



EBA REPORT ON THE CREDIT RISK MITIGATION (CRM) FRAMEWORK

19 March 2018



EBA

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Abbreviations

A-IRB	Advanced Internal Ratings-Based approach (i.e. using own estimates of loss given default and conversion factors)
BCBS	Basel Committee on Banking Supervision
CAI	Cash Assimilated Instrument
CB	Central Bank
CCF	Credit Conversion Factor
CCR	Counterparty Credit Risk
CG	Central Government
COREP	Common Reporting Framework
CRD IV	Capital Requirements Directive – Directive 2013/36/EU
CRM	Credit Risk Mitigation
CRR	Capital Requirements Regulation – Regulation (EU) No 575/2013
ECAI	External Credit Assessment Institution
FCCM	Financial Collateral Comprehensive Method
FCP	Funded Credit Protection
FCSM	Financial Collateral Simple Method
F-IRB	Foundation Internal Ratings-Based approach (i.e. approach not using own estimates of loss given default and conversion factors)
ICAAP	Internal Capital Adequacy Process
IRB	Internal Ratings Based Approach
ITS	Implementing Technical Standards
ITS on supervisory Reporting	Commission Implementing Regulation (EU) No. 680/2014
LGD	Loss given default (as defined in Article 4(1)(55) of the CRR)
OFCP	Other Funded Credit Protection

OBSN	On-balance sheet netting
PD	Probability of default (as defined in Article 4(1)(54) of the CRR)
RTS	Regulatory Technical Standards
SA	Standardised Approach
SREP	Supervisory Review and Evaluation Process
UFCP	Unfunded Credit Protection

Executive Summary

The EBA has, as part of its work programme on the review of the IRB approach, committed to an assessment of the current Credit Risk Mitigation (CRM) framework. This report therefore constitutes the fourth phase of the EBA's roadmap on the IRB approach and clarifies the application of current CRR provisions regarding CRM under different credit risk approaches.

The report carries out a mapping of relevant provisions to the corresponding credit risk approach, detailing the provisions for the techniques, eligibility and methods of CRM available to institutions under the Standardised Approach (SA) and the Foundation-IRB Approach (F-IRB). This is supplemented by a quantitative overview of the usage of the CRM framework, as well as a series of policy proposals for the consideration of the Commission, with a view to ensure, through amendments to the CRR, a proper and harmonized application of the current CRR provisions in the CRM framework.

Moreover, the analysis carried out by the EBA outlines the limited guidance provided in the current CRR provisions on CRM under the Advanced-IRB Approach (A-IRB). Given the current regulatory framework and in line with the feedback from the industry, the EBA considers it to be particularly relevant and useful to develop a set of guidelines detailing the use of current CRM provisions for A-IRB banks. It is the EBA's belief that this way forward would help eliminate the significant differences in approaches remaining in the area of CRM either due to different supervisory practices or bank-specific choices.

On top of this, according to the regulatory review of the IRB Approach carried out by the EBA, on which an EBA Opinion was issued in February 2016¹, three mandates for technical standards in the area of credit risk mitigation (CRM) were identified. These three mandates were included in an EBA road map for the development of regulatory products². However, the EBA believes that these three mandates only cover specific aspects of the regulatory framework which are not expected to have a significant impact on the calculation of capital requirements for credit risk by institutions and on their rating systems. It follows that pursuing work on these three mandates in particular, instead of undertaking an analysis of the overall CRM framework, would create the risk of disproportionate regulation given the limited benefit of such additional provisions.

Finally, regarding the mandate in Article 194(10) of the CRR on the liquid assets, the EBA recommends this be deleted from the CRR. The EBA will continue to monitor the need for

¹ Please refer to the following Opinion: <https://www.eba.europa.eu/documents/10180/1359456/EBA-Op-2016-01+Opinion+on+IRB+implementation.pdf> and its accompanying Report: <https://www.eba.europa.eu/documents/10180/1360107/EBA+Report+on+the+regulatory+review+of+the+IRB+Approach.pdf>

² The mandates given under the CRR include: 1) RTS under Article 183(6) on the recognition of conditional guarantees; 2) RTS under Article 194(10) on liquid assets and 3) RTS under Article 221(9) on the Internal Models Approach for master netting agreements

delivering on the other two mandates in the area of CRM outlined above, while considering international developments in this regulatory area as well. Nevertheless, in light of the above considerations and given its current priorities aimed at addressing other areas of its competence in accordance with its work programme, the EBA does not intend to deliver on the above mandates until further notice.

1. Introduction

1. The EBA has previously outlined the work programme on the review of the IRB Approach in EBA's Opinion on the IRB Approach³. After i) reviewing supervisory practices, ii) harmonising the definition of default and iii) providing more clarity on modelling approaches to be used, this report iv) reviews the credit risk mitigation framework as the fourth phase of this work programme.
2. Increased clarity of the credit risk mitigation framework is considered an integral part of the IRB review and is in line with the views of the industry and supervisors alike, as attested by the feedback to the Discussion Paper on *'The Future of the IRB Approach'* published on the 4th of March 2015. One of the main takeaways from the consultation was that, while the EBA has been given mandates to develop technical standards on selected issues⁴, there is an overall need to consider the functioning of CRM framework as a whole.
3. More specifically, it was communicated that, at times, it is not clear which provision applies under which approach to credit risk. Additionally, numerous references and cross references across the relevant CRM provisions in the CRR (i.e. the level 1 text) increase its complexity.
4. With a view to support an implementation of the legislation which is clear and consistent across institutions and jurisdictions, and given the need to secure a level playing field for the financial institutions in the EU, to avoid regulatory arbitrage and to foster comparability of capital requirements, the EBA has analysed in this report whether an overhaul of the CRM Framework as presented in the level 1 text would be beneficial.
5. The timing and consequences of such a potential change were also considered. A potential restructuring would lead to changes in Articles and references across the CRR, which would result in a change of references to Regulatory and/or Implementing technical standards and guidelines written on the basis of the CRR. This could lead to a tedious amendment process which could give way to unwanted complexity and changes that could generate additional costs of implementation by institutions.
6. At the same time, it must also be taken into account that the recently agreed current Basel reform⁵ also proposes revisions to the existing CRM framework, and the EBA considers it more useful to conduct an overall review of the CRM framework in case it is called upon to support

³ See [Opinion of the European Banking Authority on the implementation of the regulatory review of the IRB Approach](#)

⁴ The mandates given under the CRR include: 1) RTS under Article 183(6) on the recognition of conditional guarantees; 2) RTS under Article 194(10) on liquid assets and 3) RTS under Article 221(9) on the Internal Models Approach for master netting agreements.

⁵ See <https://www.bis.org/bcbs/publ/d424.htm>.

the Commission in preparing for the upcoming implementation into EU legislation of the Basel agreement.

7. In discussions with stakeholders, a general consensus has emerged that a higher degree of clarity of the CRM framework in the CRR is needed. However, stakeholders also noted that the ongoing developments at the international level in the area of credit risk should be incorporated into the review, such that a more comprehensive reform of the CRM framework considered all elements jointly. This is a view shared by the EBA and, consequently, it would be better not to materially modify the current design of the CRM framework in the CRR at this stage, but instead provide only targeted fixes to better specify unclear or inconsistent provisions, should the possibility arise in the legislative process.

8. In addition to providing targeted fixes, it is nonetheless useful to provide an overview of the principles behind the CRM framework as set out in the CRR. Such an overview will help promote a clearer understanding of the CRM framework. With a view to providing this overview, this report is structured in three main parts:

i) A description of the CRM provisions under the current CRR, with a view to carrying out a mapping of the articles in the CRR detailing the provisions for the techniques, eligibility and methods of CRM at institutions' disposal. This aim of this mapping is to shed light on the CRM framework as provided in the CRR, as stakeholders have raised concerns regarding the clarity of the framework as it currently stands.

ii) An overview of the use of CRM at the European level, which is based on a data collection carried out among competent authorities in April 2017.

iii) A section on policy-related aspects on CRM, in two parts: (1) the outcome of the stocktake exercise regarding national provisions in the area of CRM, and (2) policy issues in the area of CRM identified by the EBA and which call for amendments of the Level 1 text.

9. However, the EBA review has also considered the fact that the application of the CRM framework varies across the credit risk framework. The work originates in the EBA review of IRB models, but this report is broader than this. In particular, the CRM framework also applies to the standardised approach (SA), securitisations and the counterparty credit risk in addition to the IRB approach.

