 55 for retail exposures. None of the changes were of concern (i.e. led to high impact) to more than two institutions. In total, only four institutions expressed concerns about or requested clarifications on the PD estimates, so the EBA believes that these changes will not lead to significant impact and may in fact contribute to a decrease in the undue variability of RWA. Moreover, some of the clarifications (e.g. on

<sup>64</sup> Institutions could choose from the following options:

- no impact as current policy in line with revised Basel III: no change;
- negligible impact: less than 5% change (negative or positive);
- low impact: between 5% and 10% change (negative or positive);
- moderate impact: between 10% and 20% change (negative or positive);
- high impact: more than 20% change (negative or positive);
- N/A: the institution has no IRB exposures.

the computation of the one-year default rate; underlying the PD estimation reflecting good and bad years) have already been addressed by the EBA in its review of the IRB approach. Therefore, the clarifications proposed in the final Basel III framework should also be reflected in the EU implementation of this framework.

#### 4.2.4 Impact on risk parameters – LGD

##### (i) Impact of the change in regulatory values under F-IRB approach

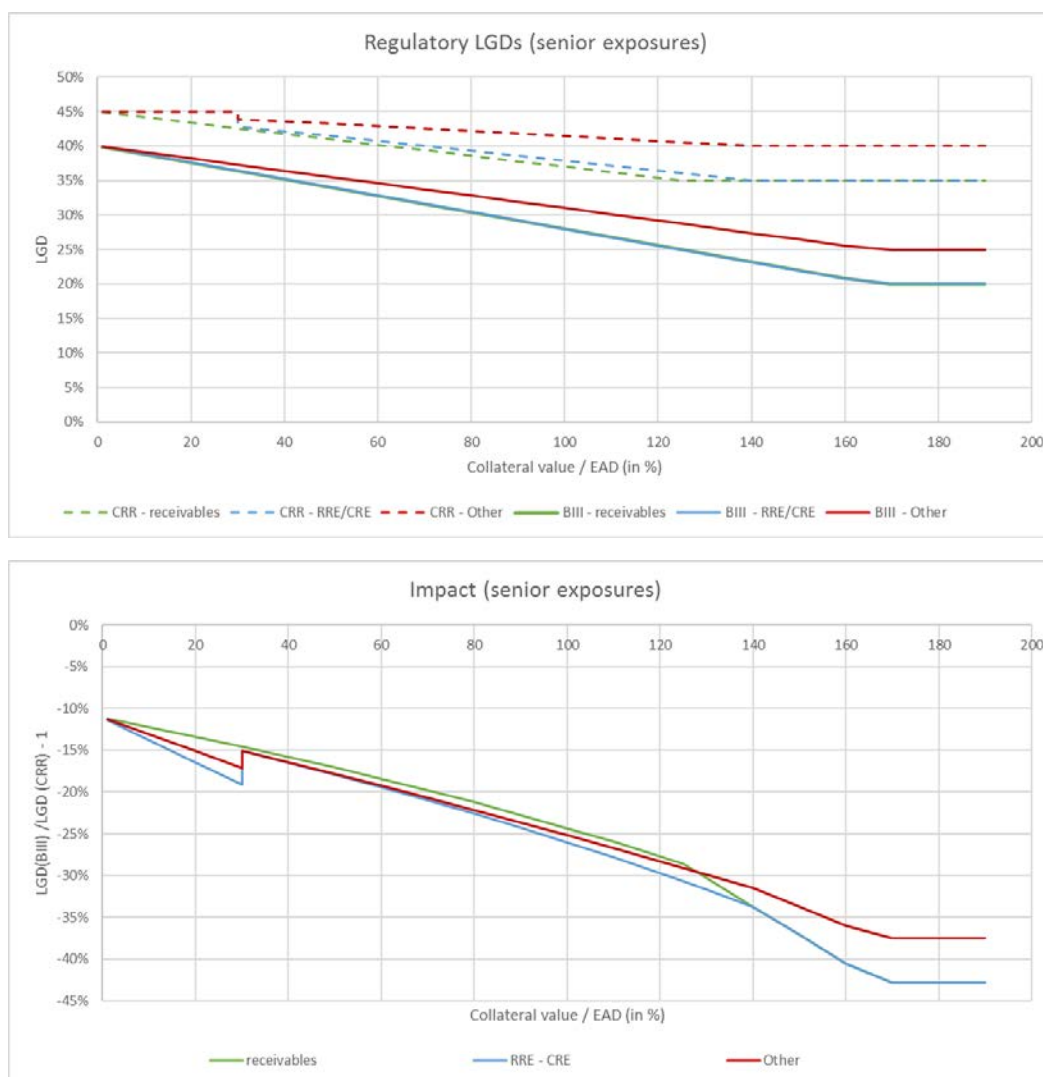
###### **Recommendation CR-IR 11: LGD regulatory values**

The new LGD regulatory values should be implemented as proposed in the final Basel III framework.

348. The final Basel III framework introduces a new formula to compute the regulatory LGD parameters for secured exposures (paragraphs 74-77 of the final Basel III framework). Compared with the Basel II framework, this formula increases the risk sensitivity of the overall framework in the following ways:
- a) It deletes the minimum collateralisation requirements; therefore, the collateral is taken into account as soon as it has any value.
  - b) It increases the difference between the LGD applied to unsecured exposures and LGD applied to fully and partially secured exposures; this comes from a reduction in the LGD secured (from 35% to 20% for exposures secured by real estate collateral and eligible receivables and from 40% to 25% for exposures secured by other physical collateral) along with a recalibration of the haircuts applied to the value of the collateral.<sup>65</sup>
  - c) It adjusts downwards the LGD for senior unsecured corporate exposures, from 45% to 40%.
349. These changes can potentially lead to a significant decrease in the LGD and therefore in the own funds requirements, as RWA is linearly correlated with the LGD risk parameters, meaning that a reduction of X% in the LGD parameter reduces by the same X% the RWA (and the EL amounts). The theoretical relations between the level of collateralisation and the regulatory LGDs under the current CRR and under the final Basel III framework are shown in the Figure 26 (for the corporate exposure class).

<sup>65</sup> No haircuts are directly defined in the Basel II framework; instead, the text gives an LGD applied to fully secured exposures. The LGD for partially secured exposures is defined as a weighted average (through the LTV) of the LGD unsecured and LGD fully secured; this indirectly defines an ‘implied’ haircut level under the current framework.

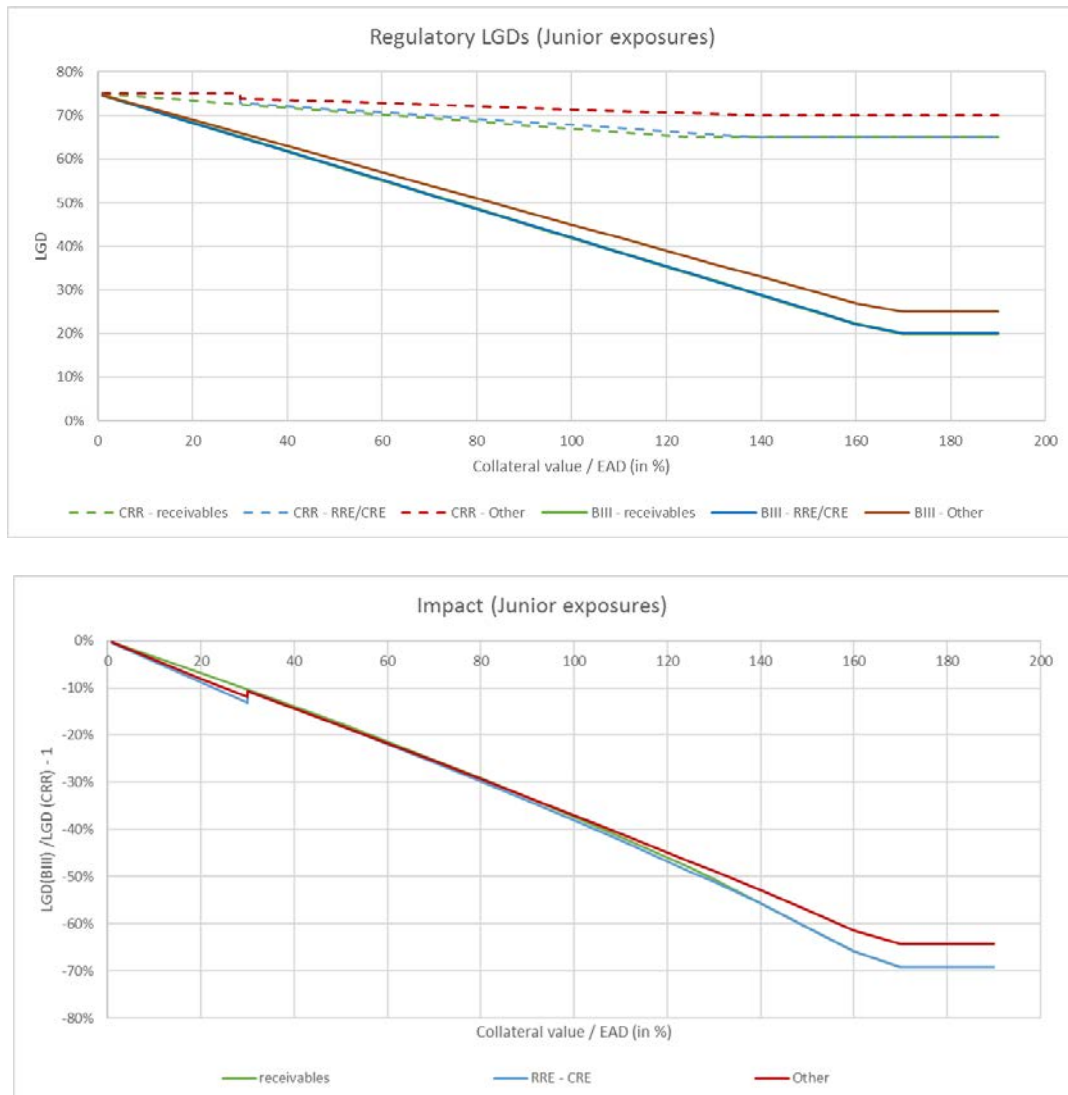
Figure 26: Theoretical impacts of the recalibration of regulatory LGD for corporate senior exposures (as a percentage of current LGD and current RWA)



*Example: for an exposure with an LTV (pre haircut) of 100%, the recalibration of regulatory LGD implies a reduction of 25% of the own fund requirements.*

350. Furthermore, with regard to subordinated exposures, it should also be noted that there is currently a discrepancy between the EU framework and the Basel II framework. While the current Basel capital framework concentrates only on senior exposures, Article 230 of the CRR also allows for a reduction in the LGD for subordinated exposures. The final Basel III framework removes this discrepancy since the LGD secured (for the input floors as well as for the regulatory LGD values) seems to apply to subordinated exposures. It is, however, very likely that the amount of secured subordinated exposures will be limited (although there is no quantitative evidence to support this assertion).

Figure 27: Theoretical impacts of the recalibration of regulatory LGD values for corporate junior exposures (as a percentage of current LGD and current RWA)



351. The impact of the change in the regulatory LGD values reported in the QIS conducted by the EBA is shown in Figure 28 and Figure 29.

Figure 28: Marginal impact of the new regulatory LGD values (contribution)

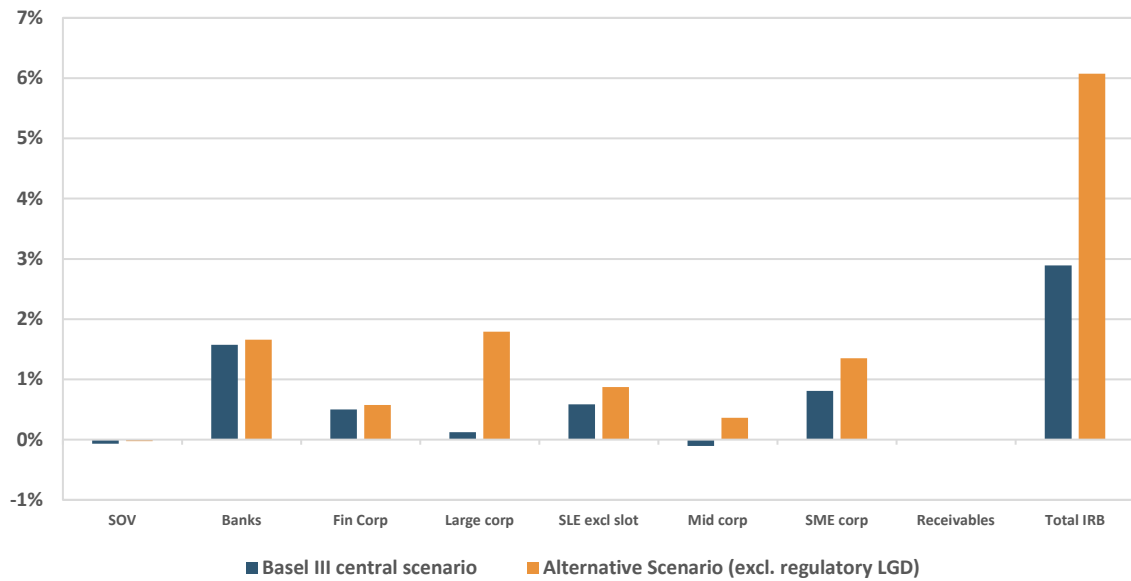
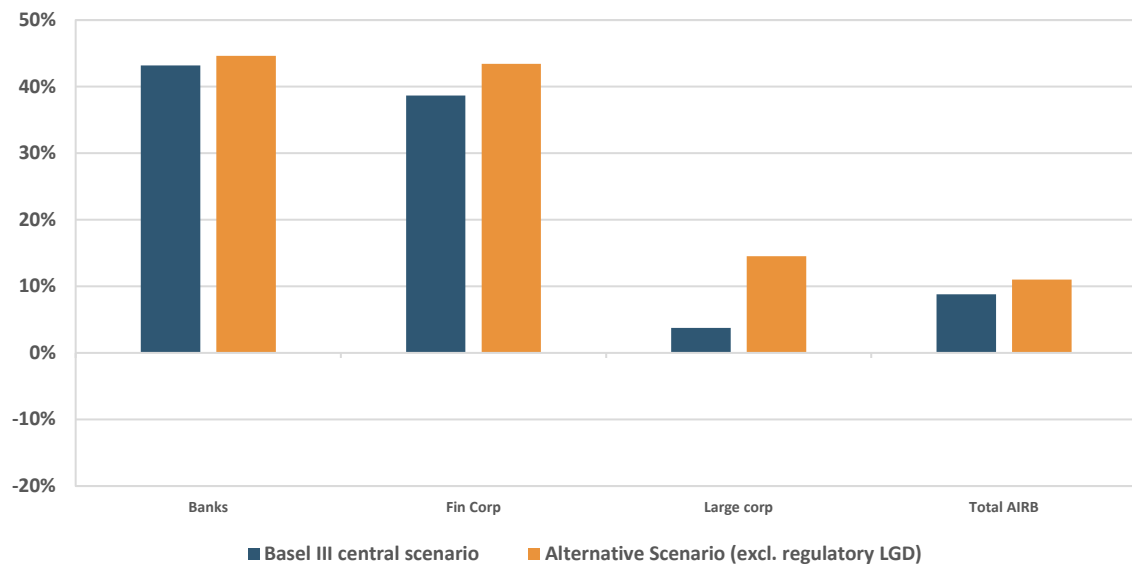
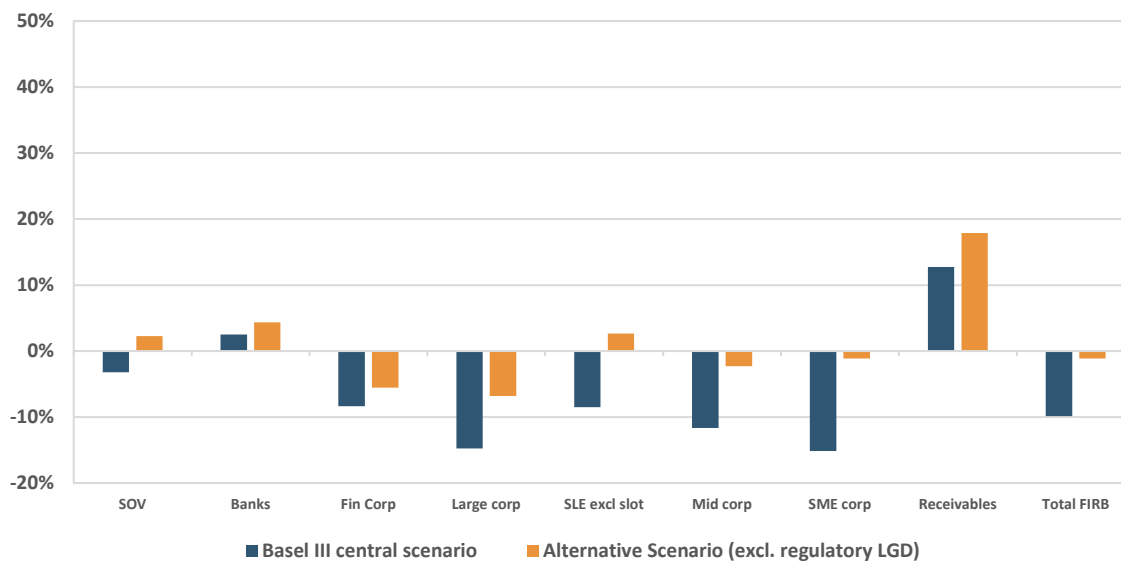


Figure 29: Relative impact of the new regulatory LGD values (split by regulatory approach: A-IRB portfolios above, F-IRB portfolios below)







352. As expected, the highest negative impact (reduction in own fund requirements) is observed for exposures to corporates. However, the magnitude of the reduction in own funds requirements is somewhat less than the minimum theoretical impact.
353. The EBA believes that the impact of the final Basel III framework should be assessed in a holistic manner, without focusing on marginal part of the reform. Hence, in this context, this measure partially compensates for the positive impact of the migration of large corporates from the A-IRB approach to the F-IRB approach. As pointed out in section 4.2.2(i), the LGD calculated under the future F-IRB approach are still higher than the LGD calculated under the current A-IRB approach. In addition, the revised framework increases the risk sensitivity of the overall framework, first by better distinguishing between exposures to institutions and exposures to corporates and, second, by better recognising the effect of the different collateral types.
354. Therefore, the EBA recommends to reflect those changes in the regulatory LGD in the EU implementation of the final Basel III framework (using the same LGD secured for senior and subordinated exposures). However, as described in section 4.2.4(ii), the EBA believes that the current values used for exposures in the form of covered bonds should be maintained.

## (ii) Treatment of covered bonds under the IRB approach

### Recommendation CR-IR 12: covered bonds

The EBA supports the treatment of covered bonds under the F-IRB approach, with the application of the PD input floor of 0.05%, and with no change in the regulatory LGD values defined in the CRR.

355. In contrast to the Basel II framework, the CRR currently includes a preferential treatment for covered bonds both in the SA and in the IRB approach. In Article 129 of the CRR, ‘eligible’ covered bonds are defined as part of the SA, referring to the general definition of covered bonds set out in Article 52(4) of Directive 2009/65/EC. The same definition is used in Article 161 of the CRR for the IRB approach, which specifies that: ‘covered bonds eligible for the treatment set out in Article 129(4) or (5) may be assigned an LGD value of 11.25%’.
356. The final Basel III framework introduced the covered bonds exposure class in the SA, but omitted to align the IRB approach accordingly. This raises the question of consistency, and the EBA believes that it is relevant to keep the current specific treatment in the IRB approach. In addition, the final Basel III framework indirectly affects covered bonds in two ways:
- a) As covered bonds are, by definition, issued by credit institutions, they will all have to be treated under the F-IRB approach. This is consistent with the general approach of the final Basel III framework to limit the modelling of LGD for LDPs, and the EBA supports this consequence.
  - b) The application of the PD floor will increase the minimum RW under F-IRB approach (although it is partly compensated by the deletion of the 1.06 factor): the minimum RW would move from 3.83% (PD = 0.03%, LGD = 11.25% with 1.06 scaling factor and an effective maturity (*M*) of 2.5 years) to 4.91% (PD = 0.05%, LGD = 11.25% with no 1.06 scaling factor and *M* of 2.5 years). For comparison, the minimum RW according to both the current treatment under the SA, as specified in Article 129(4) and 129(5) of the CRR, and the revised SA, as specified in paragraph 35 of the SA of the final Basel III framework, is 10%. Should the specific treatment be removed, an LGD of 45% would apply, and the minimum RW would be 20%, well above the 10% of the SA. Based on this comparison, the removal of the A-IRB approach does not remove the incentives for PD modelling. However, should the current specific treatment for covered bonds under the IRB approach be removed, the hierarchy of approaches would be affected and the minimum RW under the F-IRB approach would be higher than the RW available under the SA.

### (iii) LGD input floors

#### Recommendation CR-IR 13: LGD input floors

The LGD input floors should be implemented as proposed in the final Basel III framework in order to reduce undue variability and to keep conservative minimum levels of the outcomes of internal models. It should further be clarified that the haircuts used for calculation of the individual LGD input floors for secured and partially secured exposures should be based on the eligibility criteria of the A-IRB approach.

357. The final Basel III framework introduces LGD input floors for exposure classes where the modelling of LGD remains eligible; these input floors are specified in paragraphs 85 and 86 for corporate exposures, and in paragraph 121 for retail exposures. The computation of the floor for fully or partially secured exposures is based on the rules for the F-IRB approach specified in paragraphs 74 and 75. In particular, the values of the haircuts are to be the same

as those applied to the value of the collateral recognised in the computation of the floor. The values of such haircuts for eligible financial collateral are based on the FCCM, whereas they are fixed at 40% for other eligible collateral and at 100% for ineligible collateral. The values of the LGD floors vary between 25% and 50% for the unsecured part of the exposures, depending on the type of exposures, and between 0% and 15% for the secured part of the exposures, depending on the type of collateral. The calculation of the LGD input floors does not take into account the effect of UFCP even though this may be reflected in the LGD estimation.

358. The impact of the LGD input floors has been reported in the quantitative impact study conducted by the EBA and is shown in Figure 30 and Figure 31.

