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Consultation Paper

Draft Guidelines on Credit Risk Mitigation for institutions applying the IRB Approach with own estimates of LGDs

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1. Responding to this consultation

The EBA invites comments on all proposals put forward in this paper and in particular on the specific questions summarised in Section 5.2.

Comments are most helpful if they:

- respond to the question stated;
- indicate the specific point to which a comment relates;
- contain a clear rationale;
- provide evidence to support the views expressed/ rationale proposed; and
- describe any alternative regulatory choices the EBA should consider.

Submission of responses

To submit your comments, click on the 'send your comments' button on the consultation page by 25 May 2019. Please note that comments submitted after this deadline, or submitted via other means may not be processed.

Publication of responses

Please clearly indicate in the consultation form if you wish your comments to be disclosed or to be treated as confidential. A confidential response may be requested from us in accordance with the EBA's rules on public access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by the EBA's Board of Appeal and the European Ombudsman.

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2. Executive Summary

The EBA review of the IRB approach overall aims to reduce unjustified variability stemming from different supervisory and bank-specific practices, while preserving the higher risk sensitivity associated with internal models. The credit risk mitigation framework (CRM) is an integral part of IRB framework and consequently the application of CRM methods can be a source of variability. These draft guidelines presented in this consultation aims to clarify the credit risk mitigation framework in the context of the Advanced IRB Approach (A-IRB). They thereby complement the EBA report on the credit risk mitigation framework, which was focused on the Standardised Approach and the Foundation IRB Approach.

The industry, as well as EBA in previous work, have identified a clear need for these guidelines. The EBA and the industry have flagged that the complexity of the current CRR provisions on the credit risk mitigation framework due to numerous references and cross-references raises a significant number of implementation issues. The abovementioned EBA report provided some clarity on the application of the CRM framework in the context of SA and F-IRB, but the analysis carried out by the EBA in the context of the EBA report on credit risk mitigation framework also noted the limited guidance provided in the current CRR provisions on CRM under the Advanced-IRB Approach (A-IRB).

Consequently, the Guidelines provide additional clarity on the application of the CRM approach for A-IRB institutions. These draft guidelines are therefore focused on clarifying the application of the current CRR provisions for the eligibility and methods of different credit risk mitigation techniques, namely funded and unfunded credit protection, available to institutions under the Advance-IRB Approach. This is supplemented by additional detailed guidance on eligibility requirements and treatment of funded and unfunded credit protection. It is the EBA's belief that these draft Guidelines should help eliminate the unwarranted differences in approaches remaining in the area of CRM due to either different supervisory practices or bank-specific choices.

Next steps

The draft guidelines are published for the 3 months consultation period. At the same time, the EBA is currently working on the Call for Advice on the impact of the final Basel III framework which includes in the scope also revisions on some specific aspects of the credit risk mitigation framework. Some parts of the CRM framework which is envisaged to change in the Basel III framework is therefore considered in the context of the Call for Advice. In addition, the responses received during the consultation period, as well as the conclusions and the results of the qualitative survey on issues related to credit risk mitigation analysed in the context of the Call for Advice, will be taken into account when specifying the final guidelines.

3. Background and rationale

3.1 Introduction

1. The European Banking Authority (EBA) has previously outlined its work program on the review of the IRB Approach in EBA's Opinion on the IRB Approach[1]. After i) reviewing supervisory practices; ii) harmonising the definition of default; and iii) providing more clarity on how to model probability of default (PD), loss given default (LGD) and defaulted exposures, including the estimation of downturn LGD. These draft guidelines (GL) constitute as the fourth phase of this work program, although these Guidelines were not originally envisaged as part of the EBA review, and aim to clarify the credit risk mitigation (CRM) framework in the context of the Advanced IRB Approach (A-IRB).[2] They thereby complement the EBA report on the credit risk mitigation framework [3] (hereinafter 'CRM report'), which was focused on Standardised Approach (SA) and Foundation IRB Approach (F-IRB).

2. In accordance with Article 108 of Regulation (EU) No 575/2013 (hereinafter 'CRR'), for exposures to which an institution applies the SA or F-IRB, the institution may use CRM in accordance with Part Three, Title II, Chapter 4 of the CRR (hereinafter 'Chapter 4') in the calculation of risk-weighted exposure amounts (RWEA). For exposures to which an institution applies the IRB approach with own estimates of LGDs and conversion factors, i.e. exposures under A-IRB, the institution may use CRM in accordance with Part Three, Title II, Chapter 3 of the CR (hereinafter 'Chapter 3'). Due to these different requirements for the SA and F-IRB on the one hand and for the A-IRB on the other hand, the requirements for the use of CRM have to be considered separately. In particular, an overview of the CRM techniques and methods available under Chapter 4 and used under the SA, under the Supervisory Slotting Criteria Approach (SSCA) and under the F-IRB is already provided in the CRM report. These draft GL

[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] As clarified in the CRM report the Basel capital framework refers, for non-retail exposures, to Foundation IRBA (F-IRBA), i.e. where institutions provide their own PD estimates 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 not only their own estimates of PD, but also of LGDs and CCFs for estimating the exposure value for off-balance sheet (OBS) items, subject to meeting minimum requirements, and calculate the remaining effective maturity where permitted. The CRR however does not explicitly refer to F-IRBA or A-IRBA, but instead talks of the IRB Approach where institutions have the permission to use their own estimates of LGD and conversion factors. The latter differs from A-IRBA, commonly referred to in the Basel capital framework because it also includes retail exposures (for which own estimates of LGDs and CCFs are mandatory, either as direct estimates or, for LGDs, derived from an estimate of expected losses and an own estimates of PD). These drafts GL refer to the terms used under the CRR with relevant acronyms where appropriate for consistency and to avoid misunderstandings. Therefore, these GL use the term A-IRB to refer to IRB Approach with own estimates of LGDs and CCFs and F-IRB to the IRB Approach without own estimates of LGD and CCFs.

[3] https://eba.europa.eu/documents/10180/2087449/EBA+Report+on+CRM+framework.pdf

complement this work by providing guidance on the CRM provisions on eligibility and methods available under Chapter 3 and used under the A-IRB.

3. Increased clarity of the CRM framework is considered an integral part of the IRB review and reflects the feedback received from the stakeholders to the Discussion Paper on '*The Future of the IRB Approach*' published on the 4 March 2015. One of the main takeaways from the consultation was that, while the EBA had been given mandates to develop technical standards on selected issues[4], there was an overall need to consider the functioning of CRM framework as a whole. More specifically, industry flagged the complexity of the current CRR provisions due to numerous references and cross-references that make it difficult to understand which provision applies under which approach to credit risk.

4. In the case of the A-IRB, some clarifications on the use of CRM have already been provided in the EBA GL on the PD estimation, LGD estimation and the treatment of defaulted exposures (hereinafter 'EBA GL on PD and LGD estimation') published in November 2017 as part of the guidance for the LGD estimation.[5] However, there are still certain outstanding issues, which have not been addressed by these draft GL and where different interpretations and practices are observed.

5. At the same time, the recent changes introduced through the final Basel III framework[6] should to the extent possible also be taken into account. Indeed, on 4 May 2018 the EBA has received from the European Commission a Call for Advice (CfA) on the impact and implementation of the final Basel III framework. The revisions in the scope of the CfA include the revised standards in the areas of credit risk and, in particular, on some specific aspects of the CRM framework. In this context, any issue which may lead to inconsistencies with respect to the current CRR rules or, alternatively, to a deviation from the final Basel III framework are currently discussed in the context of the CfA and therefore not included in these draft GL.

6. With a view to support an implementation of the legislation which is clear and consistent across institutions and jurisdictions, these draft GL are therefore clarifying the application of current CRR provisions regarding CRM under the A-IRB and should help eliminate the unwarranted differences in approaches remaining in the area of CRM either due to different supervisory practices or institution-specific choices.

7. These draft GL are structured in three main parts: i) a section general provisions (Section 4) which aims at providing clarity on the application of the CRM provisions of Chapter 3 of the current CRR; iii) a section providing guidance on eligibility requirements for both the so-called

[4] The mandates included in the CRR for the EBA to develop technical standards in the area of CRM are only focused on a few selected aspects of the CRM framework and, in particular, include: 1) RTS under Article 183(6) of the CRR on the recognition of conditional guarantees; 2) RTS under Article 194(10) of the CRR on liquid assets and 3) RTS under Article 221(9) of the CRR on the Internal Models Approach for master netting agreements.

[5] https://www.eba.europa.eu/documents/10180/2033363/Guidelines+on+PD+and+LGD+estimation+%28EBA-GL-2017-16%29.pdf/6b062012-45d6-4655-af04-801d26493ed0

[6] Text of the final Basel III framework (Dec 2017): Basel III: Finalising post-crisis reforms.

funded credit protection (FCP) and unfunded credit protection (UFCP) (Section 5); and iii) a section on the treatment of FCP and UFCP (Section 6).

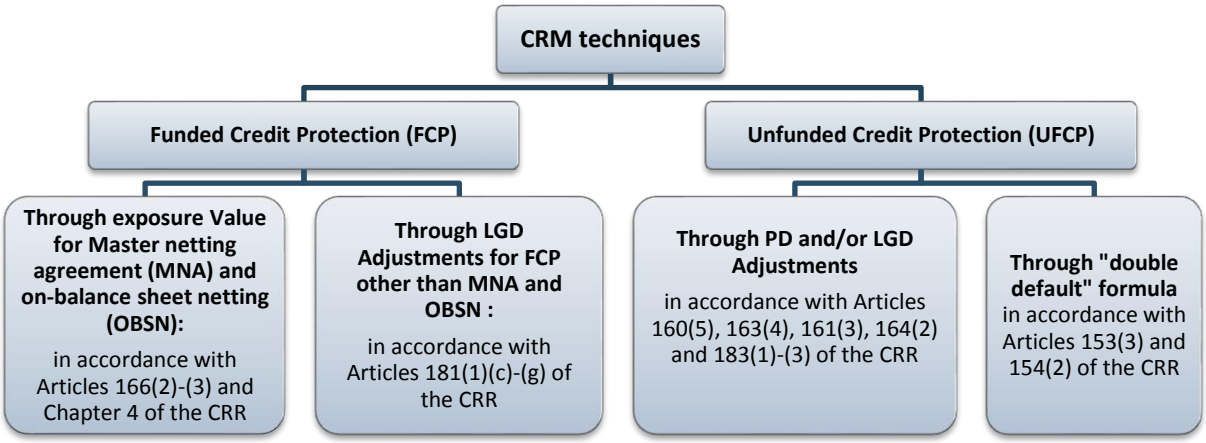
3.2 General provisions

8. While a detailed explanation of the CRM techniques available for exposures under SA and F-IRB has already been provided in the EBA Report on CRM (Section 2.2) this section focuses on carrying out a mapping of the articles in Chapter 3 of the CRR detailing the provisions for the eligibility and methods of CRM at institutions' disposal for exposures under A-IRB. The 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.

9. As clarified in paragraph 2 above, the CRR defines the scope of application of the CRM framework in Article 108 of the CRR. In particular, for exposures to which an institution applies the SA and F-IRB the CRM techniques may be recognised in accordance with Chapter 4, whereas for exposures to which an institution applies the A-IRB the CRM techniques may be recognised according to Chapter 3.

10. In this respect, the first general clarification is provided in paragraph 11 of these draft GL and states that the requirements of Chapter 4 only apply is to exposures treated under A-IRB where explicitly cross-referenced in Chapter 3. A-IRB institutions therefore apply Chapter 3 and, in particular (as also clarified in Figure 1):

Figure 1: CRM techniques and methods under Chapter 3 of the CRR



- paragraph 14 of the draft GL: Article 166(2) and (3) of the CRR regulate that institutions may recognise the effects of **master netting agreements (MNA)** and **on-balance sheet netting (OBSN)** respectively through modifications of the exposure value; in this respect, these draft GL clarify that the CRM effects of such techniques may be recognised only through adjustment of the exposure value and that institutions should hence take into account all the requirements of Chapter 4, including eligibility requirements and methods;

- paragraph 13 of the draft GL: Article 181(1) letters (c) to (g) of the CRR regulate that institutions may recognise the effects of **FCP other than MNA and OBSN** in their LGD estimates; in this context, it is clarified that for the purposes of estimating LGD according to Article 181(1) letters (c) to (g) of the CRR, the references to 'collateral' should be understood as references to FCP other than MNA and OBSN, that are already recognised in the exposure value in accordance with Article 166 (2) and (3) of the CRR. The term 'collateral' is not defined in the CRR whereas only FCP and UFCP are defined in Article 4(1), points (58) and (59) of the CRR. According to the provided definitions and also consistently with the stances included in the CRM report, the fundamental difference between the two types of credit protection lies in the type of risk the protection receiver is exposed to: in the case of FCP, the lending institution bears the risk that the collateral received deteriorates in value, thereby resulting in a 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; moreover, since the CRM effects of OBSN and MNA should be recognised through adjustments to the exposure value rather than to the LGD they are also considered out of the scope of application of Article 181(1) of the CRR on own estimates of LGDs; the above-mentioned considerations justify the "narrow" interpretation of the term collateral as referring to FCP other than netting only;

- paragraph 12 of the draft GL: Articles 160(5) and 163(4) of the CRR regulate that institutions may recognise the effects of UFCP by adjusting the PDs subject to Article 161(3) and 164(2) of the CRR respectively. These articles clarify that **UFCP** may be recognised by adjusting PD or LGD estimates in accordance with Article 183 (2) and (3) of the CRR and under the constraint that the resulting adjusted risk weight should not be lower than the risk weight that the institution would assign to a comparable, direct exposure to the guarantor[7] (the so-called "risk weight floor"); alternatively, institutions may recognise the effects of UFCP in accordance with Articles 153(3) and 154(2) of the CRR, the so-called "double default (DD)" formula (applicable to exposures both under the F-IRB and the A-IRB), where the requirements under Articles 202 and 217 of the CRR are met. In this respect, Article 161(4) and 164(3) of the CRR provide clarifications on the LGD to be used in the DD formula provided by Article 153(3) of the CRR. In particular, it is clarified that the recognition of UFCP in accordance with Articles 160(4) and 161(1)(c) of the CRR, is applicable only where institutions use the F-IRB and are therefore out of the scope of these draft GL.

11. An additional clarification provided in paragraph 15 of the draft GL relates to the treatment of credit insurance. In particular, focusing on the economic substance of the financial agreement, in accordance with the CRM report (paragraph 36) and the Q&A 2014_768[8], it is clarified that in the context of A-IRB credit insurance may be recognised as a guarantee (or a credit derivative) where it effectively functions in an equivalent manner. Since the CRR does not give

[7] It should be noted that in line with the CRR wording the terms 'guarantor' and 'guarantee' is sometimes used to include both guarantees in the strict sense as well as credit derivatives and, therefore, as a synonym of protection provider and UFCP respectively. In this respect, for example, the reference to comparable, direct exposures to guarantor should be understood as reference to comparable direct, exposures to protection provider.

[8] This Q&A (link) 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.

a definition of guarantees or credit derivatives, it is furthermore clarified that in order to consider credit insurance equivalent to UFCP, and therefore requiring the same eligibility and adjustment criteria for UFCP as included in Article 183 (1) to (3) of the CRR, the credit insurance has to meet the UFCP definition given in Article 4(1), point (59) of the CRR. In particular, what specific point of Article 183 of the CRR should apply (i.e. points (1) and (2) for guarantees or point (3) for credit derivatives) will depend on the substance of the contract, i.e. whether it works more like a guarantee or like a credit derivative.

3.3 Eligibility requirements

12. For exposures to which institutions apply the A-IRB, the CRR specifies the eligibility requirements for (i) FCP (other than MNA and OBSN) in Article 181(1)(f) and (ii) UFCP in Article 183(1). The rationale behind both articles is to ensure that A-IRB institutions meet the minimum requirements for the eligibility of the protection while at the same time adhering to the hierarchy of the approaches. This means that under the A-IRB institutions have the possibility to reflect in their estimates protection of lower quality, while under F-IRB and SA only high quality protection may be recognised. Under the SA and F-IRB, the eligibility requirements of Chapter 4 are very restrictive, limiting the mitigation mechanism of UFCP to the substitution of risk weights or PDs, respectively. Under the A-IRB, risk sensitivity is enhanced through the broader eligibility of CRM techniques provided that institutions can adequately reflect the lowered efficiency of instruments not eligible under SA and F-IRB in the PD or LGD estimates.