10. Given the limited guidance for A-IRB institutions in the CRR, the EBA placed particular emphasis on this aspect during the preparation of the report. However, given the complexity of the topic, it was concluded that limited guidance should be provided on the use of CRM for exposures under the A-IRB in this report. Instead, the EBA will start separate work on this topic, with the view to developing a set of guidelines addressing the issue and possibly making separate recommendations on changes to the CRM framework in the CRR. This approach has the distinct advantage that it will allow a separate consultation on the issue, thereby allowing engagement with the industry in particular. What is more, it will provide more detailed guidance for A-IRB, therefore addressing the variability stemming from different use of the CRM framework for institutions applying the A-IRB approach.

2. Overview of the CRM framework

11. The CRR, in Article 4(57), defines CRM as a ‘technique used by an institution to reduce the credit risk associated with an exposure or exposures which that institution continues to hold’. The regulatory incentive for institutions to use CRM stems from the relief in capital requirements that results from the use of CRM techniques. In addition, regulatory eligible CRM techniques contribute to increasing the risk sensitivity of risk-weighted exposure amounts calculated in accordance with the regulatory framework, as exposures collateralised by some form of CRM are able to receive lower risk weights than similar non-collateralised (and hence riskier) exposures.

12. The CRR classifies CRM techniques as funded credit protection (FCP) and unfunded credit protection (UFCP). In particular, Articles 4(1)(58) and 4(1)(59) of the CRR include, respectively, the following definitions:

- *‘funded credit protection’ means a technique of credit risk mitigation where the reduction of the credit risk on the exposure of an institution derives from the right of that institution, in the event of the default of the counterparty or on the occurrence of other specified credit events relating to the counterparty, to liquidate, or to obtain transfer or appropriation of, or to retain certain assets or amounts, or to reduce the amount of the exposure to, or to replace it with, the amount of the difference between the amount of the exposure and the amount of a claim on the institution;*
- *‘unfunded credit protection’ means a technique of credit risk mitigation where the reduction of the credit risk on the exposure of an institution derives from the obligation of a third party to pay an amount in the event of the default of the borrower or the occurrence of other specified credit events.*

13. The fundamental difference between the two types of protection lies in the type of risk the protection receiver is exposed to. In the case of FCP, the lending institution has received (or has been pledged) collateral upfront and the credit protection therefore depends not on the promise of a third party to pay the institution upon default of the obligor, but rather on the right to obtain appropriation and liquidate the collateral with a view to reducing the resulting loss. In contrast, where UFCP is concerned, the lending institution relies on the payment from the protection provider upon default of the obligor. As a consequence, in the case of FCP, the lending institution bears the risk that the collateral received deteriorates in value, resulting in lower protection, while in the case of UFCP, the lending institution bears the risk that the protection provider is not able to pay upon default of the obligor.

14. The CRR outlines various techniques of FCP and UFCP, as well as the methods through which those techniques can be used to obtain capital relief, with some techniques of CRM available for multiple methods. Typically, the effect of CRM results in either the reduction of the risk weight

or the reduction of the exposure value associated with the exposure. In addition, depending on the type of CRM technique and method employed, the exposure may be divided into covered and uncovered parts, which are risk-weighted using different risk weights⁶. The benefit of such operations is reflected in the reduction in risk-weighted assets⁷ and, via the minimum capital ratio, in the reduction in the amount of capital requirements for the institution.

15. CRM methods are also employed for the determination of large exposures under the large exposures framework in Part IV of the CRR. Moreover, institutions are required to disclose information on CRM under the provisions in Part Eight of the CRR (i.e. Pillar 3). Finally, institutions are required to manage the residual risk and concentration risk arising from the use of CRM techniques under the internal capital adequacy process (ICAAP), which will be assessed by competent authorities as part of the supervisory review and evaluation process (SREP), i.e. Pillar 2, both of which are covered in Directive 2013/36/EU (CRD IV).

16. Throughout this document, unless stated otherwise, the terms used should be understood with the meaning implied by the CRR and CRD IV. This particularly holds for the definitions in the CRR of terms used in this paper. For example, the term 'lending institution' refers to an institution that has the exposure under consideration, as specified in Article 192(1) of the CRR.

2.1. Structural design of the CRM framework in the CRR

17. In order to calculate capital requirements for credit risk, institutions can employ two different approaches, either the SA or the IRB Approach, if permitted by the competent authority. The relevant rules are specified in Part Three, Title II, of the CRR. Title II, named 'Capital Requirements for Credit Risk', is composed of six chapters:

1. Chapter 1: General principles
2. Chapter 2: Standardised approach
3. Chapter 3: Internal Ratings Based Approach
4. Chapter 4: Credit risk mitigation
5. Chapter 5: Securitisation
6. Chapter 6: Counterparty credit risk.

In the following, unless specified otherwise, chapter numbers refer to the above six chapters outlined in Part Three, Title II, of the CRR.

18. The SA and the IRBA are covered in Chapters 2 and 3 of the abovementioned CRR part. Regardless of the credit risk approach employed (i.e. SA or IRB), the exposure value of derivatives has to be calculated under the counterparty credit risk framework in Chapter 6⁸. For

⁶ Consider the so-called substitution approach, in which the exposure is divided into secured and non-secured portions, with the secured portion receiving a risk weight associated with the collateral instrument (or guarantor) and the non-secured portion receiving the risk weight of the original exposure as if it had not received credit protection.

⁷ The CRR uses the wording 'risk-weighted exposure amounts' to refer to the concept of 'risk-weighted assets'. For the purposes of this document we use both naming conventions interchangeably.

⁸ The exposure value of securities financing transactions may also be calculated under the Internal Model Method for counterparty credit risk specified in Part Three, Title II, Chapter 6, Section 6, of the CRR.

credit risk arising from securitisation positions, the rules for calculating capital requirements under either the SA or the IRBA are covered in Chapter 5. The CRM framework is formally outlined in Chapter 4, and is referenced by the other chapters, which may also contain additional rules related to CRM, relevant only for the types of exposures covered by those particular chapters.

19. Furthermore, within the two available approaches to credit risk, CRM rules are implemented differently depending on the particular sub-approach or type of exposures under consideration. This is particularly evident in the case where, under the IRB Approach, institutions have received permission from the competent authority to use own estimates of loss given default (LGD) and credit conversion factors (A-IRB), and IRB Approach where supervisory values for LGD and conversion factors are used (foundation IRB (F-IRB))⁹. In this case, CRM rules differ depending on whether the A-IRB or the F-IRB is employed, with some common requirements applying in some cases.

2.2. Mechanics of the CRM framework as presented in the CRR

25. With reference to Part Three, Title II, CRR, which has been introduced above and deals with rules for calculating capital requirements for credit risk, Article 108 of the CRR plays a pivotal role in determining which provisions apply, depending on the approach to credit risk employed by the institution. In particular, Article 108 of the CRR clarifies that for exposures under the SA or under F-IRB, the institution may employ CRM in accordance with Chapter 4, while for exposures under A-IRB the institution may employ CRM in accordance with Chapter 3. As a consequence, when the institution uses A-IRB, the requirements and methodologies specified in Chapter 4 do not apply, except in specific cases where Chapter 3 references provisions in Chapter 4 (e.g. Article 181(1)(f) of the CRR)¹⁰. On the other hand, Chapter 4 states the relevant provisions for CRM for exposures under the SA or F-IRB.

26. An overview of the CRM techniques and methods available under Chapter 4 and employed under the SA, under the Supervisory Slotting Approach and under the F-IRB is provided below (provisions under SA and F-IRB are summarised in Figure 1), followed by some precisions on CRM under A-IRB. Note that the CRM methods available under the IRB Approach covered below

⁹ The Basel text refers, for non-retail exposures, to Foundation IRBA (F-IRBA when institutions provide their own estimates of the probability of default (PD) and rely on regulatory parameters for the other risk components (LGD and credit conversion factors (CCFs)). In contrast, under the Advanced IRBA (A-IRBA, institutions provide more of their own estimates of PD, LGD and CCFs for exposure at default of off-balance sheet items, subject to meeting minimum standards, and calculate the remaining maturity where permitted. The CRR refers not to F-IRBA or A-IRBA, but instead to IRB Approach where own estimates of LGD and conversion factors are not used and IRB Approach where own estimates of LGD and conversion factor are used. The latter is different from A-IRBA in Basel terms because it also captures retail exposures (for which own estimates of LGD and conversion factor are mandatory, either as direct estimates or, for LGDs, derived from an estimate of expected losses and an own PD estimate). Although an analogy may be performed to bridge the Basel and CRR naming conventions, in this document we will not make use of the Basel terms, but rather refer to the terms used under the CRR, with relevant acronyms where appropriate, for consistency and to avoid misunderstandings. As a consequence, we will use A-IRB to refer to IRB Approach with own estimates of LGD and conversion factors and F-IRB to IRB Approach without own estimates of LGD and conversion factors.