Figure 30: Marginal impact of the LGD floors (contribution)

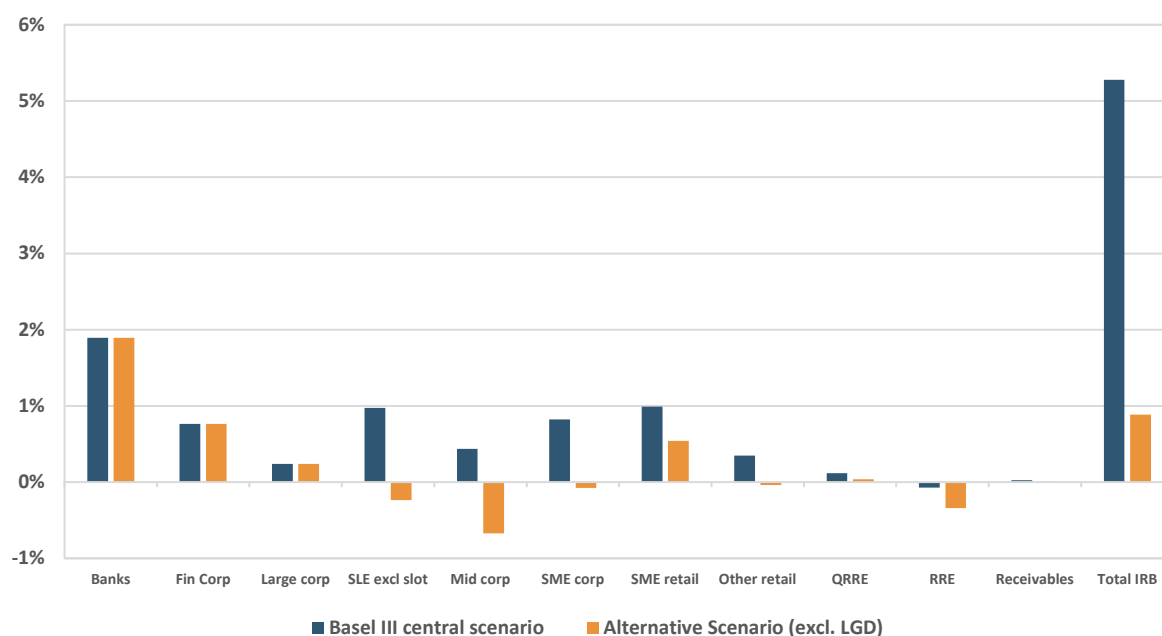
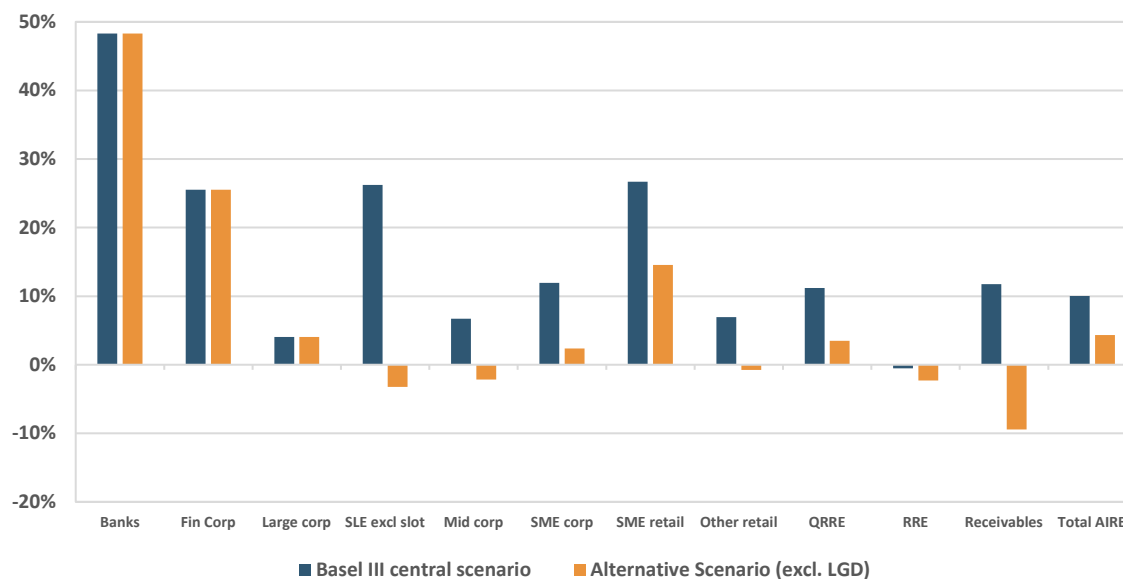


Figure 31: Relative impact of the LGD floors (split by regulatory approach: only A-IRB portfolio)



359. The impact of the LGD floors is substantial for exposures to medium and small corporates, other retail exposures as well as SLEs treated under the A-IRB approach. This effect is in line with expectations, as these types of exposures are more likely to be secured by forms of collateral other than residential mortgages, with the result that haircuts to the value of collateral and the levels of the floors are much higher than the estimates. However, it should also be highlighted that the impact tested in the QIS refers to the application of the floors to the current estimates of risk parameters. These parameters do not yet (fully) reflect the clarifications recently provided as part of the EBA's review of the IRB approach, and in particular of the EBA guidelines on PD and LGD estimation, of the RTS on the nature, severity and duration of economic downturn and of the EBA guidelines on the downturn LGD estimation. Implementation of these requirements is expected to significantly decrease the variability of LGD estimates and, hence, the impact of the LGD input floors as proposed in the final Basel III framework may be significantly different when applied to those revised LGD estimates.

360. The EBA is of the opinion that, to ensure consistent application of the LGD input floors, additional clarifications should be provided in the EU implementation of the final Basel III framework. First, it should be clarified that, regardless of the application of the floors, institutions may estimate LGD in accordance with the current model design that reflects the most relevant risk drivers and is most suited to the risk profile of the portfolio and recovery strategies of the institution, even if this design does not explicitly differentiate secured from unsecured LGD. Such a split of exposures is required only for the purpose of the calculation of the LGD floor, which is then compared with an LGD estimate applicable to the entire exposure, that is, by facility.

361. Second, the magnitude of the difference in the values used for the haircuts implies that it is crucial to clarify how this value should be determined. In particular, the EBA believes that the scope of recognised collateral should be assessed by institutions in accordance with the applicable framework. In other words, for the computation of the LGD input floors, the eligibility criteria should be assessed in accordance with the requirements applicable under the A-IRB approach. This implies that, in the case of collateral eligible under the A-IRB approach, but not under the F-IRB approach, a 100% haircut would apply when determining the regulatory LGD under the F-IRB approach, but, in the calculation of the LGD floor under the A-IRB approach a haircut lower than 100% would be used, as applicable to eligible types of collateral. This clarification is particularly relevant for SLEs, as the nature of the projects makes it very hard for the underlying collateral to meet the eligibility requirements of the F-IRB approach. The use of F-IRB eligibility criteria would imply that a significant number of SLEs would be considered as unsecured for the purpose of the calculation of the LGD input floors, with a substantial increase in own funds requirements, as evidenced by the result of the QIS. The EBA is of the view that this effect would not be appropriate and the resulting RW would not be sufficiently risk sensitive.
362. Should it be considered that the treatment of SLEs needs further refinements, the EBA stands ready to further assist the Commission to develop the most appropriate regulatory requirements.

(iv) **Simplified A-IRB approach**

**Recommendation CR-IR 14: new simplified A-IRB approach**

It should be clarified that under the simplified A-IRB approach as proposed in the final Basel III framework the haircuts used for calculation of the LGD risk parameter for secured and partially secured exposures should be based on the eligibility criteria of the F-IRB approach.

363. The final Basel III framework, in the rule set out in paragraph 87, allows the A-IRB approach to be combined with the F-IRB approach. This rule allows institutions applying the A-IRB approach to use the formula set out in paragraph 74 or 83 of the final Basel III framework specified for regulatory LGD values except that, instead of the 40%, 45% or 75% regulatory LGD values for the unsecured part of the exposures, they are allowed to use their own estimate of LGD. This own LGD estimate must not take account of any effects of collateral recoveries.
364. The EBA agrees with the condition set out in paragraph 87 of the final Basel III framework, which states that exercise of this option requires the eligibility requirements of the F-IRB approach for collateral to be met.
365. In addition, it should be made clear that the use of the simplified approach described above is available only to exposures that are still treated under the A-IRB approach and that specific permission is required for LGD models that provide estimates applicable only to the unsecured part of the exposures. This interpretation is based on 1) the sub-section where

this paragraph is located ('LGD under the advanced approach'); and 2) the beginning of the paragraph ('In cases where a bank has met the conditions to use their own internal estimates of LGD for a pool of unsecured exposures'). Further guidance may be needed on how to estimate and assess the LGD for the unsecured part of the exposures without taking account of any effects of collateral recoveries.

(v) **Additional clarifications on the LGD modelling**

**Recommendation CR-IR 15: clarifications on LGD estimation**

The additional clarifications related to the estimation of LGD should be implemented as proposed in the final Basel III framework in order to reduce undue variability in the outcomes of internal models.

366. Institutions were asked to provide a qualitative assessment of the impact of the proposed deletion of the option to give unequal importance to historical data when estimating LGD for retail exposures (removal of paragraph 73 in the Basel II framework). Only two institutions (out of 57 responding institutions) assessed the impact of this change as high. Therefore, the EBA supports the deletion of this option in order to reduce the variability of the LGD estimates. Given that this provision will have little practical relevance after the implementation of the RTS on the nature, severity and duration of economic downturn and the EBA guidelines on the downturn LGD estimation, the EBA considers that this option of weighting historical data should be deleted, as it adds unnecessary complexity and contributes to unjustified variability in the long-run average LGD estimates.

#### 4.2.5 Combined PD and LGD floors

367. The impact of the PD and LGD input floors has been reported in the QIS conducted by the EBA (Figure 32 and Figure 33).

Figure 32: Marginal impact of the PD and LGD floors (contribution)

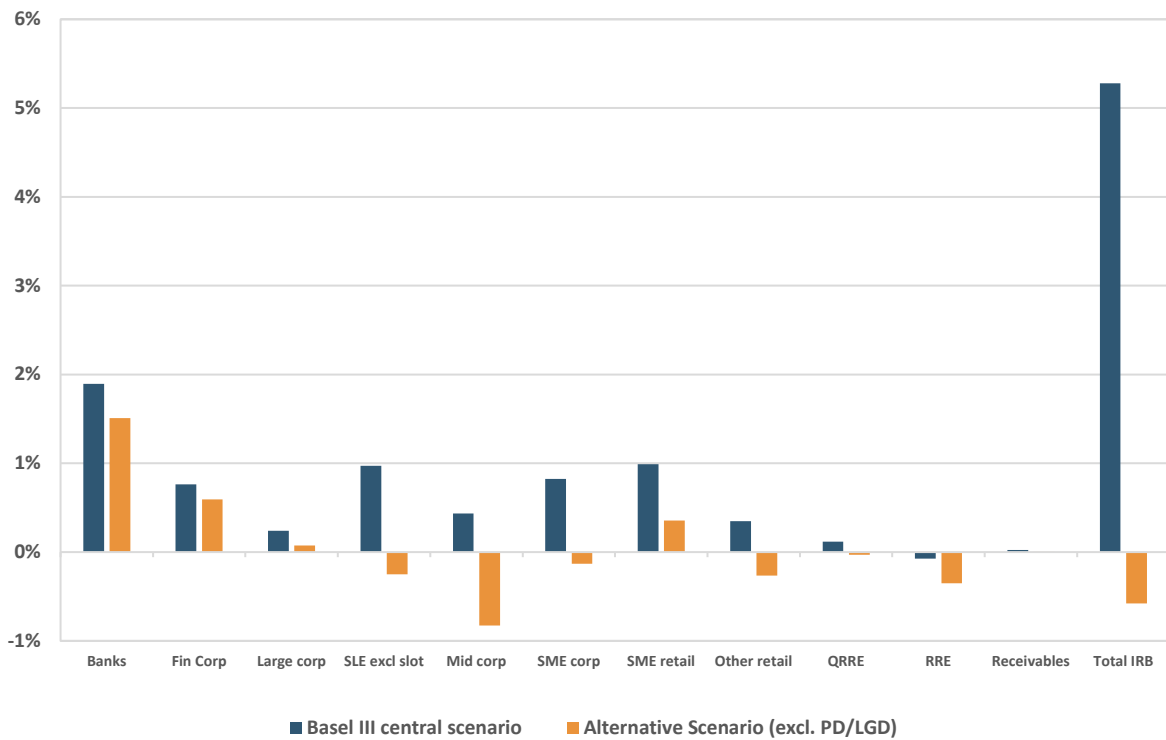
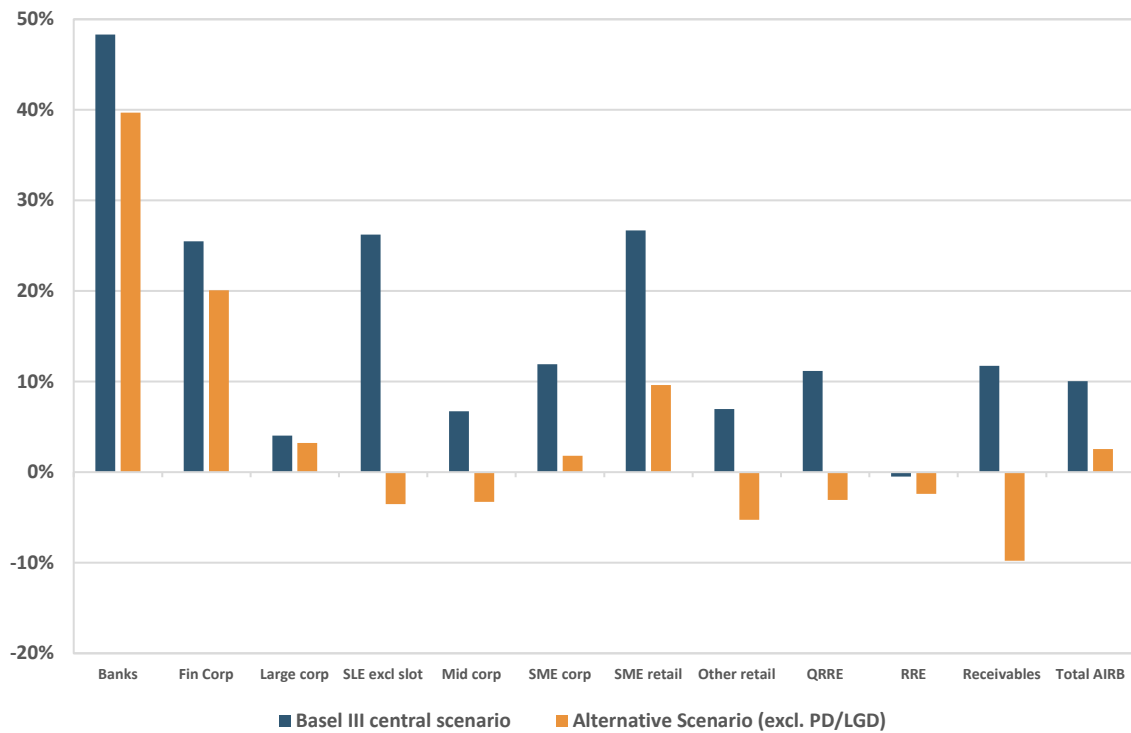


Figure 33: Relative impact of the LGD floors (split by regulatory approach: only A-IRB portfolios)



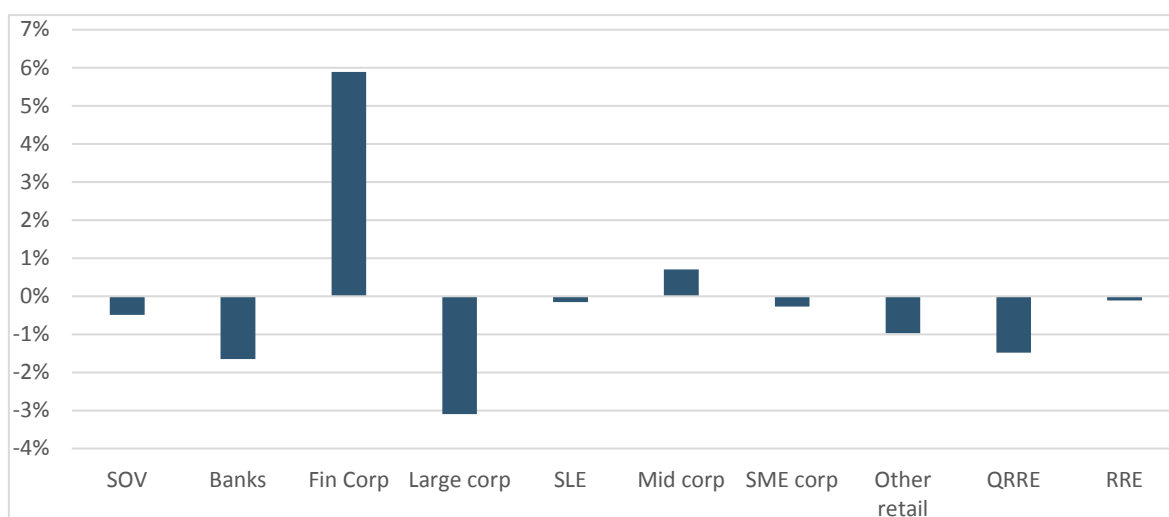
#### 4.2.6 Impact on risk parameters - CCF

368. The final Basel III framework changes the following aspects with respect to the off-balance sheet exposures:

- a) It restricts the scope of modelling of CCFs, both via the migration of exposures from the A-IRB approach to the F-IRB approach, as well as via limiting the modelling to ‘undrawn revolving commitments [...], provided the exposure is not subject to a CCF of 100% in the standardised approach’, as specified in paragraph 105 (for non-retail exposures) and paragraph 125 (for retail exposures).
- b) It updates the regulatory values applied to the OBS amounts. This update is done indirectly for the IRB exposures via paragraph 102, which requires the CCF applied to be ‘the same as those in the standardised approach, as set out in paragraphs 78 to 89’. This update is discussed more in depth in section (ii).
- c) It provides more extensive clarifications on the estimation of CCFs within the remaining scope. These elements have been assessed via the qualitative questionnaire.
- d) It changes the definition of a ‘commitment’. This part of the framework has also been assessed via the qualitative questionnaire and is discussed more in depth in section 2.6.

369. The impact of the combined changes in relation to the CCF estimates (all changes except the new definition of commitments) has been reported in the QIS conducted by the EBA (Figure 34).

Figure 34: Marginal change in exposure value by exposure class



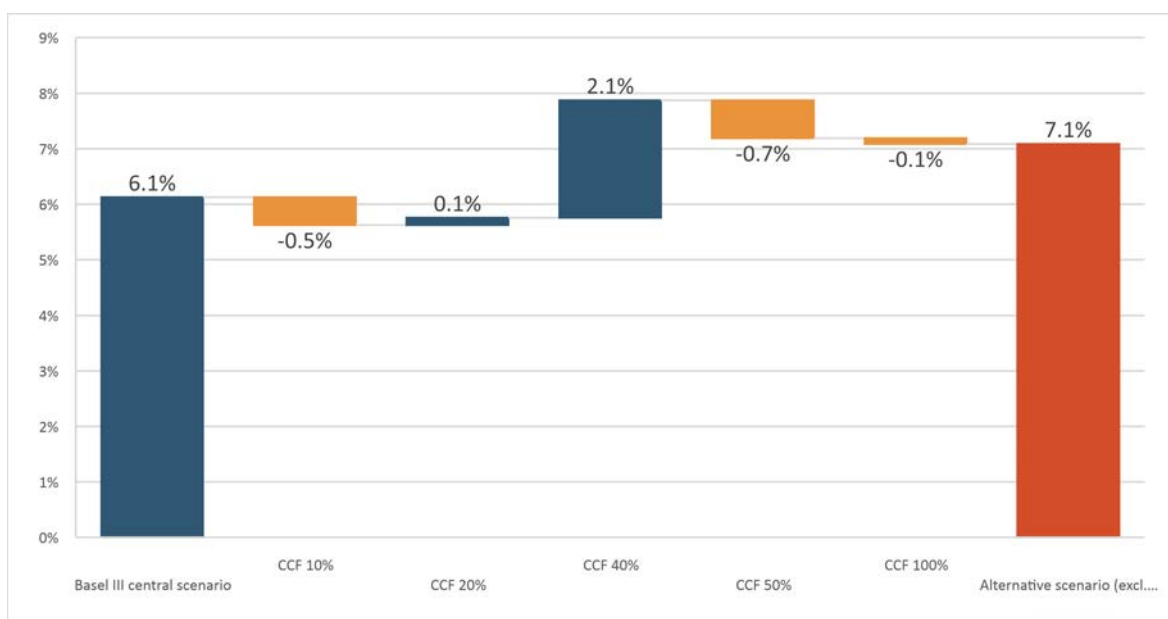
370. Although the exposure value measure is generally decreased, the EBA notes that this is not true for exposures to financial institutions treated as corporates, for which the exposure value increases. This increase is not due to the change in the CCF framework, but mostly due to the introduction of the minimum haircut floors for non-centrally cleared securities



financing transactions (SFTs). The change introduced in paragraphs 179-188 of the SA to credit risk section is analysed further by the EBA in the ‘Policy advice on the Basel III reforms on Securities Financing Transactions (SFTs)’.

371. The impact of the combined changes in relation to the CCF estimates (all changes except the new definition of commitments) has been reported in the QIS conducted by the EBA by CCF buckets (Figure 35/ Figure 34).

Figure 35: Marginal impact of the new CCF (change in RWA by risk category for OBS items<sup>66</sup>)



### (i) Scope of CCF modelling

#### Recommendation CR-IR 16: reduced scope of CCF modelling

The EBA supports the restriction of CCF to ‘undrawn revolving commitments [...], provided the exposure is not subject to a CCF of 100% in the standardised approach’. However, it is necessary to include in the CRR a precise definition of ‘revolving commitment’, such as facilities ‘where customers’ outstanding balances are permitted to fluctuate based on their decisions to borrow and repay, up to a limit established by the bank’.

372. As a result of the change in the scope of modelling, Articles 51 and 166 of the CRR will have to be revised, which gives the opportunity to improve the clarity of the text. In this context, the **definition of revolving facilities** can have significant impact on the consistent application of the requirements and should be carefully drafted. In particular, the EBA believes that the definition of revolving exposures should be compatible with exposures treated as QRRE in the retail exposure class. In paragraph 24 of the Basel III framework, these revolving exposures are defined as ‘those where customers’ outstanding balances are permitted to

<sup>66</sup> The labels on the x-axis refer to the regulatory CCFs used either directly to derive the exposure value or indirectly to calculate the CCF input floors when own CCF estimates are used.

*fluctuate based on their decisions to borrow and repay, up to a limit established by the bank’.*  
Further elements on this sub exposure class are exposed in section 2.5.2.

(ii) Impact of the change in CCF regulatory values

**Recommendation CR-IR 17: CCF regulatory values**

The new CCF regulatory values and new buckets should be implemented as proposed in the final Basel III framework.

373. The impact of the change in regulatory CCF values has been reported in the quantitative impact study conducted by the EBA and is shown in Figure 36 and Figure 37.

Figure 36: Marginal impact of the new regulatory CCF for F-IRB institutions (contribution)

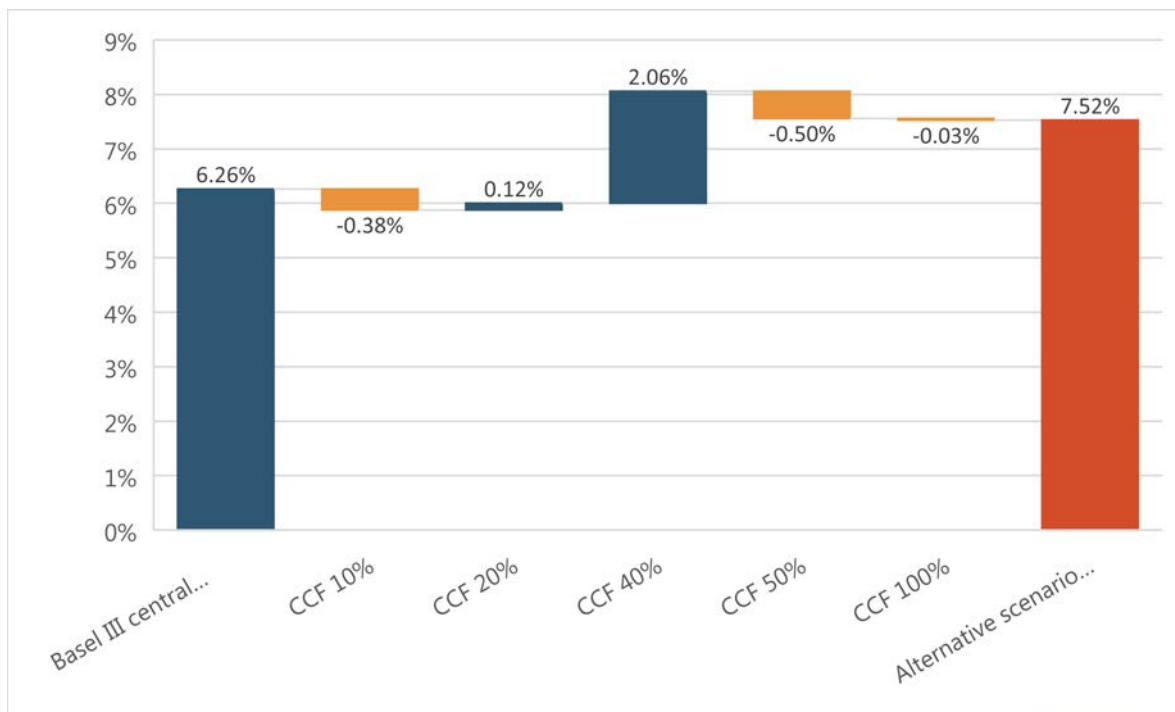
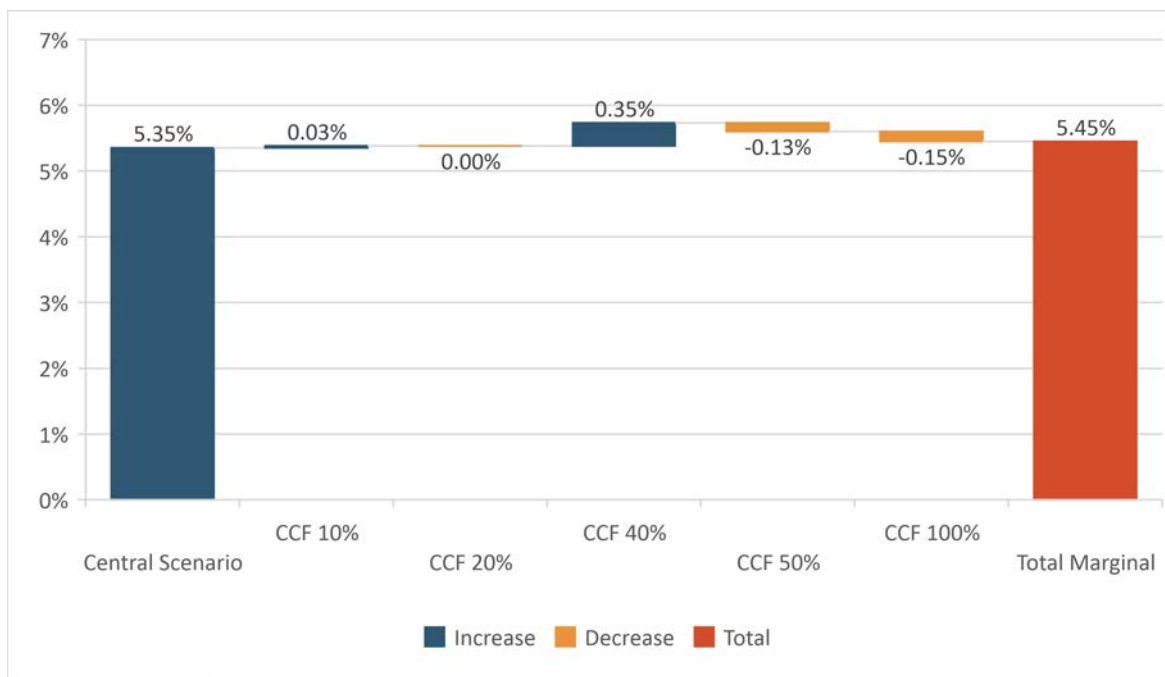


Figure 37: Combined impact of the migration to regulatory CCF and new CCF regulatory values for A-IRB bank (contribution)



374. The EBA's recommendation is to implement these new regulatory values as proposed in the final Basel III framework and to do so consistently for all approaches.