3.3.1 Eligibility requirements for funded credit protection (FCP)

13. With regard to FCP (other than OBSN and MNA), Article 181(1)(f) of the CRR establishes that if collateral is taken into account in the LGD estimation institutions should set internal requirements for collateral management, legal certainty and risk management which are 'generally consistent with those set out in Chapter 4, Section 3'. The lack of guidance on the concept of 'general consistency' is an issue that has been highlighted by the industry as being a source of uncertainty and variability in the application of the CRR provisions with respect to CRM for A-IRB exposures. Some clarification has already been provided in Article 55 of the Final draft Regulatory Technical Standard on the specification of the assessment methodology for competent authorities 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 AM')[9], not adopted by the European Commission, which specifies that for the purposes of Article 181(1)(f) of the CRR, general consistency should be understood as, or would be fulfilled by, full consistency with the requirements for collateral valuation and legal certainty. In other words, if the institution's requirements are fully consistent with the ones specified in Chapter 4, Section 3 of the CRR for collateral valuation and legal certainty, this would ensure to meet the general consistency requirement of Article 181(1)(f) of the CRR.

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

14. Moreover, an implication of Article 181(1)(f) of the CRR is that institutions should provide internal requirements for collateral management, legal certainty and risk management which are generally consistent with the ones provided in Chapter 4, Section 3, for any collateral agreement taken into account in the LGD estimation and not only for those listed in Chapter 4, Section 3.

15. These draft GL therefore provide the following two clarifications:

(i) General eligibility principles on legal certainty and collateral valuation, respectively in paragraphs 16 and 17 of these draft GL, applicable to all collaterals used for the purpose of LGD estimation. In other words these principles form a minimum set of eligibility requirements that is meant to ensure that all collateral types, even those that are not explicitly included in any of the broad categories described in Chapter 4, Section 3, are subject to the assessment of legal certainty and collateral valuation. In particular:

a. In terms of general principles on legal certainty applicable to all collateral used in LGD estimation, it is proposed that for exposures under the A-IRB institutions establish internal requirements which ensure that the collateral agreement is legally effective and enforceable, i.e. ensuring the power of the creditor to enforce the realisation of the collateral; it should further be ensured that the institution has the right to liquidate or take legal possession of the collateral even in the event of the bankruptcy or insolvency of the obligor and, where applicable, of the custodian holding the collateral on behalf of the obligor; this enforced liquidation or repossession of collateral should be possible in a "reasonable timeframe" with respect to the market and legal environment in a relevant jurisdiction;

b. in terms of general principles on collateral valuation applicable to all collateral used in the LGD estimation, it is proposed that for exposures under the A-IRB institutions establish internal requirements which ensure that the rules governing the revaluation of the collateral, including methods and frequency of the monitoring of the value of the collateral, are consistent with the type of collateral taken into account in their LGD estimates and are specified in the internal policies of the institution; moreover, more frequent monitoring should be carried out by the institutions where the market is subject to significant changes in conditions.

(ii) A mapping of Chapter 4, Section 3 of the CRR to legal certainty and collateral valuation tailor-made for a subset of broad categories of collateral which A-IRB institutions should consider in satisfying the requirement of full consistency of Article 55 of the RTS on AM and, consequently, in satisfying the requirements of general consistency of Article 181(1)(f) of the CRR. The proposed mapping is presented in paragraph 18 of the draft GL and provides the minimum criteria to meet the general consistency criteria mentioned in Article 181(1)(f) of the CRR. It is worth noting that the general principles provided are based on the eligibility requirements of Chapter 4, Section 3. This implies that full compliance with the legal certainty and collateral valuation requirements of Chapter 4, section 3, for those collaterals

that are included in one of the broad categories presented in that section, would ensure also compliance with these general principles. The draft GL do not provide any specific mapping for risk management requirement.

16. Finally, notwithstanding the non-applicability of Article 194 of the CRR to A-IRB exposures,[10] the draft GL clarify in paragraph 19 that in order to verify the legal certainty requirements for FCP the institutions should obtain a legal opinion confirming the legal effectiveness (i.e. the fact that the collateral arrangement is valid and binding) and enforceability of the FCP in all relevant jurisdictions. In particular, it is clarified that this legal opinion should be obtained by the institution at least for each type of collateral arrangement rather than for each specific collateral arrangement. Where a single legal opinion is issued for multiple collateral arrangements, that legal opinion must relate to the same applicable law and must be in relation to the same obligor. Moreover, the guidelines specify that it should be provided in written form by a legal counsel who is independent (i.e. not directly benefiting) from the credit decision process responsible for originating or renewing the exposures under considerations.

17. Identifying the relevant jurisdictions for other physical collateral and lease exposures treated as collateralised that are movable but not in the possession or in the control of the creditor, such as car and ships, may be challenging for institutions especially if a point in time evaluation of the relevant jurisdiction using the location of the collateral is requested. By their intrinsic nature, these goods can be located in any jurisdictions because they can easily be moved around and (despite the ownership in the case of leasing) they are not in the control of the creditors. Therefore, a legal certainty assessment throughout all the jurisdictions where the goods are or could be located would be challenging and overly burdensome. In this respect, the draft GL clarify the minimum set of jurisdictions which should be considered relevant when performing the legal certainty assessment (i.e. the assessment of the collateral arrangement effectiveness and enforceability) for other physical collateral that are movable and not in the possession of the creditor (paragraph 20) and for leasing exposures considered as collateralised that are movable and not in the control of the creditor (paragraph 21). In particular, among this minimum set of relevant jurisdictions institutions should consider, the set of jurisdictions where the collateral could move during the lifetime of the loan as specified in the collateral arrangement. Softer alternatives have also been considered such as to evaluate the jurisdiction where the collateral is usually located for the purpose of its use.

3.3.2 Eligibility requirements for unfunded credit protection (UFCP)

18. With regard to UFCP, Article 183(1)(c) of the CRR establishes legal certainty requirements for the assessment of guarantees and credit derivatives. In particular, it requires that the guarantee[11] is: (i) documented in writing; (ii) non-cancellable on the part of the guarantor; (iii) in force until the obligation is satisfied in full; (iv) legally enforceable against the guarantor.

[10] Which requires institutions to obtain an "*independent, written and reasoned*" legal opinion confirming that the credit protection is "*legally effective and enforceable in all relevant jurisdictions*".

[11] As clarified before, in line with the CRR wording of Article 183(1), the term 'guarantee' is here used to include both guarantees in the strict sense as well as credit derivatives.

These requirements aim at ensuring that the guarantees are binding on all parties (i.e. legally effective) and that the creditor has the power to enforce its judgment (i.e. legally enforceable). In addition, Article 183(1) letters (a) and (b) of the CRR provides rules related to the "eligible guarantor".

19. Consistently with the guidance provided for FCP, the draft GL clarify in paragraph 23 that in order to verify the legal certainty requirements for UFCP the institutions should obtain a legal opinion confirming the legal effectiveness (i.e. the fact that the UFCP arrangement is valid and binding) and enforceability of the UFCP in all relevant jurisdictions as required in Article 183(1)(c) of the CRR. In particular, it clarifies that this legal opinion should be obtained by the institution for each type of UFCP contract rather than for each specific UFCP contract (noting that a single legal opinion could, subject to relating to the same applicable law, be obtained for multiple UFCP contracts), and that it should be provided in written form by a legal counsel who is independent (i.e. not directly benefiting) from the credit decision processes responsible for originating or renewing the exposures under consideration.

20. An additional clarification provided in the draft GL in paragraph 24 is that institutions' criteria in accordance with Article 183(1)(a) of the CRR should ensure that only non-defaulted guarantors are considered as eligible. The recognition of CRM techniques is an option for institutions under Chapter 3 of the CRR reflecting the rationale behind the recognition of the effect of CRM techniques that they should not lead to an increase in RWE amount as envisaged in Chapter 4 in Article 193(1) of the CRR. With a defaulted guarantor the "risk weight floor" of Articles 161(3) and 164(2) of the CRR would probably be binding and, therefore, the recognition of the UFCP would produce in most of the cases (and especially for non-defaulted exposures) an increase in RWEA. Under this consideration, institutions should rather treat the exposure guaranteed by a defaulted guarantor as unguaranteed regardless of whether the obligor has defaulted or not. However, considering that institutions could receive some payouts even if the guarantor is in bankruptcy, the draft GL also clarify that the treatment of UFCP provided by defaulted and, therefore, ineligible guarantors should be aligned with the one specified in general for ineligible UFCP in paragraph 31 of the draft GL. Moreover, it is also clarified that for the purposes of LGD estimations defaulted exposures where the guarantor has defaulted before the default of the obligor should be treated as if the exposure was not benefiting from the defaulted UFCP.

3.4 The effects of credit risk mitigation

21. The focus of these draft GL is to provide guidance on how institutions may recognise the CRM effects of UFCP and FCP such as MNA and OBSN. Guidance on how FCP other than MNA and OBSN should be recognised in the institutions' LGD estimates has already been provided in the EBA GL on PD and LGD estimation.[12]

[12] https://eba.europa.eu/documents/10180/2033363/Guidelines+on+PD+and+LGD+estimation

22. These draft GL clarify the set of compliant approaches that are available for using credit risk mitigation when the institution uses own estimates of LGD. It is important to highlight that the relevant requirements with respect to the estimation of risk parameters also apply when recognising CRM techniques using own LGD estimates and the relevant data must be collected and stored, the estimates must be based on material drivers and empirical evidence and not only on judgmental considerations, and the estimates must be validated against the observed loss experience. The burden of proof of adequacy and compliance with these requirements rests on the institutions.

23. These draft GL, however, do not prescribe any specific methodology that should be used in order to recognise the effects of credit risk mitigation in the estimation of risk parameters. It is recognised, in fact, that various methodologies may be valid, depending on specific circumstances, portfolios and processes. However, it is considered appropriate to specify certain principles that should be adhered to regardless of the methodology that is chosen.

3.4.1 The effects of funded credit protection (FCP)

24. Article 166(2) and (3) of the CRR clarifies that the effects of MNA and OBSN should be recognised in the exposure value in accordance with Chapter 4. For MNA this implies that institutions may use the financial collateral comprehensive method (FCCM) via Article 220 of the CRR or, subject to the permission of the competent authority, the internal model approach of Article 221 of the CRR in order to calculate the "fully adjusted exposure value" to be used for the purposes of RWE calculation in accordance with Chapter 3. For OBSN, as clarified in paragraph 26 of the draft GL, institutions may use the financial collateral comprehensive method (hereinafter 'FCCM') of Article 228(2) of the CRR in order to calculate the so-called effective LGD* to be plugged in the risk weight function specified in Chapter 3 (Article 153(1) and 154(1) of the CRR) for the purposes of RWE calculation. As already clarified in the CRM report, in fact, although formally on-balance sheet netting under the FCCM affect the LGD, since the risk weight function is linear in the LGD, this ultimately corresponds to a direct reduction in the exposure value.

25. In this respect, it is important to ensure that for exposures that are covered by either OBSN or MNA the netting is not counted more than once and that the associated LGD is estimated properly by institutions. Concerning the double counting for OBSN this is prevented by Article 228(2) of the CRR which requires that the effective LGD* to be calculated based on the LGD that would apply to non-collateralised exposures under Chapter 3. Similarly, for MNA, for the purposes of RWEA calculation the fully adjusted exposure value obtained in accordance with Chapter 4 is multiplied by the risk weight assigned to the original exposure as if the exposure was not collateralised. In order to ensure a proper estimation of the LGD for exposures that are not collateralised the draft GL clarify in paragraph 27 how to calculate the numerator and denominator of the realised LGD for exposures which are covered by netting arrangements. In particular:

(i) in order to keep consistency between the exposure value used for the calculation of the realised LGD and the adjusted exposure value used for the computation of RWEA it is proposed that both the economic loss (i.e. the numerator of the realised LGD) and the exposure value used as denominator of the realised LGD should be computed according to the adjusted exposure value; and

(ii) as the starting point of the economic loss is an adjusted exposure value that already reflects the netting effects, no cash flows from netting should be included as recoveries in the economic loss.

26. In accordance with Article 181(1)(c) of the CRR in cases where there is a significant degree of dependence between the risk of the obligor with that of the collateral should be addressed by institutions in a conservative manner. When the collateral provided by the obligor corresponds to one of its own liability (e.g. obligor's own bonds or equity) which ranks lower or *pari-passu* in terms of seniority of the claim with respect to the obligation of the obligor which they collateralise (e.g. this is always the case for the obligor's own equity) this dependence is full. Consistent with the fact that such liabilities are residual claims with respect to the main obligation the draft GL clarify in paragraph 28 that such collateral types should not lead to any reduction in the institutions' LGD estimates.

3.4.2 The effects of unfunded credit protection (UFCP)

Methods available to institutions

27. This section aims at outlining the scope of methodologies that can be used for the purpose of recognising the effects of UFCP under A-IRB. In particular, as clarified in paragraphs 29 and 36 of the draft GL and also shown in Figure 2, three possibilities are envisaged in the CRR:

(i) In accordance with Article 160(5), 161(3) and 164(2) of the CRR institutions may **adjust PD or LGD estimates** based on the criteria specified by institutions. In particular, Article 183 (2) and (3) of the CRR specifies how institutions may adjust their risk parameters in order to recognise the CRM effects of guarantees and credit derivatives. In this context, without prejudice of the constraint that the resulting adjusted risk weight should not be lower than the "risk weight floor", the draft GL clarify that institutions have three alternative approaches in order to perform such adjustments:

a. The "**Modelling approach**", where the effects of the UFCP are reflected by estimating new risk parameters and, in particular, by adjusting grades, pools or LGD estimates, including LGD in-default and ELBE estimates, by considering the UFCP as a risk driver in the PD and LGD model development. The draft GL clarify that institutions may adjust either the LGD only or adjust both PD and LGD. In particular, it is clarified that the contemporaneous adjustment of PD and LGD should be limited to those cases where the sole adjustment of the LGD does not allow to fully reflect the CRM effects of the UFCP and so the contemporaneous adjustment of the PD does not lead to double counting. The adjustment of the sole PD parameters, instead, is

not allowed at any circumstances. An important clarification included in the draft GL is that the adjustments of the LGD estimates should be performed based on historical experience (i.e. cash flows received from guarantors and costs associated to the realisation of the UFCP). According to Article 179(1)(a) of the CRR, LGD estimates should not be based purely on judgmental considerations and institutions are therefore not allowed to use pure theoretical models for the purposes of recognising the effects of UFCP in their risk parameters. That said, if historical experience and empirical evidence is the main driver of the adjustments of the grades, pools or LGD estimates based on theoretical assumptions, the presence of some judgmental consideration or adjustments could be accepted. Any theoretical assumptions used should be adequately back-tested/ calibrated by the institutions. Moreover, it is worth noting in this context that it is currently under discussion in the context of the CfA on the impact and implementation of the final Basel III framework whether UFCP provided by guarantors whose direct exposures are treated under SA or F-IRB (SA guarantor and F-IRB guarantor hereafter) may be recognised by use of the modelling approach or whether institutions would be obliged to use Chapter 4 by applying either the SA or the F-IRB risk weight respectively that the institutions would assign to direct, comparable exposures to the guarantor.

b. The "**Substitution approach**", understood as an extreme adjustment of PD and LGD, where both PD and LGD of the obligor are substituted with the PD and LGD that the institution would assign to comparable, direct exposures to the guarantor. The draft GL clarify that for the purposes of applying the substitution approach two conditions should be satisfied: (i) the UFCP should be eligible in accordance with the requirements of Chapter 4 and, (ii) the costs of exercising the UFCP should be expected to be negligible when compared to the amount of the credit protection provided. Clarification is also provided on how to apply the substitution approach on defaulted exposures.

c. Through "**Overrides**" in accordance with Article 172(3) of the CRR and Section 8.2 of the EBA GL on PD and LGD estimation, if there are individual and exceptional circumstances related to a given UFCP which the model cannot reasonably take into account, institutions have the option of adjusting risk parameters in the application of the model, through overrides in the grade assignment process. The draft GL clarify in paragraph 36.c that in order to use such an approach the institutions should be able to justify that the nature and the non-modellable characteristics of the UFCP do not allow the use of either the modelling or the substitution approach.

(ii) In the case of an **SA guarantor**, in accordance with Article 183(4) of the CRR, institutions may recognise the UFCP **in accordance with the requirements (eligibility criteria and methods) of Chapter 4** and therefore by **applying the SA risk weight** that the institutions would assign to direct, comparable exposures to the guarantor.