¹⁰ In any case, provisions on CRM in Chapter 3 should be read in conjunction with Article 108 of the CRR. As a consequence, Article 161(1)(c) of the CRR applies only to F-IRB, and not to A-IRB, since such provision should be read in the light of Article 108 of the CRR. This is clarified in [Q&A 2016 2593](#).

refer to exposures to central governments (CGs) and central banks (CBs), exposures to institutions, exposures to corporates and retail exposures, given the similar mechanics and formulae for calculating capital requirements. This is followed by a section on CRM methods available for the purposes of equity exposures.

Figure 1: CRM techniques and methods, Part Three, Title II, Chapter 4, of the CRR

	Funded Credit Protection				Unfunded Credit Protection	Other Funded Credit Protection			
CRM Technique	Financial Collateral, on balance-sheet netting, and credit linked notes issued by the lending institution				Other eligible IRB Collateral	Guarantees & credit derivatives	Cash on deposit with, or CAs held by, a third party institution and pledged to the lending institution	Life insurance policies pledged to the lending institution	Instruments issued by third party institution which will be repurchased on request
CRM Method	Financial Collateral Simple Method (FCSM)	Financial Collateral Comprehensive Method (FCCM)	Financial Collateral Comprehensive Method for SFTs covered by Master Netting Agreement	Internal Models Approach for SFTs covered by Master Netting Agreement	Impact In LGD	Double Default Framework	Substitution Approach	Substitution Approach	

27. Chapter 4 refers to CRM techniques of (i) FCP, (ii) UFCP and (iii) other funded credit protection (OFCP):

- i. FCP: the institution receives upfront collateral (e.g. financial collateral, physical collateral, etc.) that it can liquidate or retain in the event of default of the obligor, and the protection therefore does not depend on the promise of a third party to pay if the original obligor defaults.
- ii. UFCP: the credit institution relies on a payment from the protection provider upon default of the original obligor (e.g. by means of guarantees or credit derivatives).
- iii. OFCP: these CRM techniques (e.g. cash on deposit with a third-party institution and pledged to the lending institution, life insurance policies pledged to the lending institution) effectively work similarly to UFCP, i.e. like a guarantee, since upon default of the obligor the lending institution relies on the promise of a third party to perform a payment to offset or limit the resulting loss.

CRM under the standardised approach

28. **CRM techniques:** Under the SA, FCP is available in the form of on-balance sheet netting (OBSN) (see Article 195 of the CRR) or financial collateral (see Articles 197 and 198 of the CRR), as well as in the form of credit-linked notes issued by the lending institution (as referred to in Article 218 of the CRR). Physical collateral is not an eligible CRM technique under the SA, except for immovable property. In this case, however, a specific exposure class for ‘exposures secured by mortgage on immovable property’ is established (see Articles 112(i), 124, 125 and 126 of the CRR), and further requirements regarding the eligibility of the collateral are specified in Articles 208 and 229 of the CRR. UFCP is available in the form of guarantees and credit

derivatives (see Articles 203, 204, 240 and 241 of the CRR). Finally, forms of OFCP specified under Article 200 of the CRR are also eligible for CRM under the SA.

29. Eligibility criteria: Before using a particular CRM technique, relevant eligibility requirements need to be met. Section 3 of Chapter 4 broadly outlines the eligibility requirements that need to be satisfied, which may be complemented by other requirements specified in other parts of the text, depending on the technique and method of CRM employed. In addition, should maturity mismatches¹¹ occur, where permitted for eligible collateral¹², the value of the credit protection will need to be reduced, as specified in Section 5 of Chapter 4. Under the SA, credit assessments provided by non-nominated external credit assessment institutions (ECAIs) are not eligible as financial collateral, because all CRR provisions that apply to direct exposures also apply to the corresponding collateral. Therefore, institutions need to have at least one nominated ECAI in order to recognise financial collateral. Should there be two or more available credit assessments, the institutions must select the credit assessment to be used in accordance with the provisions in Article 197(7) of the CRR.

30. CRM methods: Once eligible CRM techniques are available, CRM methods are employed to recognise CRM effects. Financial collateral can be considered using either the Financial Collateral Simple Method (FCSM) or the Financial Collateral Comprehensive Method (FCCM) (see Articles 222 and 223 of the CRR):

- i. Under the FCSM, the collateralised part of the exposure is assigned the risk weight that the institution would assign if it had a direct exposure to the collateral instrument, subject to a 20% floor, except in specific cases, while the risk weight assigned to the unsecured part of the exposure is the same as that assigned to the original exposure.
- ii. Under the FCCM, the exposure value is reduced by the collateral amount after relevant volatility adjustments (or 'haircuts') are applied, and the resulting reduced exposure value is multiplied by the risk weight assigned to the original exposure as if it were not collateralised. Under the FCCM, the institution may use either supervisory haircuts or own estimated haircuts, subject to supervisory approval (see Articles 224 and 225 of the CRR), and shall adjust the haircuts depending on the relevant revaluation and liquidation period of the collateral.

As a consequence, while the FCSM acts on the risk weight to be applied to the secured part of the exposure, the FCCM acts on the exposure value (by reducing it, which is equivalent to assigning a 0% risk weight to the secured part), while it does not have an impact on the risk weight to be subsequently assigned to the remaining part.

31. Bilateral master netting agreements: If there exist bilateral master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions, or other

¹¹ As specified in Article 237(1) of the CRR, a maturity mismatch occurs when the residual maturity of the credit protection is less than that of the protected exposure.

¹² Article 207(5) of the CRR requires no maturity mismatch for the FCSM.

market lending transaction with a counterparty, the FCCM may be employed via Article 220 of the CRR to recognise the effects of netting. As an alternative, and subject to permission from the competent authority, institutions may employ the Internal Models Approach for master netting agreements specified in Article 221 of the CRR. In each of these cases, the CRM effect is reflected in a reduced exposure value.

32. **OBSN:** For OBSN, as specified in Article 219 of the CRR, loans to and deposits with the lending institution subject to OBSN are treated by the lending institution as cash collateral. The same occurs for credit-linked notes issued by the lending institution referred to in Article 218 of the CRR. The CRM effects can be recognised through either the FCSM or the FCCM. Under the FCSM, a 0% risk weight may apply to the collateralised part of the exposure, provided the exposure and the collateral are denominated in the same currency, as specified in Article 222(6) of the CRR (whereas, in the presence of a currency mismatch, a 20% risk weight should be associated with the collateralised part of the exposure under Article 222(3) of the CRR). Under the FCCM, zero volatility adjustments (haircuts) should apply, except in the case of a currency mismatch.
33. **Substitution approach:** Where the lending institution receives UFCP under the SA, the CRM effects may be recognised using the substitution approach. In this approach, the risk weight of the secured part of the exposure (i.e. the portion guaranteed by the protection provider) is replaced with the risk weight associated with the protection provider as determined under the SA, while, for the unsecured part of the exposure, the risk weight of the original obligor is used (see Article 235 of the CRR). This method bears some similarities to the FCSM, but, in the case of FCSM, the collateralised part of the exposure is assigned the risk weight that the institution would assign if it had a direct exposure to the collateral instrument, since, in fact, a guarantor is not present owing to the different mechanics of the credit protection. However, in both cases the secured part of the exposure is assigned (at least conceptually) a different risk weight from that assigned to the unsecured part of the exposure.
34. The substitution approach may be used only where the original exposure is fully guaranteed or where the protected and unprotected parts of the exposure are of equal seniority (i.e. the lending institution and the guarantor share losses on a pro-rata basis – so-called proportional cover). Where the lending institution receives credit protection through UFCP via tranching transfer of credit risk (so-called ‘tranching cover’), the rules for calculating capital requirements under the securitisation framework should first be employed, with the effects of UFCP on securitisation positions being considered afterwards. In the presence of a currency mismatch (i.e. the UFCP is denominated in a currency different from that in which the exposure is denominated), the value of the credit protection needs to be reduced by the application of a haircut for currency mismatch risk (see Article 233 of the CRR).
35. **OFCP:** Forms of OFCP described in Article 200 of the CRR are employed through a mechanism similar to the one for UFCP. Cash on deposit with, or cash assimilated instruments (CAIs) held by, a third-party institution in a non-custodial arrangement and pledged to the lending institution, and instruments issued by a third-party institution that will be repurchased by that institution on request, may be treated as guarantees (i.e. as UFCP) provided by the third-party