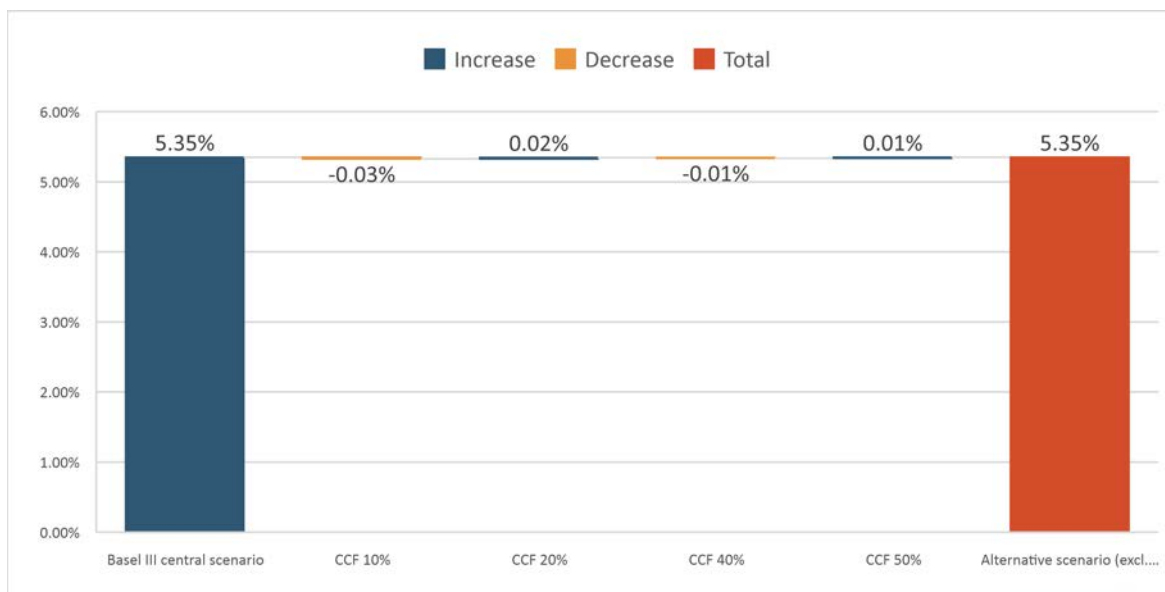
### (iii) CCF Input floors

#### Recommendation CR-IR 18: CCF input floors

The new CCF input floors should be implemented as proposed in the final Basel III framework in order to reduce undue variability and keep conservative minimum levels of outcomes of internal models.

375. The impact of the introduction of CCF input floors has been reported in the QIS conducted by the EBA and is shown in Figure 38.

Figure 38: Marginal impact of the CCF floors for A-IRB institutions (contribution)



376. It should be noted that the figures under the marginal scenario ‘no CCF changes’ also revert the marginal clarifications on the CCF modelling presented in the next subsection. Nevertheless, in accordance with the results of the qualitative questionnaire, these clarifications are not expected to significantly impact the own funds requirements, hence the figures are deemed to be a good proxy of the marginal impact of the CCF input floors.
377. The EBA’s recommendation is to implement these input floors as proposed in the final Basel III framework.

#### (iv) Additional clarifications on the CCF modelling

##### Recommendation CR-IR 19: Clarifications on own CCF estimations

The additional clarifications and enhancements related to the estimation of CCF should be implemented as proposed in the final Basel III framework in order to reduce undue variability in the outcomes of internal models.

378. In the qualitative questionnaire, institutions were asked to provide a qualitative assessment of the impact of certain additional clarifications on own CCF estimations separately for exposures to central governments and central banks, as well as for institutional, corporate and retail exposures. In particular, the impact of the following clarifications proposed in the final Basel III framework was analysed:
- 12-month fixed-horizon approach, as other approaches such as the cohort approach will no longer be allowed (IRB, paragraphs 245 and 246);
  - downturn exposure at default (EAD) should not fall below a conservative estimate of the long-run default-weighted average EAD (IRB, paragraph 242);

- c) specification of homogeneous segments (IRB, paragraph 246);
- d) treatment of regions of instability (IRB, paragraph 247);
- e) no caps to the principal amount (IRB, paragraph 248);
- f) reflection of wrong-way risk in the calculation of EAD (IRB, paragraph 191);
- g) definition of commitments (SA, paragraph 78).

379. Compared with the questions relating to the PD and LGD clarifications, the sample of responding institutions was smaller for non-retail exposure classes: fewer than 25 institutions responded to questions about exposures to central governments and central banks as well as to institutions,<sup>67</sup> while around 35 responded to the questions on corporate exposures and around 50 responded about retail exposures. Six institutions pointed out the potentially large impact of the definition of commitments (discussed in section 2.6); four institutions expressed concerns on the clarification around the 12-month fixed-horizon approach and the restrictions on other approaches (such as the cohort approach); and one bank raised concerns on all the other clarifications. In total, 10 institutions pointed out at least one issue that they expected to have a large impact on their own CFF estimates.
380. The EBA supports the introduction of these clarifications in the EU implementation of the final Basel III framework. The EBA believes that these clarifications will contribute to further reductions in undue variability of own estimates of CCFs.

#### 4.2.7 Impact on risk parameters – effective maturity

##### (i) Additional clarifications on the calculation of effective maturity

###### **Recommendation CR-IR 20: calculation of effective maturity for revolving facilities**

The additional clarifications to the maturity parameter should be implemented as proposed in the final Basel III framework. In addition, Article 162 of the CRR on the calculation should be further clarified in order to ensure harmonised application.

381. Paragraph 109 of the final Basel III framework includes clarification on the effective maturity ( $M$ ) for revolving facilities, which must be the maximum contractual termination date and not the repayment date of the current drawing. The EBA believes that this clarification should also be incorporated in the CRR as it is expected to contribute to the reduction in undue variability of RWA.
382. Article 162(2)(f) of the CRR currently specifies that, where an institution is not in a position to calculate  $M$  in accordance with the specified formula, the parameter should reflect the maximum remaining time (in years) that the obligor is permitted to fully discharge its

<sup>67</sup> Since the institutions exposure class is migrating to F-IRB approach (which does not permit CCF modelling), the small number of respondents on the impact of the clarifications related to CCF estimates was expected.

contractual obligations. Despite the negligible marginal impact of the additional clarification provided in the final Basel III framework, the EBA believes that for the sake of clarity of the regulation and its homogenous application, this additional clarification regarding  $M$  for revolving facilities should be explicitly reflected in the EU implementation of the final Basel III framework. Furthermore, the potential impact of this clarification may be mitigated by the proposals presented in the next sub-section with regard to the possibility of using the implicit maturity adjustment based on fixed values for  $M$  under the A-IRB approach.

383. In addition, the EBA would like to point out that there has been a significant number of Q&As related to the application of Article 162 of the CRR on the calculation of the  $M$  parameter. The EBA believes that the clarifications and corrections provided in the Q&As could be incorporated in the text of the CRR in order to improve its overall clarity. In particular:

- a) The introductory sentence in Article 162(2) of the CRR fails to refer to points (f) to (j) (the paragraph mentions only points (a) to (e)).<sup>68</sup>
- b) The drafting of Article 162(2)(a) of the CRR could be improved to clarify that  $M$  should be computed using the contractual schedule, in other words that any potential change to the schedule that would solely depend on a decision to extend the exposures by the institution does not need to be taken into account when determining  $M$ .<sup>69</sup>
- c) The drafting of Article 162(2)(g) of the CRR could be improved to clarify that it applies to netting sets for which an institution applies the internal model method (IMM) regardless of whether the transaction is collateralised or not. In the case of netting sets for which an institution applies the IMM and within which the longest-dated contract has a maturity of less than or equal to one year, the maturity is calculated by the methods given in Article 162(2)(b) or (c) for derivatives and Article 162(2)(d) of the CRR for SFT.<sup>70</sup>

## (ii) Use of the implicit maturity adjustment based on standardised $M$ values under the A-IRB approach

### Recommendation CR-IR 21: use of fixed maturity under A-IRB approach

With regard to the possibility for institutions to use fixed maturity under A-IRB approach, the CRR could be simplified by dropping the part of the threshold based on assets for using fixed 2.5-year maturity value. This modification would align with the threshold used for the scope of modelling for large corporates in the final Basel III framework: in both cases a simple threshold of EUR 500 million of consolidated sales would be used. While this would be a deviation from the final Basel III framework, such deviation already exists in the CRR as for some exposures the threshold based on assets is increased from EUR 500 million to EUR 1 billion.

<sup>68</sup> Q&A 762 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2014\\_762](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2014_762)).

<sup>69</sup> Q&A 686 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013\\_686](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013_686)) and Q&A 687 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013\\_687](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013_687)).

<sup>70</sup> Q&A 3169 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2017\\_3169](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2017_3169)).

384. As a general rule, exposures under the F-IRB approach are assigned fixed values of  $M$  of 0.5 years for repurchase or borrowing transactions and securities or commodities lending, and of 2.5 years for other exposures, whereas, for the exposures under the A-IRB approach an explicit maturity adjustment based on the institutions' calculation of the  $M$  for each exposure is used. However, under some conditions there are exceptions to this general rule. The first one is that some corporate exposures under the A-IRB approach can be risk weighted using a fixed  $M$  value of 2.5 years. More specifically, paragraph 319 of the Basel II framework, and similarly also paragraph 108 of the final Basel III framework, grant national supervisors the discretion to allow institutions to assume set  $M$  to 2.5 years for facilities to certain smaller domestic corporate borrowers if reported sales (i.e. turnover) as well as total assets for the consolidated group of which the firm is a part are less than EUR 500 million.
385. This discretion is incorporated in Article 162(4) of the CRR, which gives institutions the option to consistently assign a value of  $M$  of 2.5 years for exposures to corporates situated in the EU and having consolidated sales and consolidated assets of less than EUR 500 million. In addition, this article allows institutions to increase the threshold for total assets to EUR 1 billion for corporates that primarily own and let non-speculative RRE property.<sup>71</sup>
386. It should be noted that a similar threshold is introduced in paragraph 34 of the final Basel III framework, namely in the case of setting the boundary for the application of the A-IRB approach for large corporates. This point is discussed in detail in section 4.2.2. The thresholds used are summarised in Table 28.

Table 23: Thresholds used in the corporate exposure class

Purpose	BII	BIII	CRR
$M$		Sales (i.e. turnover): EUR 500m Assets: EUR 500m	Sales: EUR 500m Assets: EUR 500m (EUR 1bn in the case of corporates non-speculative RRE)
A-IRB or F-IRB	∅	Annual revenue: EUR 500m	∅

387. Each of the thresholds has its own purpose, and it could therefore be argued that the current structure should be kept. On the other hand, this lack of consistency increases the complexity of the framework, with often unclear benefits. The following simplified table (Table 29) summarises the different cases and conditions where the fixed value for  $M$  of 2.5 years could potentially be used for corporate exposures after implementation of the final Basel III framework:

<sup>71</sup> The EU framework is therefore slightly less restrictive than the Basel capital framework for those exposures.

Table 24: Thresholds in place for the use of the fixed value of M

		Sales	
		< EUR 500m (A-IRB and F-IRB exposures)	> EUR 500m (F-IRB exposures)
Assets	< EUR 500m	Possible for A-IRB (‘Institutions may choose’)	Always (F-IRB exposures) <sup>72</sup>
	> EUR 500m	<b>Not possible (current CRR)</b>	Always (F-IRB exposures)

388. The EBA notes that the current deviation, that is the increased threshold on assets for certain types of entities from EUR 500 million, as in the Basel capital framework, to EUR 1 billion, has the effect of making this threshold less binding for companies typically characterised by high asset value, which means that this criterion has previously been considered less relevant than the criterion of sales value. It could therefore be argued that the criterion of assets could be dropped completely, with the additional benefit of simplifying the framework by aligning the scope of this option with the scope of the A-IRB approach for corporate exposures.

389. The EBA is therefore of the opinion that the CRR could be simplified by dropping the part of the threshold for the maturity parameter based on assets and in both cases using a simple threshold of EUR 500 million of consolidated sales. The use of the fixed value for *M* of 2.5 years should, however, remain optional, in other words institutions should still be allowed to calculate the explicit maturity adjustment for corporates under the A-IRB approach. Table 25 summarises the preferred alternative implementation:

<sup>72</sup> Subject to national implementation of the F-IRB framework with respect to the estimation of maturity: see next section.



Table 25: Alternative thresholds proposed for the use of the fixed value of  $M$ 

$M = 2.5$ years?		Sales		
		< EUR 500m		> EUR 500m
Assets	all	If A-IRB Possible	If F-IRB Always (possible if proposal in the next section implemented)	F-IRB Always (possible if proposal in the next section implemented)

## (iii) Use of the explicit maturity adjustment under the F-IRB approach

**Recommendation CR-IR 22: use of the explicit maturity adjustment under F-IRB approach**

The option for competent authorities to grant permission to institutions to use the explicit maturity adjustment for exposures under the F-IRB approach should be implemented in a more flexible manner in the light of the migration of some exposures to the F-IRB approach. It is therefore recommended that the explicit maturity adjustment be made available, subject to the permission of the competent authority, either to all F-IRB exposures of the institutions or to all exposure classes subject to the migration from the A-IRB approach to the F-IRB approach under the final Basel III framework, that is to exposures to large corporates, financial institutions treated as corporates and institutions.

390. A second exception to the general rule relates to the national discretion provided in paragraph 107 of the final Basel III framework, which was also included in the Basel II framework, in paragraph 318. This discretion allows jurisdictions to require all the institutions applying the F-IRB approach to use the explicit maturity adjustment based on calculated values for  $M$ . However, this provision is implemented in a slightly different manner in the EU framework in the second paragraph of Article 162(1) of the CRR, which allows for discretion at the level of an individual institution, as it gives CAs the power to decide, as part of the permission in Article 143 of the CRR, whether or not a given institution shall use the explicit maturity adjustment.
391. The EBA believes that this deviation from the Basel capital framework should be maintained, especially in the light of the migration of exposures from the A-IRB approach to the F-IRB approach, thereby maintaining appropriate risk sensitivity of the framework and limiting undue costs for some F-IRB institutions currently making use of the explicit maturity adjustment option.
392. As a result, CAs should still be allowed to decide whether an institution with some exposures migrating to the F-IRB approach should continue to use the explicit maturity adjustment based on calculated values for  $M$  either for all F-IRB exposures or for exposures from selected exposure classes, in particular those that are subject to migration from the A-IRB approach to the F-IRB approach. In this context, the EBA considers that the explicit maturity adjustment should be made available either to all F-IRB exposures or to all exposures subject to the migration from the A-IRB approach to the F-IRB approach under the final Basel III framework,

that is to exposures to large corporates, financial institutions treated as corporates and institutions, subject to the permission of the CA. This additional flexibility should also be allowed for exposures currently treated under the F-IRB approach in order to ensure a harmonised framework.

#### 4.2.8 Specialised lending exposures – high Volatility commercial real estate

##### **Recommendation CR-IR 23: specialised lending exposures – high-volatility commercial real estate**

The EBA recommends not introducing a sub-exposure class of high-volatility commercial real estate in the IRB approach. At the same time the classification of exposures under the SA and IRB approach should be aligned to the extent possible, at least by using consistent definitions of similar categories.

393. The CRR currently does not distinguish between high-volatility commercial real estate (HVCRE) exposures and other sub-exposure classes of SLEs in the IRB approach, although the Basel II framework specifies for HVCRE exposures a specific RW function under the F-IRB and the A-IRB approaches as well as specific RW and EL values under the supervisory slotting criteria approach. As a result, in accordance with the current CRR, HVCRE exposures are treated in the same way as other income-producing real estate (IPRE) exposures.
394. In the SA of the final Basel III framework, the sub-exposure class of SLEs as specified in paragraphs 44-48 includes only three categories, namely i) project finance; ii) object finance; and iii) commodities finance. Exposures secured by immovable properties are treated separately, with a split between RRE, CRE and ADC. The first two sub-exposure classes of real estate exposures are divided between cases where the ‘repayment is materially dependent on cash flows generated by property’ (paragraph 67 for RRE and paragraph 73 for CRE) and other cases (paragraphs 63-66 for RRE and paragraphs 69 to 72 for CRE).
395. The EBA understands the interactions in the definitions introduced by the final Basel III framework as follows:
- a) The categories RRE, CRE and ADC are not intended to differ fundamentally between the SA and the IRB approach.
  - b) Although the category IPRE is not used per se in the revised SA framework as part of SLEs, it incorporates RRE, CRE and ADC exposures where the ‘repayment is materially dependent on cash flows generated by property’; however, in contrast the SA, under the IRB approach IPRE exposures are specifically exposures meeting the definition of SLEs.
  - c) The category HVCRE is composed of CRE and ADC where ‘repayment is materially dependent on cash flows generated by property’; however, it does not cover all ADC exposures.

- d) It is not clear under the final Basel III framework whether or not the subset of ADC exposures not considered as HVCRE is the same as the ADC exposures weighted at 100% under paragraph 75 of the SA.
396. Given that the changes in the SLE classifications under the final Basel III framework are limited to the SA, which does not introduce the HVCRE exposure category, the EBA does not see the need for a change to this particular aspect of the IRB approach. In other words, as there is no significant change in the specific market circumstances and in the IRB approach related to SLEs under the final Basel III framework compared with the Basel II framework, no substantial change should be introduced with regard to the RW function, nor to the RW and EL values under the SSCA.
397. The EBA believes that, in order to ensure consistent application of the regulatory framework, the new EU framework should incorporate precise definitions of the categories both under the SA and under the IRB approach. The introduction of the HVCRE exposure category would introduce an element of subjectivity which could lead to inconsistencies in the classification. It is, in particular, unclear from paragraph 17 of the final Basel III framework for the IRB approach how to assess the volatility, as it refers to different elements, such as volatility of loss rate, asset correlation and volatility of default rates. Furthermore, it is unclear what levels of volatility should be considered high enough to warrant the classification of exposures as HVCRE. Given the very individual nature of SLEs, it is considered unlikely that sufficiently precise criteria could be developed to ensure consistent application of the HVCRE exposure category across the EU.
398. Another advantage of not introducing the HVCRE exposure category is that the framework becomes significantly simpler, in particular with respect to the mapping of the treatment between the SA and the IRB approach. This general consistency of exposure classes between the SA and the IRB approach becomes increasingly important in the context of the output floor, which requires IRB institutions to maintain the calculation of own funds requirements based on both approaches.
399. Although the EBA recommends that a specific exposure category of HVCRE is not introduced in the IRB approach, it is nevertheless possible to ensure that institutions recognise the higher risk of such exposures, where relevant, through appropriate clarifications in level 2 regulations and guidelines. In particular:
- a) For SLEs under the slotting approach, it could be clearly stated that, where ADC exposures meet the definition of SLEs, they are part of a broader category of IPRE exposures.<sup>73</sup> Since the definitions of the types of SLEs are provided in the RTS developed based on the mandate included in Article 153(9) of the CRR (RTS on supervisory slotting approach), the clarification on the subtype of ADC could also be provided in these RTS, and, therefore, no change to the CRR on this aspect would be required. Furthermore, a separate set of

<sup>73</sup> At the same time it would be necessary to ensure that the definition of ADC is consistent between SA and the IRB approach (including criteria on the pre-sale and pre-lease contracts as well as the equity at risk).

factors for ADC exposures could be introduced to better reflect the nature of such exposures. This means that the mandate in Article 153(9) of the CRR on the slotting approach should be retained in order to allow the EBA to amend the RTS if necessary.

b) For SLEs under the F-IRB approach or A-IRB approach, further clarification could be provided in the EBA’s guidelines and in the RTS on IRB assessment methodology to ensure that the analysis of potential risk drivers in the estimation of risk parameters should take into account the volatility of the SLE associated with commercial real estate. This means that the mandate specified in Article 144(9) of the CRR should be retained in order to allow the EBA to amend the RTS if necessary.

c) In order to allow appropriate monitoring, the ADC category, once specified, could also be distinguished in the supervisory reporting templates.

400. To summarise, the EBA stresses the importance of applying clear and consistent definitions across the credit risk framework, also taking into account the interactions between the revised SA and the IRB approach. Figure 39 summarises these interactions in a simplified manner.

Figure 39: Definitions of (sub-)exposure classes in the SA and IRB approach

		RRE	CRE	ADC
SLE under IRB	IPRE / Materially dependent on CF generated by property	SA: para. 67 IRB: para. 282	SA: para. 73 IRB: para. 282	SA: para. 74-75 IRB: para. 17
non SLE under IRB	“IPRE style” / Materially dependent on CF generated by property	SA: part of footnote 46 IRB: IPRE style but not SLE	SA: part of footnote 48 IRB: IPRE style but not SLE	SA: para. 74-75 IRB: IPRE style but not SLE
	Non materially dependent on CF generated by property <sup>1</sup> <small><sup>1</sup>: SA footnote 49 &amp; IRB footnote 30</small>	SA: para. 63-66 IRB: para. 281 (non IPRE style)	SA: para. 69-72 IRB: para. 281 (non IPRE style)	SA: para. 74-75 IRB: para. 281 (non IPRE style)

No HVCRE (IRB – BIII only)

#### 4.2.9 Credit risk mitigation (CRM)

(i) **Unfunded credit protection – the treatment of A-IRB exposures secured by SA or F-IRB protection providers and the application of the risk weight floor**

##### Recommendation CR-IR 24: methods for the recognition of UFCP

Clarification should be provided on the methods for the recognition of the effects of UFCP in the case that the protection provider is treated under the SA or under the F-IRB approach. In addition, further clarifications should be provided on the split of exposures in the case of partial

and pro-rata protection, especially with regard to the allocation of cash flows, costs and credit risk adjustments.

