EUROPEAN CENTRAL BANK
EUROSYSTEM

Feedback statement

Responses to the public consultation on the revised ECB guide to internal models

February 2024

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1 Introduction and overview of responses

1.1 Context

On 22 June 2023 the European Central Bank (ECB) launched a public consultation on the revised ECB guide to internal models (hereinafter the “guide” or “ECB guide”), which ended on 15 September 2023. While not strictly required, this consultation was conducted in order to collect responses from relevant parties and to enhance transparency. The ECB has given due consideration to all of the comments received during the consultation period.

1.2 Structure of the feedback statement

This feedback statement presents an overall assessment of the comments received during the public consultation and aims to address the most relevant issues raised. Note that amendments have been made to the guide in response to the comments received.

The remaining sections of this document summarise the key comments received regarding the various chapters of the guide and, where needed, the amendments applied as a result. However, it lists only the most relevant and frequent types of comments and/or amendments. In several cases further minor changes have been made to the document to clarify certain aspects that were raised during the public consultation.

1.3 Response statistics

In total, 19 batches of responses were received involving 625 individual comments (all in English). The figures below show the breakdown of the responses to the public consultation by type of respondent and by section and comment type. Of this total, 17 general comments were received, of which a sub-set (six comments) cannot be attributed to a single chapter of the guide and are therefore addressed in Section 2 of this document. The remaining general comments have been distributed across the specific chapters of the guide (three for general topics, five for credit risk, two for market risk and two for counterparty credit risk).

Figure 1

Responses by type of respondent

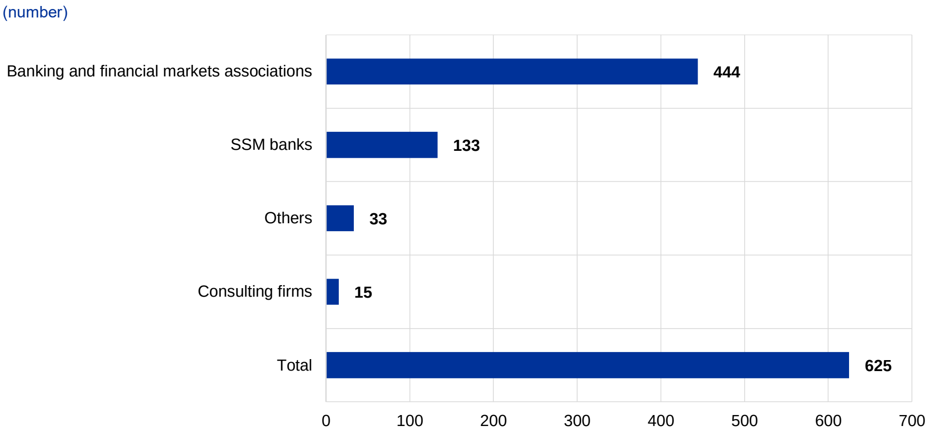

Figure 2

Responses by section and type of comment – general topics

General topics		Breakdown by type of comment		
Section of the guide	**Number of comments**	**Amendment**	**Clarification**	**Deletion**
1 Overarching principles for internal models	33	46%	45%	9%
2 Roll-out and permanent partial use	55	47%	47%	5%
3 Internal governance	2	100%	0%	0%
4 Internal validation	1	0%	100%	0%
5 Internal audit	1	0%	100%	0%
6 Model use	14	43%	43%	14%
7 Management of changes to the IRB approach	3	33%	67%	0%
8 Third-party involvement	3	100%	0%	0%
Total	**112**	**47%**	**46%**	**7%**

Figure 3

Responses by section and type of comment – credit risk

Credit risk		Breakdown by type of comment		
Section of the guide	Number of comments	Amendment	Clarification	Deletion
1 Scope of the credit risk chapter	0	0%	0%	0%
2 Data maintenance for the IRB approach	34	47%	38%	15%
3 Use of data	28	64%	32%	4%
4 Definition of default	90	57%	27%	17%
5 Probability of default	124	46%	37%	17%
6 Loss given default	62	39%	44%	18%
7 Conversion factors	29	69%	24%	7%
8 Model-related MoC	37	38%	41%	22%
9 Review of estimates	0	0%	0%	0%
10 Calculation of maturity for non-retail exposures	0	0%	0%	0%
Total	**404**	**50%**	**35%**	**15%**