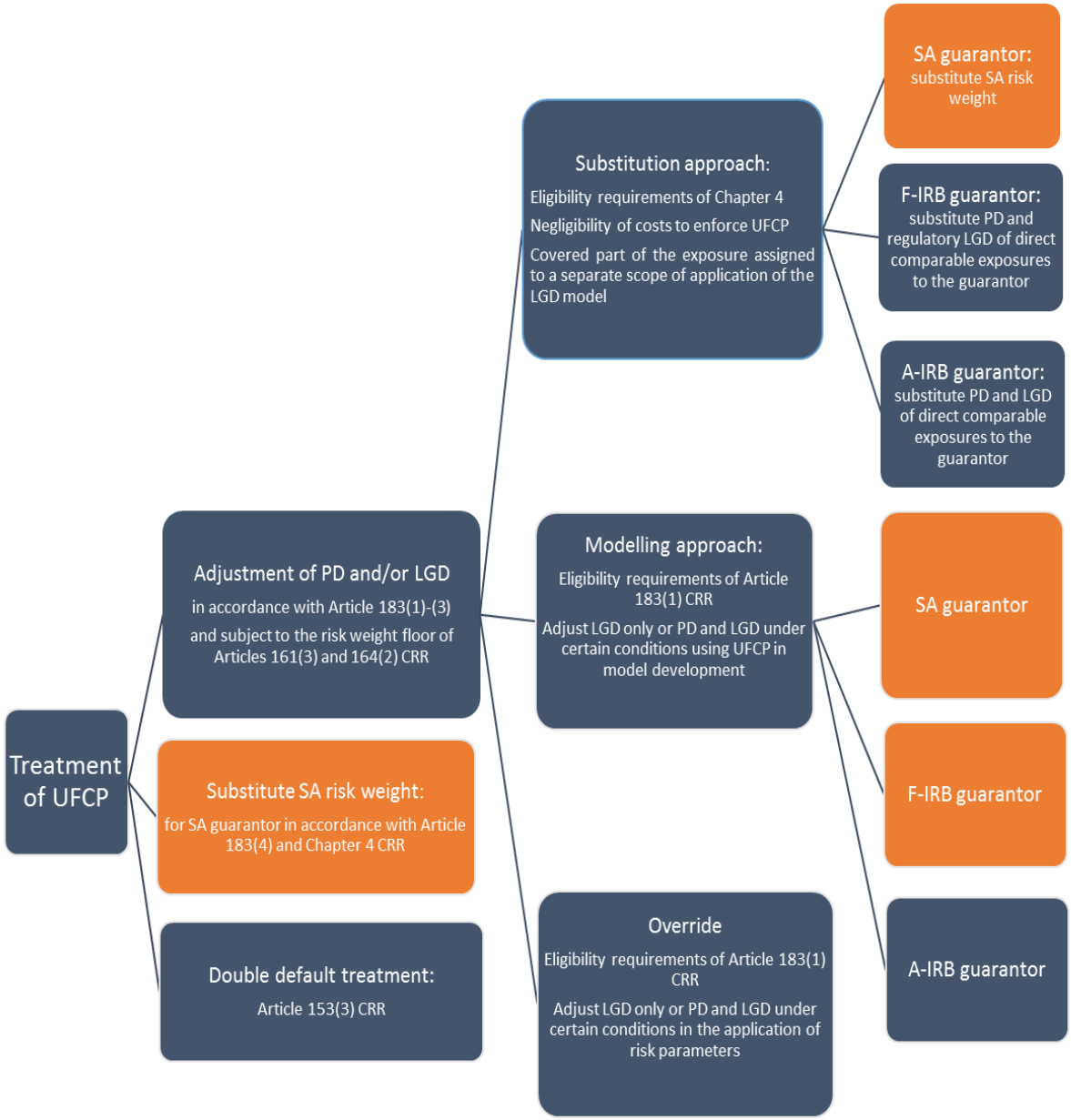
(iii) Finally, UFCP under IRB may be recognised via the treatment proposed under Articles 153(3) and 154(2) of the CRR (**DD treatment**) provided that the requirements under Articles 202 and 217 of the CRR are met.

28. The draft GL also clarify in paragraph 35.a that in assessing of the effects of UFCP on grades, pools or LGD estimates in accordance with Article 183 (2) and (3) of the CRR, institutions should also include an assessment of whether currency mismatches exist between the underlying obligation and UFCP provided and that any such currency mismatches should lead to conservative adjustments in the institution's estimation of LGD. This is to ensure consistency with the requirement of Article 181(1)(d) of the CRR in the case of FCP. Similarly, to ensure consistency with the requirement of Article 181(1)(c) of the CRR on FCP, it is clarified in paragraph 35.c that the correlation between the guarantor's ability and willingness to perform under the obligation and the obligor's inability to repay in accordance with Article 183(2) of the CRR could only result in a conservative adjustment of the grades, pools or LGD estimates.

29. It is also clarified in paragraph 31 of the draft GL that the recognition of the UFCP through the use of the substitution approach or through the application of the SA risk weight that the institutions would assign to direct, comparable exposures toward the guarantor should not imply a change of the exposure class to which the covered part of the exposure is assigned, for prudential purposes. The CRR does not allow splitting of exposures for exposures in the scope of application of the IRB approach and assignment of the part to different exposure classes for prudential purposes. In other words, even if the PD and LGD of the obligor is fully substituted by the PD and LGD of the guarantor, the exposure should remain in the exposure class of the obligor in order to retain the nature of the original transaction and the related default information.

30. As in the case of ineligible collateral including cash flows from ineligible UFCP in the calculation of realised LGD could potentially bias the unsecured LGD if not monitored properly. It is therefore proposed to align the treatment of cash flows from ineligible UFCP to the one specified in paragraph 127 of the EBA GL on PD and LGD estimation for cash flows from ineligible collateral. In particular, as clarified in paragraph 31 of the draft GL, ineligible UFCP should not affect the calculation of RWEA in accordance with any of the methods specified above. Moreover, for the purposes of LGD estimation the cash flows received from ineligible UFCP should be treated as if they had been received without the use of UFCP, i.e. as if they are unsecured. In any case, institutions should collect the information on these cash flows, monitor their levels and where necessary perform appropriate adjustments to avoid any bias in the LGD estimates.

Figure 2: Alternative approaches to recognise the effects of UFCP



Institutions' policies and criteria

31. Having clarified the methods and approaches to recognise credit risk mitigation in the institutions' risk parameters it is important to ensure that institutions cannot cherry pick among these approaches in order to reduce capital requirements. In this respect, rather than requiring institutions to use one of the specific methodologies described above the draft GL clarify in paragraph 0 that institutions should have clear policies for recognising the effects of UFCP that are applied by institutions consistently over time. These policies should include a clear

specification of the scope of application of each specific method/approach described above. It should be clear from these policies for which type of exposure, guarantee and guarantor institutions would apply modelling or substitution approach, for example, in order to reduce arbitrage opportunities and unwarranted variability.

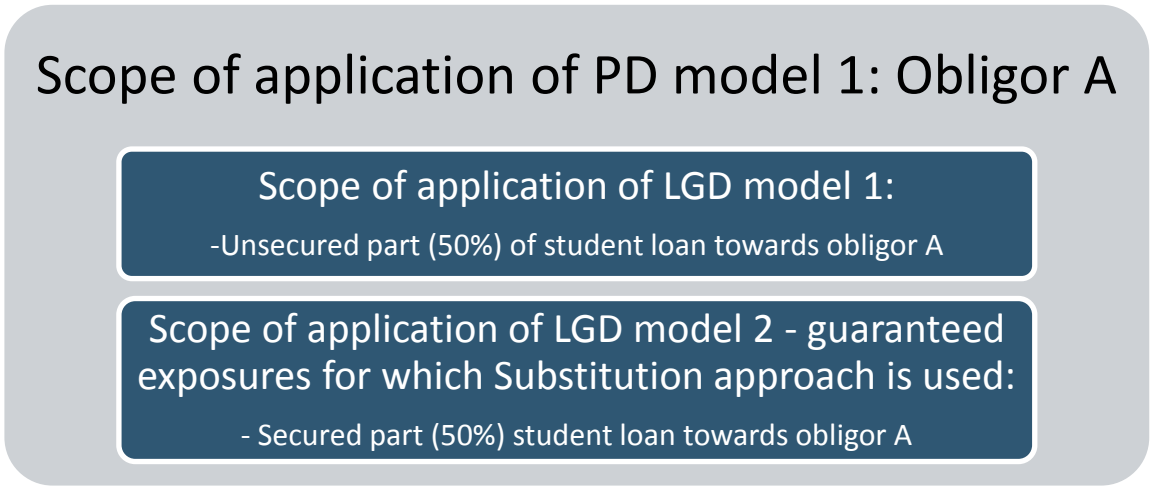
32. Paragraph 33 of the draft GL provides the important clarification that institutions should define ex-ante a separate scope of application of the LGD model for the guaranteed exposures which will be treated according to the substitution approach and which will therefore be assigned to the PD and LGD of a comparable exposure to the guarantor in the application stage. Moreover, in order to reduce the burden on institutions it is clarified that for such guaranteed exposures institutions are not required to estimate the LGD parameter while they will still be required to estimate the PD of the original obligor. However, all the data relevant for PD and LGD estimation should be stored in the reference data set (RDS) according to Sections 5.2.1, 5.3.1 and 6.1.2 of the EBA GL on PD and LGD estimation. This implies that in case of guarantees that only partially cover the exposure value (Figure 3 describes the example of a student loan which benefit from a guarantee covering 50% of the loan), institutions should be able to split the exposure in two separate parts:

    (i) the part of the exposure covered by the UFCP (in the example a student loan covered for 50% by the guarantee) to which they apply the substitution approach and which will take part to the separate scope of application of the LGD model. In Figure 3 the 50% of the student loan towards obligor A will be assigned to the scope of application of the LGD model 2 for exposures to which the substitution approach is applied, where the PD and the LGD of direct, comparable exposures to the guarantor are used; and

    (ii) the part of the exposure which is not covered by the UFCP (in the example the 50% part of the student loan which does not benefit from the guarantee) to which institutions should assign the PD and LGD estimates applicable to exposure which do not benefit from UFCP, and which is assigned to the range of application of the LGD model relevant for exposures which do not benefit from UFCP for the purpose of LGD estimation. In Figure 3 the remaining 50% of the student loan towards obligor A will be assigned to the scope of application of the LGD model 1 as well as to the scope of application of the PD model 1.

33. It is worth noting that institutions are not requested to estimate the LGD on the part of the exposure covered by the UFCP to which substitution approach is applied. Anyway, for the purposes of properly estimating the LGD on the part of the exposure that is not covered by the UFCP, institutions should also focus on properly splitting the cash flows and costs. Paragraph 34 of the draft GL provides guidance on how institutions should split cash flows and costs between the part of the exposure which is covered by the UFCP and to which the substitution approach is applied, and the part of the exposure that is not covered by the UFCP. In particular, the realised LGD on the part of the exposure which is not covered by UFCP should be allocated to the LGD estimation for exposures which do not benefit from UFCP.

Figure 3: Scope of application of PD and LGD model for a student loan to obligor A that benefit from a 50% guarantee.



34. Another important clarification included in the draft GL in paragraph 38 relates to the recognition of credit risk mitigation for exposures that benefit from multiple forms of credit protection, including cases where the single exposure is covered by both FCP and UFCP or multiple UFCP. In order to ensure a consistent application of the modelling and substitution approach the draft GL provide a set of general principles that institutions should comply with the following sequence of conditions:

    (i) institutions should have clear policies for the allocation of the FCP to different parts of the exposure value, determining for example whether the FCP overlaps or not with the UFCP according to which the substitution approach is applied; these policies should be consistent with the internal recovery and collection process;

    (ii) institutions should not recognise the effects of CRM technique more than once; this implies that in allocating the FCP between the part of the exposure which is also covered by UFCP (i.e. the exposure value of 80 in Figure 4) and the part of the exposure which is not (i.e. the exposure value of 20 in Figure 4), double recognition of the FCP should not be allowed; in other words, according to the example allocation of FCP and UFCP of Figure 4, the application of the substitution approach should be such that, as described in Figure 5 the FCP of 25 should be considered in estimating the LGD of comparable exposures to the guarantor for the purposes of applying the substitution approach to the exposure value of 80 covered by UFCP, while the LGD on the remaining exposure value of 20 should be estimated considering the remaining FCP of 10; similarly, in case of multiple UFCP covering the same exposure, in allocating the UFCP between the part of the exposure which is also covered by another UFCP and the part of the exposure which is not, double recognition of the UFCP should not be allowed;

(iii) the internal criteria specified by the institutions should include criteria to list the UFCP to which they apply the substitution approach in case of multiple UFCPs which cover the same part of the exposure value;

(iv) institutions must not split the UFCP in two parts and applying to one part the substitution approach while modelling the effect of the remaining part. In other words the application of the substitution approach described in the second panel of Figure 5 should not be allowed; in case of multiple UFCPs with partially overlapping UFCPs (i.e. as described in Figure 6 and Figure 7) institutions would be allowed to split an UFCP (i.e. in the example UFCP provided by guarantor A) and apply the substitution approach only to one part of the UFCP (i.e. in the example only for an exposure value of 60) and considering the effect of the remaining part of the UFCP in the application of substitution approach with respect to the other UFCP; in the example of Figure 6 and Figure 7, in applying the substitution approach to the UFCP(B) institutions should consider the effect of the remaining part of UFCP(A) in the estimation of comparable direct exposures towards guarantor B; the rationale behind this is that in this second case the part of the UFCP(A) is anyway considered under the substitution approach of UFCP(B) and not under the modelling approach.

Figure 4: Allocation of credit risk mitigation for an AIRB exposure (e.g. 100 MEur) partially covered by an UFCP (e.g. 80 MEur) and by FCP (e.g. 35 MEur)

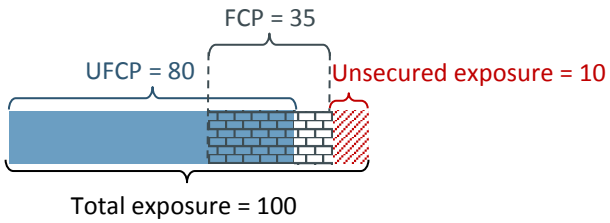


Figure 5: Application of the substitution approach based on the allocation described in Figure 4

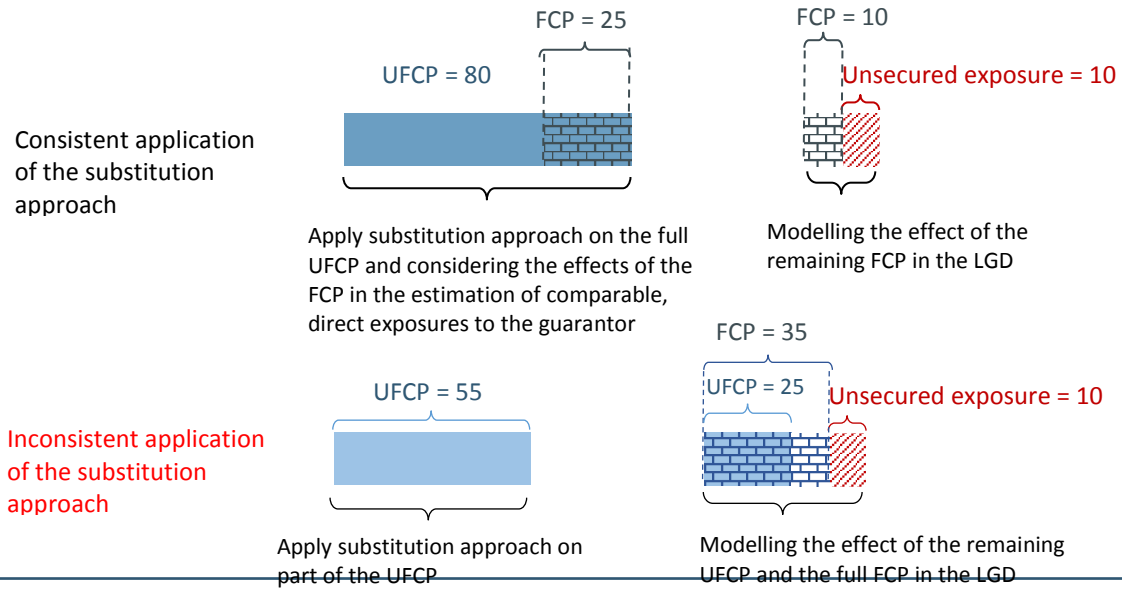


Figure 6: Allocation of credit risk mitigation for an AIRB exposure (e.g. 100 MEur) partially covered by an UFCP (e.g. 80 MEur) provided by guarantor A and by an UFCP (e.g. 40 MEur) provided by guarantor B.