401. One of the main objectives of the final Basel III framework in the area of credit risk was to deal with the lack of robustness in modelling certain exposure classes. The revised IRB approach removes the option of using the A-IRB approach for exposure classes such as exposures to large corporates, institutions and other financial institutions, which can now be treated only under the F-IRB approach. It also removes the option to use the IRB approach for equity exposures.
402. The underlying reasoning is that institutions should not be allowed to use the A-IRB approach for LDPs if robust LGD modelling is not deemed possible, but should still have the option to use own estimates for other portfolios if they are able to robustly model the PD and LGD. Nevertheless, paragraphs 96, 122 and 255 of the IRB part of the final Basel III framework seem to go against this principle as they state that corporate or retail obligors should be treated under the A-IRB approach but that less sophisticated approaches (such as the F-IRB approach or SA) should be applied to direct exposures to the guarantor (hereinafter 'F-IRB guarantor' and 'SA guarantor'), as the final RW should then be computed according to the approach applied to direct exposures to the protection provider. The simultaneous objectives of the Basel capital framework of allowing corporate and retail exposures to be in the scope of the A-IRB approach while requiring these exposures to be treated under less sophisticated approaches for the purposes of recognising the effect of UFCP could arguably be considered to be a contradiction. In fact, when direct exposures to the guarantor are treated under the SA or the F-IRB approach by applying to the guaranteed exposures the RW calculated under the SA or the F-IRB approach, the scope of the use of the SA or F-IRB approach is extended by including also the guaranteed exposures. In particular, in the case of retail exposures, which are sometimes guaranteed either by a central government and central bank or by an institution, this would imply that institutions could either choose not to use the IRB approach, de facto extending the scope for the SA and the F-IRB approach even further, or choose not to recognise the UFCP at all, thereby decreasing the risk sensitivity of the framework.
403. The revised IRB approach also introduces minimum PD and LGD values (the so-called 'input floors') to ensure a minimum level of conservatism in the risk parameters for exposure classes where the IRB approach remains available. Furthermore, for the purpose of recognising the risk-mitigating effects of UFCP, an additional layer of conservatism is introduced in paragraphs 96 and 254 by requiring that 'in no case can the bank assign the guaranteed exposure an adjusted PD or LGD such that the adjusted risk weight would be lower than that of a comparable, direct exposure to the guarantor' (the so-called 'RW floor' requirement). This floor is intended to safeguard the consistency of the framework in terms of risk assessment, avoiding the situation that an indirect exposure to a particular protection provider could benefit from a lower RW than a direct and comparable exposure where that same person or entity is the main obligor. However, this requirement limits the risk sensitivity of RWA based on own estimates of risk parameters, especially if institutions apply less

sophisticated approaches, such as the SA or the F-IRB approach, to the direct exposure to the protection provider.

404. This section focuses on analysing the interaction and potential consequences of these inconsistencies between the requirements to treat exposures guaranteed by SA or F-IRB approach protection providers under the SA or the F-IRB approach and the requirements to apply the RW floor, as well as on the necessary clarifications and issues related to the application of the requirements.
405. With regard to the requirements of the final Basel III framework linked to the recognition of UFCP for exposures under the A-IRB approach, two main potential contradictions may be highlighted:
- a) For **non-retail exposures under the A-IRB approach**: There is an element of ambiguity with regard to the eligibility and the treatment of UFCP if the obligor is treated under the A-IRB approach but less sophisticated approaches, such as the F-IRB approach or SA, apply to direct exposures to the protection provider. In particular:
    - i) **Paragraph 96** specifies that A-IRB institutions can recognise the effect of UFCP through an adjustment to the PD or LGD estimates provided that the resulting adjusted RW is not lower than that of a comparable direct exposure to the protection provider (i.e. the RW floor). The second part of the paragraph makes an exception to this rule, specifying that, in the case of exposures guaranteed by an SA or F-IRB protection provider, the bank may recognise the guarantee only by applying the SA (i.e. substituting the SA RW) or the F-IRB approach (i.e. substituting PD of the protection provider and regulatory LGD associated to the exposure) to the covered portion of the exposure. Further clarifications on the eligibility requirements to be applied in the case of the SA and the F-IRB protection providers are needed. In order to maintain consistency with the treatment of exposures under the SA and the F-IRB approach, it seems relevant to specify that such recognition should be limited to guarantees meeting the criteria of paragraphs 191-199 of the SA part of the Basel III framework for CR-SA protection providers and paragraph 92 of the IRB part of the framework for F-IRB protection providers. This in turn leaves unresolved the question of whether or not guarantees provided by SA and F-IRB protection providers which are ineligible under SA and F-IRB could still be recognised through the PD or LGD adjustment in accordance with paragraphs 96 and 252-254 of the IRB part of the final Basel III framework.
    - ii) The next paragraph, **paragraph 97**, allows institutions using the A-IRB approach to recognise UFCP either by adopting the treatment outlined for the F-IRB approach, that is the 'substitution approach', including also the eligibility requirements of paragraph 92, or by adjusting PD or LGD estimates, that is the 'modelling approach'. In particular, it is specified that, if the institution adjusts PD or LGD estimates, 'there are no limits to the range of eligible guarantors although the set of minimum requirements

provided in paragraphs 256 and 257 [concerning the type of guarantee must be satisfied]'. Paragraphs 256 and 257 do not include any restrictions with respect to the approach applied to direct exposures to the protection provider and, therefore, may contradict the previous paragraph, paragraph 96, which instead limits the applicability of the modelling approach to protection providers treated under the A-IRB approach.

b) Similar considerations apply also to **retail exposures** where similar ambiguity exists with regard to eligibility and treatment of protection providers under less sophisticated approaches. An additional aspect to consider in this context is the potential inconsistency between paragraphs 122 and 255 of the IRB part of the final Basel III framework:

i) **Paragraph 122** specifies that guarantees should in general be recognised through PD or LGD adjustment in accordance with 'the minimum requirements in paragraphs 252-263', thus including also paragraph 55. An exception is provided for CR-SA protection providers, in which case the guarantee should instead be recognised by substituting the SA RW for the covered portion of the exposure. As for non-retail exposures under the A-IRB approach, a clarification on the eligibility requirements should be applied in case of SA protection providers is needed.

ii) **Paragraph 255**, which is applicable to retail exposures through the reference included in paragraph 122, requires also that F-IRB protection providers are recognised by applying the F-IRB approach to the covered portion of the exposure. However, the use of F-IRB RW in the case of guarantees provided by F-IRB protection providers is in contradiction with both the exception made in paragraph 122 for SA protection providers only and the principle that the F-IRB approach should not be applied to retail exposures.

406. In consideration of the above, two potential alternatives have been taken into consideration:

a) **Option 1 (mandatory treatment under the SA and the F-IRB approach for exposures guaranteed by SA and F-IRB protection providers).** This option is consistent with paragraphs 96 and 255 of the IRB part of the final Basel III framework but would require a better specification of the eligibility criteria for the recognition of guarantees through the application of a RW appropriate for the protection provider under the SA and the F-IRB approach and through adjustment of PD or LGD as follows:

i) The use of SA RW in the case of an SA protection provider should be subject to the eligibility criteria under the SA as specified in paragraphs 191-199 of the SA part of the final Basel III framework.

ii) The use of the F-IRB RW in the case of an F-IRB protection provider should be subject to the eligibility criteria under the F-IRB approach as specified in paragraph 92 of the IRB part of the final Basel III framework.

- iii) The recognition of UFCP through PD or LGD adjustment in the case of A-IRB or retail protection providers should be subject to the eligibility criteria specified in paragraphs 256-258 of the IRB part of the final Basel III framework. In this respect the requirement of paragraph 256 would have to be modified before it could be incorporated in the EU legal framework in order to limit the eligibility to A-IRB and retail protection providers, thus avoiding the contradiction with paragraphs 96 and 97 described above.
  - iv) In the case of retail exposures, the treatment of F-IRB protection providers would have to be clearly specified. In order to ensure consistency of the framework, it could be specified, in accordance with paragraph 255 of the IRB part of the final Basel III framework, that the effects of the protection provided by F-IRB protection providers can be recognised only by applying the F-IRB approach, in accordance with the eligibility criteria applicable under the F-IRB approach as specified in paragraph 92 of the IRB part of the Basel III framework. Moreover, it should be clarified that the use of SA RW in the case of SA protection providers should be subject to the eligibility criteria under the SA as specified in paragraphs 191-199 of the SA part of the final Basel III framework.
- b) **Option 2 (leaving institutions the option to treat exposures guaranteed by SA and F-IRB protection providers under the SA and F-IRB approach, respectively, or through PD and LGD adjustments).** This option is consistent with paragraph 97 of the IRB part of the final Basel III framework but is in contradiction with paragraphs 96 and 255 and therefore could be seen as a deviation from the final Basel III framework. As for option 1, it would require a better specification of the eligibility criteria for the recognition of UFCP through the application of a RW appropriate for the protection provider under the SA and F-IRB approach, as follows:
- i) The use of the SA RW in the case of an SA protection provider should be subject to the eligibility criteria under the SA as specified in paragraphs 191-199 of the SA part of the final Basel III framework.
  - ii) The use of the F-IRB RW in the case of an F-IRB protection provider should be subject to the eligibility criteria under the F-IRB approach as specified in paragraph 92 of the IRB part of the final Basel III framework.
  - iii) In the case of retail exposures, the recognition of UFCP through PD or LGD adjustment in the case of A-IRB or retail protection providers should be subject to the eligibility criteria specified in paragraphs 256-258 of the IRB part of the final Basel III framework. In particular, as specified in paragraph 256, all types of protection providers (including F-IRB protection providers and SA protection providers) should be treated as eligible for the modelling approach, but leaving the option to apply the substitution approach provided that the eligibility criteria for the SA or the F-IRB approach, respectively, are met. Moreover, in order to avoid cherry picking, the requirements would have to



ensure that institutions decide upfront which approach is to be used for which types of exposures and apply this approach consistently.

407. Under option 2, two alternatives may be further considered with regard to the application of the RW floor:

- a) **Option 2A: no change in the application of the RW floor.** Under this option, the RW associated to direct exposures to SA and F-IRB protection providers would serve as a floor for the adjusted RW in the case that the exposure remains under the A-IRB approach. In other words, unless the adjusted RW is above the RW floor, this option is equivalent to replacing the A-IRB RW with the SA and F-IRB RW applicable to a comparable direct exposure to the SA protection providers and F-IRB protection providers respectively, that is, an approach equivalent to option 1.
- b) **Option 2B: keep the RW floor requirement only for exposures guaranteed by an A-IRB protection provider** and consider potential alternatives to the RW floor in the case of SA and F-IRB protection providers. Under this option, the RW floor would not apply to SA and F-IRB protection providers.

408. Although it is not possible to assess the impact of these options in a precise quantitative manner,<sup>74</sup> some **qualitative considerations about advantages and disadvantages and potential implications** of the two options are presented below:

- a) Option 1 has the advantage of simplicity in aligning the treatment of exposures guaranteed by an SA protection providers and an F-IRB protection provider with the treatment of comparable direct exposures to the protection provider as prescribed in paragraphs 96 and 255 of the IRB part of the final Basel III framework. Conversely, option 2 has the advantage of keeping the risk sensitivity allowed for those exposures which fall under the scope of the A-IRB approach in accordance with paragraph 97, but would require a deviation from paragraphs 96 and 255 of the IRB part of the final Basel III framework. In particular, option 2 seems more conservative (i.e. potentially leading to higher own funds requirements) when considering the new input floors (in comparison with the low RW usually applied to exposures to central governments and central banks under the SA) as well as the fact that adjusting risk parameters under the A-IRB approach pursuing option 2A may lead only to an adjusted RW that is higher than the one imposed under option 1 (i.e. the RW floor of a comparable direct exposure to an SA protection provider and an F-IRB protection provider, assuming that this floor were to be retained).
- b) The requirement of option 1 to treat exposures guaranteed by SA protection providers or F-IRB protection providers under the SA or the F-IRB approach, respectively, may lead to the paradoxical situation that an institution may not be allowed to recognise the effect of a UFCP that is not eligible under the SA or the F-IRB approach, despite having received the

<sup>74</sup> In particular, in the data collected via the QIS, only 17 banks were able to calculate an impact different from zero. This is due to IT difficulties in identifying guarantors under a less sophisticated approach, as well as in risk weighting the original exposure with the RW of this guarantor.

permission to apply the A-IRB approach to the original exposure and despite being able to apply the PD or LGD adjustment in accordance with the eligibility requirements relevant under A-IRB approach for the same UFCP. This constrain may be over-conservative if institutions have enough data to properly model the effect of a UFCP provided by an SA protection provider or an F-IRB protection provider.

- c) The absence of the internal rating of the protection provider and/or internal LGD associated with direct exposures to the protection provider, which is the main rationale behind option 1, may not be of particular concern for reflecting the effect of the UFCP in the risk parameters. In fact, other characteristics of the UFCP or of the protection provider may provide better risk differentiation. A proper adjustment of the PD or LGD is possible considering the existence of the UFCP as a risk driver and taking into account the pattern of historical observed recoveries. The modelling approach considers the guaranteed exposure as a whole, without the need for direct use of the risk parameters of the protection provider (as under the substitution approach). Conversely, one could claim, against option 2, that institutions may not have enough data on the default of the protection provider, especially when they are treated under the SA, and this would provide a rationale for using instead the approach applied to the direct exposures to the protection provider as proposed under option 1. While the difficulty of taking into account the effect of a default of a protection provider is recognised, it should also be noted that the potential bias is not expected to be significant.<sup>75</sup> In this respect, a conservative adjustment in the LGD estimation may take into account this potential uncertainty keeping the risk sensitivity of the treatment under the A-IRB approach instead of the requirement to treat the exposures under less risk-sensitive approaches.
- d) Option 1 may provide institutions with an incentive to treat direct exposures to the protection provider under the A-IRB approach, provided the A-IRB approach remains available to these obligors. On the other hand, this incentive would not exist for UFCP provided by institutions, financial institutions and large corporates, for which the substitution approach under the SA or the F-IRB approach would have to be used.<sup>76</sup>
- e) The fact that the types of collateral eligible under the SA are limited may prevent institutions from recognising the combined effects of UFCP provided by SA protection providers and collateral under option 1. In particular, under the SA, physical collateral and immovable property collateral are not eligible. Immovable property collateral benefits from specific treatment through a separate exposure class, and the recognition of both the UFCP and the immovable collateral at the same time is not possible. Under the SA,

<sup>75</sup> The bias would come from observing only LGDs in the case of no default of the protection provider (thereby estimating the LGD conditional on the non-default of the protection provider). The bias is, however, very low as soon as the probability of default of the protection provider is low:  $LGD(\text{unconditional}) = PD_{\text{guarantor}} \cdot LGD(\text{default guarantor}) + (1 - PD_{\text{guarantor}}) \cdot LGD(\overline{\text{default guarantor}}) \approx LGD(\overline{\text{default guarantor}})$  if  $PD_{\text{guarantor}} \cdot LGD(\text{default guarantor}) \ll LGD(\overline{\text{default guarantor}})$  and  $(1 - PD_{\text{guarantor}}) \cdot LGD(\overline{\text{default guarantor}}) \ll LGD(\overline{\text{default guarantor}})$ , which is the case if  $PD_{\text{guarantor}} \ll 1$ .

<sup>76</sup> This is consistent with the general spirit of the Basel III framework and the underlying aim of introducing limits to the modelling of the LDP.

simultaneous recognition of a guarantee and another type of collateral is possible only where the collateral reduces the exposure value. Neither the immovable property nor any other physical collateral can reduce the exposure value<sup>77</sup> and, hence, it is not possible to recognise the effect of both the UFCP and such collateral under the SA.<sup>78</sup> As a result of these considerations, the requirement under option 1 to apply the SA may be quite costly for institutions and significantly decreases the incentive to use physical or immovable property collateral to cover exposures which are also guaranteed by an SA protection provider. On the other hand, institutions have the option of using the F-IRB approach instead of the SA for the relevant exposure classes, meaning that it would be the choice of the institution to be subject to the limitations mentioned above. Conversely, under option 2, institutions have the option to model the combined effect of the UFCP and the collateral in the LGD associated with the covered part of the exposure.

- f) Under option 2A, the application of the RW floor when the protection provider is under the F-IRB approach or under the SA disincentivises the institution to model the guaranteed exposure through LGD (and PD) adjustments. Indeed, in modelling risk parameters, the institution could not benefit from a reduction in RWA because of the RW floor. This may even have unintended consequences, for example by incentivising institutions to take on higher risks to compensate for the conservative treatment of the CRM techniques, where the level of RWA is constrained by the RW floor. This would provide the rationale to discuss alternatives to the RW floor in case of UFCP provided by an SA protection provider or an F-IRB protection providers as proposed under option 2B. However, applying the RW floor only to an A-IRB protection provider under this alternative may provide institutions with the incentive to move the treatment of direct exposures to the protection provider from the A-IRB approach to less sophisticated approaches. Therefore, this disincentive should be taken into account if option 2B is chosen by drafting proper alternatives to the RW floor for SA and F-IRB protection providers.
- g) The application of the RW floors under option 2A and the substitution of the SA RW under both option 1 and option 2 are problematic, as the SA RW (and hence the RW floor) is not readily comparable to the IRB RW. This is because i) the SA and the IRB approach are set up differently; and ii) the floor is defined at the level of the RW rather than at the RWA level. This leads to the following issues:
  - i) The SA RW applies to exposures net of specific credit risk adjustments (SCRAs) whereas the IRB RW is applied to the exposure gross of SCRAs. As the RWs under the SA and under the IRB approach apply to different measures of exposures, they are not directly comparable.

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<sup>77</sup> The SA risk weight applies to an exposure value from which the value of other collateral has been deducted.

<sup>78</sup> If an IRB exposure secured by immovable property, for example, receives an SA RW owing to the existence of a guarantee provided by an SA guarantor, this should be the RW of the guarantor and not that applicable to the exposure class of immovable property.

- ii) The SA RW used to determine the level of the floor applies to an exposure value after the value of other eligible financial collateral has been deducted and is therefore a RW appropriate for the remaining unsecured part of the exposure. Under the IRB approach, in the case of exposures covered by both FCP and UFCP, the RW applies to the full credit obligation, including the effects of other types of collateral directly reflected in the LGD estimates. Moreover, the limited scope of eligible collateral under the SA (in particular excluding physical collateral) makes the comparison between the SA RW (and hence the floor) and the IRB RW even more problematic.
  - iii) Finally, the RW constitutes only part of the total own funds requirements. Under the IRB approach, the RW is reflective only of the UL component, and the EL component is calculated separately, contributing to the global minimum required capital (MRC) directly through adequate adjustments to the own funds. Under the SA, the EL part of own funds requirements is not clearly differentiated in the global MRC where RWA are aggregated together with accounting provisions and the own funds are corrected only to reflect general credit risk adjustments (GCRAs).
409. Taking into account the above considerations, the EBA supports option 1, in line with the final Basel III framework. However, the EBA believes that option 2A could also be implemented in the EU framework. Although more complex and potentially considered as a deviation from the final Basel III framework, its main advantage would be to allow UFCP not meeting the F-IRB and SA eligibility requirements to be taken into account in a modelling approach,<sup>79</sup> as well as to incentivise institutions to correctly monitor the real level of risk. Option 2B is considered inappropriate as it would lead to a deviation from the agreed final Basel III framework.
410. On top of the above-mentioned considerations supporting the alternative proposals, under both of the considered options, it is necessary to clarify some **application aspects** where the final Basel III framework does not provide sufficient guidance. These are mainly related to the following:
- a) The treatment of partial guarantees – in the case of UFCP provided by an SA or an F-IRB protection provider, where the treatment is performed by applying the SA or the F-IRB approach respectively, clarifications on how to split the exposures have to be provided. In this context, further clarifications on the allocation of recoveries and costs to ensure adequate modelling on the part of the exposure not covered by the UFCP need to be provided. Moreover, in the case of UFCP provided by an SA protection provider, guidance on the allocation of credit risk adjustments (CRAs) between the covered portion of the exposure moved to the SA and the portion of the exposure remaining under the IRB approach has to be provided.

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<sup>79</sup> Under option 1, guarantees not meeting the F-IRB and SA eligibility requirements would not be taken into account, and the exposures would have to be treated as unsecured, either as via the framework ineligible CRM framework (further discussed in sub-section 4.2.9(iv)).

- b) The treatment of exposures covered by both UFCP and FCP requires further clarification, taking into account the types of collateral recognised through the adjusted exposure value under the SA and their different treatment under the IRB approach and other types of collateral.
411. With regard to the **treatment of partial guarantees**, further clarification should be provided around the splitting of exposures. The following clarifications could be provided in the EBA guidelines:
- a) The allocation of recoveries and costs should follow the same principles as those proposed in paragraph 34 of the consultation paper on the GL on CRM.<sup>80</sup> In particular, cash flows and direct costs related to the UFCP should be allocated to the guaranteed part of the exposure, while any other cash flow (apart from cash flows coming from collateral which are allocated according to the institution's policy to the guaranteed part of the exposure) or direct cost should be allocated to the remaining part of the exposure. Indirect cost allocation should follow the guidance provided in paragraph 113 of the EBA guidelines on PD and LGD estimation.<sup>81</sup>
- b) The RWs under the SA and the IRB approach are not fully comparable as they apply to different exposure values and they are combined with different assumptions regarding EL amounts. The use of a RW from the SA under the IRB approach would be problematic as it would require a change of exposure measure, application of EL and a corresponding adjustment of own funds. In order to perform such adjustments, a proper allocation of the provisions should be ensured between the portion of the exposure which is covered by the guarantee and the portion which is not. In this respect, it is proposed to clarify that provisions should first be allocated to the unsecured part of the exposure and any amount in excess on a pro-rata basis to the part of the exposure which is secured by UFCP and/or any other CRM.
- c) Finally, it should be clarified that the purpose of the requirement to treat (option 1) or option of treating (option 2) the covered portion of the exposure under the SA is simply to calculate the RW, but the exposure remains under the IRB approach even if the LGD is not modelled. This implies that all information about the original obligor/exposure has to be collected and stored, and the requirements with regard to governance as specified under the IRB approach are still binding.
412. Further clarifications could also be provided in the EBA guidelines with regard to the **treatment of exposures secured by both UFCP and collateral**. It is proposed to align the requirements around the allocation of collateral with the requirement included in the consultation paper of the GL on CRM. In particular:

<sup>80</sup> <https://eba.europa.eu/-/eba-consults-on-guidelines-on-credit-risk-mitigation-for-institutions-applying-the-irb-approach-with-own-estimates-of-lgd>

<sup>81</sup> <https://eba.europa.eu/regulation-and-policy/model-validation/guidelines-on-pd-lgd-estimation-and-treatment-of-defaulted-assets>

- a) Institutions should have clear policies for the allocation and recognition of collateral and these should be consistent with the internal recovery and collection process, and should not recognise the effects of each CRM technique more than once. In splitting the collateral between the part that is covered by UFCP and the part which is not, no double recognition of the collateral should be allowed.
- b) Institutions should apply the substitution approach consistently, as specified in paragraph 96 of the final Basel III framework. Therefore, in the case of overlap of collateral and UFCP, it is not permissible to split the UFCP into two parts and to apply the substitution to one part and the modelling approach to the other part.

(ii) **UFCP – relevant risk weight function to be used under the substitution approach**

**Recommendation CR-IR 25: RW function under the substitution approach**

Subject to certain eligibility criteria, the effects of UFCP may be recognised by replacing the risk parameters of the obligor with the risk parameters of the protection provider. Clarification should be provided that in this case the RW should be calculated based on the RW function applicable to the protection provider rather than that applicable to the original obligor.

413. The IRB part of the final Basel III framework confirms the requirement of the Basel II text with regard to the RW function to be used when applying the substitution approach under the IRB approach. In particular:
- a) In the case of exposures under the F-IRB approach guaranteed by an IRB protection provider, paragraph 93 specifies that for the covered portion of the exposure the RW is derived by using the RW function appropriate for the type of the protection provider and by replacing the PD of the obligor with the PD of the protection provider. In addition, the same paragraph introduces a new requirement, according to which institutions should use the SA in the case of SA protection providers.
  - b) In the case of exposures under the A-IRB approach, institutions are given, in paragraph 97, the option either to model the effect of the UFCP or to apply the F-IRB treatment (i.e. the substitution approach, which demands a change of the RW function to the one of the protection provider as outlined above). In addition, paragraph 96 introduces a new requirement, according to which institutions should use the SA in the case of SA protection providers and to use the F-IRB in the case of F-IRB protection providers.
414. As different practices on the relevant RW function to be used are currently observed by CAs, leading to unwarranted variability of RWA, it becomes necessary to clarify this aspect when implementing the final Basel III framework in the EU legislation. Moreover, the applicability of the appropriate RW function should be considered, also taking into account consistency between different approaches. Table 26 summarises the current guidance on the relevant RW function to be used when applying the substitution approach.