institution (see Article 232(1) and 232(4) of the CRR). Thus, the substitution approach also applies in these cases. This relationship is also used for life insurance policies pledged to the lending institution referred to in Article 200(b) of the CRR, as the part of the exposure that is collateralised by the surrender value of the life insurance policies is assigned a risk weight in relation to the risk weight of the undertaking providing the life insurance, though the assigned risk weights are even lower than those for senior unsecured claims on the insurance provider (see Articles 232(2) and 232(3) of the CRR).

36. Eligibility of credit insurance: On the question of whether or not credit insurance can be used as a guarantee, where it effectively functions in an equivalent manner, the answer mainly revolves around the economic substance of the financial agreement⁷, which determines the extent to which the credit insurance meets the definition of ‘guarantee’ used in the CRR. More specifically, [Q&A 2014 768](#) specifies that credit insurance can qualify as a guarantee, but that this depends on the circumstances of the individual case and on the intrinsic characteristics of the contract and its economic substance. Hence, the term ‘guarantee’ in the context of CRM under the CRR should be interpreted from a substantive or functional viewpoint rather than a legal one, as this may differ across Member States depending on their legal systems. Therefore, credit insurance with economic substance equivalent to a guarantee may qualify as such – and be employed for the purposes of CRM – subject to the fulfilment of all the relevant eligibility requirements set out in the CRR for the usage of guarantees (in particular Articles 201, 202, 213, 214, 216 and 217 of the CRR) need to be fulfilled).

CRM under IRBA without using own estimates of LGD and conversion factors (F-IRB)

37. CRM techniques: In line with Article 108(1) of the CRR, where institutions use the IRBA without using own estimates of LGD and conversion factors, CRM techniques in accordance with the provisions specified in Chapter 4 apply. The available techniques of CRM and their eligibility requirements are generally the same.

38. Eligibility criteria: Regarding forms of FCP for F-IRB mentioned in Chapter 4, eligible financial collateral is the same that may be used under the SA (see Articles 197 and 198 of the CRR). Credit assessments provided by non-nominated ECAIs are not eligible as financial collateral under the F-IRB. Therefore, institutions need to have at least one nominated ECAI and, in line with Article 138(e) and (f), should there be two or more, the institutions should use the least favourable rating among the ratings provided by the nominated ECAIs. In addition, collateral forms specified in Article 199 of the CRR (so-called other eligible IRB collateral) may also be employed under F-IRB – but not under the SA – when they satisfy the relevant requirements (e.g. Articles 208, 209, 210, 211 and 229 of the CRR). Forms of UFCP (i.e. guarantees and credit derivatives) may also be employed under the F-IRB, as well as forms of OFCP specified in Article 200 of the CRR. Nevertheless, before employing a particular CRM technique, the relevant requirements specified in Chapter 4 need to be met for such a CRM technique to be considered eligible for regulatory purposes. Moreover, should maturity mismatches occur, the value of the credit protection will have to be reduced as specified in Section 5 of Chapter 4.

39. **CRM methods:** Methods used to recognise CRM effects differ between the SA and F-IRB on account of intrinsic differences in methods of calculating risk weights. More specifically, under the SA, supervisory risk weights are specified, whereas under F-IRB institutions need to calculate risk components (e.g. PD) which are arguments of specific risk weight functions. Regarding the substitution approach, under the SA this involves the direct replacement of the risk weight associated with the secured part of the exposure with a different supervisory risk weight, whereas under the F-IRB it involves replacing risk components in the risk weight function, which will ultimately result in a different risk weight for the secured part of the exposure (corresponding to the SA guarantor). However, the substitution is formally related to a risk component of a risk weight function (namely PD or LGD) and not a risk weight.
40. **Financial collateral:** In the case of financial collateral under the F-IRB, the FCSM cannot be employed, but the institution may use the FCCM. When the FCCM is used under F-IRB, the CRM effect is reflected in an adjusted LGD value to be plugged in the relevant risk weight function (see Article 228 of the CRR). This mechanics is also employed in the case of OBSN as specified in Article 219 of the CRR, and credit-linked notes issued by the lending institution referred to in Article 218 CRR.
41. **Bilateral master netting agreements:** In the case of bilateral master netting agreements covering repurchase transactions, securities or commodities lending or borrowing transactions, or other market lending transaction with a counterparty, the FCCM may be employed via Article 220 of the CRR, with a view to recognising the effects of netting. As an alternative, and subject to permission from the competent authority, the internal models approach for master netting agreements specified in Article 221 of the CRR may be used, but in this case the impact of collateral already considered within the netting arrangement shall not be reflected in an adjustment of LGD in order to avoid double counting the effects of the collateral.
42. **OBSN:** Where the exposure is under F-IRB, the effects of OBSN should be recognised in accordance with Article 228(2) of the CRR. In this case, the effect is on the effective LGD* (calculated on the basis of the regulatory LGD as provided in Chapter 3) to be plugged in the risk weight function¹³. As clarified in Article 228(2) of the CRR, E* is the fully adjusted exposure value calculated in accordance with Article 223(5) of the CRR. As a consequence, although formally OBSN under F-IRB impacts the LGD, since the risk weight function (see Articles 153(1) and 154(1) of the CRR) is linear in LGD, ultimately the effect is equivalent to a direct reduction in the exposure value associated with the exposure.
43. **Other eligible collateral:** The effects of other eligible IRB collateral are recognised through the assignment of minimum supervisory LGD values to secured parts of exposures where minimum collateralisation levels are achieved (see Article 230 of the CRR).
44. **Substitution approach:** In the case of UFCP, under the F-IRB, the substitution approach also applies, whereby, for the covered part of the exposure, the PD to be plugged in the risk weight

¹³ Note that the risk function to be used is that associated with the original exposure.

function is that related to the protection provider or a PD between that of the borrower and that of the protection provider where a full substitution is deemed not to be warranted. Additionally, in the case of subordinated exposures and non-subordinated unfunded protection, the LGD may be replaced by that associated with senior claims (see Article 236(1) of the CRR). For the uncovered part of the exposure, the PD and LGD remain those relative to the borrower and the underlying exposure, respectively. [Q&A 2013 415](#) clarifies that the risk weight function to be used for the covered portion of the exposure by the UFCP is the same one used for the uncovered part of the exposure. Finally, similarly to the SA, the value of the UFCP before it is applied needs to be adjusted for any currency or maturity mismatches. Where the UFCP is provided by an SA guarantor, the institution may recognise it by applying the risk weight of the guarantor under the SA to the covered part of the exposure¹⁴.

45. Double default treatment: In addition, UFCP under F-IRB may be used via the treatment proposed under Article 153(3) of the CRR (double default treatment), where the requirements under Articles 202 and 217 of the CRR are met.

46. OFCP: The forms of OFCP described in Article 200 of the CRR are employed under the F-IRB, similarly to the mechanics under the SA, i.e. via the substitution approach, but, as noted above, under the F-IRB this involves replacing risk components in risk weight functions (which will result in a different risk weight assigned to the covered part of the exposure). Cash on deposit with, or CAIs held by, a third-party institution in a non-custodial arrangement and pledged to the lending institution, as well as instruments issued by third-party institutions that will be repurchased by that institution on request, may be treated as a guarantee (i.e. as UFCP) provided by the third-party institution (see Articles 232(1) and 232(4) of the CRR). Similarly, for life insurance policies pledged to the lending institution referred in Article 200(b) of the CRR, the part of the exposure that is collateralised by the surrender value of the life insurance policies is assigned an LGD in line with the provisions in Article 232(2)(b) of the CRR.