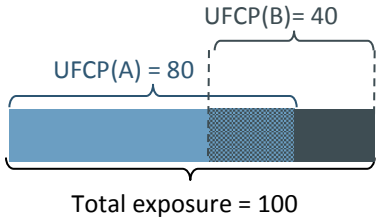
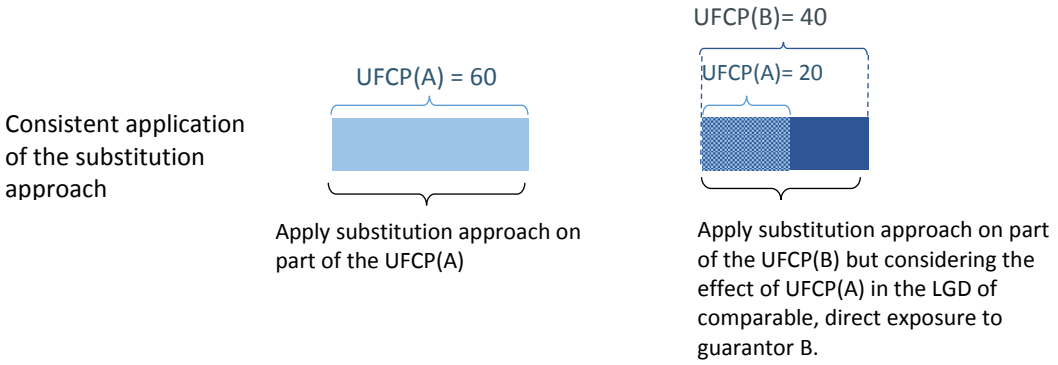


Figure 7: Application of the substitution approach based on the allocation described in Figure 4



Calculation of the risk weight floor

35. Articles 161(3) and 164(2) of the CRR clarify that in recognising the effects of UFCP in the risk parameters institutions should not assign an adjusted risk weight to the guaranteed exposure that is below the risk weight of a comparable, direct exposure to the guarantor, which therefore acts therefore as a risk weight floor. The application of this floor to the adjusted risk weight obtained through the application of modelling approach, substitution approach or override is straightforward in case of UFCP covers the whole exposure. On the contrary, additional guidance is provided in the draft GL in paragraph 37.a on how to calculate the risk weight floor in case of a UFCP that only partially cover the exposure. In such a case the risk weight floor should be computed as an exposure-weighted average of the risk weight of a comparable, direct exposure to the guarantor, weighted for the part of the exposure covered by the UFCP, and the risk weight of an exposure towards the obligor without the effects of the UFCP, weighted for by the part of the exposure which is not covered by the UFCP. As an example, in the case of an exposure of 100 which is covered by an UFCP of 80 and where the risk weight of a comparable, direct exposure to the guarantor is 15% and the risk weight of an exposure towards the obligor without the effect of the UFCP is 30% the risk weight floor should be computed as follow: $\frac{15\%*80+30\%*20}{100} = 18\%$.

36. Following the same logic, paragraph 37.b of the draft GL also clarify how institutions should compute the risk weight floor in case of multiple UFCPs with each covering different parts of the exposure value. In such a case, the risk weight floor should be the exposure-weighted average of the risk weights of comparable, direct exposures to each guarantor and, if relevant

(i.e. if the sum of the UFCP do not cover the full exposure, e.g. UFCP(A)+UFCP(B)< exposure value), the risk weight of an exposure towards the obligor without the effects of UFCP. As an example, in the case of an exposure of 100, where 40 of this exposure is covered by an UFCP provided by a guarantor A and another portion of 40 is covered by an UFCP provided by a guarantor B and where the risk weights of comparable, direct exposures to the guarantor A and B are 10% and 15% respectively, and the risk weight of an exposure towards the obligor without the effect of the UFCP is 30%, the risk weight floor should be computed as follows: $\frac{10\%*40+15\%*40+30\%*20}{100} = 16\%$.

37. Finally, in paragraph 37.c of the draft GL, it is clarified how institutions should compute the risk weight floor in case of multiple UFCPs providing protection to the same part of the exposure. In particular, institutions should perform separately the calculation of the risk weight floor with respect to each guarantor considering the effect of the other existing UFCP in the LGD estimates of comparable direct exposures to the guarantor. In such a case, the risk weight floor should be the exposure-weighted average of the risk weights of each comparable direct exposure to the guarantor.

LGD of comparable direct exposure to guarantor with multiple credit protections

38. For the purpose of both computing the risk weight floor of Articles 161(3) and 164(2) of the CRR and applying the substitution approach, institutions should be able to estimate the LGD applicable to comparable, direct exposures to the guarantor. This LGD may be challenging to estimate in some cases, especially when the exposure benefits from more than one credit protection and therefore the LGD of a comparable direct exposure to a guarantor should reflect the presence of other forms of credit protection.[13] In applying the substitution approach to the UFCP provided by one guarantor institutions should estimate the LGD of direct exposures to the guarantor backed by the credit protections (e.g. FCP) covering the original exposure. As an example, in the case of an institution A granting a retail mortgage which is guaranteed by another institution B, institution A may find it challenging to estimate the LGD of a comparable direct exposure to institution B, since it would be a direct exposure to institution B backed by a mortgage on residential property. Considering such difficulties, the draft GL provide alternative ways for performing this estimation in particularly complicated cases such as cases with both FCP and UFCP or multiple UFCP that cover the same part of the exposure.

39. In particular, for exposures covered by both FCP and UFCP, paragraph 39 proposes that:

    (i) If the direct exposures to the guarantor are treated under the F-IRB the LGD of a comparable, direct exposure to the guarantor is computed under F-IRB in accordance with Chapter 4;

[13] It should be noted, however, that the recognition of CRM is an option for institutions and, therefore, in case of multiple for of credit protection covering the same exposure an institution can naturally choose to disregard either the FCP or the UFCP in the capital calculations. For example, an institution could for simplicity reasons choose to disregard the FCP and apply the simple substitution approach to the UFCP.

(ii) If the direct exposures to the guarantor are treated under the A-IRB, the institution should try to estimate the LGD of comparable, direct exposures to the guarantor including the effect of the overlapping FCP; in other words, take as an example the case of Figure 4, the LGD of comparable direct exposures to the guarantor providing the UFCP of 80 should include the effects of the FCP of 25; if the institution is not able to perform this estimation the two following alternatives are considered:

a. if the LGD of exposures to the guarantor which do not benefit from any form of CRM is lower than or equal to the LGD of exposures to the obligor[14] which do not benefit from any form of credit risk mitigation, then the institution can use the LGD of the original exposure to the obligor including the effect of FCP as LGD of a comparable direct exposure to the guarantor; taking the example of Figure 4, if the LGD of direct unguaranteed and uncollateralised exposure to the guarantor providing the UFCP for 80 is lower than or equal to the unsecured LGD of unguaranteed and uncollateralised exposures to the original obligor, then the institution can use the LGD of the original exposure of 80 considering the effect of the FCP for 25; the rationale behind this proxy is that while the PD depends solely on characteristics of the obligor, the LGD is often mostly derived from characteristics of the exposure; in extreme cases, if the LGD estimation of an institution is solely dependent on characteristics of the exposure the LGD would be the same irrespective of whether the exposure is held against the obligor or the guarantor because the risk drivers would be the same as for the exposure against the obligor; or

b. if the LGD of exposures to the guarantor which do not benefit from any form of CRM is higher than the LGD of exposures to the obligor which do not benefit from any form of CRM, then the institution is allowed to use the F-IRB framework of Chapter 4 in order to recognise the FCP in the LGD of direct exposures to the guarantor; in particular, for the purpose of computing the effective LGD under the FCCM for recognising financial collaterals and credit linked notes, in accordance with Article 228 of the CRR, institutions may use as input either the LGD estimated by the institution on the original exposure to the guarantor without any FCP or the regulatory LGD in accordance with Article 161(1) of the CRR.

40. In particular, for exposures covered by multiple UFCPs which provide protection to the same part of the exposure, following the same rationale as for the case of exposures covered by both FCP and UFCP, paragraph 40 proposes that:

[14] If the cash flows from selling the collateral are not enough to cover the outstanding amount then the amount the institution is able to get back from the guarantor is higher than the one that the institution would get from the obligor. Therefore, using the LGD of the original exposure to the obligor is a prudent approach.

(i) if direct exposures to the guarantor are treated under the F-IRB the LGD of comparable, direct exposures to each guarantor including the effects of the other UFCPs is computed under the F-IRB in accordance with Chapter 4;

(ii) if direct exposures to the guarantor are treated under the A-IRB, the institution should try to estimate the LGD of comparable, direct exposures to the guarantor including the effects of the other UFCPs in the first place; in other words, in the example in Figure 7, the LGD of comparable direct exposures to the guarantor providing the UFCP(B) of 40 should include the effects of the overlapping UFCP(A) of 20; if the institution is not able to perform this estimation the two following alternatives are considered:

a. if the LGD of exposures to the guarantor which do not benefit from any form of credit risk mitigation is lower than or equal to the LGD of exposures to the obligor which do not benefit from any form of CRM, then the institution can use the LGD of the original exposure including the effect of the other UFCPs as LGD of a comparable direct exposure to the guarantor; taking the example in Figure 7 this implies that if the LGD of unguaranteed and uncollateralised exposures to the guarantor B is not higher than the LGD of unguaranteed and uncollateralised exposures to the original obligor, the institution can use the LGD of the original exposure of 40 backed by the UFCP provided by guarantor A for 20;

b. if the unsecured LGD of exposures to the guarantor is higher than the unsecured LGD of exposure to the obligor, then the institutions are allowed to use the F-IRB framework of Chapter 4 in order to recognise the remaining UFCPs in the LGD of direct exposures to the guarantor.

4. Draft Guidelines

Draft Guidelines

on Credit Risk Mitigation for institutions applying the IRB Approach by using their own estimates of LGDs

1. Compliance and reporting obligations

Status of these guidelines

1. This document contains guidelines issued pursuant to Article 16 of Regulation (EU) No 1093/2010[15]. In accordance with Article 16(3) of Regulation (EU) No 1093/2010, competent authorities and financial institutions must make every effort to comply with the guidelines.

2. Guidelines set the EBA view of appropriate supervisory practices within the European System of Financial Supervision or of how Union law should be applied in a particular area. Competent authorities as defined in Article 4(2) of Regulation (EU) No 1093/2010 to whom guidelines apply should comply by incorporating them into their practices as appropriate (e.g. by amending their legal framework or their supervisory processes), including where guidelines are directed primarily at institutions.

Reporting requirements

3. According to Article 16(3) of Regulation (EU) No 1093/2010, competent authorities must notify the EBA as to whether they comply or intend to comply with these guidelines, or otherwise with reasons for non-compliance, by ([dd.mm.yyyy]). In the absence of any notification by this deadline, competent authorities will be considered by the EBA to be non-compliant. Notifications should be sent by submitting the form available on the EBA website to compliance@eba.europa.eu with the reference 'EBA/GL/201x/xx'. Notifications should be submitted by persons with appropriate authority to report compliance on behalf of their competent authorities. Any change in the status of compliance must also be reported to EBA.

4. Notifications will be published on the EBA website, in line with Article 16(3).

[15] Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC, (OJ L 331, 15.12.2010, p.12).

2. Subject matter, scope and definitions

Subject matter

5. These guidelines specify the requirements for using credit risk mitigation in accordance with the relevant provisions of Part Three, Title II, Chapter 3 of Regulation (EU) No 575/2013 as provided by Article 108(2) of that Regulation. These guidelines also derive from the EBA final draft regulatory technical standards on the IRB assessment methodology EBA/RTS/2016/03 [RTS on IRB assessment methodology] of 21 July 2016.[16]

Scope of application

6. These guidelines apply in relation to the IRB approach in accordance with Part Three, Title II, Chapter 3 of Regulation (EU) No 575/2013 and, in particular, to institutions which use own LGD estimates in accordance with Article 143of that Regulation.

7. In particular, these guidelines specify the recognition of unfunded credit protection, as defined in Article 4(1)(59) Regulation (EU) No 575/2013, in accordance with Articles 160(5), 161(3), 163(4),164(2) and 183 of that Regulation as well as funded credit protection, as defined in Article 4(1)(58) of that Regulation, in accordance with Article 166 and Article 181 of that Regulation.

Addressees

8. These guidelines are addressed to competent authorities as defined in point i of Article 4(2) of Regulation (EU) No 1093/2010 and to financial institutions as defined in Article 4(1) of Regulation No 1093/2010.

Definitions

9. Unless otherwise specified, terms used and defined in Regulation (EU) No 575/2013 and Directive 2013/36/EU and EBA Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures EBA/GL/2017/16 (EBA GL on PD and LGD estimation) have the same meaning in the guidelines.

[16] References to Articles of the RTS on IRB assessment methodology will be replaced with references to the Delegated Regulation adopting the EBA final draft RTS on IRB assessment methodology, once that is published in the Official Journal of the EU.

3. Implementation

Date of application

10. These guidelines apply from 1 January 2021. Institutions should incorporate the requirements of these guidelines in their rating systems by that time, but competent authorities may accelerate the timeline of this transition at their discretion.

4. General provisions

11. In accordance with Article 108(2) of Regulation (EU) No 575/2013 institutions that apply the IRB approach by using their own estimates of LGD in accordance with Article 143(2) of that Regulation may recognise credit risk mitigation in accordance with Part Three, Title II, Chapter 3 of that Regulation. Institutions may recognise credit risk mitigation in accordance with Part Three, Title II, Chapter 4 of Regulation (EU) No 575/2013 where those requirements are referred to in Part Three, Title II, Chapter 3 of that Regulation and in accordance with these guidelines.

12. For the types of exposures where institutions have received permission to use own LGD estimates, the relevant provisions for recognising the effects of the unfunded credit protection are Articles 160(5), 161(3), 164(2)-(3) and 183 of Regulation (EU) No 575/2013.

13. For the purposes of Article 181(1) of Regulation (EU) No 575/2013 any reference to the term collateral should be understood as a reference to funded credit protection other than the funded credit protection as referred to in Article 166(2) and (3) of that Regulation. This includes in particular funded credit protection other than master netting agreements and on-balance sheet netting , which are reflected in the exposure value. Therefore, for the types of exposures where institutions have received permission to use own LGD estimates, institutions may recognise funded credit protection in accordance with Article 181(1) of Regulation (EU) No 575/2013 only where it has not already been recognised in the exposure value for the cases specified in Article 166 of that Regulation and in line with paragraph 14.

14. The credit risk mitigation effects of on-balance sheet netting should be recognised in the exposure value in accordance with Article 166(3) of Regulation (EU) No 575/2013 and the credit risk mitigation effects of master netting agreements should be recognised in the exposure value in accordance with Article 166(2) of that Regulation. In recognising the effects of on-balance sheet netting and master netting agreements institutions should take into account all requirements specified in Chapter 4 of Title II in Part Three of Regulation (EU) No 575/2013, including the eligibility criteria and the methods for recognising the risk mitigation effects of such instruments.

15. Institutions may recognise credit insurance in accordance with paragraph 12 if the associated techniques of credit risk mitigation can be classified as unfunded credit protection according to the definition in point (59) of Article 4(1) of Regulation (EU) No 575/2013. In particular, institutions may recognise the credit insurance according to Article 183(1) of Regulation (EU) No 575/2013 and Article 183(2) or 183(3) of Regulation (EU) No 575/2013 depending on whether credit insurance effectively functions like a guarantee or like a credit derivative respectively.

5. Eligibility requirements

5.1.1 Eligibility requirements for funded credit protection

16. In accordance with Article 181(1)(f) of Regulation (EU) No 575/2013, for the purposes of establishing internal requirements for legal certainty which are generally consistent with those set out in Chapter 4, Section 3 of Title II in Part Three of that Regulation to the extent that LGD estimates take into account the existence of collateral, institutions should ensure that the collateral arrangement under which the collateral is provided is legally effective and legally enforceable in all relevant jurisdictions, giving the institution the right to liquidate or repossess the collateral in a reasonable timeframe, also in the event of the default, bankruptcy or insolvency of the obligor and, where applicable, of the custodian holding the collateral.

17. In accordance with Article 181(1)(f) of Regulation (EU) No 575/2013, for the purposes of establishing internal requirements for collateral valuation which are generally consistent with those set out in Chapter 4, Section 3 of Title II in Part Three of that Regulation, to the extent that LGD estimates take into account the existence of collateral institutions should ensure that all the following conditions are met:

    a. the rules governing the revaluation of the collateral, including methods and frequency of the monitoring of the value of the collateral, are consistent for each type of collateral and are specified in the internal policies of the institution;

    b. where the market is subject to significant changes in conditions, institutions carry out more frequent monitoring.

18. For the purposes of Article 55 of the RTS on IRB assessment methodology and to ensure compliance with the general principles on legal certainty and collateral valuation of paragraphs 16 and 17, the internal requirements for legal certainty and collateral valuation established by institutions in accordance with Article 181(1)(f) of Regulation (EU) No 575/2013 should be fully consistent with the following requirements of Chapter 4, Section 3 of Title II of that Regulation:

    a. for financial collateral, with Article 207(3) and 207(4) letter (d) of that Regulation;

    b. for immovable property collateral, with Article 208(2) and (3) of that Regulation;

c. for receivables, with Article 209(2) of that Regulation;

d. for other physical collateral, with Article 210 letters (a) and (g) of that Regulation;

e. for lease exposures treated as collateralised, with Article 208(2) and (3) and Article 210 letters (a) and (g) of that Regulation;

f. for other funded credit protection, with Article 212(1) letter (a) and Article 212(2) letter (f) of that Regulation.