Table 26: Change of RW-function for exposures under A-IRB

	<b>SA protection provider</b>	<b>F-IRB protection provider</b>	<b>A-IRB protection provider</b>
<b>Basel II</b>	If substitution approach is used, the protected portion is assigned the RW of the protection provider (paragraph 303)	Optional treatment under the F-IRB approach (i.e. substitution approach) according to the RW function of protection provider (paragraphs 307 and 303)	Optional treatment under the F-IRB approach (i.e. substitution approach) according to the RW function of protection provider  If LGD adjustment is used, change of the RW function is not envisaged (paragraph 307)
<b>Current CRR</b>	Unclear whether Article 183(4) could be interpreted as suggesting mandatory use of the SA	Substitution approach and change of RW function to the one of the protection provider is not envisaged.  EBA Q&A 2013/415 clarifies that a change of RW function to that of the protection provider is not required either in Article 161(3) (A-IRB approach) or in Article 236(1) (SA and F-IRB approach)	
<b>Basel III</b>	Mandatory use of SA RW applicable to direct exposure to protection provider (paragraph 96)	Mandatory treatment under F-IRB (i.e. substitution approach) according to the RW function of protection provider (paragraphs 96 and 93)	Optional treatment under the F-IRB approach (i.e. substitution approach) according to the RW function of protection provider (paragraph 93)  Do not change the RW function if LGD adjustment is used (paragraphs 97 and 93)

415. Underlying the decision about which relevant RW function to use when applying the substitution approach is a trade-off between keeping consistency of the RW function used within the A-IRB approach (ensured where the RW of the obligor is used for both modelling and the substitution approach) and keeping consistency between the RW function used according to differently rated protection providers and between CRM techniques (ensured where the RW function of the protection provider is used both when substituting the RW in the case of SA protection providers as well as when substituting risk parameters in the case of IRB protection providers). With this in mind, the EBA has considered the arguments

supporting two possible alternative options when applying the substitution approach under the A-IRB approach:

- a) **Option 1:** use the RW function of the original obligor. This implies maintaining the status quo of the current interpretation of the CRR provided through a Q&A, but deviating from the requirements in paragraph 93 of the final Basel III framework.
- b) **Option 2:** use the RW function of the protection provider, which is in alignment with the requirement in paragraph 93 of the final Basel III framework.

416. It should be noted that neither of the above options is in itself more conservative. Whether one option is more conservative than the other depends on the variety of different scenarios (e.g. exposure class of the obligor and protection provider).

417. The reasons justifying using the RW function of the obligor (option1) are as follows:

- a) The Commission has suggested that the previously adopted deviations from the Basel II framework should in general be retained, unless there is a good reason for not doing so. It is unclear why the change of the RW function to that applicable to the protection provider – which was already envisaged in the Basel II framework - was not implemented in the current CRR.
- b) In the case of a retail exposure guaranteed by a corporate entity or a bank, it avoids the operational burden to compute  $M$  for retail exposures, which is not an explicit parameter of the retail RW function. Moreover, if the RW function were to be changed to that of a corporate protection provider, the fact that  $M$  is capped at five years means that it is not possible to capture the long maturity of mortgages, which is instead indirectly reflected in a high asset value correlation coefficient in the retail RW function.
- c) This option keeps consistency of treatment under various ways of recognising the effects of UFCP either through substitution or through the adjustment of risk parameters, as institutions opting to recognise guarantees by adjusting PD and LGD estimates are not to change the RW function.
- d) This option keeps consistency with an additional aspect specific to the EU, which is the rules for the application of the SME supporting factor. According to Q&A 2013/565, the SME supporting factor should be applied to the RW of the SME obligor irrespective of whether or not substitution approach results in the exposure being reclassified for reporting purposes in another exposure class. While this was a reporting Q&A, it creates policy consequences and it may be less meaningful to apply the SME supporting factor if the RW is completely replaced by the RW of the non-SME protection provider.

418. The reasons justifying the adoption of the policy adopted in the final Basel III framework and changing the RW function to the one of the protection provider (option 2) are as follows:



- a) This option ensures alignment with paragraph 93 of the IRB part of the final Basel III framework, which states that the RW function of the protection provider is to be used under the F-IRB approach and that this can also be used under the A-IRB approach (as specified in paragraph 97). The use of the substitution approach would be applied in the same way regardless of the IRB approach used (the F-IRB or A-IRB approach).
  - b) This option ensures consistency with the requirement to substitute the SA RW in the case of an SA protection provider (as specified in paragraphs 93 and 96 of the IRB part of the final Basel III framework).
  - c) This option ensures consistency with the rationale behind the substitution approach, which is that the institution can treat the guaranteed exposure as if it were a direct exposure to the protection provider. Under this option institutions using the substitution approach would assign the same RW to direct and indirect exposures to a given obligor.
  - d) The correlation coefficient ( $R$ ) in the RW functions is itself calculated as a function of PD. As the formula has been calibrated differently for retail and non-retail exposures to capture their different characteristics of the exposure classes, the use of the RW function of the protection provider would ensure consistency of the calculation of  $R$  based on the PD of the protection provider.
419. In the light of the above considerations and the fact that the rationale behind the substitution approach is that the exposure is effectively held against the protection provider, the EBA supports option 2 and suggests aligning the requirements with the final Basel III framework, that is, using the RW function of the protection provider when applying the substitution approach. Thus, the use of the substitution approach would also be applied consistently within the IRB approach. Moreover, it is suggested that the additional clarifications on the aspects listed below be provided:
- a) Any parameter in the relevant RW function (i.e. RW function of the original obligor if an institution is adjusting PD or LGD and RW function of the protection provider in the case of the substitution approach), such as the correlation coefficient ( $R$ ) or the maturity adjustment factor ( $b$ ), should be computed according to the new PD (no matter if the PD is only adjusted or substituted).
  - b) The use of the substitution approach should not imply a change in the exposure class to which the covered part of the exposure is assigned.

(iii) **UFCP – eligibility and treatment of conditional guarantees**

**Recommendation CR-IR 26: definition of conditional guarantees**

The Basel III framework considers conditional guarantees as ineligible collateral under all methods. It is therefore important to precisely clarify what is understood by conditional guarantees. It is proposed to define this notion as guarantees where ‘the execution of the

guarantee is conditional on the reasons for which the payment has not been made by the obligor, including the performance of the financed investment’.

420. In accordance with the Basel II framework, Article 183(1)(c) of the CRR clarifies that, in the context of the A-IRB approach, conditional guarantees ‘prescribing conditions under which the protection provider may not be obliged to perform’ may be recognised subject to the permission of the CA.<sup>82</sup> Under the A-IRB approach there are fewer restrictions on the recognition of guarantee providers and types of guarantees, as the wider scope of the guarantees can be appropriately taken into account through the modelling approach. In that case, there seems to be no reason for disallowing conditional guarantees in the estimation of PD and LGD for the purposes of calculating own funds requirements.
421. However, a new requirement included in paragraph 257 of the IRB part of the Basel III framework specifies that, generally, under all approaches, in order to be considered eligible CRM technique, a guarantee/credit derivative must be ‘unconditional’. In particular, it is specified that the guarantee contract should not include any clauses, outside the control of the bank, which could prevent the protection provider from being obliged to pay in a timely manner for any missed payment by the obligor. At the same time, it makes an exception for the A-IRB approach, where, for the purposes of own estimates of LGD,<sup>83</sup> ‘guarantees that only cover loss remaining after the bank has first pursued the original obligor for payment and has completed the workout process may be recognised’.
422. While the final Basel III framework generally relates the unconditionality of the guarantee with respect to the timely payment criterion, in the mentioned exception for the A-IRB approach the timely payment criterion is not applicable, as the guarantee is still considered eligible despite the payment being realised only after the end of the workout process. The link between timeliness of payment and conditionality of the guarantees included in the final Basel III framework is not perceived as appropriate by the EBA in the context of the A-IRB approach, where the timeliness of payment should be considered in modelling the effect of the guarantee on the risk parameters rather than as an eligibility criterion. At the same time the current definition of conditional guarantees included in Article 183 of the CRR referring to guarantees, prescribing conditions under which the protection provider may not be obliged to perform, seems too generic and leaves too much room for interpretation.
423. In this context, the EBA believes that, when incorporating the requirements of the final Basel III framework into EU legislation, additional clarifications should be provided in order to operationalise the requirement and ensure harmonised application. It is therefore

<sup>82</sup> Article 183(6) CRR contains a mandate for the EBA to develop RTS specifying the conditions according to which CAs may permit conditional guarantees to be recognised. This article reflects paragraph 484 of Basel II, where it is specified that, in contrast to the F-IRB approach, conditional guarantees ‘may be recognised under certain conditions. Specifically, the onus is on the bank to demonstrate that the assignment criteria adequately address any potential reduction in the risk mitigation effect’.

<sup>83</sup> Paragraph 257 refers to EAD but we assume this was not intentional and is a result of an obvious mistake. It has been corrected in the draft consolidated framework, which now says: ‘However, under the advanced IRB approach, guarantees that only cover loss remaining after the bank has first pursued the original obligor for payment and has completed the workout process may be recognised.’

proposed that an improved definition of conditional guarantees should also be included in the amended CRR, as an appropriate understanding of this term will determine the scope of application of this eligibility requirement.

424. In defining how restrictive the definition of conditional guarantees should be, one should keep in mind that the consequence of introducing such a definition would be that it applies to all approaches. There is therefore an element of trade-off between: i) the SA and the F-IRB approach, where eligibility criteria should ensure that only high-quality credit protection is recognised and where the substitution approach is the only available method; and ii) the A-IRB approach, where good LGD models require that all relevant information is taken into account and where a broader spectrum of CRM techniques can be appropriately recognised through LGD modelling.
425. It seems that the current solution, according to which the timely payment is defined as a separate criterion rather than as a part of the definition of conditional guarantees, provides cleaner criteria and gives an incentive for appropriate modelling of risk. It ensures that guarantees which do not respect the timely payment criterion can be recognised only under the A-IRB approach through LGD modelling and are not eligible under the F-IRB approach and the SA. Therefore, the current rules ensure restrictive eligibility criteria for CR-SA and the F-IRB approach, while also allowing appropriate modelling under the A-IRB approach.
426. In this context, it is proposed not to link the definition of conditional guarantees to the timely payment criterion as proposed in the final Basel III framework. Instead, the EBA recommends specifying a more precise and quite restrictive definition according to which guarantees would be identified as conditional guarantees 'where the execution of the guarantee is conditional on the reasons for which the payment has not been made or will not be made by the obligor'. It could be further clarified that this definition includes cases where the guarantee is conditional on the performance of the financed investment.
427. This proposed definition of conditional guarantees should be accompanied by adequate eligibility requirements under the SA and F-IRB approach, including the timely payment criterion as currently specified in Article 213(1)(c)(iii) of the CRR. In other words, under the proposed definition of conditionality, a guarantee that includes clauses which prevent the protection provider from paying out in a timely manner would not be considered as conditional and, therefore, the reduced timeliness of payment could be modelled under the A-IRB approach, but should remain ineligible under the SA and the F-IRB approach.
428. Furthermore, the irrevocability of the guarantee is treated separately from the concept of conditionality in the final Basel III framework. In particular, according to paragraph 192(c) of the SA part and paragraph 257 of the IRB part of the final Basel III framework, the protection provider should not be allowed to cancel the guarantee. So, in this respect, if the guarantee has some clauses that allow the protection provider to unilaterally cancel the credit protection, it should not be eligible, because it does not meet the irrevocability criterion, but it will not necessarily be considered as a conditional guarantee under the SA and under the

IRB approach. This is also currently reflected in the current CRR, both for the A-IRB approach, in Article 183(1)(c) ('A guarantee shall be (...) non-cancellable on the part of the guarantor'), and for the SA and F-IRB approach, in Article 213(1)(c)(i) (which states that, in order to be eligible, guarantees shall not contain clauses the fulfilment of which is outside the direct control of the lender, that 'would allow the protection provider to cancel the protection unilaterally').

429. While the EBA, in general, agrees that the concept of irrevocability should remain a separate criterion from the definition of conditional guarantees, it is also proposes that this criterion be extended to cover also cases in which the protection provider could unilaterally change the credit protection, including therefore cases where the credit protection is not cancelled but is reduced (for example going from full to partial coverage). The EBA therefore proposes to update the eligibility requirements of the current CRR in the following ways:
- a) For the A-IRB approach, in Article 183(1)(c) of the CRR, it should be specified that 'a guarantee shall be ... non-cancellable **and non-changeable** on the part of the guarantor'.
  - b) For the SA and the F-IRB approach, in Article 213(1)(c)(i) of the CRR, it should be specified that in order to be eligible guarantees shall not contain clauses that 'would allow the protection provider to cancel **or change** the protection unilaterally'.
430. A qualitative survey was launched to assess the scope of use of conditional guarantees and potential implications of the change introduced in the final Basel III framework. With regard to the question 'Do you accept any conditional guarantees to secure your credit risk exposures (including conditional guarantees that are not recognised for the purpose of capital requirements)?':
- a) 54% of the institutions (96) did not reply;
  - b) 39% of the institutions (70) replied 'no';
  - c) only 7% (13) of the institutions replied 'yes'.
431. Institutions participating in the survey were also asked to rank the elements of the Basel III reforms related to CRM based on their expected impact on the level of RWA for credit risk under the IRB approach, rating them from 1 to 3, from the one with highest expected impact to the one with the lowest expected impact ('1' being the most impactful reform in terms of impact). Within those elements, the removal of the recognition of conditional guarantees was ranked as follows:
- a) 72% (129) institutions left the answer blank;
  - b) 17% (30) ranked this as having the lowest expected impact (rank 3);
  - c) 4% (7) institutions ranked this as average expected impact (rank 2);

- d) 7% (13) institutions ranked this as the reform with the highest expected impact (rank 1). Interestingly, only five of these institutions confirmed that they accept conditional guarantees to secure credit risk exposures and seven replied that they do not accept conditional guarantees to secure credit risk exposures.
432. Among the 13 institutions which indicated that they accepted conditional guarantees to secure their credit exposures, the following types of conditions were listed as the most used:
- a) default of obligor;<sup>84</sup>
  - b) guarantees conditioned on a limited and defined time period (typically the start-up phase of a project);
  - c) guarantees conditioned on the performance of the investment;
  - d) insurance policies with (aggregated) first loss component;
  - e) guarantees where the guarantor has to pay the outstanding receivables only if the borrower fails and execution proceedings by the lender have been unsuccessful;
  - f) guarantees payable if insolvency proceedings were opened on the assets of the principal obligor;
  - g) guarantees payable if the residence of the borrower is unknown and the lender cannot be accused of negligence;
  - h) accessory guarantees without joint and several liability of the guarantor (these types of accessory guarantees require the beneficiary to first exercise in full its recourse against the borrower before claiming under the guarantee).
433. Some institutions in their answers listed specific types of conditional guarantees rather than explaining the conditions that made guarantees conditional. The analysis of the practices seems to confirm that most of the usual conditions are covered by the proposed definition above. The EBA believes that default of the obligor should not be specified as a condition in the definition of conditional guarantees, as all eligible guarantees should be payable upon default of the obligor at the latest.
434. The 13 institutions were asked to report whether the conditional guarantees are reflected in the PD and LGD models for the main exposure classes, namely exposures to central governments and central banks, exposures to institutions or corporates and retail exposures, as well as to estimate on risk parameters. Owing to the low materiality of the recognition of

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<sup>84</sup> According to the guidelines on definition of default, calling a guarantee should be considered an unlikelihood to pay criterion and, therefore, the obligor will always be considered to have defaulted when the guarantee is called. We can therefore skip this condition in our definition of conditional guarantees.

conditional guarantees, the expected impact of the final Basel III framework in making conditional guarantees ineligible is expected to be low. In particular:

- a) In the case of exposures to central governments and central banks and institutions, only one institution recognises conditional guarantees in the LGD estimates and evaluates the impact on risk parameters of the final Basel III framework as low.
- b) In the case of corporate exposures, three institutions recognise conditional guarantees in their LGD estimates and the impact on LGD parameters ranges from low to moderate; a further two institutions currently reflect conditional guarantees in the PD estimates but are expecting no impact from the final Basel III framework.
- c) In the case of retail exposures, two institutions recognise conditional guarantees in their LGD estimates, one of which expects the impact on LGD parameters to be low, while the other expects it to be high. Two institutions currently reflecting conditional guarantees only in their PD estimates and one institution recognising conditional guarantees in both PD and LGD estimates expect the final Basel III framework to have no impact.

435. Therefore, the outcome of the qualitative questionnaire tends to suggest that the impact of the ineligibility of conditional guarantees is expected to be low.

#### (iv) UFCP and FPC – eligibility criteria and treatment of ineligible CRM techniques

##### **Recommendation CR-IR 27: treatment of ineligible CRM techniques under the A-IRB approach**

The EBA recommends a holistic review of the eligibility and treatment of CRM techniques. In particular, in the light of the constraints related to the use of conditional guarantees and *n*th-to-default credit derivatives, the treatment of ineligible CRM techniques under the A-IRB approach should be reconsidered in a comprehensive manner. Therefore, a mandate should be granted to the EBA to develop guidelines on the application of eligibility criteria and requirement for the treatment of CRM techniques under all approaches (i.e. F-IRB and A-IRB), and in particular to specify the treatment of ineligible CRM techniques in the estimation and application of risk parameters.

436. The final Basel III framework changes the eligibility criteria of some CRM techniques, namely conditional guarantees and *n*th-to-default credit derivatives. This applies to both the F-IRB approach and the A-IRB approach:

- a) In the context of the F-IRB approach, paragraph 199 of the SA part of the final Basel III framework states that ‘First-to-default and all other *n*th-to-default credit derivatives (i.e. by which a bank obtains credit protection for a basket of reference names and where the first- or *n*th-to-default among the reference names triggers the credit protection and terminates the contract) are not eligible as a CRM technique and therefore cannot provide any regulatory capital relief. In transactions in which a bank provided credit protection through such instruments, it shall apply the treatment described in paragraph 89’.

- b) In the context of the A-IRB approach, paragraph 97 includes a new restriction that ‘for exposures for which a bank has permission to use its own estimates of LGD, the bank may recognise the risk mitigating effects of first-to-default credit derivatives, but may not recognise the risk mitigating effects of second-to-default or more generally *n*th-to-default credit derivatives’. Furthermore, paragraph 96 refers to paragraphs 256 and 257 for the set of minimum requirements concerning the type of guarantee that must be satisfied, where it is specified that the ‘guarantee must also be unconditional’. This last change was assessed via the qualitative survey and further discussed in section 4.2.9 (iii).
437. Therefore, the *n*th-to-default credit derivatives and conditional guarantees would clearly become ineligible as CRM techniques. However, this would lead to a different treatment for CR-SA/F-IRB institutions and for A-IRB institutions, only the latter being allowed to use first-to-default credit derivatives. It should be noted that, according to the qualitative survey carried out by the EBA, only a small number of institutions use conditional guarantees and *n*th-to-default credit derivatives.
438. The EBA has in the past received numerous questions about the eligibility criteria and the recognition of CRM in the calculation of own funds requirements. To the extent possible, clarifications have been provided in the EBA CRM report and in the draft EBA guidelines on Credit Risk Mitigation for institutions applying the IRB approach with own estimates of LGD<sup>85</sup>, which were subject to public consultations in the first half of 2019 and are currently being finalised. However, the EBA is of the opinion that further consideration is necessary in that regard, in order to i) provide clarity to the institutions and CAs on the appropriate use of CRM techniques in the prudential framework; and ii) ensure that the framework sets the right incentives for institutions to manage their risks in an adequate manner.
439. One of the issues which has been considered in the context of stricter eligibility criteria is the treatment of ineligible forms of CRM under the A-IRB approach. The final Basel III framework is silent on how the requirements on UFCP should affect the risk parameter estimates for exposures risk weighted under the A-IRB approach. This problem is similar to the treatment of ineligible FCP, as paragraph 237 of the final Basel III framework (and paragraph 470 of Basel II) specifies that, to the extent that LGD estimates take into account the existence of collateral, institutions must establish internal requirements for collateral management, operational procedures, legal certainty and risk management processes that are generally consistent with those required for the F-IRB approach.
440. The concept of eligibility of the CRM techniques is not consistent with the general principle underlying the A-IRB approach, namely that all relevant information should be used in the estimation of risk parameters. Although, in principle, the outcomes of internal models should be based on observed defaults and losses, the concept of eligibility goes beyond the observations and creates an inconsistency between the most accurate estimates based on historical observations and the risk parameters which can be used in the calculation of own funds requirements. The EBA believes that an adequate trade-off must be found between

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<sup>85</sup> <https://eba.europa.eu/documents/10180/2616311/CP+GL+on+CRM.pdf>

the necessity to implement this additional layer of prudence and the objective of risk sensitivity of the IRB approach. While the EBA does not oppose the stricter eligibility criteria proposed by the final Basel III framework, the introduction of these criteria should not come at the expense of appropriate differentiation of risk under the A-IRB approach, as this would be a disincentive for institutions to continuously improve their risk management practices. In particular, it is the EBA's view that disregarding cash flows from ineligible CRM techniques in the estimation of LGD is not appropriate as doing so would automatically bias the estimates, directly contravening the principle that information on all observed defaults should be used.

441. Currently, the treatment of ineligible collateral is specified in Article 181(1)(f) of the CRR and the treatment of UFCP in the case that the modelling approach is used is clarified in Article 183 of the CRR. These requirements have been further clarified in the EBA guidelines on PD and LGD estimation (with regard to collateral) and in the consultation paper on the draft EBA guidelines on Credit Risk Mitigation for institutions applying the IRB approach with own estimates of LGD (with regard to guarantees and credit derivatives). The consultation paper draws on the rules previously specified for the treatment of collaterals, and hence in both cases it is clarified that collateral or UFCP that does not meet eligibility criteria cannot be recognised in the model as a risk driver.
442. In order to fulfil the eligibility requirements while at the same time ensuring adequate differentiation and quantification of risk, the guidance currently provided for LGD estimation is composed of three pillars:
  - a) The ineligibility of the CRM technique directly impacts model development: ineligible CRM techniques cannot be considered in the risk differentiation as risk drivers. However, all the observed cash flows are taken into account in the risk quantification, and in practice this means that cash flows from ineligible CRM techniques are likely to affect the estimation of the 'unsecured LGD'.
  - b) All the main types of collateral must actually be eligible, since paragraph 126 of the guidelines on PD and LGD estimation specifies that 'Institutions should clearly define in their internal policies the main and other types of collaterals used for the type of exposures covered by the rating system and should ensure that, to the extent that LGD estimates take into account the existence of collateral, the policies regarding the management of these types of collateral comply with the requirement of Article 181(1)(f) of Regulation (EU) No 575/2013.'
  - c) 'Where necessary, institutions should perform appropriate adjustments in order to avoid any bias in the LGD estimates'. This involves monitoring the source of the cash flows from ineligible collateral; however, it is not further specified how the 'correction of the bias' should be understood. Since the CRR does not allow recognition of ineligible collateral as a risk driver, it is included in the same pool as unsecured exposures. However, since ineligible collateral may still provide additional recoveries in the collection process, the



average realised LGD of such a broader pool is lower than the average calculated exclusively on actual unsecured exposures. It is already specified that this potential bias in the estimation should be corrected, but, even so, the final results may not be fully accurate as they will not differentiate between exposures with and without ineligible collateral.