Figure 4

Responses by section and type of comment – market risk

Market risk		Breakdown by type of comment		
Section of the guide	Number of comments	Amendment	Clarification	Deletion
1 Scope of the market risk chapter	1	0%	100%	0%
2 Scope of the internal model approach	6	33%	67%	0%
3 Regulatory back-testing of VaR models	0	0%	0%	0%
4 Aspects of internal validation of market risk models	0	0%	0%	0%
5 Methodology for VaR and stressed VaR	3	0%	67%	33%
6 Methodology for IRC models focusing on default risk	24	50%	42%	8%
7 Risks-not-in-the-model engines	1	100%	0%	0%
Total	**35**	**43%**	**48%**	**9%**

Figure 5

Responses by section and type of comment – counterparty credit risk

Counterparty credit risk		Breakdown by type of comment		
Section of the guide	Number of comments	Amendment	Clarification	Deletion
1 Scope of the counterparty credit risk chapter	0	0%	0%	0%
2 Trade coverage	0	0%	0%	0%
3 Margin period of risk and cash flows	13	54%	38%	8%
4 Collateral modelling	0	0%	0%	0%
5 Modelling of initial margin	1	100%	0%	0%
6 Maturity	0	0%	0%	0%
7 Granularity, number of time steps and scenarios	1	100%	0%	0%
8 Calibration frequency and stress calibration	0	0%	0%	0%
9 Use test	6	67%	33%	0%
10 Validation	0	0%	0%	0%
11 Effective expected positive exposure	1	100%	0%	0%
12 Alpha parameter	0	0%	0%	0%
13 Risks not in effective expected positive exposure	35	46%	23%	31%
Total	**57**	**53%**	**26%**	**21%**

1.4 Adoption of the ECB guide

On 29 January 2024 the Supervisory Board sent the Governing Council of the ECB a complete draft proposal for the adoption of the *ECB guide to internal models*. The guide was subsequently adopted by the Governing Council on 05 February 2024 and published on the ECB's website on 19 February 2024, together with this feedback statement.

2 Comments and amendments to the revised ECB guide to internal models – general comments

	Comment	ECB response and analysis	Status
1	Respondents raised concerns over the envisaged time frame for implementing the principles set out in the guide, given the upcoming entry into force of the new regulatory texts for CRD6/CRR3 and the Fundamental Review of the Trading Book (FRTB). As the final regulatory text of the banking package may require further changes to the guide, institutions are concerned about the updates that will have to be made to its principles, especially when some institutions are already implementing certain model changes ahead of the implementation of the new regulatory framework.	The publication of the guide has been well synchronised with ongoing regulatory developments since it was first published in October 2019. As made clear in the Foreword, the guide reflects the ECB's understanding of existing regulation and is intended to help institutions comply with this framework. In addition, the ECB closely follows international and European regulatory developments and will evaluate the need to amend the guide when new regulation comes into force. The guide does not explain when or how institutions should implement the pertinent changes to their models. Nevertheless, when applying the relevant regulatory framework to specific cases, the ECB takes into due consideration the particular circumstances of the institution concerned, giving it sufficient time to resolve the issues and to return to compliance with the regulatory provisions. Regarding the regulation on the FRTB, further details are given in Section 6.1 of this document.	**No change**

3 Comments and amendments to the revised ECB guide to internal models – comments on the principles covering climate-related and environmental risks

Due to the overlap of comments regarding the principles covering climate-related and environmental risks between the general topics and credit risk chapters of the guide, all comments and amendments received in this regard are addressed in this specific section.