Question 1: Do you agree with the proposed clarifications on eligibility requirements in accordance with Article 181(1)(f) of the CRR?

19. Institutions should obtain a legal opinion confirming the legal effectiveness and enforceability of the collateral arrangement in all relevant jurisdictions for the purposes of paragraph 16. This legal opinion should be:

    a. obtained at least for each type of collateral arrangement; and

    b. provided in a written form by a legal counsel.

    For the purpose of letter a., institutions may rely on a single legal opinion in relation to multiple collateral arrangements where the legal opinion relates to the same applicable law . Institutions should obtain additional legal opinion relating to any substantive variation to the terms of the collateral arrangement that could affect the legal effectiveness and enforceability of the specific collateral arrangement. At a minimum, changes in the legal framework applicable to the collateral arrangements and application of the collateral arrangement to other types of exposures or other obligors should always be considered as cases of substantive variation to the terms of the contract.

    For the purpose of letter b., where the legal counsel is an employee of the institution, such a legal counsel should be independent from the credit decision process responsible for originating or renewing the exposures under consideration.

20. Institutions should verify that the legal opinions that should be obtained in accordance with paragraph 19, ensures at a minimum that for other physical collateral which are movable and not in the possession of the institution the collateral agreement is legally effective and enforceable against the obligor at least in the following jurisdictions:

    a. the jurisdiction in which the institution and the obligor are incorporated and, if natural persons, their place of residence;

    b. if relevant, the jurisdiction whose law governs the collateral agreement;

    c. the jurisdiction where the collateral is registered or the jurisdiction in which the owner of the collateral is incorporated;

d. the set of jurisdictions where the collateral could move during the lifetime of the loan according to the collateral agreement.

21. Institutions should verify that the legal opinions, that should be obtained in accordance with paragraph 19, ensures at a minimum that for leasing exposures treated as collateralised the collateral agreement is legally effective and enforceable against the obligor at least in the following jurisdictions:

a. the jurisdiction in which the collateral is registered and/or the jurisdiction in which the lessee of the collateral is incorporated;

b. the set of jurisdictions where the collateral could move during the lifetime of the loan according to the collateral agreement.

Explanatory box for consultation purposes

Paragraphs 20 and 21 deal with the issue of identifying the relevant jurisdictions for other physical collaterals which are movable and not in the possession of the institution, as well as leasing exposures, related to movable objects such as cars and ships, considering that these types of collateral can be moved and they are not under the control of the institution. By their intrinsic nature these goods can be located in any jurisdictions because they can be easily moved. A legal certainty assessment throughout all the jurisdictions where the goods are or could be located would be challenging and overly burdensome. Therefore, in order to ensure that the collateral arrangement is binding and enforceable, which the legal opinion from a legal counsel must ascertain, it is proposed to identify the set of relevant jurisdictions where the collateral could move during the lifetime of the loan according to the collateral agreement. This may be perceived as a too strict approach because implicitly require the collateral arrangement to specify this set of jurisdictions.

An alternative approach for performing the legal certainty assessment for such type of exposures that was considered in developing the Guidelines is to identify at least, as of the date the collateral arrangement is entered into, legally relevant and to request legal opinions only in relation to the law of these jurisdictions. This would imply to require that the jurisdictions where the collateral is usually located according to the purpose of its use should be evaluated by institutions as relevant for the purposes of evaluating whether the collateral agreement is effective and legally enforceable.

The approach reflected in paragraph 20 and 21 aim at ensuring a thorough assessment of the relevant jurisdictions for movable physical collaterals. However, EBA is seeking feedback on the practical applicability of the proposed approach, in particular considering the fact that it implies that the collateral arrangement specifies the set of jurisdictions where the collateral could move during the lifetime of the loan.

Question 2: Do you agree with the proposed clarifications on the assessment of legal certainty of movable physical collateral? How do you currently perform the assessment of legal effectiveness and enforceability for movable physical collateral?

22. In accordance with Article 166(2) and (3) of Regulation (EU) No 575/2013, the eligibility requirements for master netting agreements and on-balance sheet netting shall be applied in accordance with Chapter 4 of Title II in Part Three of that Regulation.

5.2 Eligibility requirements for unfunded credit protection

23. For the purposes of Article 183(1)(c) of Regulation (EU) No 575/2013, institutions should obtain a legal opinion confirming that the unfunded credit protection arrangement is legally effective and enforceable in all relevant jurisdictions. This legal opinion should be:

    a. obtained at least for each type of unfunded credit protection; and

    b. provided in a written form by a legal counsel.

    For the purpose of letter a., institutions may rely on a single legal opinion to support multiple unfunded credit protection arrangements where the legal opinion relates to the same applicable law. Institutions should obtain additional legal opinion relating to any substantive variation to the terms of the contract that could affect the legal effectiveness and enforceability of the arrangement of the specific unfunded credit protection. At a minimum, changes in the legal framework applicable to the unfunded credit protection arrangement, the type of guarantor and the application of such unfunded credit protection arrangement to other types of exposures should always be considered as cases of substantive variation to the terms of the contract.

    For the purpose of letter b., where the legal counsel is an employee of the institution, such legal counsel should be independent from the credit decision process responsible for originating or renewing the exposures under consideration.

24. For the purposes of establishing the eligible requirements of unfunded credit protection in accordance with Article 183(1)(a) of Regulation (EU) No 575/201, the criteria specified by institutions should include that defaulted guarantors should be considered as ineligible. For the purposes of LGD estimation in accordance with Article 183(2) of Regulation (EU) No 575/2013, the criteria specified by institutions for adjusting LGD estimates should include that, where the guarantor is in defaulted status before the default of the obligor, institutions should treat the exposure as if the exposure was not benefiting from the unfunded credit protection.

6. The effects of credit risk mitigation

6.1 The effects of funded credit protection

25. Institutions may recognise credit risk mitigation effects of funded credit protection other than master netting agreements and on-balance sheet netting as specified in paragraph 13 for the purposes of Article 181(1) letters (c) to (g) of Regulation (EU) No 575/2013.

26. For the purposes of recognising the credit risk mitigation effects of on-balance sheet netting through the exposure value in accordance with Article 166(3) of Regulation (EU) No 575/2013, institutions may use the Financial Collateral Comprehensive method in accordance with Article 228(2) of that Regulation when calculating the risk-weighted exposure amounts and expected loss amounts, where:

    a. the LGD should be the LGD estimated by the institution, where the exposure was not subject to on-balance sheet netting, according to paragraph 27;

    b. E should be the exposure value as would be determined under Article 166 of Regulation (EU) No 575/2013 without considering the effects of on-balance sheet netting, in accordance with Article 223(3) of that Regulation;

    c. E* should be the fully adjusted exposure value calculated in accordance with Articles 223(5) and 166(3) of Regulation (EU) No 575/2013.

27. For the purposes of LGD estimation as referred to in Article 181(1)(a) of Regulation (EU) No 575/2013 and in accordance with paragraph 131 of the [EBA GL on PD and LGD estimation] institutions should calculate the realised LGD for each exposure which is covered by master netting agreement or on-balance sheet netting as the ratio of the economic loss to the outstanding amount of the credit obligation at the moment of default adjusted in accordance with Article 166(2)-(3) of Regulation (EU) No 575/2013. Institutions should calculate the economic loss on the basis of this outstanding amount and no cash flows from netting should be included as recoveries after default in the economic loss.

Explanatory box for consultation purposes

In specifying the calculation of the realised LGD on exposures covered by on-balance sheet netting or master netting agreements, it was considered that the resulting measure of realised LGD should be consistent with the exposure value that will be used for the purpose of calculation of capital requirements. Hence, since according to Article 166(2) and 166(3) of the CRR master netting agreements and on-balance sheet netting are recognised through the exposure value, paragraph 27, clarifies that this adjusted exposure value should be used for the purposes of computation of both the numerator and denominator of the realised LGD. Moreover, as the starting point of the economic loss calculation is an exposure value that already considers the netting effects, no such

effect should be considered for the purposes of computing the economic loss in the form of recoveries after default.

Question 3: Do you agree with the proposed clarification regarding the calculation of realised LGD on exposures covered by eligible on-balance sheet netting or master netting agreements?

28. For the purposes of assessing the effects of funded credit protection in accordance with Article 181(1)(c) of Regulation (EU) No 575/2013, the criteria specified by institutions for adjusting LGD estimates should not lead to a decrease in the value of the LGD estimates when the collateral is a liability of the obligor which ranks either lower or pari-passu with respect to the obligation the obligor has with the institution.

Explanatory box for consultation purposes

The existence of collateral (FCP) is one of the main driver that affect that affect the recovery process, and, therefore, the most important risk driver in the LGD estimation. In this respect, guidance on how FCP other than MNA and OBSN should be recognised in the institutions' LGD estimates has already been provided in Section 6 of the EBA GL on PD and LGD estimation. In particular, modelling the effect of the collateral in the LGD estimates is the only way envisaged to recognise FCP for A-IRB banks. The EBA GL on PD and LGD estimation, in fact, clarify that:

- the institutions' reference data set should include all relevant information about the collaterals and the process of their realization;
- Institutions are required to incorporate in their LGD estimates at least the main types of collaterals used for a give type of exposure and that the recoveries realised with the use of collaterals have to be treated as such regardless of the form of realisation of collateral;
- General principles for reflecting the effect of collaterals in the LGD estimates are also provided to avoid bias in the LGD estimates.

The EBA GL on PD and LGD estimation does not prescribes any specific methodology for reflecting the effect of collateral in the LGD estimates. In this respect there may be some institutions that recognise the effect of FCP in their LGD estimates by means of approaches similar in spirit, for example, to the financial collateral comprehensive method (FCCM) of Chapter 4 used for recognising the effects of FCP on F-IRB exposures. In this respect, for A-IRB exposures, institutions may use approaches for calculating E* and for haircutting their collateral which are similar to the effective LGD methods of Article 228 but then as part of LGD modelling are anyway subject to own estimates of haircuts, back-testing, validation, etc. It is worth noting that, in this respect, the final Basel III framework (paragraph 87) allows institutions to use simpler formula suitable under the F-IRB approach for those cases where the institution "may not be able to model the effects of the collateral (ie it may not have enough data to model the effect of the collateral on recoveries)".

Question 4: Do you have specific concerns related to the recognition of collateral in the modelling of LGD? How do you currently recognise collateral in your LGD estimates?

6.2 The effects of unfunded credit protection

29. Institutions may recognise the credit risk mitigation effects of unfunded credit protections using one of the following methods:

    a. adjustment of PD or LGD estimates in accordance with Article 160(5), 161(3) and 164(2) of Regulation (EU) No 575/2013, on the basis of the criteria specified by institutions in accordance with Article 183(2) and (3) of Regulation (EU) No 575/2013, as further specified in paragraphs 35 and 36 and, in particular, by using one of the following approaches:

        i. adjustment of grades, pools or LGD estimates, including LGD in-default and EL_{BE}, by considering the unfunded credit protection in the estimation of risk parameters as further specified in paragraph 36.a of these Guidelines (i.e. 'modelling approach');

        ii. when direct exposures to the guarantor are, or would be, treated under the IRB approach, substitution of both the PD and LGD risk parameters of the underlying exposure with the corresponding PD and LGD of a comparable direct exposure to the guarantor in accordance with paragraph 36.b of these Guidelines (i.e. 'substitution approach'); in particular, in case the institutions have not received the permission of the competent authority to use own LGD estimates in accordance with Article 143(2) of Regulation (EU) No 575/2013 for direct exposures to the guarantor, institutions should substitute the LGD of the underlying exposure with the LGD value specified according to Article 161(1) of that Regulation; under this approach the following applies to defaulted exposures:

            - the EL_{BE} should be the expected loss which would have been assigned to the guaranteed part of the exposure after the substitution of the PD and LGD parameters in case the obligor was in a non-defaulted status;
            - the LGD in-default should be such that the risk weight assigned to the guaranteed part of the exposure is the same as the risk weight which would have been assigned to the guaranteed part of the exposure after the substitution of the PD and LGD parameters in case the obligor was in a non-defaulted status;

        iii. adjustment of grades, pools or LGD estimates, including LGD in-default and EL_{BE}, in the application of risk parameters via override of the grade assignment process in accordance with Article 172(3) of Regulation (EU) No 575/2013 and Section 8.2 of the [EBA GL on PD and LGD estimation] and as further specified in paragraph 36.c.

    b. if the institution applies the Standardised Approach for direct exposures to the guarantor, use of the risk weight applicable under the Standardised Approach to the

guaranteed part of the exposure in accordance with Article 183(4) of Regulation (EU) No 575/2013;

c. calculation of the risk-weighted exposure amount in accordance with Articles 161(4), 164(3), 153(3) and 154(2) of Regulation (EU) No 575/2013, i.e. 'double default'.

Question 5: What approaches for the recognition of the unfunded credit protection do you currently use? What challenges would there be in applying approaches listed above for the recognition of unfunded credit protection?

Explanatory box for consultation purposes

On 4 May 2018, the EBA received from the European Commission a CfA on the impact and implementation of the finalised Basel III standards. The revisions in the scope of the CfA include the revised standards in the area of credit risk and, in particular, on some specific aspects of the credit risk mitigation framework. In this context, any aspects of the credit risk mitigation framework, which after the implementation of the revised Basel III standards may lead to a change of the current CRR rules are not included in these Guidelines, but are instead discussed in the context of the CfA. These issues are mostly related to the eligibility and treatment of unfunded credit protection and include the following:

- treatment of unfunded credit protection provided by guarantor, when the direct exposures to the guarantor are treated under the standardised approach; the current discussion is focused on whether the treatment of such guaranteed exposure under the standardised approach (paragraph 29.b) is an option or an obligation for institutions and on the application of the risk weight floor when direct exposures to the guarantor are treated under the standardised approach;

- treatment of unfunded credit protection provided by guarantor, when the direct exposures to the guarantor are treated under the foundation IRB approach;

- use of an appropriate risk weight function for the purposes of computing the risk weight under the substitution approach;

- definition of conditional guarantees;

Question 6: Do you have any specific concerns related to the issues excluded from the scope of the Guidelines?

30. Where institutions adopt the substitution approach of paragraph 29.a.ii the guaranteed part of the exposure should remain in the same exposure class of the original exposure.

31. Unfunded credit protection which does not meet the eligibility requirements for guarantors and guarantees specified in Article 183(1) and (3) of Regulation (EU) No 575/2013 and in Section 5.2 of these Guidelines should not affect the calculation of risk-weighted exposure amounts according to any of the methods specified in paragraph 29. For estimation purposes, in line with the guidance provided in paragraph 127 of the [EBA GL on PD and LGD estimation] for cash flows from ineligible funded credit protection, the cash flows received from exercising the ineligible unfunded credit protection should be treated as if they had been received without the use of unfunded credit protection. Regardless of this treatment, institutions should collect the information about the source of the cash flows related to ineligible unfunded credit protections and allocate them adequately. Institutions should regularly monitor the levels of such cash flows as well as the extent to which the relevant types of unfunded credit protection are used. Where necessary, institutions should perform appropriate adjustments in order to avoid any bias in the PD and LGD estimates.

Question 7: Do you agree with the proposed clarification regarding the parallel treatment of ineligible UFCP and ineligible FCP? How do you currently monitor the cash flows related to ineligible unfunded credit protection and how do you treat such cash flows with regard to the PD and LGD estimates?

32. Institutions should have clear policies for assessing the effects of unfunded credit protection on risk parameters that are consistent with their internal risk management practices and should reflect the requirements of Article 183(2) and 183(3) of Regulation (EU) No 575/2013, and the requirements specified in these Guidelines. Institutions should include in these policies a clear specification of the scope of application of the specific methods described in paragraph 29 and they should apply these policies consistently over time.

33. For the purposes of applying the 'substitution approach' described in paragraph 29.a.ii, in accordance with paragraph 30, institutions should define a separate scope of application of the LGD models for the type of guaranteed exposures which PD and LGD risk parameters are substituted consistently within the same type of exposures, unfunded credit protection and guarantors. For the guaranteed exposures included in such scope of application, institutions are not required to estimate the LGDs. Nevertheless, all data relevant for PD and LGD estimation should be stored in the institution's reference data set in accordance with Sections 5.2.1, 5.3.1 and 6.1.2 of the [EBA GL on PD and LGD estimation]. However, institutions should separately estimate the PD of the obligor as required in Article 172(1)(a) of Regulation (EU) No 575/2013 and paragraph 53 of the [EBA GL on PD and LGD estimation].