47. Eligibility of credit insurance: Similar to the SA case, credit insurance with economic substance equivalent to a guarantee may qualify as a guarantee – and thus be employed for the purposes of CRM – but only subject to the fulfilment of all the relevant eligibility requirements set out in the CRR for the use of guarantees. This in particular implies that, where the exposure is under the F-IRB, all the relevant requirements in Part Three, Title II, Chapter 4, of the CRR (e.g. Articles 201, 202, 213, 214, 216 and 217 of the CRR) need to be fulfilled.

CRM under the supervisory slotting approach

48. The EBA published, in June 2016, the final draft RTS on assigning risk weights to specialised lending exposures under Article 153(9) of Regulation (EU) No 575/2013 (RTS on slotting). According to this RTS, any guarantees that are part of the security package contribute to the

¹⁴ The chosen approach is therefore consistent with the Basel standards that recognize this treatment for both the F-IRB and the A-IRB approaches. EBA is generally of the view that the alignment should also be pursued for A-IRB exposures, even though it should be noted that this report only covers F-IRB at this stage and EBA will now initiate work on the guidelines on CRM under A-IRB.

factors that enable the slotting. Any additional guarantees, such as those against default by a sovereign bank or another bank, should be treated under the CRM framework, provided they meet the eligibility criteria. In assessing eligibility, banks will make sure there is no double counting of the effect of the guarantee (i.e. once taken into account in the security package, the guarantee should also fit the CRM criteria but it will not be further considered, since it was already considered when applying the slotting approach). However, it may not be straightforward to distinguish between the different types of guarantees (i.e. those belonging to the security package and those against the default of an obligor); therefore, it is possible that further thought will be given to the sequence of allocation of guarantees in the scope of the forthcoming Guidelines on CRM.

CRM under IRBA with use of own estimates of LGD and conversion factors (A-IRB)

49. In accordance with Article 108 of the CRR, for exposures to which an institution applies the SA or F-IRB, the institution may use CRM in accordance with Chapter 4 in the calculation of risk-weighted exposure amounts. For exposures to which an institution applies the IRB Approach with own estimates of LGDs and CCFs, i.e. the A-IRB, the institution may use CRM in accordance with Chapter 3¹⁵. Because requirements for the use of CRM under the SA and F-IRB differ from those under the A-IRB, they have to be considered separately. In the case of A-IRB, some clarifications on the use of CRM have already been provided in the Guidelines on the PD estimation, LGD estimation and the treatment of defaulted assets published in November 2017¹⁶ as part of the guidance for the LGD estimation. However, there are still certain outstanding issues that have not been addressed by the aforementioned Guidelines and where different interpretations and practices are observed.

50. Among these issues, it is worth highlighting the following:

- i) the eligibility criteria for collateral, in particular an understanding of the interaction with the requirements set out in Article 181(1)(f) of the CRR;
- ii) the recognition of UFCP, including the application of the double default treatment;
- iii) the treatment of bilateral master netting agreements and OBSN, taking into account the effect on the exposure value.

All these aspects and methods need to be considered both from the perspective of the legal requirements as well as their impact on the institutions' rating systems.

51. It is therefore the view of the EBA that more detailed guidance, in the form of a set of Guidelines dealing with this specific area in the CRR, is necessary. This is in part due to the complexity of the topic and in part because this approach allows a more in-depth consultation with

¹⁵ This is also in line with Q&A 2016_2593 published on the EBA website: http://www.eba.europa.eu/single-rule-book-ga/-/qna/view/publicId/2016_2593.

¹⁶ <https://www.eba.europa.eu/regulation-and-policy/model-validation/guidelines-on-pd-lgd-estimation-and-treatment-of-defaulted-assets>.

stakeholders on all the issues related to the applicability of the CRM framework to A-IRB. The EBA therefore intends to initiate this work in 2018 with an intention to conclude on the matter in 2019.

CRM under IRBA for equity exposures

52. In the case of equity exposures under the IRBA, institutions may apply three different approaches (as specified under Article 155 of the CRR): (i) the Simple risk weight approach, (ii) the PD/LGD approach, and (iii) the internal models approach. In all three cases, institutions may employ forms of UFCP (e.g. guarantees and credit derivatives) as a technique of CRM, but not as collateral in the form of FCP.

3. Use of the CRM framework

53. This section provides an overview of the types of collateral and CRM techniques¹⁷ used by EU credit institutions for the purposes of calculating capital requirements for credit risk under the SA and the IRBA.

54. In total, 27 competent authorities¹⁸ provided COREP¹⁹ data on aggregate amounts of guarantees and collateral used for CRM purposes from 4 244 institutions reporting at the individual level and 170 institutions reporting at the consolidated level. The reference date for this exercise was set as 30 September 2016.

55. According to the data collected, the total exposure value at 30 September 2016, before CRM, was around EUR 40 trillion at the European level, of which nearly 50% represented exposures under the SA, while 44% (~EUR 18 trillion) was attributable to exposures under the A-IRB.

56. One observation is that guarantees and collateral account for only a small portion of the exposure value: just under 10% for the SA and below 5% for F- and A-IRB (Graph 1).

57. The most used CRM technique under the SA is the FCCM, which accounts for 60% of the total CRM value, while guarantees represent 30% and the remaining 10% is divided between the FCSM, OFCP and credit derivatives (Table 1).

58. As far as the IRB approach is concerned, under both the F-IRB and A-IRB, guarantees are the technique with the greatest impact on exposure value, accounting for, respectively, 98% and 92% of the total CRM (Table 1).

59. However, under the IRB Approach, the value of the CRM techniques with impact on the LGD represents 95% of the overall value of the CRM techniques used (Table 2). Under A-IRB, the dominant CRM technique in this class is real estate collateral, which accounts for 76% of the total CRM amount. Under the F-IRB, eligible financial collateral accounts for 53% of the total CRM amount, while real estate accounts for 40% (Graph 2).

¹⁷ The data presented exclude CRM employed on securitisation positions.

¹⁸ AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LU, LT, LV, MT, NL, PT, RO, SE, SI, SK, UK.

¹⁹ The template for the data collection exercise is a selection of the templates C07.00 (Credit and counterparty credit risks and free deliveries: standardised approach to capital requirements) and C08.01 (Credit and counterparty credit risks and free deliveries: IRB approach to capital requirements). All definitions and data requested are in line with the EBA reporting framework 2.4 in use at the cut-off date of the data collection (30 September 2016).

Graph 1: European perspective – CRM techniques with impact on exposure value under all relevant approaches

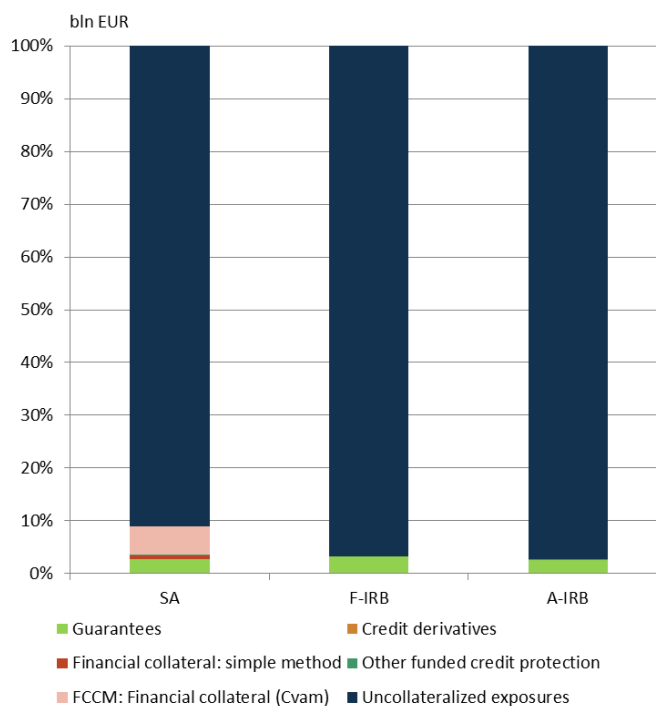


Table 1: European perspective – CRM techniques with impact on exposure value under all relevant approaches