#	Comment	ECB response and analysis	Status
1	Respondents indicated that climate-related and environmental risks are in the process of being addressed by institutions as part of their prudential risk management frameworks, especially in the light of recent or upcoming regulatory developments, notably: the publication of BCBS principles for the effective management and supervision of climate-related financial risks; CRD6, which sets out a number of mandates which will address the treatment of these risks in Pillar 2 , in particular, through transition plans and climate risk stress testing; the mandate for the EBA to report on the incorporation of ESG risks in the prudential framework, introduced by CRR3; the guide on climate-related and environmental risks, which institutions are expected to have implemented by the end of 2024. Therefore, the respondents considered that the ECB should not introduce further requirements for institutions to integrate climate-related and environmental risks into their internal models while they are busy implementing the aforementioned developments. They also raised the following potential implications or concerns: the principles in the guide may collide with upcoming international developments, in particular, with the stances taken by the EBA on the treatment of these risks under the current prudential framework; constraints in obtaining sufficiently granular and robust climate-related and environmental data, which may have an impact on the application of the principles; the risk that implementation of the principles for institutions using internal modelling approaches may result in an uneven playing field vis-à-vis institutions using standardised approaches for calculating own funds requirements. Respondents would also welcome further clarification on the date of implementation of these principles and how they should be taken into account for both credit risk and market risk models, from a methodological standpoint.	The ECB has considered the feedback received from various angles, as specified below. The ECB is duly following international regulatory developments in relation to climate-related and environmental risks: The ECB is keeping a close eye on European and international (e.g. BCBS) developments in the realm of climate-related and environmental risks, including developments in connection with internal models used for Pillar 1 purposes. In particular, the clarifications that the ECB has included in its guide to internal models are aligned with the BCBS FAQs on climate risks published in December 2022. It is believed that the principles included in the guide will raise levels of awareness among institutions on the potential materiality of these risks and will prompt institutions to begin any necessary data collection processes and modelling approaches, in a consistent way, if the underlying risk drivers are found to be relevant and material. The ECB is also mindful of the latest developments by the EBA, including the publication of the EBA's recent report on the role of environmental and social risks in the prudential framework. The principles leverage on the Guide on climate-related and environmental risks, which addresses the concept of materiality: Climate-related and environmental risks are considered categories of traditional financial risks and can be split into physical and transition risk drivers, as clarified in Section 3.1 (Definitions) of the Guide on climate-related and environmental risks. Therefore, these should be treated as any other risk driver that institutions identify and measure as part of their models approved for regulatory purposes. According to expectation 7 of the Guide on climate-related and environmental risks, "Institutions are expected to incorporate climate-related and environmental risks as drivers of existing risk categories into their risk management framework, with a view to managing, monitoring and mitigating these over a sufficiently long-term horizon (…)". In line with these principles, the ECB considers that, when assessed as relevant and material, climate and environmental risk drivers should also be included in internal models approved for the purpose of calculating own funds requirements (for credit and market risk), given that climate-related and environmental risks are drivers of existing risk categories. In addition, as for any other relevant risk driver which institutions should collect and measure as part of their risk measurement processes, the current regulation does not prescribe a specific materiality threshold and it is up to the	**No change**

#	Comment	ECB response and analysis	Status
		institution to define its materiality concept and to define an adequate process for measuring the risks they are exposed to. The ECB acknowledges data collection challenges, but also believes that existing evidence can be leveraged: The ECB is mindful of the current challenges facing institutions with regard to the collection of sufficiently granular and robust climate-related and environmental data. However, the ECB considers that adherence to the principles set out in the guide on climate and environmental risks already requires the collection of relevant data, which can be used as a starting point for institutions' assessment of climate-related and environmental risks for Pillar 1 purposes. The principles included in the ECB guide to internal models leverage on the flexibility of the existing framework: Therefore, the principles are fully embedded in already existing sections or paragraphs of the guide. The principles do not prescribe any additional requirements beyond the currently applicable regulation. The principles do not result in an uneven playing field between institutions using standardised and internal modelling approaches for the purpose of calculating own funds requirements: As just mentioned, the principles leverage on the flexibility of the existing framework. Therefore, as no additional requirements or changes to the regulatory framework are being introduced, there will continue to be a level playing field for institutions using internal modelling and standardised approaches to calculate their own funds requirements.	
2	Some respondents commented that the guide should make explicit which are its expectations regarding the incorporation of the forward-looking nature of climate-related and environmental risk. In addition, some respondents asked for clarification on whether the data requirements established in current regulatory texts, including the EBA Guidelines on PD and LGD (for example in terms of data representativeness or length of the historical observation period) are to be considered for climate-related and environmental risk drivers.	The principles on climate-related and environmental risks leverage on the current flexibility of the framework, for IRB models in particular, and on the use of historical observed data, which is an underlying requirement. As previously clarified, the principles on climate-related and environmental risks do not go beyond the current applicable regulatory framework. Therefore, any requirements regarding data used either for model development (e.g. representativeness) or risk quantification (length of the historical observation period) will continue to apply, including the requirements set out in the EBA Guidelines on PD and LGD.	No change
3	Some respondents commented that the guide, in footnote 34 of paragraph 47, envisions the application of a more conservative approach in assigning ratings to the related facilities or obligors by applying an override to the final output of the rating assignment process, which focuses only on the potential negative impacts stemming from climate-related and environmental risks.	Article 171(2) of the CRR states that institutions "(…) shall take all relevant information into account in assigning obligors and facilities to grades or pools. (…) The less information an institution has, the more conservative shall be its assignments of exposures to obligor and facility grades or pools. (…)". In addition, the use of overrides is defined in Article 172(3) of the CRR (where, in particular, it states that "human judgement may override the inputs or outputs of the assignment process") and further clarified by the ECB in paragraph 47 of the guide.[1] The footnote included in this paragraph clarifies that institutions should consider whether a more conservative approach should be taken in relation to the use of overrides, for the specific case of insufficient information on a climate-related and environmental risk driver that has been assessed as relevant and material. The ECB considers this as meaningful where there is insufficient information about a relevant risk driver or insufficient historical experience with climate-related and environmental risks. Therefore, in view of the potentially limited information currently available on these risks/lack of experience with these risk drivers, it is considered appropriate to take a more conservative approach in the rating assignment process.	Amended