443. Given the changes introduced by the final Basel III framework, the current solution may prove inappropriate. As the revised eligibility criteria refer not only to internal collateral management, but also to some objective characteristics of the CRM techniques, institutions may not be able to meet the criteria for all main types of CRM techniques in use. Furthermore, changes to the eligibility criteria of CRM techniques would require institutions to look into their databases and verify whether or not all historical guarantees and credit derivatives would remain eligible under the final Basel III framework. This would mean that the reference data set would potentially have to be adjusted and models redeveloped in order to ensure that ineligible CRM techniques are not used as risk drivers. It can be expected that historical reassessment of eligibility of collaterals would be challenging.
444. The EBA considers that the current framework for the treatment of ineligible CRM techniques under the A-IRB approach has certain conceptual and practical drawbacks and should therefore be comprehensively reconsidered. A potential alternative treatment considered by the EBA could be to recognise eligibility of credit protection in the application rather than in the estimation of risk parameters, avoiding any distortions in risk differentiation and in the historical databases. As a result, institutions would be able to use all relevant risk drivers and quantify risk in the most accurate manner. At the same time, an additional layer of prudence would be added in the application of risk parameters ensuring sufficiently conservative calculation of own funds requirements.
445. It has to be stressed that the area of CRM, in the context both of eligibility and of treatment under various approaches, is particularly complex. In order to avoid potential unintended consequences, any proposed solutions have to be thoroughly considered, taking into account incentives for the risk management of the institutions and impact of the framework on certain portfolios and business models. The design of the framework should take into account various forms of CRM techniques used by institutions and potential developments in the markets, such as increased use of credit insurance by institutions, of which the EBA has been informed by the representatives of the industry on several occasions. The EBA stands ready to further support the Commission and develop appropriate solutions for the recognition and treatment of CRM techniques. Furthermore, the EBA suggests that it be granted a mandate to develop guidelines on how to apply the eligibility criteria and rules for the treatment of various CRM techniques under all approaches.
446. The mandate suggested above should include, in particular, a request to develop guidelines to specify the treatment of ineligible CRM techniques in the estimation and application of risk parameters. However, in order to allow such a review, Article 181(1)(f) of the CRR, at least, would need to be adjusted or deleted, since it is currently not possible for LGD

estimates to ‘take into account’ ineligible collateral. It is the EBA’s recommendation that reference to eligibility criteria should not be included in Article 181 of the CRR, which should exclusively specify the requirements for appropriate quantification of risk. In addition, Article 183 of the CRR would also need to be adjusted, in order to deal with the new ineligibility requirements on UFCP (see previous recommendations in other sub-sections).

### 4.3 Recommendations for improvements of the existing IRB framework

447. In the CfA from the Commission on the implementation of the final Basel III framework, the EBA was requested not only to assess the impact of the implementation of the revised framework, but also to report on any other issues or inconsistencies in both the current EU regulation and the Basel capital framework. This section includes detailed recommendations for improvement of the general drafting and clarification of the CRR text.

#### 4.3.1 Missing and misleading definitions

448. Clear and precise definitions are beneficial for a harmonised application of the prudential framework. During its ongoing regulatory and monitoring work, the EBA has found that some notions are interpreted in a different manner by institutions, leading to different outcomes. The review of the CRR gives an opportunity to include missing definitions or correct those that are not entirely clear. The EBA is proposing the following set of clarifications:

- a) an overall review of the notions of credit obligation, credit exposure, facility and related concepts;
- b) technical corrections and enhancements of the existing definitions.

449. The EBA has identified several enhancements necessary to improve the clarity of the CRR. The lack of clear definitions of notions fundamental to the credit risk framework directly contributes to the variability of estimates because institutions have different understandings of the requirements either on the model landscape or in estimation of risk parameters.

#### (i) Review of the definition of type of exposures

##### **Recommendation CR-IR 28: definition of ‘type of exposures’**

The definition of ‘type of exposures’ specified in point (1) of Article 142(1) of the CRR should be amended by deleting the reference to the ‘type of facilities’.

450. The definition of ‘type of exposures’ is especially relevant in the context of defining the models landscape of institutions, since, according to point (1) of Article 142(1) of the CRR, a rating system applies for a certain type of exposures. A strict interpretation of the current text would mean that an institution would need to develop a separate ‘rating system’ for each different type of facility offered by its obligor, even if it is managing exposures at the obligor level (for instance for corporates). The EBA does not see the merit of such a

requirement, which also contravenes common modelling practices. Therefore, the EBA proposes to amend the definition of ‘type of exposures’ by deleting the reference to ‘type of facilities’. In addition, it should be noted that the concept of ‘type of facilities’ is in turn not defined in the current CRR and is not used in any other parts of the framework.

(ii) **Review of the notions of exposure, facility and obligation**

**Recommendation CR-IR 29: definition of ‘credit obligation’ and ‘credit exposure’**

As the credit obligation is one of the main concepts underlying the own funds requirements for credit risk, it is important that it is understood and applied in a harmonised manner and hence it should be defined in the CRR. It is proposed that the following definitions could be applied:

‘credit obligation’ means any amount of principal, accrued interest and fees owed by an obligor to the institution or, if an institution serves as a guarantor, owed by an obligor to a third party.

‘credit exposure’ means any on-balance sheet item, including any amount of principal, accrued interest and fees owed by the obligor to the credit institution, and any off-balance sheet items that results, or may result, in a credit obligation.

**Recommendation CR-IR 30: definition of ‘facility’**

The definition of facility determines the level of estimation of the LGD and CCF, as well as the PD in the case of retail exposures with a definition of default used at facility level. Hence, a clear definition of this key concept is crucial to ensure harmonised estimation of risk parameters. It is proposed that the following definition could be applied:

‘facility’ means a contract between an obligor and an institution that results in a credit obligation towards the institution, and based on which a certain exposure to an obligor is recorded in the accounting system of the institution, under the terms of agreement of the contract.

451. The interaction between the concepts of facility, exposure, credit exposure and credit obligation should be clarified. The EBA understands that:

- a) An ‘exposure’, as defined in point (1) of Article 5 of the CRR, is considered from the perspective of the institution, whereas a ‘credit obligation’ is considered from the perspective of the obligor. An ‘exposure’ is a broader concept than a ‘credit exposure’; for instance, ‘credit exposures’ do not include equity exposures. A ‘credit exposure’ is necessarily related to a ‘facility’ or ‘credit facility’, which constitutes a basis for the ‘credit obligation’ of an obligor. The EBA believes that the definition of ‘credit obligation’ should be incorporated in the text of the CRR in order to clarify the link with a ‘credit exposure’. However, the definition of ‘exposure’ should remain unchanged.
- b) A single credit obligation as well as a single credit exposure is related to a single facility. A facility is a contract between the institution and the obligor resulting in a credit obligation

of the obligor, while a credit exposure (and a corresponding credit obligation) is expressed as an amount.<sup>86</sup>

- c) The notion of facility is widely used under the IRB approach as it determines the level of estimation of risk parameters such as LGD and CCF, but also potentially PD if the definition of default is applied at the level of an individual facility rather than at the level of the obligor, as allowed by Article 178(1) of the CRR (see also considerations in section 4.3.6). Therefore, a common understanding of the notion of facility is crucial for the comparability of the estimates of risk parameters.
  - d) The concepts of ‘credit obligation’ and ‘facility’ are not only used in the IRB approach but are also useful in the SA framework, for instance for the application of the CCF and for the definition of default when applied at the credit facility level. Therefore, the definitions of these notions should be introduced in Article 4 of the CRR.
452. Furthermore, the EBA analysed the impact of the clarification of the notion of facility on the estimation of risk parameters, in particular in cases where the recovery process does not allow a direct observation of the realised value of the LGD and CCF at facility level. This may arise in two situations, where:
- a) cash flows received in the collection process cannot be allocated to an individual facility without additional assumptions;
  - b) collateral is not allocated to an individual facility, but secures a pool of facilities (‘cross-collateralisation’).
453. The EBA is of the view that the first situation usually occurs at the later stages of the collection process, when return to a non-defaulted status is no longer possible and hence when the institution typically tries to recover the debt through the legal process. At that stage institutions may bundle all exposures towards the obligor into one account and either stop calculating interest or calculate interest in accordance with national legislation. In this case, the total obligation is considered fully due and is no longer split into individual facilities, that is, none of the initial schedules of payment continues to apply. As this situation takes place only at later stages of the collection process, treating this as a reason for aggregated LGD estimation would lead to a loss of valuable information obtained by facilities at earlier stages (for the estimation of LGD to be applied to the living portfolio). Instead, a solution is already provided in paragraph 112 of the guidelines on PD and LGD estimation, which clarifies that in the case of aggregated information institutions should develop an appropriate methodology for the allocation of recoveries and costs to individual exposures and that such methodology should be applied consistently across exposures and over time. However, for the purpose of estimation of the LGD in default, the institution may treat this bundle of facilities as one facility. This is already possible via the concept of ‘reference date’ introduced in paragraph 172(b) of the guidelines on PD and LGD estimation.

<sup>86</sup> Therefore, the CRR deals with ‘facility grades and pools’, not ‘credit exposures grades and pools’.

454. With respect to the second situation, of cross-collateralisation, the EBA considers that the exposures secured by the same pool of collateral should have the same risk characteristics and the collection process would be carried out jointly from the beginning. In fact, the cross-collateralisation arrangement is most likely to stem from a given overarching contract between the obligor and the institution. This initial overarching contract, which could be a basis for possible further contracts related to individual loans if necessary, could be considered an individual facility, since it could be considered a form of credit line in the case that an obligor provides a pool of collateral and can draw different forms of loans up to a specified limit. In this case, the proposed definition based on a contract between an obligor and an institution would still be valid and this additional clarification could provide legal certainty.

### (iii) Definitions of risk parameters

#### **Recommendation CR-IR 31: definitions of risk parameters**

Own estimates of risk parameters such as PD, LGD, CCF and EL determine the level of own funds requirements under the IRB approach. In order to ensure consistent estimation and comparability of these parameters across institutions, they have to be precisely defined. Therefore, several amendments to the definitions are proposed to clarify that i) the LGD, CCFs and EL are estimated at the level of a single facility and ii) PD and LGD parameters may refer either to default risk or, in the case of purchased receivables, to dilution risk.

455. As a direct consequence of the considerations presented in the previous section, the definitions affected by the concept of ‘facility’ discussed above should be clarified. These include ‘loss given default’, ‘conversion factor’, ‘expected loss’ and ‘facility grades or pools’. In particular, some inconsistencies in these existing definitions have been identified and proposals are put forward to correct them where necessary. The definitions should also incorporate the possibility of using the risk parameter to estimate dilution risk. The definitions proposed in Table 27 below incorporate the conclusion of the discussion presented in section 4.3.3.

### (iv) Notions such as obligor, borrower, counterparty

#### **Recommendation CR-IR 32: consistency in the terminology: obligor, borrower, counterparty**

The notions of ‘obligor’ and ‘borrower’ should be used consistently across the framework, and the notion of ‘counterparty’ should be used only in the context of counterparty credit risk.

456. The EBA understands that the notions of ‘obligor’ and ‘borrower’ have the same meaning, with the only difference that ‘obligor’ is considered from the perspective of the institution and ‘borrower’ from the perspective of the client or counterparty of the institution.<sup>87</sup> In addition, the EBA believes that the term ‘counterparty’ should be used only in the context of counterparty credit risk in order to improve the clarity of the text and avoid misunderstandings.

<sup>87</sup> The inconsistent uses are in Article 4(1)(59), Article 166(8)(a), Article 166(8)(a) and Article 178, second paragraph.

#### (v) Requirements for the use of models in assignment of exposures to grades or pools

##### **Recommendation CR-IR 33: definition of a ‘model’**

Article 174 of the CRR on the use of models for the assignment of exposures to grades and pools should be further clarified in order to ensure harmonised application of the use of models. In particular, it should be ensured that the requirements specified in Article 174 are applicable to all rating systems used under F-IRB approach and A-IRB approach.

457. Article 174 of the CRR specifies the requirements for the use of statistical models and other mechanical methods in the assignment of exposures to grades or pools. It should be noted in this context that, although all requirements in this article refer to ‘models’, this notion is not defined in the CRR. In addition, interpretational issues have been raised with respect to Article 174 of the CRR, according to which the list of requirements applies ‘If an institution uses statistical models and other mechanical methods to assign exposures to obligors or facilities grades or pools’. It is not clear which other methods which are not statistical models or other mechanical methods could be allowed for the purpose of the IRB approach. The EBA is of the view that Article 174 of the CRR should be redrafted in order to improve its clarity.
458. More specifically, it should be made clear that, for the purpose of assignment of exposures to grades or pools, institutions shall use models based either on statistical models or on other mechanical methods, and that in all cases the requirements specified in Article 174 of the CRR must be met. In addition, it should be clarified that such statistical model or mechanical methods should use clearly defined inputs, and there should be a functional link between the inputs and the output of such a model or method. However, the functional link between the inputs and the outputs of the model may be determined through expert judgement.

#### (vi) Requirement for margin of conservatism

##### **Recommendation CR-IR 34: definition of appropriate adjustment and margin of conservatism**

The IRB approach includes a requirement that an adequate margin of conservatism is added to the estimates of risk parameters. In order to ensure harmonised application of the requirements, the notion of margin of conservatism should be defined, including the clarification that it accounts for the expected range of estimation errors stemming from identified deficiencies in data, methods and changes to underwriting standards, risk appetite, collection and recovery policies and any other source of additional uncertainty, as well as general estimation error.

459. Article 179(1)(f) of the CRR requires that institutions add a margin of conservatism (MoC) to their estimates of risk parameters. However, how this concept is to be understood and applied is not specified, and this has resulted in large variety of practices across institutions. It is therefore proposed that clarification could be provided, building on the concepts of ‘appropriate adjustment’ and MoC, as introduced in the guidelines on PD and LGD estimation. It is proposed that the notion of MoC be defined in the CRR given its particular importance for the consistent application of the requirements.

## (vii) Overview of all proposed changes and additions in the definitions

Table 27: Summary of proposals related to missing or unclear definitions in the CRR

Concept	Existing legal background	Proposed amendments
Type of exposures	<p>According to Article 142(1)(2) of the CRR:</p> <p><i>'type of exposures' means a group of homogeneously managed exposures which are formed by a certain type of facilities and which may be limited to a single entity or a single sub-set of entities within a group provided that the same type of exposures is managed differently in other entities of the group;</i></p>	<p><i>Proposed amended definition:</i></p> <p><i>'type of exposures' means a group of homogeneously managed exposures which may be limited to a single entity or a single subset of entities within a group provided that the same type of exposures is managed differently in other entities of the group;</i></p>
Credit obligation and credit exposures	<p>The CRR does not define a credit obligation, but some clarification has been provided in paragraph 73(a) of the guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures (guidelines on PD and LGD estimation):<sup>88</sup></p> <p><i>... 'credit obligation' refers to both of the following:</i></p> <ul style="list-style-type: none"> <li><i>(i) any on balance sheet item, including any amount of principal, interest and fees;</i></li> <li><i>(ii) any off-balance sheet items, including guarantees issued by</i></li> </ul>	<p><i>Proposed new definition in Article 5 of the CRR:</i></p> <p><i>'credit obligation' means any amount of principal, accrued interest and fees owed by an obligor to the institution or, if an institution serves as a guarantor, owed by an obligor to a third party.</i></p> <p><i>'credit exposures' means any on-balance sheet item, including any amount of principal, accrued interest and fees owed by the obligor to the institution, and any off-balance sheet items that result, or may result, in a credit obligation.</i></p>

<sup>88</sup> <https://eba.europa.eu/documents/10180/2033363/Guidelines+on+PD+and+LGD+estimation+%28EBA-GL-2017-16%29.pdf/6b062012-45d6-4655-af04-801d26493ed0>

Concept	Existing legal background	Proposed amendments
	<p><i>the institution as a guarantor.</i></p> <p>The CRR gives the definition of an exposure in Article 5(1):</p> <p><i>‘exposure’ means an asset or off-balance sheet item;</i></p>	
Facility	<p>The CRR does not define a facility. However, this notion is used in several contexts, including:</p> <ul style="list-style-type: none"> <li>- definition of default</li> <li>- estimation of risk parameters</li> </ul>	<p><i>Proposed new definition in Article 5 of the CRR:</i></p> <p><i>‘facility’ means a contract between an obligor and an institution that results in a credit obligation towards the institution, and based on which a certain exposure to an obligor is recorded by the institution under the terms of agreement of the contract as an on- or off-balance sheet item.</i></p>
Facility grade	<p>According to point (7) of Article 142(1):</p> <p><i>‘facility grade’ means a risk category within a rating system’s facility scale, to which exposures are assigned on the basis of a specified and distinct set of rating criteria from which own estimates of LGD are derived;</i></p>	<p><i>Proposed amended definition:</i></p> <p><i>‘facility grade’ means a risk category within a rating system’s facility scale to which exposures are assigned on the basis of a specified and distinct set of rating criteria from which own estimates of risk parameters are derived;</i></p>
Probability of default	<p>According to point (54) of Article 4(1) of the CRR:</p> <p><i>‘Probability of default’ or ‘PD’ means the probability of default of a counterparty over a one-year period;</i></p>	<p><i>Proposed amended definition:</i></p> <p><i>Probability of default or ‘PD’ means the probability of default of a counterparty over a one-year period. In the context of dilution risk, the PD should</i></p>



Concept	Existing legal background	Proposed amendments
Loss given default	<p>According to point (55) of Article 4(1) of the CRR:</p> <p><i>‘loss given default’ or ‘LGD’ means the ratio of the loss on an exposure due to the default of counterparty to the amount outstanding at default;</i></p>	<p><b><i>be understood as the probability of dilution.</i></b></p> <hr/> <p><i>Proposed amended definition:</i></p> <p><i>‘loss given default’ or ‘LGD’ means the ratio of the loss on an exposure <b>related to a single facility</b> due to the default of an obligor <b>or facility</b> to the amount outstanding at default. <b>In the context of dilution risk, the LGD should be understood as the loss given dilution and should refer to the loss on an exposure due to a dilution.</b></i></p>
Conversion factor	<p>According to point (56) of Article 4(1) of the CRR:</p> <p><i>‘conversion factor’ means the ratio of the currently undrawn amount of a commitment that could be drawn and that would therefore be outstanding at default to the currently undrawn amount of the commitment, the extent of the commitment being determined by the advised limit, unless the unadvised limit is higher;</i></p>	<p><i>Proposed amended definition:</i></p> <p><i>‘conversion factor’ means the ratio of the currently undrawn amount of a commitment that could be drawn <b>from a single facility before default</b> and that would therefore be outstanding at default to the currently undrawn amount of the commitment <b>from that facility</b>, the extent of the commitment being determined by the advised limit, unless the unadvised limit is higher.</i></p>
Expected loss	<p>According to point (3) of Article 5 of the CRR:</p> <p><i>‘expected loss’ or ‘EL’ means the ratio of the amount expected to be lost on an exposure from a potential</i></p>	<p><i>Proposed amended definition:</i></p> <p><i>‘expected loss’ or ‘EL’ means the ratio <b>related to a single facility</b> of the amount expected to be lost on an exposure from a potential default, the latter</i></p>

Concept	Existing legal background	Proposed amendments
	<p><i>default of a counterparty or dilution over a one year period to the amount outstanding at default.</i></p>	<p><i>over a one-year period, to the amount outstanding at default, or from a <b>potential dilution</b> over a one-year period to the amount outstanding at <b>dilution</b>.</i></p>
Use of models	<p>According to Article 174 of the CRR:</p> <p><i>If an institution uses statistical models and other mechanical methods to assign exposures to obligors or facilities grades or pools, the following requirements shall be met:</i></p> <p>(a) <i>the model shall have good predictive power and capital requirements shall not be distorted as a result of its use. The input variables shall form a reasonable and effective basis for the resulting predictions. The model shall not have material biases;</i></p> <p>(b) (...)</p>	<p><i>Proposed amended article:</i></p> <p><i>For the assignment of exposures to obligors or facilities grades or pools institutions shall use models based either on statistical models or on other mechanical methods. In the use of models the following requirements should be met:</i></p> <p>(a) <i>There should be a functional link between the inputs and the outputs of the model. This functional link does not prevent the use of human judgement.</i></p> <p>(a) (bis) <i>The model shall have good predictive power and capital requirements shall not be distorted as a result of its use. The input variables shall form a reasonable and effective basis for the resulting predictions. The model shall not have material biases.</i></p> <p>(b) (...)</p>

Concept	Existing legal background	Proposed amendments
Margin of conservatism	<p><b>Appropriate adjustments:</b></p> <p>According to Article 178(4) of the CRR:</p> <p><i>Institutions that use external data that is not itself consistent with the definition of default laid down in paragraph 1, shall make appropriate adjustments to achieve broad equivalence with the definition of default.</i></p> <p>According to paragraph 224 of the Basel III framework:</p> <p><i>A bank must record actual defaults on IRB exposure classes using this reference definition. A bank must also use the reference definition for its estimation of PDs, and (where relevant) LGDs and EADs. In arriving at these estimations, a bank may use external data available to it that is not itself consistent with that definition, subject to the requirements set out in paragraph 230. However, in such cases, banks must demonstrate to their supervisors that <b>appropriate adjustments</b> to the data have been made to achieve broad equivalence with the reference definition. This same condition would apply to any internal data used up to implementation of this Framework. Internal data (including that pooled by</i></p>	<p><i>Proposed new definition:</i></p> <p><i>Margin of conservatism means conservatism, after appropriate adjustments have been performed, to account for the expected range of estimation errors stemming from identified deficiencies in data, methods and changes to underwriting standards, risk appetite, collection and recovery policies and any other source of additional uncertainty, as well as general estimation error. In this context, appropriate adjustments means methodologies to correct the identified deficiencies to the extent possible in order to overcome biases in risk parameter estimates stemming from the identified deficiencies.</i></p>

Concept	Existing legal background	Proposed amendments
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*banks) used in such estimates beyond the date of implementation of this Framework must be consistent with the reference definition.*

According to paragraph 38 of the EBA guidelines on PD and LGD estimation:

*In order to overcome biases in risk parameter estimates stemming from the identified deficiencies referred to in paragraphs 36 and 37, institutions should apply adequate methodologies to correct the identified deficiencies to the extent possible. The impact of these methodologies on the risk parameter ('appropriate adjustment'), which should result in a more accurate estimate of the risk parameter ('best estimate'), represents either an increase or a decrease in the value of the risk parameter. Institutions should ensure and provide evidence that the application of an appropriate adjustment results in a best estimate.*

**Margin of conservatism:**

According to Article 179(1)(f) of the CRR:

*... an institution shall add to its estimates a margin of conservatism that is related to*

Concept	Existing legal background	Proposed amendments
	<p><i>the expected range of estimation errors. Where methods and data are considered to be less satisfactory, the expected range of errors is larger, the margin of conservatism shall be larger.</i></p>	

#### 4.3.2 1.25 scaling factor on the asset value correlation coefficient for 'large financial sector entities'

##### Recommendation CR-IR 35: correlation scaling factor for large financial sector entities

The definition of a large financial sector entity should be aligned with the Basel framework, and should use a EUR 70 billion threshold on the consolidated assets of the parent entity when applied to a subsidiary of a group.

460. Article 153(2) of the CRR requires the application of a scaling factor to the asset value correlation coefficient for 'exposures to large financial sector\_entities' and 'unregulated financial entities'. The definitions of such entities are included in points 4) and (5) of Article 142(1) of the CRR. This adjustment is included in the amended paragraph 272 of the Basel II framework,<sup>89</sup> and is repeated in paragraph 53 of the final Basel III framework. As explained in the introduction of amended Basel II framework, this factor was introduced in order to 'address systemic risk within the financial sector, [...], as financial exposures are more highly correlated than non-financial ones'.
461. The definition in the Basel capital framework of a large financial sector entity is wider, as it consolidates exposures to any entity of a group where parent or subsidiaries have consolidated assets above a comparable threshold of USD 100 billion. In the CRR this threshold is translated into EUR 70 billion but, as clarified in the Q&A process,<sup>90</sup> it applies only to consolidated assets of the entity and its subsidiaries, that is, it does not consider the possibility that an institution is a subsidiary of a large financial sector entity. This was mentioned as a non-material deviation in the EU RCAP,<sup>91</sup> and could be considered as inconsistent with the new relevant scope of consolidation to be used to identify large corporates that should migrate to the F-IRB approach. In fact, the use of sub-consolidated data is inconsistent with the rest of the framework:
- a) it is not used anywhere else in the regulatory credit risk framework;

<sup>89</sup> <https://www.bis.org/publ/bcbs189.pdf>, paragraph 104.

<sup>90</sup> Q&A 2193 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2015\\_2193](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2015_2193)) and Q&A 3057 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2016\\_3057](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2016_3057)).

<sup>91</sup> See p. 39.