CRM techniques	Approach (EUR bn)		
	SA	F-IRB	A-IRB
Guarantees	520.19	90.56	433.63
Credit derivatives	2.02	0.52	28.06
Financial collateral: simple method	123.80	–	–
OFCP	47.33	1.23	8.09
FCCM: financial collateral (Cvam)	1 034.27	–	–
Uncollateralised exposures	17 723.64	2 771.80	17 146.93

Graph 2: European perspective – Structure of CRM techniques with impact on the LGD value under all relevant approaches

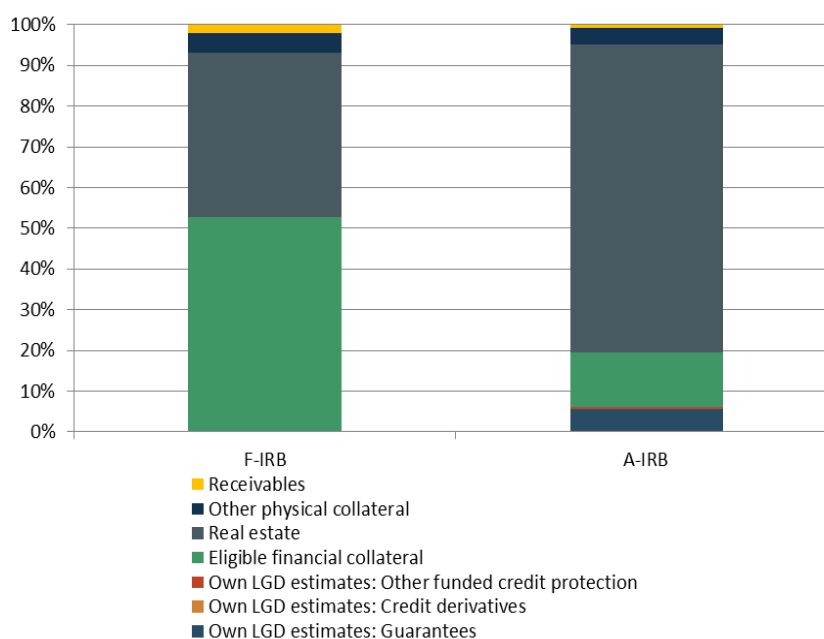


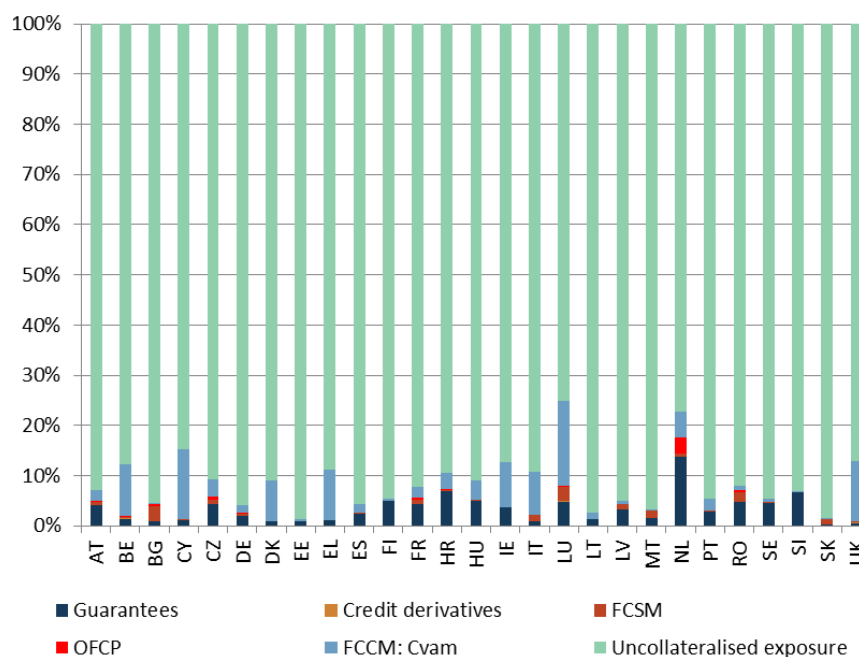
Table 2: European perspective – CRM techniques with impact on the LGD value under all relevant approaches

CRM techniques	Approach (EUR bn)	
	F-IRB	A-IRB
Own LGD estimates: guarantees	–	528.95
Own LGD estimates: credit derivatives	–	1.19
Own LGD estimates: OFCP	–	58.37
Eligible financial collateral	201.27	1 286.55
Real estate	154.62	7 226.44
Other physical collateral	17.87	389.03
Receivables	8.28	74.56

60. Nevertheless, the use of these techniques varies significantly across jurisdictions, as preferences for the different types of CRM differ according to the type of approach and, ultimately, according to the type of business model used by the institutions. The structure, in terms of approach, is heterogeneous, the one in countries where financial institutions predominantly use the SA being different from that in countries where financial institutions rely more on the A-IRB. F-IRB is moderately used across all institutions.

61. As previously mentioned, the FCCM predominates²⁰ in jurisdictions where institutions apply the SA, with BE, CY, DK, EL and UK being extensive users of this technique. SA institutions also use guarantees extensively, with FI, RO and SI being the countries that use them the most²¹. Furthermore, BG and SK are the largest users of the FCSM in this sample (Graph 3).

Graph 3: SA – Types of CRM with impact on the exposure value and the uncollateralised part of the exposures, by country



62. The use of F-IRB is limited: F-IRB exposures account for only 7% of the total exposures of the institutions in the sample. The preferred CRM technique used to reduce the amount of the exposures is taking into account guarantees (Graph 4). Among the CRM techniques with impact on the LGD value, different combinations of eligible financial collateral and real estate are used across jurisdictions: for example, BE relies almost entirely on the former whereas BG, EE, LT, LV and SI use almost exclusively the latter (Graph 5).

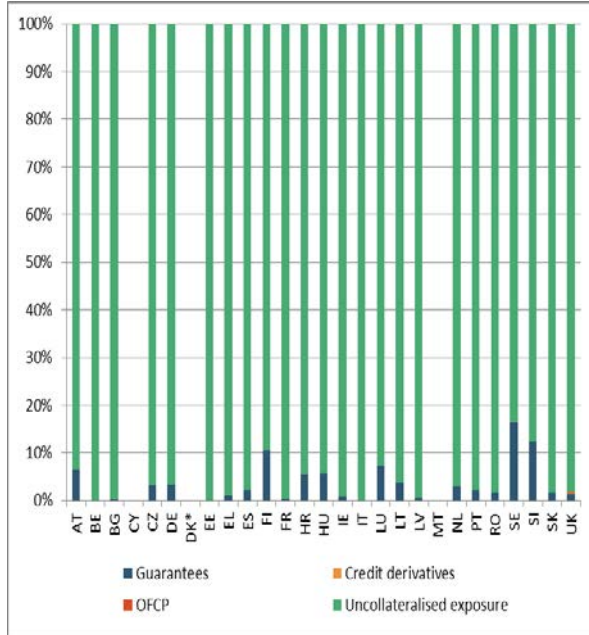
63. A-IRB exposures represent 44% of the total exposures of the institutions in the sample, but only a small part of these exposures is collateralised. The main CRM technique employed in most jurisdictions is the use of guarantees, although in LT OFCP is predominantly used, whereas in DE, ES, FR and UK credit derivatives are also used (Graph 6). Regarding CRM techniques with impact on the LGD value, real estate is the most widely used, with some jurisdictions using it almost exclusively (namely, EE, EL, LT, LV, SE and SK). There is also some preference for using eligible financial collateral (ES and NL have the largest proportion of CRM amount under this technique), as well as other physical collateral (BE and FR use this technique the most²²) (Graph 7).

²⁰ Here, we refer to the proportion of a specific technique in the total amount of CRM in a jurisdiction, under the relevant approach.

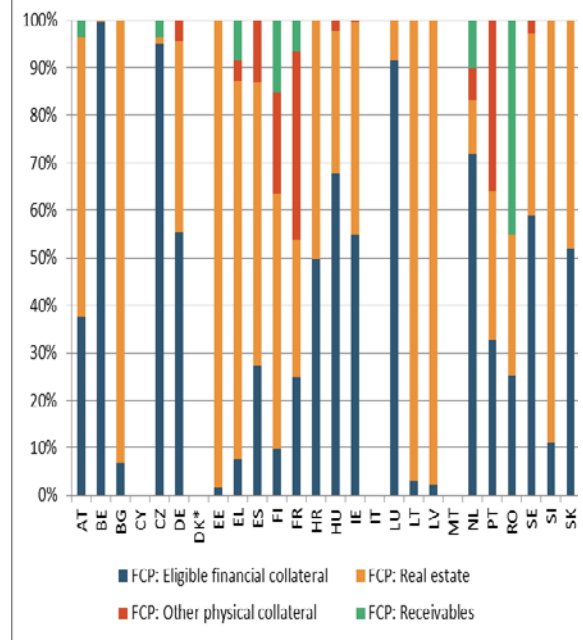
²¹ Ibid.