34. For the purposes of paragraph 33, if a given unfunded credit protection does not fully cover the original exposure, institutions should be able to assign to the part of the exposure which is not covered by the given unfunded credit protection, the PD and LGD estimates applicable to the original exposure without recognising the effect of the given unfunded credit protection. Moreover, for the purposes of calculating the realised LGD applicable to the part of the exposure covered by the unfunded credit protection and to the part which is not, institutions should allocate cash flows and costs in the following way:

a. cash flows received from the eligible guarantor should be allocated to the guaranteed part of the exposure while cash flows that come from any other source should be allocated to the part of the exposure not covered by the unfunded credit protection; in the case of exposures which benefit also from funded credit protection the cash flows associated to the funded credit protection should be allocated to the guaranteed part of the exposure according to the guidance provided in paragraph 38;

b. indirect costs should be allocated to the different parts of the exposure in accordance with the guidance provided in paragraph 113 of the [EBA GL on PD and LGD estimation];

c. direct costs that are directly linked to the exercising of the unfunded credit protection should be allocated to the guaranteed part of the exposures, while any other direct cost should be allocated to the part of the exposure not covered by the unfunded credit protection; in the case of exposures which benefit also from funded credit protection the direct costs associated to realisation of the funded credit protection should be allocated to the guaranteed part of the exposure according to the guidance provided in paragraph 38.

Explanatory box for consultation purposes

Paragraph 33 of the draft GL clarifies that institutions should define ex-ante the scope of application of the LGD model for the guaranteed exposures which will be treated under the substitution approach and which will therefore be assigned to the PD and LGD of comparable exposure to the guarantor in the application of the risk parameters. Moreover, in order to reduce the burden on institutions it is clarified that for such guaranteed exposures institutions are not required to estimate the LGD parameter. Institutions are however still required to estimate the PD of the original obligor and, in case of guarantees that cover only part of the exposure value, to assign to the part of the exposure not covered by the UFCP the PD and LGD estimates applicable to the original exposure without unfunded credit protection. In this latter case, institutions should be able to split the exposure in two separate parts:

- the guaranteed part of the exposure, i.e. the part of exposure covered by the unfunded credit protection, to which institutions apply the substitution approach, and which takes part to a separate scope of application of the LGD model; and

- the unguaranteed part of the exposure, i.e. the part of the exposure not covered by the unfunded credit protection, to which institutions apply the LGD relevant for unguaranteed exposures, and which is assigned to the range of application of the LGD model relevant for unguaranteed exposures for the purpose of LGD estimation.

For the purposes of ensuring a proper LGD estimation on the unguaranteed part of the exposure in case of partial guarantees treated under the substitution approach, paragraph 34 clarifies how institutions should perform the allocation of costs and cash flows between the guaranteed (covered by the unfunded credit protection) and unguaranteed part of the exposure. While it is straightforward that cash flows associated to the guarantor should be allocated fully to the

guaranteed part of the exposure, an alternative option has been evaluated, according to which any other cash flows coming from other sources (including the obligor or where the source of cash flow is unknown) would be allocated on a pro-rata basis.

This would mean that the cash flows would be proportionally allocated to the outstanding amount of the guaranteed and unguaranteed exposure. The rationale behind this option is that, whereas the guaranteed and unguaranteed exposures are split for the purpose of application of the substitution approach, the allocation of cash flows from other sources than the guarantor should be performed having the whole exposure in mind.

Figure 1 presents an example that describes the effects of two cash flows allocation strategies on the realised LGD for the unguaranteed part of the exposure. The example consists of a loan of 100 to corporate Y, 50% of which is guaranteed by guarantor X and where three cash flows are observed:

- a cash flow of 10 in time 1 from the obligor. This is allocated fully to the unguaranteed part of the exposure under option 1 while it is split pro-rata according to the outstanding part of the exposure under option 2, i.e. 50% the unguaranteed and 50% to the guaranteed part of the exposure;

- a cash flow of 25 in time 2 from the guarantor which under both options is fully allocated to the guaranteed part of the exposure; and

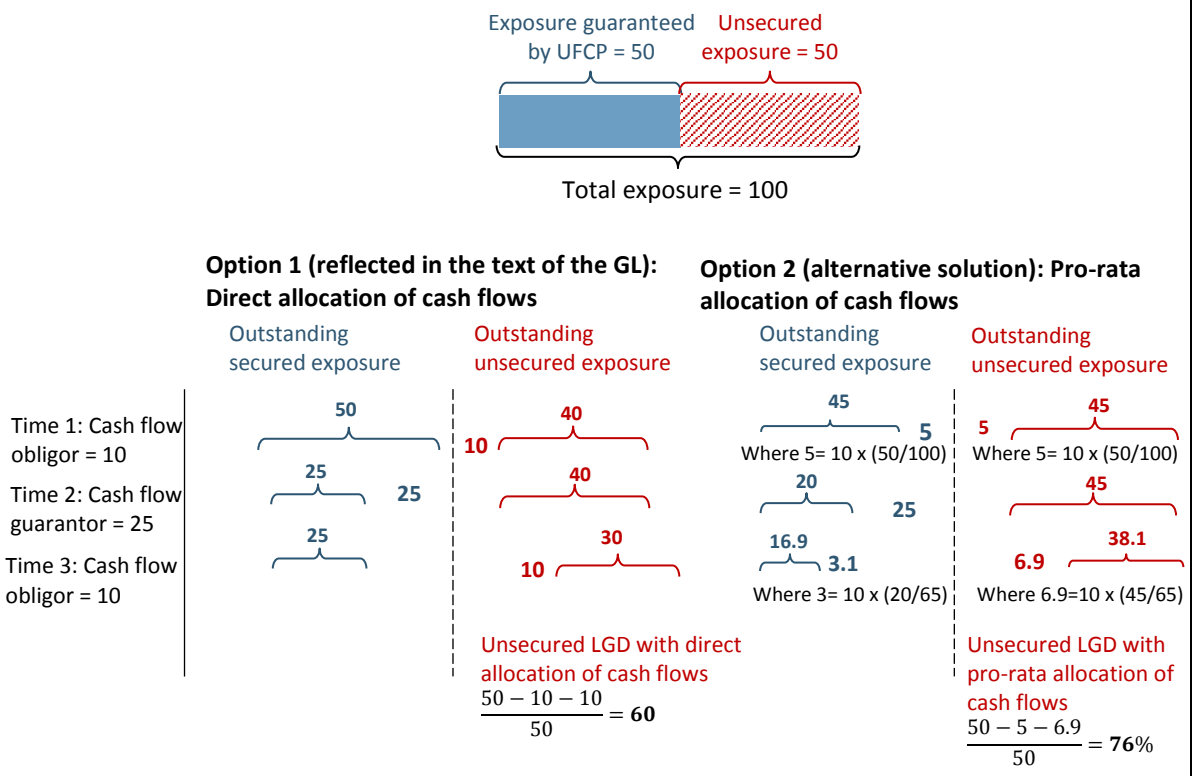
- finally a cash flow of 10 in time 3 from the obligor. This is allocated fully to the unguaranteed part of the exposure under option 1 while it is split pro-rata according to the outstanding part of the exposure under option 2, i.e. $\frac{45}{65}\%$ to the unguaranteed and $\frac{20}{65}\%$ to the guaranteed part of the exposure

This cash flow allocation (where for simplicity no costs are considered) would produce a realised LGD for the unguaranteed part of the exposure equal to $\frac{50-10\frac{50}{100}-10\frac{45}{20+45}}{50} = 76\%$ under the pro-rata allocation (option 2), and equal to $\frac{50-10-10}{50} = 60\%$ under option 1.

While the pro-rata allocation (option 2) produces higher realised when the guarantor does not pay in full, the direct allocation to the unguaranteed part of the exposure (option 1) has been preferred for its simplicity as well as for its consistency with the approach put forward for the allocation of costs. Moreover, it is worth noting that for guarantees that pay on time and in full, i.e. which according to the stricter eligibility requirements of Chapter 4 should be the most likely scenario, the two allocations of cash flows would produce the same realised LGD.

A possible drawback of the direct allocation of cash flow to the unguaranteed part of the exposure (option 1) could be that in case the institutions are not able to distinguish cash flows received from the guarantor from any other cash flow then the back-testing of the risk parameters used under the substitution approach is likely to fail.

Figure 1: two options for the allocation of cash flows not directly related to the guarantor



Question 8: Do you agree with the proposed rules for the application of the substitution approach? Do you see any operational limitations in excluding the guaranteed part of exposure to which substitution approach is applied from the scope of application of the LGD model for unguaranteed exposures?

35. For the purpose of assessing the credit risk mitigation effects of unfunded credit protection in accordance with Article 183(2) and (3) of Regulation (EU) No 575/2013, the criteria specified by institutions for adjusting grades, pools or LGD estimates should meet all the following conditions:

    a. any currency mismatch between the underlying obligation and the unfunded credit protection is treated conservatively;

    b. the value of the credit protection is the amount that the guarantor has undertaken to pay in the events specified in the contract;

    c. the degree to which the guarantor's ability to fulfil the contractual obligation under the unfunded credit protection agreement is correlated with the obligor's ability to repay can only result in a conservative adjustment of the grades, pools or LGD estimates.

36. For the purpose of assessing the credit risk mitigation effects of an unfunded credit protection in accordance with the methods described in paragraph 29.a, the criteria specified by institutions for adjusting grades, pools or LGD estimates should be such that:

    a. in the case of the 'modelling approach' specified in paragraph 29.a.i; the unfunded credit protection may be considered as a risk driver in the PD or, in accordance with paragraph 121(a) of the [EBA GL on PD and LGD estimation], in the LGD model development and, in particular it may consist in:

        i. adjusting only the LGD estimates according to historical experience related to the observed credit risk mitigation effects of the unfunded credit protection, including cash flows received from guarantors and, where material, costs associated with exercising the unfunded credit protection;

        ii. adjusting both the PD and the LGD estimates, where institutions should justify that the sole adjustment of the LGD estimates does not allow to fully reflect the unfunded credit protection and that the simultaneous adjustment of both the PD and LGD estimates does not lead to double counting effects of the unfunded credit protection.

        The sole adjustment of the PD estimates should be deemed inappropriate in any circumstance;

    b. in the case of the 'substitution approach' specified in paragraph 29.a.ii, the following conditions should be met:

        i. the unfunded credit protection is eligible according to the relevant criteria for unfunded credit protection set out in Part Three, Title II, Chapter 4 of Regulation (EU) No 575/2013; in particular, for the purposes of the last subparagraph of Article 216(1) of Regulation (EU) No 575/2013, the reduction in value specified in Article 233(2) of that Regulation should apply for credit derivatives that do not include restructuring of the underlying obligation in the credit events specified in the credit derivative contract; and

        ii. the institution may reasonably expect that the direct costs of exercising the unfunded credit protection are negligible with respect to the amount covered by the unfunded credit protection.

    c. in the case the the risk parameters are adjusted in individual cases by considering the unfunded credit protection via override in accordance with the approach specified in paragraph 29.a.iii, institutions should be able to justify that the nature and characteristics of the unfunded credit protection do not allow the use of methods described in letter a. or letter b. to reflect the credit risk mitigation effects of the unfunded credit protection; the override of the grades or pools should be considered

as a substitution effect for the purposes of paragraph 74 of the [EBA GL on PD and LGD estimation].

Question 9: Do you agree with the proposed rules for the application of the modelling approach?

Explanatory box for consultation purposes

As part of the review of estimates that institution should perform at least annually in accordance with Article 179(1)(c) of Regulation (EU) No 575/2013 and with paragraph 218 of the EBA GL on PD and LGD estimation, institutions should perform an analysis of the predictive power of the model. The latter should include, among other things, a back-testing analysis, which should include a comparison of the estimates used for the calculation of own funds requirements against observed outcomes for each grade or pool. This implies that institutions should back-test the adjusted risk parameters, PD and LGD, including the effect of the unfunded credit protection. This seems quite straightforward in case the institution applies the modelling approach and, therefore, the adjusted PD and LGD reflect the risk characteristics of the original guaranteed exposure. More complicated is the case when institutions use the substitution approach where the adjusted parameters reflect the risk characteristics of comparable direct exposures to the guarantor. In this perspective, back-testing PD and LGD would probably fail if performed at the level of the risk parameters, where for example the observed default rate associated to the original obligor would probably be not comparable with the PD associated to the guarantor. In this perspective, an alternative would be to perform the back testing of the substitution approach by comparing the expected loss (EL) of comparable direct exposures to the guarantor against the observed loss of the original guaranteed exposures.

Question 10: What challenges would you envisage for back-testing the substitution approach? Do you agree that the back-testing should be performed rather at Expected loss level? Do you have any approach currently in place for the back-testing of substitution approach?

37. For the purposes of calculating the risk weight of a comparable direct exposure to the guarantor in accordance with Article 161(3) and 164(2) of Regulation (EU) No 575/2013, i.e. the relevant "risk weight floor" for the purposes of applying one of the approaches described in paragraph 29.a:

    a. where the unfunded credit protection does not fully cover the original exposure, institutions should calculate the "risk weight floor" as the exposure weighted average of the risk weight of a comparable direct exposure to the guarantor and the risk weight that the institution would assign to the exposure to the obligor without the unfunded credit protection, weighted respectively by the part of the exposure which is covered by the unfunded credit protection and the remaining part of the exposure;

b. where the original exposure benefits from multiple unfunded credit protection each providing protection to different parts of the original exposure, institutions should calculate the "risk weight floor" as the exposure weighted average of the risk weights of each comparable direct exposure to the guarantors; for the calculation of such exposure weighted average risk weight, each risk weight should be calculated separately and weighted by the proportion of the exposure which is covered by each unfunded credit protection; if relevant, any part of the exposure which is not covered by unfunded credit protection should be assigned to the risk weight that the institution would assign to the original exposures to the obligor without any unfunded credit protection;

c. where the original exposure benefits from multiple unfunded credit protection and where two or more are providing protection to the same part of the original exposure, institutions should calculate the "risk weight floor" as the exposure weighted average of the risk weights of each comparable direct exposure to the guarantor; in particular, for the calculation of each risk weight the LGD of each comparable, direct exposures to the guarantor should consider the effect of the other existing unfunded credit protections providing protection to the same part of the exposure in accordance with paragraphs 40; for the calculation of the exposure weighted average risk weight, each risk weight is weighted by the proportion of the exposure value covered by each unfunded credit protection with respect to which the risk weight is computed; if relevant, any part of the exposure that is not covered by unfunded credit protection should be assigned the risk weight that the institution would assign to the original exposure to the obligor without any unfunded credit protection in accordance with letter a.

38. In order to assess the mitigation effects of multiple credit risk mitigation techniques, including multiple unfunded credit protections or both funded and unfunded credit protections, in accordance with the approaches described in paragraph 29.a, each of the following conditions should be met:

a. institutions should have clear policies for the allocation, sequence and recognition of funded and unfunded credit protection which are consistent with the internal recovery and collection process;

b. institutions should not recognise the effects of the same credit risk mitigation twice; for example, in allocating the funded credit protection between the part of the exposure covered by the unfunded credit protection and the part of the exposure which is not covered by the unfunded credit protection, double recognition of the funded credit protection should not be allowed;

c. institutions should apply the 'substitution approach' described in paragraph 29.a.ii consistently; therefore:

i. splitting the part of the exposure covered by a given unfunded credit protection in two parts and applying to one part the 'substitution approach' and to the other part the 'modelling approach' should not be allowed;

ii. in case of multiple unfunded credit protections which are, at least partially, covering the same part of the original exposure, establishing appropriate criteria to choose which unfunded credit protection to use for the purposes of substituting the risk parameters; such criteria should be described in the internal policies specified by institutions for adjusting PD and LGD estimates in accordance with paragraph 33; without prejudice to sub point i, institutions are allowed to split the part of the exposure covered by a given unfunded credit protection in two parts and applying to one part the "substitution approach" while recognising the effects of the remaining part of the given unfunded credit protection in the application of the substitution approach to the other existing unfunded credit protections; in particular, the risk mitigation effect of the remaining part of the given unfunded credit protection may be considered in the LGD of comparable direct exposures to the other existing guarantors in accordance with paragraph 40.