[1] Institutions should be mindful at all times of the underlying requirements for the use of overrides under Article 172(3) of the CRR, particularly Article 24(2) of Commission Delegated Regulation (EU) No 2022/439 and paragraph 203 of the EBA Guidelines on PD and LGD.

#	Comment	ECB response and analysis	Status
4	Some respondents raised the issue of limited data availability in the context of the principle set out in paragraph 208 of the credit risk chapter of the guide when considering a margin of conservatism in the event of missing or inaccurate climate-related and environmental information. More precisely, respondents considered that the lack of historical climate-related and environmental data could impair the detection and assessment of statistical-based relations and the computation of an appropriate MoC. Nevertheless, respondents acknowledged the importance of starting to collect climate-related and environmental information, despite the current challenges regarding data availability, harmonisation and collection.	Regarding the clarification included in paragraph 208 of the credit risk chapter, an MoC should incorporate and account for any missing or inaccurate climate-related information. This principle leverages on the flexibility of the current regulatory framework and in particular on the clarifications provided in paragraph 37(a) of the EBA Guidelines on PD and LGD. The principle leverages on the current flexibility of the framework and regulatory requirements already in place and is intended to rely on already available climate-related and environmental information.	**No change**

4 Comments and amendments to the revised ECB guide to internal models – general topics (GT) chapter

The paragraph numbers in this chapter of the feedback statement refer to the general topics chapter of the final ECB guide to internal models, as published with this feedback statement, unless noted otherwise.

4.1 Overarching principles for internal models (GT Section 1)

#	Comment	ECB response and analysis	Status
1	Paragraph 26 Respondents asked for clarification on whether the principles regarding the implementation of a changed or extended model are also expected to be followed for requests to use less sophisticated approaches. They likewise suggested including this clarification in the guide.	The ECB agrees that the principle also applies to permissions notified in the context of reversion to less sophisticated approaches as set in Article 149 of the CRR. Therefore, the proposed clarification has been added to the end of paragraph 26.	Amended
2	Paragraph 26 Several respondents commented on the ECB's expectation concerning the timeframe for implementing material changes or extensions upon receiving the permission notification, in particular that implementation within the three-month timeframe might be difficult to achieve, especially where the model needs to be implemented across different jurisdictions and under different regulatory requirements. Some respondents thus suggested considering a 12-month timeframe instead. In this context, other respondents asked for clarification as to whether the three-month timeframe requires a formal request and whether the institution can present an updated timeline if unexpected delays with regard to the implementation of the change arise following the decision. Finally some respondents asked for clarification of the concept of "staggered approach" included in this paragraph.	The ECB expects institutions to implement their approved new or changed models in a timeframe that should not exceed three months, starting from the decision notification date. This is to avoid discretion by institutions in deciding when to implement the model change, especially if this leads to an increase in RWA, and to ensure adherence to all applicable requirements. The timeframe is not subject to any formal notification by institutions. The ECB is mindful that institution-specific or even model-specific constraints may arise and these should be appropriately discussed and agreed with the ECB. Article 3(6) of Commission Delegated Regulation (EU) No 529/2014 applies in this context as well and a new footnote has been added to paragraph 26. In addition, the ECB introduced further changes to paragraph 26, most notably to clarify that a staggered approach can encompass cases of model implementation across different jurisdictions. It is not related to the re-rating process as described in Section 7.6 of the general topics chapter of the guide.	Amended
3	Paragraph 26 Some respondents asked for further clarification regarding paragraph 26, notably: whether the new principle on model implementation will lead to any impact on COREP reporting dates; whether the flexibility included in paragraph 26 is aligned with the principles set out in Section 2.2.2 of the credit risk chapter.	The ECB does not consider it feasible to establish a link between the model implementation date and the COREP reporting dates, as it would depend on the notification date. In addition, the paragraph 8 of the credit risk chapter states that IT systems must be ready to implement at the time of the application. These requirements are from an IT perspective and do not conflict with the requirements contained in the general topics chapter. While Section 2.2.2 of the credit risk chapter discusses the prerequisites for ensuring a meaningful on-site assessment of model applications, paragraph 26 focuses on the events following an approval and is meant to avoid undue delay for the RWA impact to materialise.	No change