- b) it is inconsistent with the rating of the obligor, which would typically take into account any support from the parent company;
- c) it opens the door for arbitrage strategies, by transferring businesses into smaller subsidiaries;
- d) it does not meet the objective of the final Basel III framework to reduce the interconnectedness of the financial institutions.<sup>92</sup>

462. Therefore, the decision to consider the higher scope of consolidation should be reconsidered, and the EBA believes that this deviation from the Basel capital framework should be removed from the EU framework. The EBA acknowledges that the impact for some obligors may be significant, as illustrated in Table 28 below.

#### Recommendation CR-IR 36: Scope of application of the correlation scaling factor

The scope of application of the 1.25 scaling factor to the correlation coefficient as specified in Article 153(2) of the CRR is unclear and, hence, the definitions included in points (4) and (5) of Article 142(1) of the CRR should be amended to improve clarity.

463. In addition, numerous Q&As were raised on the scope of application of this scaling factor, which shows that there is scope to improve the drafting and clarity of the CRR. The EBA proposes three enhancements related to the following notions:
- a) The term ‘large financial sector entity’ is defined in point (4) of Article 142(1) of the CRR, and relies implicitly on the definition of ‘financial sector entities’ given in point (27) of Article 4(1) of the CRR.<sup>93</sup> Two criteria are added: one on the size of the entity and one on the prudential regulation (in points (a) and (b), respectively, of Article 142(1)(4) of the CRR).
  - b) The term ‘unregulated financial sector entity’ is defined in point (5) of Article 142(1) of the CRR, which refers to the activities listed in Annex I of [Directive 2013/36/EC](#) and Annex I of [Directive 2004/39/EC](#).<sup>94</sup> These entities are subject to the scaling factor of the asset value correlation coefficient if they are not ‘prudentially regulated’.

<sup>92</sup> As pointed out in Basel III: A global regulatory framework for more resilient banks and banking systems published by BCBS in December 2010 ‘The crisis was further amplified by a procyclical deleveraging process and by the interconnectedness of systemic institutions through an array of complex transactions’. (see <https://www.bis.org/publ/bcbs189.pdf>)

<sup>93</sup> The EBA notes that Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 marginally updates the definition of financial institutions (without solving the issues presented in this section): ‘financial institution’ means an undertaking other than an **institution and other than a pure industrial holding company**, the principal activity of which is to acquire holdings or to pursue one or more of the activities listed in points 2 to 12 and point 15 of Annex I to Directive 2013/36/EU, including a financial holding company, a mixed financial holding company, a payment institution **as defined in point (4) of Article 4 of Directive (EU) 2015/2366 of the European Parliament and of the Council (\*)**, and an asset management company, but excluding insurance holding companies and mixed-activity insurance holding companies as defined, respectively, in points (f) and (g) of Article 212(1) of Directive 2009/138/EC.

<sup>94</sup> Q&A 516 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013\\_516](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013_516)).

464. The first proposal has the objective of improving the clarity of the text by making two changes to point (4) of Article 142(1) of the CRR:
- a) The notion defined is that of ‘large regulated financial sector entity’; the EBA notes that Article 142(1)(5) refers to the notion of ‘regulated financial sector entity’, which is not defined per se in the CRR.
  - b) The legal references to assess whether the entity is subject to a prudential regulation should be explicitly given. For instance, this second criterion implicitly refers to Annex V of [Commission Implementing Decision No 2014/908](#) (amended by [Commission Implementing Decision 2016/2358/EU](#)) regarding entities in a third country, although Annex V refers only to credit institutions and investment firms (given the scope of Commission Implementing Decision No 2014/908). The EBA also notes the potential interactions with Article 119(5) of the CRR, which could also be clarified. In addition, the EBA has already published a report on other financial intermediaries and regulatory perimeter issues,<sup>95</sup> and in particular on entities carrying out credit intermediation activities and not subject, on an individual basis, to a prudential framework.
465. Second, the interaction between a ‘large financial sector entity’ and an ‘unregulated financial sector entity’ should be clarified and potentially amended. One potential unintended consequence of these definitions is that the correlation scaling factor does not apply to third-country Insurance and re-insurance undertakings (as clarified in Q&A 206\_3057):
- a) They would not be considered ‘large financial sector entities’ (i.e. ‘large regulated financial sector entity’) as they would not be considered regulated. Indeed, third-country insurance and re-insurance undertakings are not considered regulated because they are not mentioned in Annex V of Commission Implementing Decision No 2014/908.<sup>96</sup>
  - b) They would not be considered an ‘unregulated financial sector entity’ since they are not mentioned in Annex I of Directive 2013/36/EC or Annex I of Directive 2004/39/EC.
466. The example of third-country insurance and re-insurance undertakings illustrates two problems:
- a) It is not clear whether the definition of an ‘unregulated financial sector entity’ in Article 142(1)(5) of the CRR relies on Article 4(1)(27) of the CRR, since it mentions activities listed in Annex I of Directive 013/36/EC and Annex I of Directive 004/39/EC. The EBA notes that this CRR article was amended in the second corrigendum<sup>97</sup> of the CRR, from ‘unregulated financial entity’ to ‘unregulated financial sector entity’.

<sup>95</sup> <https://eba.europa.eu/documents/10180/1720738/Report+on+OFIs.pdf>

<sup>96</sup> Q&A 1989 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2015\\_1989](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2015_1989)) and Q&A 1991 ([http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2015\\_1991](http://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2015_1991)).

<sup>97</sup> <https://eur-lex.europa.eu/eli/reg/2013/575/corrigendum/2013-11-30/oj/eng>

b) Should the current text not refer to the same entities when mentioning large regulated ones and unregulated ones, it would be in contradiction with paragraph 53 of the final Basel III framework, which refers to the same entities. It would also be counter-intuitive if exposures towards (large) non-regulated financial sector entities were to have a lower RW than exposures towards large regulated financial sector entities.

467. The EBA believes that the CRR would be simplified if regulated and unregulated financial sector entities explicitly referred to the same kind of entities. The EBA has no strong view on whether or not entities with activities described in Annex I of Directive 2013/36/EC or Annex I of Directive 2004/39/EC not falling under the definition in Article 4(1)(27) of the CRR should be considered, but notes that these references trigger substantial implementation issues. Therefore, the EBA is of the view that other ways to define the financial entities could be explored.

468. The Commission should then carefully review the scope of financial entities considered as regulated (including Annex V of Commission Implementing Decision No 2014/908 amended by Commission Implementing Decision 2016/2358/EU) in order to decide whether or not to include insurance and re-insurance undertakings. Indeed, the scaling factor on the asset value correlation coefficient significantly impacts the RWA as shown in Table 28 (using an LGD of 45% and a maturity of 2.5 years).

Table 28: Impact on the RW from the scaling factor on the asset value correlation coefficient

PD	Regulatory correlation	Scaled correlation	RW (regulatory correlation)	RW (scaled correlation)	Impact
<b>0.03%</b>	24%	30%	15%	21%	<b>36%</b>
<b>0.05%</b>	24%	30%	21%	28%	<b>36%</b>
<b>0.10%</b>	23%	29%	31%	42%	<b>35%</b>
<b>0.50%</b>	21%	27%	74%	97%	<b>31%</b>
<b>1.00%</b>	19%	24%	98%	125%	<b>28%</b>

469. Third, and conditional on the two changes proposed above, the EBA believes that the structure of the CRR could be enhanced by using a two-step approach:

- a) In a first step, the text could specify the general scope of entities eligible to the application of the scaling factor on the asset value correlation coefficient (Article 4(1)(27) of the CRR, Directive 2013/36/EC and Directive 2004/39/EC);
- b) As a derogation to point (a), the scaling factor on the asset value correlation coefficient would not apply to 'small' entities (in the sense of not meeting the criteria of Article 142(1)(4)(a) of the CRR) which are 'prudentially regulated' (in the sense of Article 142(1)(4)(b) of the CRR).



470. In summary, the EBA believes that the general structure of the applicability of the scaling factor should be enhanced. Assuming that the starting point for the analysis would be financial entities as defined in point (27) of Article 4(1) of the CRR and as specified in Annex I of [Directive 2013/36/EC](#) and Annex I of [Directive 2004/39/EC](#), the applicability of the scaling factor could be set out as presented Table 29.

Table 29: Proposed application of the scaling factor

Financial entities	Large	Small
Regulated Annex V of <a href="#">Commission Implementing Decision No 2014/908</a>	Yes	No
Unregulated (all the others)	Yes	Yes

#### 4.3.3 Dilution risk

471. Dilution risk occurs in the IRB approach in the orbit of purchased receivables. According to point 53) of Article 4(1) of the CRR, it is defined as ‘the risk that an amount receivable is reduced through cash or non-cash credits to the obligor’. It is worth mentioning that this risk is different from default risk (i.e. the institution may experience significant losses even if the obligor is not in default) and hence own funds requirements are calculated separately for this type of risk.

472. In general, own funds requirements for dilution risk are calculated for retail and corporate purchased receivables. In both cases, in order to calculate the requirements, the corporate RW function is used with specific PD and LGD estimates that relate to the dilution risk. Those parameters are derived from the bank’s estimation of one-year EL due to dilution risk, either by means of a decomposition that uses own estimates or by the use of fallback parameters. In addition, where the institution can prove that the dilution risk is immaterial, no own funds requirements need to be calculated.

473. The EBA believes that the CRR could incorporate the following enhancements:

- a) correction of the definitions of risk parameters (PD and LGD);
- b) inclusion of a general principle of a consistent use of the fallback parameters;
- c) correction of the RW and EL formulae when using the fallback parameters;
- d) introduction of a mandate for the EBA to clarify how to assess the materiality of the dilution risk.

#### (i) Correction to the definitions of risk parameters (PD and LGD)

##### **Recommendation CR-IR 37: dilution risk in the definitions of risk parameters**

The definitions of probability of default, loss given default and expected loss should be updated to be applicable to both the risk of default and the risk of dilution.

474. In the CRR, the notion of EL refers both to loss due to the default of an obligor and loss due to dilution:

*'Expected loss' or 'EL' means the ratio of the amount expected to be lost on an exposure from a potential default of a counterparty or dilution over a one-year period to the amount outstanding at default (point (3) of Article 5 of the CRR).*

475. However, the CRR is less precise when defining the PD and the LGD:

*'Probability of default' or 'PD' means the probability of default of an obligor over a one-year period; (point (54) of Article 4(1) of the CRR).*

*'Loss given default' or 'LGD' means the ratio of the loss on an exposure due to the default of a counterparty to the amount outstanding at default; (point 55) of Article 4(1) of the CRR).*

476. This inconsistency in definitions is problematic when talking about dilution risk for purchased receivables, as a literal reading of the CRR would suggest that it in fact requests use of the probability of default for an obligor instead of the probability of dilution and, correspondingly, the loss given default instead of loss given dilution. It is expected that these erroneous definitions open the door to different interpretations and promote inconsistencies in supervisory actions. The EBA believes that the CRR should be clarified and could be corrected as follows (corrections in red):

- a) *'Probability of default' or 'PD' means the probability of default of a counterparty over a one-year period. In the context of dilution risk, the PD should be understood as the probability of dilution;*
- b) *'loss given default' or 'LGD' means the ratio of the loss on an exposure **related to a single facility** due to the default of an obligor **or facility** to the amount outstanding at default. In the context of dilution risk, the LGD should be understood as the loss given dilution and should refer to the ratio of the loss on an exposure due to a dilution to the amount outstanding at dilution;*
- c) *'expected loss' or 'EL' means the ratio **related to a single facility** of the amount expected to be lost on an exposure from a*
  - *potential default, the latter over a one-year period, to the amount outstanding at default; or*
  - *potential dilution risk event over a one-year period to the amount outstanding at the date of occurrence of the dilution risk event.*

## (ii) Use of fall-back parameters and own estimates

### Recommendation CR-IR 38: consistent use of the fall-back parameters for dilution risk

In the context of dilution risk for purchased receivables, it should be clarified that institutions are required to use either own estimates or fall-back parameters in a consistent manner. This means that simultaneous use of fall-back parameters and own estimates for different

exposures within the same rating system should not be allowed and that, where own estimates are used, they have to be used for both PD and LGD parameters.

477. In order to avoid possible cherry picking, the EBA believes that the simultaneous use of fall-back and own estimates parameter values for different exposures within the same rating system should not be allowed. The choice between own estimates and fall-back solutions should be applied consistently over time; hence, it should be made clear that, once the institution applies for the use of own estimates for dilution risk and these have been approved by the CA, the institution must use these own estimates and not the fall-back parameters. This is in line with the general principle reflected in Article 149 of the CRR that institutions are not allowed to revert to less sophisticated approaches without the explicit permission of a CA.
478. It would be beneficial to also clarify that it is not possible to combine own estimates with fall-back parameters, in other words own estimates have to be used either for both PD and LGD or for neither of them. Otherwise the own funds requirements would not appropriately reflect the overall risk of loss due to dilution of purchased receivables.

### (iii) Correction of the RW and EL formulae when using the fall-back parameters

#### Recommendation CR-IR 39: regulatory LGD in the context of dilution risk

In the context of dilution risk for purchased receivables a correction should be incorporated by specifying fall-back LGD parameter as 100%, in line with the Basel standards, and not 75%, as currently specified in Articles 161(1)(g) and 164(1) of the CRR. This correction will prevent inconsistencies in the calculation of EL for purchased receivables.

479. The current CRR deviates from the Basel II framework as regards fall-back parameters, as was pointed out by the EU RCAP:<sup>98</sup> 'Basel framework paragraph 369 says that, for dilution risk, the corporate RW function must be used with PD set to EL and LGD set to 100%. The CRR sets the LGD for dilution risk at 75% for corporate receivables (161(1) (g)) and more broadly for all purchased receivables (164(1)).'
480. The EBA believes that the EU framework should be aligned with the Basel capital framework, that it, the fallback parameter for LGD should be 100%, for the following reasons:
- a) This deviation creates a technical inconsistency between the PD and the LGD estimation: under Articles 160(6) and 163(3) of the CRR, the PD is set at the level of the EL (therefore indirectly implying that the LGD is 100%). The inconsistency is very clear when considering the EL: when computed as the product of PD and LGD in accordance with Article 158(10) of the CRR, the EL is equal to  $EL \cdot 75\%$ . The EBA considers that this 25% discount on EL for purchased receivables is not justified.
  - b) The current 25% discount on EL when using the fall-back approach disincentivises institutions from using a more adequate decomposition of EL into PD and LGD. Once this

<sup>98</sup> See p. 2.

discount is removed, an LGD below 100% (with PD equal to EL/LGD) would trigger a decrease in own funds requirements owing to the concave shape of the RW function. Hence, institutions would have an incentive to measure the level of dilution risk more precisely.

481. The inconsistency between the Basel capital framework and the CRR cannot be justified on the basis of risk. The potential lower riskiness of certain types of purchased receivables should instead be captured by the use of appropriate EL estimate. The EBA acknowledges that this change would increase the own funds requirement of such exposures by 33%.<sup>99</sup>

#### (iv) Materiality of dilution risk

##### **Recommendation CR-IR 40: materiality of dilution risk**

In accordance with Article 157(5) of the CRR, competent authorities may exempt an institution from calculating risk-weighted exposure amounts for dilution risk where the dilution risk is considered immaterial. In order to ensure harmonised application of the requirements related to dilution risk, further clarifications should be provided on how to assess the materiality of this type of risk. This clarification could be provided by the EBA once a specific mandate is granted.

482. According to Article 57(5) of the CRR ‘The competent authorities shall exempt an institution from calculating and recognising risk-weighted exposure amounts for dilution risk of a type of exposures caused by purchased corporate or retail receivables where the institution has demonstrated to the satisfaction of the competent authority that dilution risk for that institution is immaterial for this type of exposures’. It is, however, not clear how to assess the materiality of dilution risk for this purpose. As a result, different criteria are applied by CAs across the EU, leading to different outcomes.
483. The EBA believes that, in order to ensure harmonised application of the requirements related to dilution risk, further clarifications should be provided on how to assess the materiality of this type of risk. Specifically, it should be at least clarified whether such assessment should be made in the context of only the portfolio of purchased receivables, or whether it should relate to the overall risk of all exposures of the institution. Should it not be feasible to provide such clarification directly in the text of the CRR, the EBA could be granted a mandate to specify the conditions under which dilution risk can be considered as immaterial.

#### 4.3.4 Exposure value – EL, IRB shortfall and excess

##### **Recommendation CR-IR 41: exposure value and IRB shortfall/excess calculation**

Further clarity should be provided on the requirements for the calculation of IRB shortfall or excess as specified in Article 159 of the CRR, as well as on the specification of the exposure value in accordance with Article 166 of the CRR. The treatment of any adjustments for the purpose of the computation of the IRB shortfall/excess must be consistent with the determination of the exposure value.

<sup>99</sup> The RW function is linearly correlated with the LGD; therefore, a relative increase of 33% (from 75% to 100%) in LGD translates into a relative increase of 33% in the RW.

484. The requirements for the computation of the IRB shortfall/excess in the final Basel III framework remain broadly unchanged from those in the Basel II framework. However, the application of the requirements in Articles 159 and 166 of the CRR has been quite problematic and have given rise to a substantial number of Q&As. Several issues are identified as unclear, including the treatment of fair value adjustments, additional value adjustments, partial write-offs and discounts and premiums in the case of purchased receivables.
485. The EBA believes that, when providing clarifications, one general principle applicable to all of the above elements that should be incorporated in the CRR is that the treatment of any adjustments for the purpose of the computation of the IRB shortfall/excess in accordance with Article 159 of the CRR must be consistent with the determination of the exposure value in accordance with Article 166 of the CRR. The consistency with the exposure value should also be kept in the estimation of LGD in order to ensure that the EL amount is calculated correctly. This means, in particular, that:
- a) Where the exposure value is **net** of a given adjustment, such adjustment should **not be treated as eligible** for the computation of the IRB shortfall/excess and, at the same time, the LGD should be estimated in such a way that it reflects the loss on the net exposure value. This treatment is adequate for, for instance, full and partial write-offs under the current CRR; these elements will hereafter be called 'Category 1' adjustments.
  - b) Where the exposure value is **gross** of a given adjustment, such adjustment should be **treated as eligible** for the computation of the shortfall and the excess and, at the same time, the LGD should be estimated in such a way that it reflects the loss on the gross exposure value. This treatment is adequate for, for instance, specific and general credit risk adjustments under the current CRR; these elements will hereafter be called 'Category 2' adjustments.
486. Only where this overall principle is adhered to can it be ensured that capital adequacy ratios are calculated correctly.
487. It should be noted that partial write-offs are considered as Category 2 adjustments in the Basel capital framework, that is, the exposure value is calculated gross of partial write-offs and they are considered as eligible for the computation of the shortfall and the excess. However, the CRR aims to ensure consistency between partial and full write-offs and treats them both as Category 1 adjustments.<sup>100</sup> This is justified by the fundamental difference between the write-off and the credit risk adjustments: while the credit risk adjustments can be reversed if circumstances change or risk assessment is revised, the write-off is final and irreversible, that is, any additional recoveries after a write-off are not allocated to a given exposure but are treated as unexpected gains. Therefore, it is considered that there is no

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<sup>100</sup> This treatment is an indirect consequence of the absence of the notion of partial write-offs in the CRR: the exposure value is based on the accounting value with no reference to partial write-offs, and partial write-offs are not mentioned as eligible amounts to be compared with the EL amounts for the shortfall and excess calculation.

justification for different treatment of full and partial write-offs and both should be treated as Category 1 adjustments. The EBA reviewed this interpretation, in particular taking into account the new definition of write-offs in the accounting framework (International Financing Reporting Standard 9 5.4.4), and is of the view that the current treatment should remain unchanged.<sup>101</sup> This stance is based on the fact that the impact on the own funds requirements of this categorisation is limited under the current framework:

- a) The categorisation of adjustments does not change the LGD estimates applied to performing exposures, since it does not affect the computation of the observed realised LGD. This is because partial write-offs occurring after the default event are not used in the formula used to calculate of the economic loss,<sup>102</sup> and partial write-offs occurring before the default event are added back to the amount outstanding at default, in accordance with paragraph 134 of the EBA guidelines on PD and LGD estimation. The exposure value of non-defaulted exposures should not be affected either, since a material write-off should immediately trigger the default of the exposure.
- b) The write-offs are accounted for in a specific way for LGD estimates applied to defaulted exposures, in accordance with paragraph 179 of the EBA guidelines on PD and LGD estimation, via the concept of 'reference dates'. The guidance provided in this paragraph ensures that the estimates of LGD in-default and  $EL_{BE}$  are appropriate for the exposure value as currently specified.
- c) A change in the understanding of the exposure value would trigger the need to redevelop the models for LGD in-default and  $EL_{BE}$ .

#### **Recommendation CR-IR 42: treatment of premiums and discounts for purchased receivables**

Further clarity should be provided on the requirement with respect to the treatment premiums and discounts for purchased assets, and in particular it should be specified how to reflect these elements in the exposure value. These clarifications should be provided separately for assets purchased when in default and other purchased receivables, ensuring consistency between the exposure value and the treatment of premiums and discounts in the calculation of IRB shortfall or excess.

488. In addition, the EBA is of the view that some clarifications are needed in the CRR with respect to the treatment premiums and discounts for purchased assets, and in particular it should be specified how to reflect these elements in the exposure value. It is therefore proposed that the answers in Q&A 2013/354<sup>103</sup> and Q&A 2016/2691<sup>104</sup> be incorporated into the CRR:

- a) For assets purchased when in default, the exposure value should be gross of discounts and premiums, that is, the discounts should be added back and any premiums should be

<sup>101</sup> The rationale given in [Q&A 2014/1064](#) still holds true under the new definition: any amounts written back following a derecognition will not affect the carrying amount of the financial asset.

<sup>102</sup> The loss covered by the write-off will be indirectly captured by a lower recoveries value.

<sup>103</sup> [https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013\\_354](https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2013_354)

<sup>104</sup> [https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2016\\_2691](https://eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2016_2691)

subtracted from the accounting value. At the same time, these discounts and premiums should be included in the calculation of IRB shortfall/excess, with the discounts being treated similarly to credit risk adjustments and the premiums decreasing the overall value of eligible provisions.

- b) For assets purchased when not in default, the exposure value should be net of discounts and premiums, that is, any discounts and premiums should be reflected in the exposure value. At the same time, these discounts and premiums should not be included in the calculation of IRB shortfall/excess.

#### 4.3.5 Calculation of realised LGD and realised CCF

489. The computation of realised LGD and realised CCF is a crucial step in the modelling of own LGD and own CCF estimates; comparability of the final risk parameters can be achieved only if these computations are performed in a consistent manner. The EBA has already clarified the calculation of realised LGD in the EBA guidelines on PD and LGD estimation, but is of the view that further enhancements could be incorporated in the CRR with regard to:

- a) the treatment of unpaid late fees: redrafting of Article 181(1)(i) of the CRR to incorporate the clarifications introduced in the guidelines on PD and LGD estimation;
- b) the treatment of additional drawings after default: removal of the optionality for retail exposures and alignment of the computation method between retail and non-retail risk estimates.

#### (i) Unpaid late fees

##### **Recommendation CR-IR 43: treatment of unpaid late fees in the LGD**

Article 181(1)(i) of the CRR should be amended to clarify that it refers to fees for late payments imposed on the obligor before the time of default. However, any fees capitalised after the time of default should not increase the amount of economic loss or amount outstanding at the time of default.

490. The EBA suggests that Article 181(1)(i) of the CRR be clarified to refer to fees for late payments imposed on the obligor before the time of default. However, any fees capitalised after the time of default should not increase the amount of economic loss or amount outstanding at the time of default. This ensures appropriate calculation of realised LGD with reference to the amount outstanding at the time of default and provides for consistency of risk parameters used in the calculation of RWA and EL amounts. Such clarification has also been provided in paragraph 137 of the EBA guidelines on PD and LGD estimation.

## (ii) Additional drawings after default

**Recommendation CR-IR 44: treatment of additional drawing in the LGD**

The requirements regarding the treatment of additional drawings after default as specified in Article 181(2)(b), 182(1)(c) and 182(3) should be amended to improve consistency of the framework and to ensure appropriate estimation of risk parameters. In particular, it should be specified that in all cases the additional drawings after default should be accounted for only in the LGD, while CCFs should reflect any drawings before default.