39. For the purposes of recognising the credit risk mitigation effects of both funded and unfunded credit protections which, as a result of the allocation performed by the institution in accordance with paragraph 38, cover the same part of an exposure, institutions may use one of the approaches specified in paragraph 29.a. In particular, for the purposes of applying the substitution approach in accordance with paragraphs 29.a.ii and 36.b and more generally for the purposes of calculating the "risk weight floor" in accordance with Articles 161(3) and 164(2) of Regulation (EU) No 575/2013, institutions may use the following methods to derive the LGD of a comparable direct exposure to the guarantor including the credit risk mitigation effects of the funded credit protection:

a. where institutions do not or would not use own LGD estimates for direct exposures to the guarantor they should apply the relevant requirements in Part Three, Title II, Chapter 4 of that Regulation and, in particular, use the LGD values provided in Article 161(1) of that Regulation and, if relevant, reflect also the funded credit protection;

b. where institutions use or would use own LGD estimates for direct exposures to the guarantor they should use the LGD of a comparable direct exposures to the guarantor which include the effect of the funded credit protection; if institutions are not able to recognise the funded credit protection in the estimation of the LGD of comparable direct exposures to the guarantor then:

i. if the LGD of direct exposures to the guarantor which do not benefit from any form of credit risk mitigation is lower than or equal to the LGD of direct exposures to the obligor which do not benefit from any form of credit risk mitigation, they could use the LGD estimates of the original exposure to the

obligor without the unfunded credit protection and including the effect of the funded credit protection; or

ii. if the LGD of direct exposures to the guarantor which do not benefit from any form of credit risk mitigation is greater than the LGD of direct exposures to the obligor which do not benefit from any form of credit risk mitigation, institutions could apply the requirements in Part Three, Title II, Chapter 4 Regulation (EU) No 575/2013 where, in particular, for the purposes of computing the LGD* in accordance with Article 228 of that Regulation, institutions may use as an input either the LGD estimated by the institution for the direct exposures to the guarantor which do not benefit from any form of credit risk mitigation or the relevant LGD values prescribed by Article 161(1) of that Regulation.

40. For the purposes of recognising the credit risk mitigation effects of multiple unfunded credit protection which, as a result of the allocation performed by the institution in accordance with paragraph 38, cover the same parts of the exposure, institutions may use one of the approaches specified in paragraph 29.a. In particular, for the purposes of applying the "substitution approach" in accordance with paragraphs 29.a.ii and 36.b and more generally for the purposes of calculating the "risk weight floor" in accordance with Articles 161(3) and 164(2) of Regulation (EU) No 575/2013 and paragraph 37.c of these Guidelines, institutions may use the following methods to derive the LGD of a comparable direct exposure to each guarantor including the credit risk mitigation effects of the remaining unfunded credit protections:

a. if institutions do not or would not use own LGD estimates for direct exposures to the guarantor, they should apply Part Three, Title II, Chapter 4 of that Regulation;

b. if institutions use or would use own LGD estimates for direct exposures to the guarantor, they should use the LGD of a comparable direct exposures to each guarantor which include the effect of the remaining unfunded credit protection. If institutions are not able to recognise the credit risk mitigation effects of the remaining unfunded credit protections in the estimation of the LGD of a comparable direct exposure to the guarantor, institutions have the following alternatives:

i. if the LGD of direct exposures to the guarantor that do not benefit from any form of credit risk mitigation is lower than or equal to the LGD of direct exposures to the obligor which do not benefit from any form of credit risk mitigation, they could use the LGD estimates of the original exposure to the obligor including the credit risk mitigation effects of the remaining unfunded credit protections; or

ii. if the LGD of direct exposures to the guarantor that do not benefit from any form of credit risk mitigation is greater than the LGD of direct exposures to the obligor which do not benefit from any form of credit risk mitigation, institutions

could use the relevant provisions of Part Three, Title II, Chapter 4 of that Regulation.

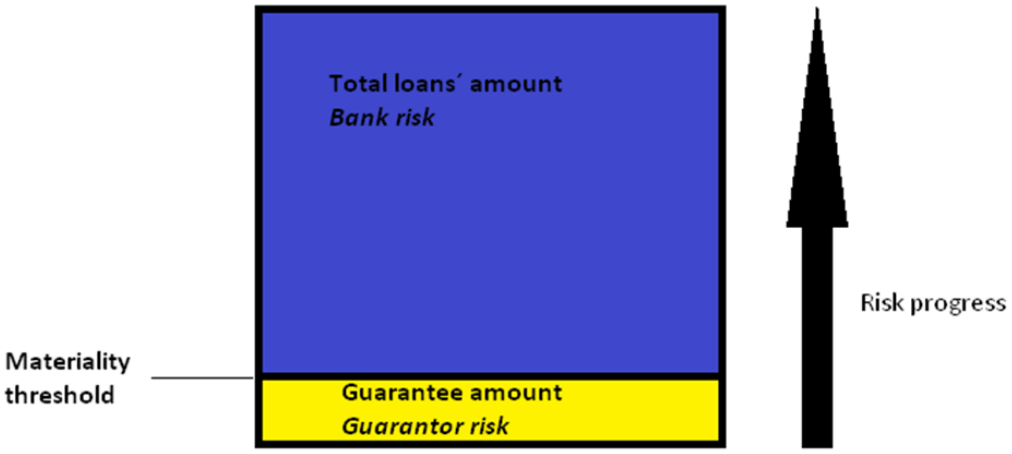
Question 11: Do you agree with the proposed guidance for the estimation of the LGD of comparable direct exposure towards the guarantor? What concerns would you have about the calculation of the risk weight floor?

Explanatory box for consultation purposes

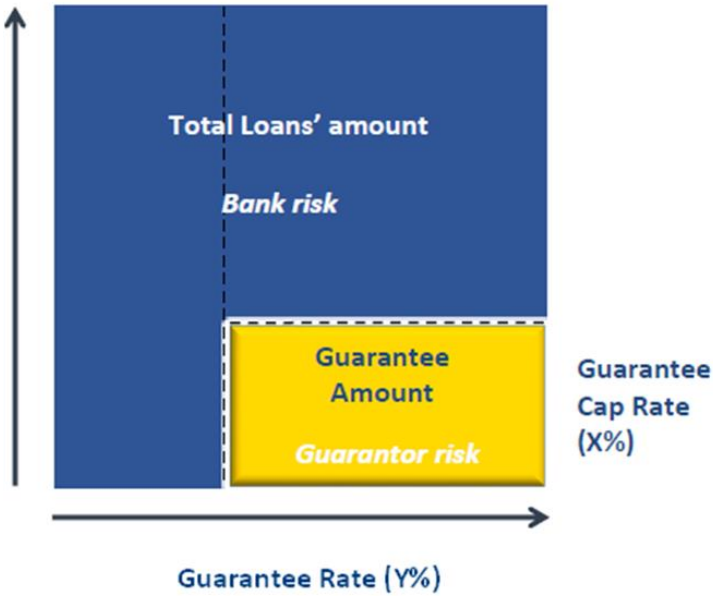
In the context of the draft GL, discussions have been led around the treatment of UFCPs that are provided to a portfolio of exposures (hereinafter 'portfolio guarantees) rather than to individual exposures. In particular, the following cases have been considered:

1. a first case where the portfolio guarantee contract sets a materiality threshold on portfolio losses **below** which no payment shall be made by the guarantor has been considered, in other words guarantor bears the risk only if portfolio losses are above a certain threshold; these are cases where the UFCP contract defines a loss threshold amount in the form of a first-loss tranche (as opposed to a pro-rata basis) that is borne by the creditor institution itself before the loss coverage of the UFCP kicks in (e.g. only if the overall losses are higher than a 10 % of the principal amount of the loans the guarantor will pay);

2. a second case where the portfolio guarantee has also in place one threshold but is structured in such a way that the guarantee contract covers portfolio losses **up** to a certain threshold, i.e. percentage of the actual portfolio volume or up to a certain absolute amount.



3. Moreover, as a third case, there may even be more complex guarantee products employing two or three thresholds (caps), e.g. guarantee contract covers only a **part of credit losses on each loan** in a portfolio (sometimes called "guarantee rate" or "credit cap rate", in the following figure Y%) and **up to a certain percentage of the portfolio** volume (may be called "guarantee cap rate", in the following figure X%) and/or **up to a cap amount** (expressed in currency units).



The CRR provisions applicable for the first and second cases described above may include Article 234 of the CRR on partial (pro-rata) protection. In particular, this Article clarifies that where an institution transfers a part of the risk of a loan in one or more tranches, the provisions on the securitisation framework as set out in Part Three, Title II, Chapter 5 of the CRR shall apply. Moreover, it also specifies that institutions may consider materiality thresholds on payments below which no payment shall be made in the event of loss to be equivalent to retained first-loss positions and to give rise to a tranched transfer of risk. However, this Article is not directly applicable to exposures treated under A-IRB. Within Chapter 3 of the CRR there is neither any equivalent article

allowing the treatment of partially protected exposures as being assimilated to tranched/securitisation positions, nor are there any cross-references made to Article 234 of the CRR. Under the A-IRB according to Article 109 of the CRR, Chapter 5 is applicable for exposures classified as securitised exposures according to Article 147(2)(f) of the CRR. In this regard, in order for exposures that are covered by a "portfolio guarantee" to qualify as securitised exposures the portfolio guarantee transaction would have to meet the definition of securitisation given in Article 4(1), point (61) of the CRR.

If the exposure is treated under the SA or F-IRB and the institution could apply any LGD adjustments, the only option for the institution to recognise portfolio guarantees is to apply Chapter 5 in accordance with Article 234 of the CRR. If the exposure is under the A-IRB, in principle, institutions could be able to recognise the CRM effects of portfolio guarantees through LGD adjustments.

The regulatory treatment described in the third case, i.e. where the guarantee contract foresees more than on threshold may not be straightforward even under SA or F-IRB.

The discussions have focused therefore on whether such "portfolio guarantees", including or not first-loss tranching borne by the institution, and including or not some caps for coverage on individual exposure level and/or portfolio level, could be considered as an eligible form of CRM under the A-IRB as well as the institutions' appropriateness and feasibility of incorporating the CRM effects of such portfolio guarantees into their LGD estimates under Article 183 of the CRR.

Question 12: Do you consider portfolio guarantees as a form of eligible UFCP? Do they include cases where the guarantee contract sets a materiality threshold on portfolio losses below or above which no payment shall be made by the guarantor? Do they include cases where two or more thresholds (caps) either expressed in percentages or in currency units are set to limit the maximum obligation under the guarantee? How do you recognise the portfolio guarantees' credit risk mitigation effects in adjusting risk parameters?

5. Accompanying documents

5.1 Draft cost-benefit analysis / impact assessment

As per Article 16(2) of Regulation (EU) No 1093/2010 (EBA Regulation), any guidelines and recommendations developed by the EBA shall be accompanied by an Impact Assessment (IA) which analyses 'the potential related costs and benefits'.

This analysis presents the Impact Assessment of the main policy options included in this Consultation Paper on the draft Guidelines on credit risk mitigation for institutions that apply the IRB approach by using their own estimates of LGD in accordance with Article 143(2) of Regulation (EU) No 575/2013. The majority of the IA is high level and qualitative in nature, given the availability of data. The assessment also draws on some data collected as part of the 2018 benchmarking exercise.

In line with the above draft Guidelines, in what follows, funded credit protection (FCP) refers to collateral as well as on-balance sheet netting and master netting agreements, whilst unfunded credit protection (UFCP) refers to guarantees and credit derivatives.

A. Problem identification

The EBA in its Roadmap on the regulatory review of internal models published in February 2016, set out aspects related to CRM to be covered in a fourth and final phase.[17] So far, the clarifications to be provided on CRM in the context of F-IRB and SA have been agreed in the CRM report. Some aspects in the context of CRM and A-IRB have also been addressed as part of the Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures.[18]

Nevertheless, clarification on certain aspects on CRM under A-IRB remains lacking, resulting in divergent practices and interpretations observed across countries for CRM practices within the A-IRB application. These divergent practices range from eligibility criteria applied for collateral, to the methods applied for recognising UFCP, which ultimately could lead to unwarranted variability in for example the risk weighted assets for the same exposure across different jurisdictions, in turn distorting the level-playing field across the EU not only for banks, but ultimately also for borrowers through the effect this may have on banks' allocation of lending.

Further, certain provisions related to CRM and A-IRB may lead to uncertainty among banks regarding their application and hence result in disincentives for banks to use the more risk-sensitive IRB models.

[17] EBA Roadmap for the implementation of the regulatory review of internal models

[18] EBA Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures

B. Policy objectives

These draft Guidelines aim at addressing at least some of the remaining lack of clarity with regards to certain issues on CRM in the context of A-IRB approaches. Providing clarifications and guidance on specific aspects, the draft Guidelines aim at improving the level-playing field in Europe of applying A-IRB, but also ensuring the right incentives for using A-IRB for banks.

C. Options considered

Section C. presents the main policy options discussed and the decisions made during the development of the draft Guidelines. Advantages and disadvantages, as well as potential costs and benefits of the policy options and the preferred options resulting from this analysis are also reported.

Eligibility for FCP: Mapping to CRR Chapter 4 and introduction of general principles

Option 1a: Provide a one-to-one direct mapping of Article 181(1) (FCP) to Chapter 4 for legal certainty and collateral valuation. In addition, general principles on legal certainty and collateral valuation should be defined for all collateral types, including for those collateral types included in Chapter 4. **Option 1b:** Provide a one-to-one direct mapping of Article 181(1) (FCP) to Chapter 4 for legal certainty and collateral valuation. No general principles on legal certainty and collateral valuation should be defined on top of this.

Narrow definition of the term collateral in Article 181(1)

Option 2a: Read 'collateral' in Article 181 as FCP only (excluding netting).

Option 2b: Read 'collateral' in Article 181 in a wider sense, including UFCP also but excluding netting.

Treatment of UFCP – Modelling approach: adjustment of PD and LGD

Option 3a: Adjusting only the LGD.

Option 3b: Adjusting the LGD and under certain conditions also adjusting the PD.

Option 3c: In addition to the options under 3b, also allow the sole adjustment of the PD.

Treatment of UFCP – 'Substitution approach'

Option 4a: No substitution of PD or LGD of the guarantor allowed under the A-IRB.

Option 4b: Substitution allowed - both PD and LGD (of the guarantor) should be substituted.

Option 4c: Substitution allowed - of either the PD or LGD of the guarantor, or both allowed.

Treatment of cash flows and costs in the application of the substitution approach with partial guarantees

Option 5a: Allow splitting of the exposure into a covered part and a part not covered by the guarantee and allocate all cash flows and costs (other than the ones coming from the guarantor) to the part not covered

Option 5b: Allow splitting of the exposure into a covered part and a part not covered by the guarantee and perform a pro rata allocation of cash flows (other than the ones coming from the guarantor) and allocate all costs to the part not covered

Challenges related to the calculation of the LGD of comparable direct exposure to the guarantor in the case of multiple credit protection providers

A- Should the substitution approach be allowed in the case of multiple protection providers to factor in all protection

Option 6a: Substitution approach not allowed to factor in any additional protection.

Option 6b: Substitution approach allowed to factor in additional protection.

B- How to factor in all credit protection in the LGD of comparable direct exposures to the guarantor

Option 7a: Allow for substitution approach to factor in any additional protection, but don't allow for proxies.

Option 7b: Allow for substitution approach to factor in any additional protection, allowing the use of proxies under certain conditions.

Option 7c: Allow for substitution approach to factor in any additional protection, allowing the use of proxies under certain conditions and reverting back to Chapter 4.

D. Assessment of the options and preferred options

Eligibility for FCP: Mapping to CRR Chapter 4 and introduction of general principles

Article 181(1)(f) requires banks to establish internal eligibility requirements for collateral valuation, legal certainty and risk management in the context of FCP that are consistent with Chapter 4. Article 55 of the RTS on the Model Assessment methodology requires competent authorities to verify that at least policies and procedures of the institution relating to the internal requirements for collateral valuation and legal certainty are fully consistent with the requirements of Section 3 of Chapter 4 of the CRR.

In order to clarify what is meant by 'full consistency' in the RTS, **Option 1a has been chosen as the preferred option**. A direct mapping has been provided from Chapter 4 to Article 181(1)(f), so legal

certainty and collateral valuation requirements laid down for FCP under SA/F-IRB approaches under Chapter 4 have been directly mapped to FCP under the A-IRB approach in the draft Guidelines. In addition, the draft Guidelines cover collateral not covered under Chapter 4 but included in the LGD model by including general principles on collateral valuation and legal certainty on these.

The CRR already establishes a direct link between the FCP and Chapter 4 through Article 181(1)(f). Therefore linking the two more specifically through further clarifications in the level 2 text seems natural. Establishing general principles, including for those collaterals which are not included in Chapter 4, goes beyond simply mapping the collateral requirements of Chapter 4. It however provides banks with increased clarity and guidance on the criteria to be considered in the context of legal certainty and collateral valuation under FCP and will ensure that Article 181(1)(f) is adhered to more effectively, and that considerations across the EU are aligned.

Narrow definition of the term collateral in Article 181(1)

CRR Article 183 covers both LGD and PD and its title explicitly determines the content as UFCP. Article 181 covers only the LGD. This suggests that Article 181 concerns FCP only, since FCP does not affect the PD.

Verifying that Article 183 does not cover too narrow a spectrum of aspects to be considered for LGD adjustment under UFCP[19], **Option 2a has been chosen as the preferred option**. Article 181 should be read as covering FCP only, excluding netting (as Master netting agreements and on-balance sheet netting are covered as part of Article 166).