4.2 Roll-out and permanent partial use (GT Section 2)

#	Comment	ECB response and analysis	Status
1	Paragraph 28 Some respondents considered that further amendments should be included in footnote 32 of paragraph 28 (regarding the computation of the IRB coverage ratio), in particular, that the IRB coverage ratio formula should exclude those exposures that have been permanently excluded from the application of the IRB approach under Article 150(a) and (b) of the CRR, as well as exposures in the form of a share in a collective investment undertaking (CIU) within the meaning of Article 4(1)(7) of the CRR.	The ECB does not agree with a further extension of the list of exclusions from the calculation of the IRB minimum coverage ratios. Primarily, the rationale for the existing exclusions is to limit the scope of exposures to be included in the calculation of the IRB coverage ratios to exposures for which the CRR envisages the implementation of a rating system. In this regard, it is to be noted that for the exposures referred to in Article 150(a) and (b) of the CRR, the CRR envisages the use of the IRB approach, and indeed a number of institutions within the Single Supervisory Mechanism (SSM) are already using this approach. For exposures in the form of a share in a CIU within the meaning of Article 4(1)(7) of the CRR, the exclusion from the computation of the IRB coverage ratios would be not consistent with the general principle set out in the CRR (most notably in Article 152) that exposures must be subject to standardised approaches or to IRB approaches, depending on the regulatory approach applied to the underlying exposures. In addition to the considerations mentioned above, the guide already embeds a sufficient degree of flexibility, since the 50% minimum IRB coverage ratios are defined as expectations and not as absolute thresholds that should never be breached. Furthermore, the ECB considers that references to the EBA Consultation Paper 2014/10 on both the table with Regulatory References (Section 2.1) and corresponding footnote 30 can be deleted.	**Amended**
2	Paragraph 40 Respondents asked for guidance on the ECB's expectations if new types of exposures are created. They stressed that the case under discussion should fall under Article 146 of the CRR and use of the Standardised Approach (SA) should be allowed before approvals are received.	The ECB notes that the comment requires clarification of the procedure to follow if new types of exposures are created. By way of analogy, the same scenario applies where new business units are set up. These cases are governed by the general rules set out in Section 2.5 of the general topics chapter of the guide, which regulates the monitoring of compliance with permanent partial use provisions. Therefore, it would be redundant and not strictly necessary to add the reference to Article 146 of the CRR, as suggested in the comment. In any case, and for the sake of clarity, the guide has been amended in the form of a new paragraph following on from paragraph 40, partially in line with the request made by the respondents.	**Amended**
3	Paragraphs 42-46 Respondents commented on the ECB assessment criteria related to requests to revert to the use of less sophisticated approaches (RLSA). They stressed that the guide should: • explain the criteria used by the ECB when deciding whether or not to approve the requests; • draw a distinction between proposals made by the ECB and those made by the institution concerned for RLSA; • clarify that the newly introduced expectations will be gradually implemented by the ECB in order to ensure a level playing field.	According to Article 149 of the CRR, the institution must demonstrate to the satisfaction of the competent authority that the RLSA fulfils certain conditions. The ECB assessment criteria that can be applied broadly (i.e. non-specific) are already described in the guide. The ECB does not agree that the guide should draw a distinction between RLSA proposals made by the ECB and those submitted by the institution itself. Both cases are considered equivalent from a legal standpoint and no requirement set out in Article 149 of the CRR can be waived partially or fully. The ECB does not share the concern that an uneven playing field would be created in the absence of a gradual implementation of the expectations set out in the guide. Conversely, a level playing field is ensured across institutions that have submitted an RLSA in the past and those that may do so in the future due to the fact that the expectations now being introduced in the guide have already informed the assessments carried out by the ECB on the same matter in the past.	**No change**
4	Paragraphs 42-46 Respondents asked for guidance on the ECB's expectation regarding the content of an RLSA application package if the requests lead to reductions	The requested guidance on the expected application package cannot be broadly provided since this depends on the specific features of the model	**No change**