491. The EBA is of the view that, for both retail and non-retail exposures, additional drawings should be included only in the LGD risk parameter. At present, in accordance with Article 182(1)(c) of the CRR, additional drawings after default are generally included in CCF estimates, but for retail exposures they can instead be included in the LGD estimates, as specified in Article 181(2)(b) and 182(3) of the CRR. This option to reflect additional drawings in LGD estimates is largely used in the models for retail exposures, as shown in Table 45 and Table 46 of the EBA report on IRB modelling practices.<sup>105</sup> This observation is also confirmed by preliminary results of the targeted review of internal models (TRIM) investigations led by the Single Supervisory Mechanism.
492. The EBA believes that additional drawings after default should be accounted for only in LGD estimates, as there seems to be no justification for such practice-based variability, which leads to non-comparable risk parameters. This would also ensure a conceptual consistency in the estimation of risk parameters, where CCFs estimates would reflect what occurs up to the time of default, while LGD estimates focus on all developments from the time of default until the end of the recovery process. Finally, this is also consistent with the definitions of LGD and CCFs as already specified in points(55) and (56) of Article 4(1) of the CRR respectively.
493. This clarification becomes particularly relevant in the context of the final Basel III framework, which states, for non-revolving exposures, observed additional drawings can be taken into account only in LGD models, as own estimates of CCF will be prohibited. Without a change in the CRR, institutions would have a clear incentive not to reflect the losses related to additional drawings after default in their LGD estimates to avoid increases in own funds requirements.
494. The EBA is also of the view that this change should be applied to both retail and non-retail exposures, as the same conceptual arguments given for retail exposures also apply to non-retail exposures. This would require modifications not only in Articles 181(2)(b) and 182(3) but also in Article 182(1)(c) of the CRR. This would simplify the framework and would ensure full consistency between the estimates applied for retail and non-retail exposures and with the definitions of the risk parameters provided in the CRR.

<sup>105</sup> <https://eba.europa.eu/documents/10180/1720738/EBA+Report+on+IRB+modelling+practices.pdf> – 57% of institutions included the additional drawings in the economic loss (i.e. in the LGD) and only 17% of institutions included them in the realised CCF



495. However, the EBA acknowledges that this change may trigger some new development costs for the institutions. The impact on own funds requirement cannot be estimated but is expected to be low, since the own funds requirements should not depend on whether additional drawing after default are considered in the LGD or the CCF.

#### 4.3.6 Estimation of PD in the case of definitions of default applied at facility level

##### Recommendation CR-IR 45: the level of estimation of PD for retail exposures

While, as a general rule, default is identified at the obligor level and PD is estimated for the obligor, where institutions apply the default definition at the level of individual facility in accordance with Article 178(1) of the CRR, they should also estimate their PDs for individual facilities. In order to ensure consistent PD estimation, amendments should be introduced in Article 180 of the CRR to refer not only to obligor grades but also, where relevant, to facility grades.

496. In the IRB approach, exposures are assigned to grades or pools at two different points in the life cycle of the model: historical observations are assigned to grades or pools during the development of the model, whereas the obligors or facilities in the current portfolio are assigned to grades or pools in the application of the model. This implies, in particular, that for exposures assigned to the default status the definition of default is used both during the model development and for the default identification of the exposures in the current portfolio.
497. One additional dimension of the definition of default is the option to apply the criteria for retail exposures at the level of individual credit facilities rather than in relation to the total obligations of the obligor. In other words, an obligor with different facilities could have some facilities in default and others not if an institution chooses to apply this option.
498. On this aspect, the CRR is not clear on whether the intention is to allow a definition of default at facility level only for the default identification (i.e. in the application of the model), or if it can also be used for the model development (risk differentiation and risk quantification). This interpretative issue comes from the interaction between Articles 178(1) and 180(2)(a) of the CRR. The EBA considers providing the following two possible clarifications:
- a) **Option 1** – align the computation of default rates with the definition of default, that is, compute default rates at facility level where the default definition is applied at facility level:

Under this option, Article 180(2)(a) of the CRR could be redrafted as follows: '(a) institutions shall estimate PDs by obligor **or facility** grade or pool from long-run averages of one-year default rates; **the default rate shall be computed at facility level only where the definition of default is applied at facility level in accordance with Article 178(1)**'. This would mean that, for retail exposures, and where the definition of default is applied at facility level, paragraphs 73-81 of the EBA guidelines on PD and LGD can be applied facility level. In addition, the definition of

‘one-year default rate’ in Article 4(1)(78) of the CRR should be amended to read: ‘“one-year default rate” means the ratio between the number of defaults occurred during a period that starts from one year prior to a date T and the number of obligors **or facilities** assigned to this grade or pool one year prior to that date’.

- b) **Option 2** – computation of default rates at the level of the obligor, regardless of the level of application of the definition of default:

Under this option, Article 180(2)(a) of the CRR could not be redrafted but potentially clarified: ‘(a) institutions shall estimate PDs by obligor grade or pool from long run averages of one-year default rates; **the default rate shall not be computed at facility level when the definition of default is applied at facility level in accordance with Article 178(1)**’. This would mean that, for retail exposures, and where the definition of default is applied at facility level, paragraphs 73-81 of the EBA guidelines on PD and LGD estimation should still be applied at obligor level.

499. Under option 1, the alignment of the computation of default rates is proposed, with a consistency between the development of the model, its application, and the risk management practices of the firm. Under option 2, risk parameters are developed at the obligor level for all institutions; this means that the PD parameters are fully comparable between institutions.
500. It is important to note that the EBA believes that the optionality embedded in the application of the definition of default for retail exposures should be maintained, since it allows institutions to align the default identification with the economic reality of the transaction, depending on how they manage the exposures. The described interpretational issue applies only to the cases where an institution has chosen to apply the definition of default at facility level. It mostly affects the way in which institutions compute the observed default rate, that is, whether the denominator should be a number of obligors or facilities and, accordingly, whether the numerator should be a number of defaulted obligors or facilities. It is not possible to identify a priori which approach is more conservative, since it depends on the comparison of the defaults rates of obligors with few facilities and obligors with many facilities.<sup>106</sup>
501. It should be noted however, that under option 1 institutions should still be able to identify all facilities of one obligor, as in order to ensure best risk management practices institutions need to have information on the status of other facilities, especially if an obligor tries to acquire new facilities. This information may be relevant in the default identification processes through unlikelihood-to-pay criteria and it could be relevant in the modelling of risk parameters, where institutions are required to take into account all relevant risk drivers.

<sup>106</sup> A facility default rate computation puts more weight on obligors with many facilities. Therefore, if facilities belonging to obligors with many facilities have a lower default rate than facilities with obligors with few facilities, the observed default rate will be lower. Similarly, if facilities belonging to obligors with many facilities have a higher default rate than facilities with obligors with few facilities, the observed default rate will be higher.

502. The EBA believes that the development of the model should reflect the risk management practices of the firm, and believes that the optionality should be exercised fully by the institutions. In this sense, the implied variability should be acknowledged and accepted as ‘warranted’, in particular because it does not trigger any concerns on the adequacy of own funds requirements. Therefore, the EBA supports the first option of the clarifications and the alignment of the level of application of the definition of default at the facility level with the calculation of default rates by counting individual defaulted facilities.

#### 4.3.7 Continuous rating scale

##### **Recommendation CR-IR 46: the use of continuous rating scales**

The EBA believes that an overall reflection on the granularity of rating scales, including the use of continuous rating scales, introduced through Article 169(3) of the CRR, should be carried out. In this context, a mandate should be granted to the EBA to develop guidelines that further clarify the application of CRR requirements with regard to model development, risk quantification and the application and validation of risk parameters based on continuous or very granular rating scales. This would serve the purpose of ensuring a harmonised application of the framework and level playing field between institutions.

503. The IRB approach is based on the notion of grades and pools, which are used to derive estimates of PD and LGD. The scales can be based on the obligor characteristic, as defined in Article 142(1)(6) of the CRR, or on the facility characteristics, as defined in Article 142(1)(7) of the CRR. In addition, Article 169(3) of the CRR, which sets general principles for rating systems and is therefore applicable to all risk parameters, introduces the possibility of using direct estimates of risk parameters for individual obligors or exposures, by considering them as estimates assigned to grades on a continuous rating scale. The final Basel III framework and the Basel II framework are silent on this possibility.

##### **(i) Background: definition of continuous rating scales**

504. It should be noted that a correct terminology is critical, since a large number of models are continuous in the risk differentiation part (e.g. a continuous scoring function) and then discretised only in a second step within the risk quantification. Hence, the EBA understands the provision in Article 169(3) of the CRR as specifically designed to allow a ‘continuous rating scale’, that is, to allow the computation of own funds requirements as well as the main steps of the validation and risk quantification on a continuous basis. This provision is, however, not related to ‘continuous ranking models’ (i.e. models in which the risk estimation is performed continuously with a final discretisation step), in the sense that this provision is not needed to allow the use of such models. Furthermore, the discussion on Article 169(3) of the CRR is not related to potential use of so called master scales, as institutions which do not make use of this provision are not required to use a master scale.<sup>107</sup>

<sup>107</sup> In particular, the EBA does not believe that the Level 1 text should impose the use of a master scale, since this would trigger specific additional modelling challenges (such as maintaining the homogeneity within each grade), any proposals regarding the use of rating scales should be considered carefully.

505. The following general types of PD models can be identified in current practices:

- a) **Continuous direct estimates of PD:** PD estimates used for the calculation of own funds requirements are derived using a continuous modelling approach leading to a direct PD estimate, by converting the score into a direct PD estimate ('one step'). An additional calibration step in order to achieve a calibration target (which potentially leads to adjustments of PD) may or may not be applied.
- b) **Discrete direct estimates of PD:** this category uses a continuous modelling approach, where continuous PD estimates are not used directly for the calculation of own funds requirements, but instead mapped to a discrete rating scale (either a master scale used across different portfolios or a grade specific for the portfolio). The PD estimates of each grade are not derived from the long-run average (LRA) default rate of that grade, but obtained through i) the simple average of direct PD estimates of the individual obligors/facility PDs; or ii) a fixed PD per grade (e.g. the average of the upper and lower bound of each grade), as set out in Article 180(1)(g) of the CRR.
- c) **Grade-based estimation of PD:** the PD estimates used for the calculation of own funds requirements results from the LRA default rate calculated at grade level.

506. Table 30 summarises the types of PD models used.

Table 30: Types of PD models

		<i>Granularity of the scale</i>	
		<i>Continuous</i>	<i>Discrete</i>
<i>Calibration is based on</i>	<i>LRA default rate at calibration segment level (EBA guidelines on PD and LGD estimation paragraph 92(b))</i>	<i>Continuous direct estimates</i>	<i>Discrete direct estimates</i>
	<i>LRA default rate at grade level (EBA guidelines on PD and LGD estimation paragraph 92(a))</i>		<i>Grade-based estimation</i>

507. A similar categorisation can be used for LGD models:

- a) **Continuous direct estimates of LGD:** the LGD estimates used for the calculation of own funds requirements result from a continuous scale, either estimated directly or calculated as the aggregation of several components.
- b) **Discrete direct estimates of LGD:** the LGD estimates used for the calculation of own funds requirements result from the aggregation of several components, which, when combined, result in a discrete scale.
- c) **Grade-based estimation of LGD:** the LGD estimates used for the calculation own funds requirements result from the LRA LGD calculated at grade level.

508. Table 31 summarises the types of LGD models used:

Table 31: Types of LGD models

		<i>Granularity of the scale</i>	
		<i>Continuous</i>	<i>Discrete</i>
<b>Calibration</b> <i>is based on</i>	<b>LRA LGD at calibration segment level (EBA guidelines on PD and LGD estimation paragraph 161(b))</b>	LGD direct continuous	LGD direct discrete
	<b>LRA LGD computed at grade level (EBA guidelines on PD and LGD estimation paragraph 161(a))</b>		Grade-based estimation

509. For all risk parameters, the overall question on the most relevant level of granularity has to be based on a trade-off between the greater granularity afforded by PD/LGD ranges and the availability of sufficient observations within a given range.

(ii) **Considerations on having two different approaches**

510. The use of continuous rating scales impacts the three main steps of the modelling: i) risk differentiation; (ii) risk quantification; and (iii) application of the models. Since the drafting of the CRR follows the logic set out in the Basel capital framework based on models with grades or pools composed of a group of exposures, some of the requirements are difficult to apply for purely continuous rating scales, as according to Article 169(3) of the CRR each estimate should be understood as a separate grade. Although in principle there are ways to test continuous risk parameters, application of such tests is not consistent with the wording of the CRR. These difficulties and potential inconsistencies are described in more detail below.

511. Institutions should among others ensure a meaningful differentiation of risk over time. When using continuous ratings scales, the following considerations can be raised with regard to **risk differentiation** and the design of the grades and pools structure:

a) **Requirements on concentration:** although institutions using discrete rating scales have to comply with requirements on the concentration as specified in the CRR in Article 170(d) and Article 170(f) for non-retail exposures, and in Article 170(3)(c) for retail exposures, these requirements are not fully enforceable at the grade or pool level in case of continuous rating scales.<sup>108</sup> In the same spirit, the requirement of Article 171(1)(a) of the CRR to ‘assign obligors or facilities posing similar risk to the same grade or pool’ is hardly enforceable in the case of continuous rating scales. However, it has to be noted that there are ways to test concentrations which could be used in the case of continuous rating scales, although these methods are not based on grades or individual estimates as referred to in the CRR.

b) **Validation of the homogeneity and heterogeneity:** although institutions using discrete rating scales have to comply with requirements on the homogeneity and heterogeneity

<sup>108</sup> The concentration requirement is not applicable at the grade level for grades populated by only one obligor.

requirements for their grades or pools as specified in Article 170 of the CRR, as well as in Article 38 of the final draft RTS on IRB assessment methodology,<sup>109</sup> these requirements are not fully enforceable in the case of grades populated by a single obligor.<sup>110</sup> Again, although it is in general possible to test homogeneity and heterogeneity in the case of continuous scales, these methods are not based on grades or pools as required by the CRR. Furthermore, it can be argued that the use of a discrete scale can itself create variability as there are many ways in which the scale can be designed. Indeed, estimates based on discrete scales are highly dependent on the design of the scales themselves. However, this variability should be reduced through appropriate enforcement of the requirement on the homogeneity and heterogeneity as described above.

512. Regarding **risk quantification**, the CRR introduces requirements on the number of observations along two dimensions: the number of obligors within one particular grade and the number of years of observations. Furthermore, the CRR requires regular validation of the estimates (backtesting) at the level of grades or pools. These requirements are not fully enforceable in the case of continuous rating scales:

- a) **Minimum number of observations:** Article 170(3)(b) of the CRR requires the number of retail exposures in a given grade or pool to be sufficient to allow for meaningful quantification and validation of the loss characteristics at the grade or pool level. This requirement may be difficult to fulfil in practice if sufficiently broad sets of data are not available. However, in the case of continuous rating scales it is impossible to enforce the requirement on minimum number of exposures for the grades populated with a single exposure and hence the requirement on the minimum number of observations is applied at the level of a calibration segment rather than at the level of a grade or pool. As a result, the use of direct estimates can be viewed as a tool to compensate for a lack of data at a grade level by means of theoretical assumptions (for instance, shape of the calibration curve).<sup>111</sup>
- b) **Minimum number of years of observations:** minimum observation periods for risk quantification are defined for each risk parameter in the following requirements of the CRR: Article 180(1)(h) and 180(2)(e) (history of default rate), Article 181(1)(j) and 181(2) (history of loss rate) and Article 182(2) and 182(3) (history of realised CCF). In the case of continuous rating scales these requirements can be applied only at the calibration segment level, whereas they would apply de facto at grade level in the case of a discrete scale.

<sup>109</sup> And further clarified in paragraphs 69 and 130 of the guidelines on PD and LGD estimation. It should be noted that the homogeneity requirements are phrased in a slightly different manner between the PD and the LGD.

<sup>110</sup> The homogeneity requirement is not applicable at the grade level for grades populated by only one obligor.

<sup>111</sup> The 'Background and Rationale' section of the guidelines on PD and LGD states: 'The portfolio level calibration is a method to obtain this long-run average default rate at a grade level, for instance where institutions do not have information at grade level for the whole historical observation period. It could therefore be seen as a two-step calibration, i.e. the first step would be to obtain the portfolio default rate representative of the long-run average, and the second step would be to derive the PDs at grade level'.

c) **Review of the estimates and backtesting:** the backtesting of final risk parameter estimates required in Article 185(b) of the CRR is defined at grade level.<sup>112</sup> However, in the case of PD, this validation test is difficult to perform at the grade level in the case of continuous rating scales, since the PD of a single obligor (i.e. a real number between zero and 1) would be compared with a single default event (i.e. a number being either zero or 1); the ‘default rate’ of every grade would be either 0% or 100%. In practice, for the purpose of backtesting of continuous PD, institutions may build certain buckets. However, this is not explicitly required by the CRR and, even if it is done, these buckets may not meet all requirements relevant for grades. In fact, when institutions use direct continuous risk parameter estimates, they may calculate a long-run average of the risk parameter only at the calibration segment level and ensure that the observed long-run average default rate and the estimated continuous risk parameter averaged across obligors or facilities are aligned within the same calibration segment. Nevertheless, this may no longer hold true at a more granular level, that is, at different ranges of risk parameter values and sub-ranges of the scope of application, resulting in a potential underestimation of risk for some ranges of risk of exposures. This problem is less prominent in the case of LGD and CCF estimates as in this case the realised loss rate or realised CCF can be compared with an estimate even at an individual level.

513. Finally, certain concerns can be raised also with regard to the **application of the risk parameters** based on the continuous rating scale:

a) **Overrides:** it is not completely straightforward to override a continuous risk parameter estimate (i.e. intermediate or final parameter). Different practices of overriding intermediate or final outputs on a continuous scale can be observed, mostly based on some kind of notching, and while doing so material bias could be added to the final risk parameter estimates. Furthermore, the requirements set out in Article 172(3) of the CRR relate to the assignment of an obligor or exposure to a grade or pool and not to an estimate of the risk parameter. However, as also in the case of discrete scales, different practices with regard to overrides exist. This should be mitigated by the requirement that institutions must have clear policies with regard to the use of overrides and they must analyse the performance of exposures whose rating has been overridden. These requirements apply regardless of the type of scale in use.

b) **RWA variability between institutions:** because of the concave shape of the RW function with respect to PD, RWA variability could occur when compared between continuous and discrete rating scales. Owing to the steepness of the RW function, especially in the lower ranges of PD, the use of a continuous rating scale may lead to overall lower RWA than the use of discrete scales. However, neither ‘smoothing’ of the estimates nor increased granularity in itself leads to greater accuracy. Therefore, the objective should be to seek

<sup>112</sup> It should be noted that the backtesting of final LGD/CCF estimates required in Article 185(b) of the CRR is phrased in a slightly different way as for the PD: ‘Institutions using own estimates of LGD and conversion factors shall also perform **analogous** analysis for these estimates’.

the most appropriate estimates. This problem of the steepness of the RW function does not exist for the LGD and CCF estimates as their relation to RWA is linear.

514. **Granularity versus accuracy:** it can be argued that higher granularity provides the opportunity to better differentiate between facilities and obligors, and that this increased risk sensitivity can be beneficial in pricing and risk management. However, it is possible to use continuous estimates for internal purposes while discretising the estimates for the purpose of backtesting and calculation of own funds requirements. Moreover, although it is clear that a continuous risk parameter scales provides more granular estimates, these are not necessarily more accurate than estimates based on a discrete scale. In particular, in the case of a discrete scale, the homogeneity requirement means, in practice, that all the exposures within the same grade should have similar level of risk, and therefore can share the same PD. Therefore, the accuracy of estimates depends on the performance of a given model rather than on the type of scale.
515. Given the complexity of the topic and its potentially important implications, in terms of both impact and variability of practices and own fund requirements, the EBA deems that further work is necessary. Therefore, a mandate should be granted for the EBA to develop guidelines on how to apply the requirements on model design, risk quantification, validation and application of risk parameters based on continuous or very granular rating scales. These guidelines would be specified separately for different risk parameters in order to account for their different characteristics.

#### 4.3.8 Treatment of intragroup insurance

516. The EBA points out the lack of specification of the application of Article 201(1)(g) of the CRR: 'other corporate entities, including parent undertakings, subsidiaries and affiliated corporate entities **of the institution**, where either of the following conditions is met (...)'.
517. In general, all requirements apply both at the solo and at the consolidated level; in some cases, the application at the solo level can be waived so that the requirements apply only at the consolidated level. On a consolidated level, the protection provided by an entity within a group does not change the overall level of risk and hence should not be recognised for prudential purposes. While the general rules of consolidation require elimination of any intragroup transactions, including any credit protection provided by entities included in the scope of consolidation, it is not clear how exactly this should be reflected in the risk weighting of exposures secured by such form of insurance.
518. Furthermore, where the protection is recognised for the purpose of own funds requirements at the solo level, this could open up opportunities for institutions to influence the overall level and allocation of required own funds in a way that may not have been intended by the legislator. It might be of concern that such possibilities would be available mostly for large, universal banking groups, possibly with cross-border operations, but not for smaller institutions focused on a more specific business model.



519. While this is not directly related to the implementation of the final Basel III framework, the EBA notes that this issue is addressed in a different way in the final Basel III framework: indeed, paragraph 197 of the final Basel III framework includes in the list of eligible guarantors: ‘Parent, subsidiary and affiliate companies **of the obligor** where their creditworthiness is not positively correlated with the credit risk of the exposures for which they provided guarantees. **For an intra-group company to be recognised as eligible guarantor, the credit risk of the whole group should be taken into account**’.<sup>113</sup>
520. Owing to high complexity of the issue and to the lack of empirical results from supervisory assessments, it was not possible for to EBA to provide meaningful advice in the short timeframe envisaged for the response to the CfA. However, the EBA is of the opinion that this issue should be further explored and clarified.

#### 4.3.9 Previous opinions published by the EBA

##### Recommendation CR-IR 47: 180 days past due option for the definition of default

The national discretion described in Article 178(1)(b) of the CRR to recognise default of an obligor at the latest after 180 days past due instead of 90 days past due creates the possibility of an unlevel playing field between institutions. It is therefore recommended that this discretion should be deleted.

##### Recommendation CR-IR 48: framework for the annual benchmarking exercise

The burden on regulators, supervisors and institutions could be decreased with a more appropriate legal setting and additional proportionality in the benchmarking exercise..

521. Finally, the EBA would like to mention two opinions already published on the level 1 text.
522. [Options on the 180 days past due \(DPD\) criterion](#): Owing to the wide applicability of the 90 DPD criterion in the EU, the undue RWA variability caused by the 180 DPD criterion and the forthcoming changes in the accounting framework, it is recommended that the 180 DPD exemption be removed from Article 178(1) of the CRR, that is, to disallow the continued application of the 180 DPD criterion.
523. [Opinion on benchmarking reports](#)<sup>114</sup> and [technical advice on benchmarking exercises](#):<sup>115</sup> Article 78 of Directive 2013/36/EU (the CRD) requires CAs to make an annual assessment of the quality of internal approaches used for the calculation of own funds requirements. The same article requires the EBA to produce a report to assist CAs in this assessment. The EBA’s report is based on data submitted by institutions as specified in implementing technical standards on benchmarking (ITS). The EBA is of the view that a number of changes would

<sup>113</sup> This paragraph is an updated version of paragraph 195 of the Basel II framework, which includes as eligible guarantors ‘other entities rated A– or better. This would include credit protection provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor’.

<sup>114</sup> p. 3 – problem with the ITS process, at odds with the flexibility required to conduct the exercises.

<sup>115</sup> CfA received on 9 December 2014 to assess the relevance of the tool, its scope, its mandates and legal settings, its annual frequency, the information sharing among CAs and the areas designated for particular attention of the CAs.

decrease significantly the burden on regulators, supervisors and institutions. In particular, the EBA considers that the current legal setting is inappropriate and strongly recommends that benchmarking portfolios, as well as detailed reporting instructions, are not adopted as part of Commission Implementing Acts, but that powers are given to the EBA to update regularly the portfolios and instructions on its website. Furthermore, more proportionality could be introduced, based on the nature, scale and complexity of institutions' activities, allowing less significant or less complex institutions' activities to be subject to reduced benchmarking exercises (e.g. no complex or immaterial portfolios) or less frequent benchmarking exercises.



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