²² Ibid.

Graph 4: F-IRB – Types of CRM techniques with impact on the exposure value, by country

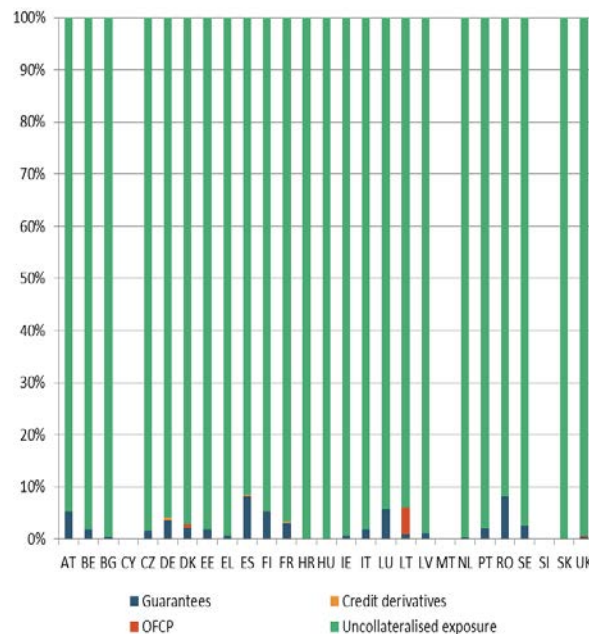


Graph 5: F-IRB – Types of CRM techniques with impact on the LGD value, by country

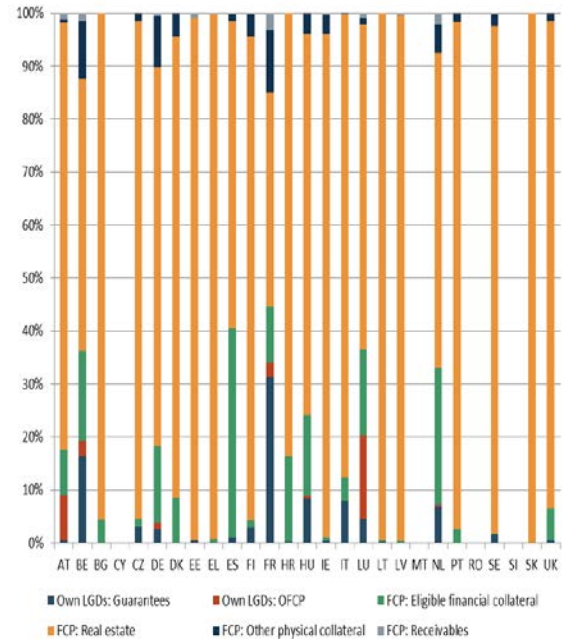


Note: *countries having provided data for fewer than three institutions were not included in the graphs.

Graph 6: A-IRB – Types of CRM techniques with impact on the exposure value, by country



Graph 7: A-IRB – Types of CRM techniques with impact on the LGD value, by country



64. The double default framework is used to a very limited extent with only a handful of countries registering amounts under this CRM technique:

EUR bn	BE	DE	ES	FR	LU	NL	SE	UK
A-IRB: double default	4.87	6.26	1.14	11.62	5.90	6.44	–	1.55
F-IRB: double default	–	0.28	–	–	–	–	1.07	–

4. Policy issues on the CRM framework

65. This section presents a series of policy issues regarding the CRM framework that would benefit from further clarification of the Level 1 text, with a view to minimising variability in the application of CRM provisions and fostering a regulatory level playing field.

66. The policy recommendations below have been identified by discussing competent authorities' experience regarding the application by institutions of the regulatory provisions on CRM in the CRR. The EBA has proceeded to a categorisation of the issues raised as part of the process, while deferring the issues related to the practical implementation of the CRM provisions to the EBA Q&A tool.

67. This section has two parts: (i) an overview of a stocktake exercise regarding national provisions in the area of CRM in addition to those in the CRR; and (ii) an outline of the policy issues identified by the EBA in the area of CRM for which further clarification via an amendment of the Level 1 text is recommended. These proposals are intended only to clarify how the CRR provisions are to be applied in practice and are not to be construed as a change to policy.

4.1. National provisions on CRM

68. CRM provisions in the CRR represent binding rules that are to be applied by all EU credit institutions. The aim of this survey was to evaluate the extent to which competent authorities or Member States provided any further national guidance in the area of CRM with a view to assessing whether or not there were particular issues in the application of the CRM provisions that require better clarification and/or harmonisation directly in EU law.

69. According to information received from 16 national competent authorities²³, national provisions/guidance in the area of CRM is implemented for the following techniques of CRM:

- i. financial collateral: four countries with public and binding rules;
- ii. immovable property collateral: eight countries with mostly public and binding rules;
- iii. additional collateral for IRB under Article 199 of the CRR: one country with public rules;
- iv. guarantees: three countries with public rules.

70. As a rule, Member States do not have in place national provisions meant to complement or supplement the CRR in the context of CRM for the purposes of calculating own funds requirements of institutions, with the exception of immovable property, where in some cases national rules are enforced. In addition, in some cases national provisions just repeat CRR

²³ SK, CZ, DK, DE, AT, FR, ES, HU, IE, HR, PT, PL, BG, LV, SI, SE, UK.

provisions or are related to CRR rules (e.g. regulations on the determination of the mortgage lending value), thus being fully aligned with the EU regulation.

4.2. Considerations and proposals on policy issues on CRM

1. Treatment of OBSN with regard to currency mismatch

71. Article 195 of the CRR regarding OBSN states 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.

72. However, Article 219 of the CRR clarifies that loans and deposits with the lending institution ‘denominated in the same currency’ are to be treated by such an institution as cash collateral. It is therefore unclear if OBSN still applies in the case of currency mismatch, and what the appropriate regulatory treatment would be in this case.

73. 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 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 when 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.

74. To recognise the effects of OBSN, one can also apply the FCSM. In this case, should a currency mismatch occur, the risk weight 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.

75. **Policy proposal:** It is proposed 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.~~

2. CAIs used as a technique of CRM

76. Under Article 4(1)(60) of the CRR, a 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’.

77. 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 similar 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.

78. 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 risk weight. 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 during liquidation, but would instead just directly offset the loss resulting from the borrower with its liability on the CAI, which is no longer supposed to be reimbursed to external parties²⁴. It is therefore recommended that the Level 1 text be amended to clarify that CAIs referenced in Article 197(1)(a) of the CRR are only those issued by the lending institution.

79. In addition, for the purposes of the CAIs mentioned in Article 200(a) of the CRR and used as a form of OFCP, it is useful to clarify in the Level 1 text that they 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 the CAI. The suggestion to clarify 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 the lending institution itself issued the CAI.

80. To support this rationale, it is also noted that the above understanding is reflected in Directive 2006/48/EC²⁵ as CAI is defined in Article 4(35) of that Directive as follows: ‘“cash assimilated instrument” means a certificate of deposit or other similar instrument **issued by the lending credit institution**’, which effectively limits CAIs to instruments issued by the lending institution.

81. **Policy proposal:** It is proposed 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

²⁴ On the contrary, it would not be appropriate to allow – under Article 197(1)(a) of the CRR – CAIs that 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) of the CRR) or zero volatility adjustments under the FCCM, while those instruments are still subject to credit risk and possible deterioration in value, and should therefore be treated in the same way as other types of financial collateral.

²⁵ Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions.

lending institution has already received full payment and which shall be unconditionally reimbursed by the lending institution at its nominal value.

82. While the proposed amendment to Article 4(1)(60) of the CRR would ensure an adequate CRM treatment for CAIs referred to in Articles 197(1)(a) and 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.

3. CAIs used as a form of OFCP

83. 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.

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

Where the conditions set out in Article 212(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.