Reading 'collateral' in Article 181 in a stricter sense as presenting FCP (other than netting) only, allows for clarity in the CRR in that 181 covers FCP only, and 183 covers UFCP.

Treatment of UFCP – Modelling approach: adjustment of PD and LGD[20]

In what follows, unless specified specifically, a PD or LGD adjustment refers to the adjustment of the obligor's PD or LGD, respectively.

The CRR in Article 160 and 161 leaves room for both the PD and LGD to be adjusted under the A-IRB for UFCP[21], but it is unclear if it is either/or, or if both parameters can be adjusted at the same time. Further, the CRR in article 236 and the CRM Report in paragraph 44 allow that under F-IRB, adjustments of both the PD and LGD (at the same time) are possible. In theory, there should not be any preferential treatment of F-IRB over A-IRB as it would be counterintuitive to allow less freedom in the recognition of unfunded credit protection to more advanced banks applying the IRB than is allowed to less sophisticated banks according to Article 236(1). For these reasons, further

[19] Issues which are not covered under 183 will be covered through further clarifications in the Guidelines (e.g. currency mis-matches), however, in general 183 was assessed to cover all important and relevant aspects, in particular given that one would expect eligibility criteria for UFCP to be less strict than for FCP.

[20] The treatment of ineligible UFCP has been aligned to the treatment of ineligible collateral in the GL on PD and LGD, para 127. Cash flows from ineligible UFCP cannot be used as risk drivers and should not affect the calculation of RWE. They should however be monitored and treated as if they were not covered by a guarantee.

[21] 160(4) stipulates that UFCP should be accounted for in the PD adjustment in accordance with Chapter 4. 161(3) states that A-IRB banks can adjust either the PD or the LGD.

clarification is needed on how UFCP should be reflected under the A-IRB approach in general, and if and under what conditions both the PD and LGD should be adjusted and how. It needs to be ensured that there is no double counting of the CRM effect, which is the effect of the same unfunded credit protection and should not be recognised more than once.

Several scenarios are deemed feasible to be used by institutions under the A-IRB approach.

Policy Option 3b has been chosen to be the preferred option. Banks modelling their own LGD, and UFCP being reflected in an adjusted LGD, is assessed as the most sensible option, since it allows maximum risk sensitivity. In exceptional cases, however, adjusting both the PD and the LGD of the obligor is also judged appropriate. These would be cases where it is impossible to reflect the whole effect of the UFCP in the LGD, for example in cases where the existence of the guarantee acts as a risk driver for the PD of the obligor. (The EBA Q&A 2013_145 also supports this scenario.)[22]

Option 3c, where also only adjusting the PD is allowed, has been ruled out. The rationale for this is that adjusting the PD in order to reflect effects of a UFCP, however not then also changing the LGD, would not reflect the full effect of a UFCP: as soon as an obligor calls on a guarantee, this is defined as a default. Hence, when adjusting the PD to reflect the guarantee, we would always expect the LGD to be adjusted, too (since the loss given default should now also take into account the guarantee).

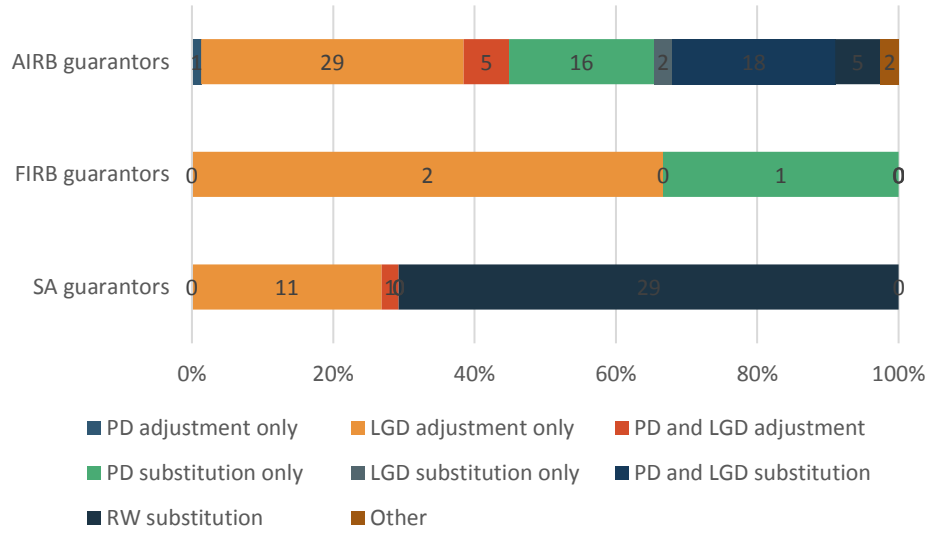
Ideally, one would have an understanding of the quantitative implications of the various approaches and from this get an understanding on the impact of different approaches on banks. Measuring this is however difficult as it would require hypothetical data from banks on the risk weights under the various approaches, with hypothetical estimates on PDs and LGDs, taking data of past comparable default scenarios into account.

As an alternative, the 2018 EBA benchmarking exercise provides some insights into the current practices of banks.[23] The majority of banks that apply the modelling approach in fact model their own LGD (29 out of 35 banks for guarantors or derivatives treated under the A-IRB and all 2 banks for guarantors treated under the F-IRB). 5 banks adjust both the LGD and PD in the case of A-IRB guarantors, whilst only 1 bank adjusts the PD only.

[22] EBA Q&A 2013_415

[23] Institutions were asked to provide some information on their treatment of guarantees and derivatives. Submission of this part of the report was voluntary and in total 94 institutions supplied information.

Figure 8 – Methodologies used for the treatment of guarantees and derivatives in RWA calculation by type of guarantor (Corporate non-SME and mortgages for A-IRB banks)



Source: 2018 EBA Benchmarking Exercise

The responses from the 2018 benchmarking exercise suggest that the choice of option 3b would not require substantial changes to the current practices of banks.

Treatment of UFCP – 'Substitution approach'

Articles 160 and 161 do not establish a direct link to the substitution approach in the context of UFCP as they use the wording of adjustment of PD and LGD only. Substitution in the context of UFCP gives rise to the discussion whether it should apply and if, if it should apply only to the PD, only to the LGD or indeed to both.

In order to not provide preferential treatment for F-IRB (where substitution is allowed), substitution should be allowed for UFCP for A-IRB banks and be viewed as an extreme form of parameter adjustment. **Option 4a has been eliminated as a result.**

At the same time**, Option 4c has been eliminated.** Since the application of the substitution approach is like modelling a comparable direct exposure to the guarantor, substituting both LGD and PD of the guarantor is the only way that would be an appropriate reflection of a direct comparable exposure. Only allowing substitution of the guarantor's PD, the LGD (of the obligor) would not correctly reflect the loss occurred before the guarantor fails. Likewise, allowing substitution of the guarantor's LGD only, one would be treating the exposure as a direct exposure to the guarantor, but with an inappropriate PD (as the guarantor's PD is likely to be different to the obligor's PD).

Substituting both the guarantor's PD and LGD, **Option 4b**, is therefore the option chosen. However, since there is an incentive to over-use the substitution approach, it should apply under very strict conditions (at least, the eligibility requirements applicable to SA/F-IRB under Chapter 4 of the CRR).

Allowing substitution of both parameters under the A-IRB runs the risks that it may be overused, as in effect using the substitution approach for both parameters could mean applying the RW of a direct exposure to the guarantor, which also acts as a floor to the RW coming out of the parameter adjustment[24]. When modelling new risk parameters, the institution may not be able to exploit the benefits of an improved risk sensitivity (i.e. low RWA for very good quality guaranteed exposures) since the risk weight floor applies which, in case of F-IRB or SA guarantor, is less risk sensitive. Conversely, they pay the cost of higher RWA if modelling the new risk parameters produces a higher risk weight than, for example, the one the institution would assign to a comparable direct exposure to the guarantor. For this reason there is an incentive for institutions to over-use the substitution approach which could essentially imply directly using the RW floor.

Strict conditions should be such that they result in situations where in essence the loss from the guaranteed exposures is equivalent to comparable direct exposures to the guarantor. Such cases are those with negligible transaction costs to use the guarantee (i.e. the LGD of the guarantee can be directly substituted for the obligor's LGD), there are no delays in payment and importantly the bank is able to model PD and LGD of a comparable direct exposure to the guarantor. (In most cases, compliance with the eligibility criteria of Chapter 4 would ensure negligible transaction costs.)

Generally, modelling is still assessed as the more sensible approach nevertheless. Limited data availability should generally not be a valid argument for using the substitution approach over the modelling approach since the latter has already been granted taking into account data availabilities.

Figure 8 shows that approaches vary depending on the guarantor type. For A-IRB guarantors, the most commonly used approach amongst banks using the substitution approach (41), was substitution of both the PD and LGD of the guarantor (18). This was followed by the guarantor's PD only substitution (16), guarantor's LGD only substitution (2) and RW substitution (5). For guarantors treated under the F-IRB, the only bank applying the substitution approach applied the guarantor's PD substitution only.

These results indicate that some changes would be required in the current practices of banks as some have indicated that they substitute only the guarantor's PDs.

Treatment of cash flows and costs in the application of the substitution approach with partial guarantees

In cases where partial guarantees are treated under the substitution approach, in order to ensure consistency in the calculation of LGDs for the part not covered by the guarantee, it is important to establish and clarify the allocation of costs and cash flows from sources other than the guarantor (such as for example the obligor)[25]. Whether these will be allocated in full to the part not covered by the guarantee, or allocated on a pro-rata basis between the part of the exposure that is covered and the part that is not covered by the guarantee, will affect the LGD level for the part not covered by the guarantee and will therefore have implications for the incentives for substitution.

[24] In particular, if we assume that the risk weight function applicable to the obligor and the guarantor is the same.

[25] Cash flows from the guarantor will be allocated in full to the part of the exposure covered by the guarantee.

Option 5a, allocation of costs and cash flows in full to the part of the exposure not covered by the guarantee has been chosen as the preferred option for reasons of simplicity.

It is noted that pro rata allocation will disincentivise the substitution approach in case of only partial or late payment of the guarantor, as it will lead to higher LGD on the part of the exposure not covered by the guarantee. However, guarantees that pay in full and on time are the most likely outcome as a result of the stricter eligibility requirements of Chapter 4. When guarantees pay in full, the two allocations of cash flows would produce the same realised LGD for the obligor.

Challenges related to the calculation of the LGD of comparable direct exposure to the guarantor in the case of multiple credit protection providers

A- Should the substitution approach be allowed in the case of multiple protection providers to factor in all protection

A key aspect to consider when reflecting FCP and UFCP in a bank's exposure and credit risk, is the question in how far this can be done in a realistic and representative way. The answer to this in the context of substitution depends on how well an institution is able to model a comparable direct exposure to the guarantor, in order to arrive at the substituted guarantor's PD and LGD values.

In cases where an exposure is covered by several credit protections, either in the form of both collateral and guarantees (i.e. FCP and UFCP), or by multiple guarantees (i.e. multiple UFCPs), establishing a comparable direct exposure to a guarantor becomes quite difficult and therefore it is also more difficult to arrive at representative and realistic resulting estimates. In the case of FCP and UFCP, for example, in order to calculate the comparable direct exposure to the guarantor would require finding an exposure to the guarantor which is collateralised by the same collateral as the original exposure.

Therefore, the question arises whether substitution should be allowed when exposures are covered by multiple credit protections, or whether when applying the substitution approach, banks should instead be required to ignore any additional protection (ie not take into account the collateral when modelling the LGD of a comparable direct exposure to the guarantor in the case of FCP and UFCP).

Option 6b where the substitution approach is allowed has been determined as superior. In principle, institutions should be allowed to factor in all credit protection when applying the substitution approach. Not allowing for the substitution approach to factor in all credit protection may further disincentivise institutions to take on additional collateral or guarantees.

B- How to factor in all credit protection in the LGD of comparable direct exposures to the guarantor

Acknowledging the difficulties involved in factoring in all credit protection, the crucial question is then about providing (under some conditions) potential alternatives which are valid, but simpler.

Allowing no use of proxies under Option 7a would imply that unless banks are able to model the LGD for a comparable direct exposure to a guarantor and taking into account additional credit

protection, they would end up back at Option 6a again, where substitution is applied disregarding additional form of protection covering the exposure. Given the calculation difficulties discussed above and the potential disincentives created by this outcome, **Option 7a has been eliminated**.

Instead, **Option 7c has been chosen as the preferred option**. For A-IRB guarantors, banks should be allowed to use proxies in case they are unable to compute the LGD of a comparable direct exposure to the guarantor taking into account the other credit protections. Proxies are suggested in the form of using the LGD estimates of the original exposure including the credit risk mitigation effects of the remaining credit protections, for those cases where the LGD of a comparable direct exposure to the guarantor not taking into account the remaining credit protection is not higher than the LGD to the original obligor without considering any credit protection. (The conservative nature of this proxy is ensured- see footnote 10 in the background and rationale section of the draft Guidelines above.)

For cases where the unsecured LGD of a comparable exposure to the guarantor is higher than the unsecured LGD of the exposure to the obligor, institutions are allowed to use the F-IRB framework of Chapter 4 in order to recognise the FCP/other UFCP in the LGD of direct exposures to the guarantor.

Allowing for the application of these proxies and the fall back option to use Chapter 4, limits the disincentives that are created when the collateral or additional guarantees are not taken into account. The inability to take into account addition credit protection may lead to disincentivising banks to take on additional collateral or guarantees. Less credit protection in turn implies a less safe banking sector.

E. Conclusion

The application of the above policy options by banks, by definition will have implications for how they determine their RWAs for exposures covered by FCP or UFCP. Inter alia, this may lead some banks to change between the modelling and substitution approach. The proposed policy choices will have some impact on the RWAs and hence the amount of capital banks will need to hold.

It is not possible to determine the aggregate effect on RWAs and capital as there is insufficient data available on banks' current practices in order to get an indication on the necessary changes and their impact.

Nevertheless, despite these impacts and the uncertainty related to their size, three key improvements and advantages that come with the draft Guidelines and the proposed policy options should be highlighted in particular:

1. **Enhanced transparency and clarity**: the clarifications provided through the draft Guidelines will ensure clarity for banks and improved transparency on banks' practices for both supervisors and market participants.

2. **Improved risk management**: the draft Guidelines and policy decisions taken promote a risk-sensitive approach by banks. This contributes to more focused credit risk management and more effective capital management, through better differentiation between safer and riskier credits.

3. **Level-playing field**: common sets of Guidelines on the specificities of CRM in the context of A-IRB models ensures that banks' practices are better aligned, their identified risks and RWAs are more comparable and as a consequence their capital positions provide a better, more reliable and more comparable reflection of EU banks' risk profiles.

5.2 Overview of questions for consultation

Question 1: Do you agree with the proposed clarifications on eligibility requirements in accordance with Article 181(1)(f) of the CRR?

Question 2: Do you agree with the proposed clarifications on the assessment of legal certainty of movable physical collateral? How do you currently perform the assessment of legal effectiveness and enforceability for movable physical collateral?

Question 3: Do you agree with the proposed clarification regarding the calculation of realised LGD on exposures covered by eligible on-balance sheet netting or master netting agreements?

Question 4: Do you have specific concerns related to the recognition of collateral in the modelling of LGD? How do you currently recognise collateral in your LGD estimates?

Question 5: What approaches for the recognition of the unfunded credit protection do you currently use? What challenges would there be in applying approaches listed above for the recognition of unfunded credit protection?

Question 6: Do you have any specific concerns related to the issues excluded from the scope of the Guidelines?

Question 7: Do you agree with the proposed clarification regarding the parallel treatment of ineligible UFCP and ineligible FCP? How do you currently monitor the cash flows related to ineligible unfunded credit protection and how do you treat such cash flows with regard to the PD and LGD estimates?

Question 8: Do you agree with the proposed rules for the application of the substitution approach? Do you see any operational limitations in excluding the guaranteed part of exposure to which substitution approach is applied from the scope of application of the LGD model for unguaranteed exposures?

Question 9: Do you agree with the proposed rules for the application of the modelling approach?

Question 10: What challenges would you envisage for back-testing the substitution approach? Do you agree that the back-testing should be performed rather at Expected loss level? Do you have any approach currently in place for the back-testing of substitution approach?

Question 11: Do you agree with the proposed guidance for the estimation of the LGD of comparable direct exposure towards the guarantor? What concerns would you have about the calculation of the risk weight floor?

Question 12: Do you consider portfolio guarantees as a form of eligible UFCP? Do they include cases where the guarantee contract sets a materiality threshold on portfolio losses below or above which no payment shall be made by the guarantor? Do they include cases where two or more thresholds (caps) either expressed in percentages or in currency units are set to limit the maximum obligation

under the guarantee? How do you recognise the portfolio guarantees' credit risk mitigation effects in adjusting risk parameters?