4. Forms of gold eligible under Article 197(1)(g) of the CRR

85. 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 that could be considered eligible under Article 197(1)(g) of the CRR.

86. For example, respondents asked if synthetic exposures towards gold (e.g. exchange traded funds tracking the gold price) may be considered 'gold' in the context of Article 197(1)(g) of the CRR. This led the EBA to consider whether it would be beneficial, with the aim of increasing clarity and harmonisation, to specify the meaning of the term 'gold' in Article 197(1)(g) of the CRR, or to use an alternative term.

87. 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 the term 'gold bullion'. This term (i.e. 'gold bullion') refers to gold in the form of a commodity (e.g. gold bars, ingots, coins) commonly accepted by the bullion market, for which liquid markets exist and whose value is determined by the value of its gold content, rather than its numismatic interest, defined by purity and mass.

88. However, the CRR does not provide a detailed definition of gold (e.g. on the basis of its technical composition²⁶) for the purposes of direct exposures towards gold under Article 134(4) of the CRR. Therefore, it might not be appropriate to introduce a definition limited to gold that may be used under Article 197(1)(g) of the CRR.

89. 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.

90. **Policy proposal:** It is proposed that Article 197(1)(g) of the CRR be amended as follows:

gold bullion

5. Eligibility of financial collateral based on credit assessments of non-nominated ECAIs

91. Article 197(1) of the CRR sets out the types of collateral that are eligible under all approaches and methods for the determination of minimum capital requirements for credit risk. According to points (b), (c), (d) and (e) of this paragraph, this includes debt securities issued by CGs or CBs, institutions and other entities that are required to be credit assessed by an ECAI (or by an ECA in the case of debt securities issued by a CG or a CB) that corresponds to at least a certain minimum credit quality step as determined by the EBA in accordance with the rules set out under the SA for credit risk.

92. For the determination of risk weights for direct exposures, Article 138 of the CRR is clear that for this purpose, banks may only use credit assessments of ECAIs they have explicitly nominated for this purpose. In contrast, what appears not to be clear from the text of the CRR is whether or not institutions may rely on a credit assessment issued by any ECAI with respect to a certain debt security for determining whether the required minimum credit quality step is met or whether this determination may also only be done based on credit assessments issued 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).

93. **Policy proposal:** It is proposed that Article 197(1)(b) of the CRR be amended as follows:

debt securities satisfying each of the following conditions:

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*

²⁶ Such as a definition similar to the one provided in Article 344 of Council Directive 2006/112/EC.

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 proposed to amend Article 197(1)(c) of the CRR 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 proposed 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 proposed 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;

6. Loan commitments contingent on collateral

94. Given several pending Q&As on the topic, it was discussed whether or not (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 capital requirements for the corresponding off-balance sheet item. In other words, the question is whether or not, under the condition that a loan will be paid out only when the collateral is available to the bank, the corresponding off-balance sheet item may be risk weighted as if it were already collateralised even though the collateral is not yet posted to the bank.

95. In this context, it was considered that the capital requirements for off-balance sheet items should reflect their relative riskiness when they become on-balance sheet items. This should be reflected by both their credit conversion factor (which has an impact on the exposure value) and

their risk weight. Therefore, where an unsecured off-balance sheet item will become an on-balance sheet item only once it is secured, i.e. the bank will not pay out on its commitment unless collateral has been posted, this off-balance sheet item may be risk weighted as if it were already collateralised before the collateral is posted to the bank.

96.Policy proposal: It is proposed 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.

7.Requirement in Article 199(6)(d) of the CRR regarding eligibility of physical collateral

97.Paragraph 6 of Article 199 of the CRR sets out eligibility requirements for other physical collateral. One of these requirements is that institutions are to demonstrate that the valuation of the types of physical collateral used by the institution is sufficiently stable. More specifically, point (d) of that paragraph states: *'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.'*

98.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.

99.However, it has been pointed that this requirement is ambiguous, since it could be interpreted as meaning that, (only) in more than 10% of all liquidations, the realised proceeds shall not be below 70% of the collateral value, i.e. 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 has resulted in misinterpretations in some translations of the CRR²⁷.

100.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.

101.Policy proposal: It is proposed that Article 199(6)(d) of the CRR be amended as follows:

²⁷ For example, in the German translation of the CRR.

*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.*

8. Insurance against the risk of damage

102. Article 210(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 met²⁸. Instead, institutions shall document the fulfilment of these conditions in accordance with the second subparagraph of Article 199(6) of the CRR.

103. 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.’*

104. The EBA analysed whether or not it would be useful to provide further guidance on the requirement in Article 210(i) of the CRR by indicating if the institution should, in its internal rules, elaborate 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.

105. 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, while 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.

106. **Policy proposal:** It is proposed 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.***

9. Requirements for the valuer of immovable property collateral

²⁸ Please refer to the following page on the EBA website: <https://www.eba.europa.eu/supervisory-convergence/supervisory-disclosure/rules-and-guidance>.

107. The requirements for the valuer in Article 208(3)(b) of the CRR, in the context of ongoing valuation, specify that the review of the property valuation be 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 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.

108. **Policy proposal:** It is proposed 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.

10. Alignment of the terminology for exposures secured by immovable property

109. 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’ and ‘exposures secured by [residential/commercial] property’.

110. 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 different from 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.

111. 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 IRBA.

112. **Policy proposal:** It is proposed that the more general term ‘exposures secured by [residential/commercial] immovable property’ be used when referring to exposures collateralised by immovable property and that the same terminology is used consistently in the SA and IRB Approach to refer to credit risk.

11. Exposures guaranteed by CGs and CBs

113. Article 235(3) of the CRR states: ‘*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.'

114. Article 114(4) of the CRR states: *'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%'*.

115. Article 114(7) of the CRR states: *'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.'*

116. In addition Article 495(2) of the CRR states: *'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.'*

117. It was pointed out 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 (article 114(4) of the CRR) or indirect²⁹ (article 235(3) of the CRR) exposures towards the CG or CB, although the underlying credit risk towards the CG or the CB bank would be the same in both situations.

118. As an example, assume that an Italian institution has an exposure in euros towards a Swedish client (which, being established in Sweden, would use as its currency Swedish kronor), and 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 the preferential risk weight 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 (compared with a direct exposure to the Italian CG or CB). This is because Article 235(3) of the CRR specifies that the 0% risk weight treatment may be extended to exposures or parts of exposures guaranteed by the CG or CB where 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 or not the provision in Article 495(2) of the CRR is also applicable to indirect exposures.

119. However, the wording used in Article 235(3) of the CRR yields unintended outcomes as a result 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 any CG or CB of any Member State, or a CG or CB of a country which applies supervisory

²⁹ Indirect exposure means exposure to an entity in the role of guarantor/protection provider.

and regulatory arrangements at least equivalent to those applied in the EU and which has assigned lower risk weights to its CG and CB in accordance with Article 114(7) of the CRR.

120. From a policy perspective, the rationale for allowing a preferential risk weight to exposures (either direct or indirect) towards a CG or CB is associated with the requirement of 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 the guarantee is denominated would be addressed via the currency haircut required under Article 233(3) of the CRR.

121. **Policy proposal:** It is proposed 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 central bank ~~where the guarantee is denominated in the domestic currency of the borrower and the exposure is funded in that currency~~ 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.

12. Deletion of the mandate under Article 194(10) of the CRR

122. 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 as sufficiently stable for the purposes of Article 194(3) of the CRR.

123. 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. While 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.

124. As an example with respect to financial collateral, the existence of volatility adjustments (i.e. haircuts) under the FCCM or the minimum 20% risk weight 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.

125. Regarding immovable property collateral, the requirements of the 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 banks. It is also 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.

126. In a similar manner, for other physical collateral, receivables and leasing, the CRR sets out requirements in Articles 199, 209, 210 and 211, 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.

127. With respect to forms of OFCP mentioned in Article 200 of the CRR, these techniques of CRM are effectively recognised similarly to 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 means of FCP, which could experience liquidity risks if the lending institution was required to liquidate the collateral).

128. 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, the need for additional requirements to be developed through the RTS under Article 194(10) of the CRR seems unclear.

129. More specifically, developing an 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.

130. **Policy proposal:** It is proposed to delete 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 as sufficiently stable for the purposes of Article 194(3) of the CRR. 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.



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