#	Comment	ECB response and analysis	Status
	in the scope of applications for models that will continue to be used for own fund calculations.	landscape as well as the specific scope of the RLSA request made by each institution.	
	General comments affecting paragraphs 42-46 Respondents commented on the impact of the forthcoming CRR3 on ECB expectations regarding RLSAs. They called on the ECB to exempt RLSAs that will be mandatory under the future CRR3 from the scope of application of Article 149 of the CRR, which is in line with the spirit of the simplified procedure set out in Article 494(d) of the CRR as introduced by CRR3.	The request included in the comment essentially refers to a legal text that will enter into force in the future. Conversely, the guide refers to the law currently applicable, since the ECB is required and called upon to apply the currently applicable law. The ECB expects to make the relevant changes to the guide in due course once the new law is in force.	**No change**
5	Paragraphs 43-44 Respondents commented on the ECB's expectations regarding the requirements set out in Article 149 of the CRR relating to an RLSA being necessary due to the nature and complexity of the institution's total exposures of this type. They submitted that the guide be amended along the following lines. • It should not go beyond CRR requirements, e.g. as Article 149 of the CRR specifically allows institutions to revert exposure classes and apply the SA in line with Article 150 of the CRR, such as providing certain specific requirements for "sovereign" and "institution" exposure classes. Given that exposure classes cover, by definition, various exposures with different (risk) characteristics, the expectation set out in the guide for consistency across exposures with "similar features in terms of modelling" does not seem to be justified. Similarly, respondents remarked that it is unclear how the own funds impact analysis on "similar" exposures would help to identify cases of regulatory arbitrage. For these reasons, respondents asked the ECB to replace references to "kind of exposure" to "type of exposures" and "features in terms of modelling" to "key risk characteristics" and to remove references to exposure classes and impact analysis. • It should not limit the possibility of reconsidering the internal models landscape to include only "reasons or impediments that arose after the original authorisation", as in most cases this would render it impossible to redefine the models strategy. • The guide should not consider the possibility of using another admissible approach because in the opinion of the respondents the most important point is the availability of minimum representative data for redeveloping a model and the justified strategic decision of the institution to RLSA. In addition, Article 149 of the CRR does not allow for reversion to the slotting approach. • It should not restrict the grounds for RLSA to those unrelated to modelling activities, such as the internal operational capacity of the subsidiary to keep proper presidium of the IRB over time, IT plan, expected run-down of the business, and relations with peers. • Where a request is made to revert to a different approach (the SA or FIRB approach) for similar exposures, the expectation that institutions should provide convincing evidence should be replaced with the less restrictive concept of supporting evidence. • • In light of the Basel IV reform, which will allow (see transitional arrangement as per Article 494(d) of the CRR as introduced by CRR3) institutions to revert to the SA during a three-year period under a simplified procedure, more leeway should be given to each institution and the relevant JST so that they can define a proper strategy capable of encompassing numerous aspects (i.e. modelling features, operational capability, IT readiness, business strategy, requests from national competent authorities (NCAs), etc.) and reference should not be made to objective and intuitive criteria, leveraging on the criteria set out in Article	• The ECB does not agree that the expectation that "institutions should consistently apply across exposure classes and/or exposure types with similar features in terms of modelling (in particular with regard to points (a) and (b) of paragraph 43) the criteria defined to assess whether the requirements set out in Article 149(1) and (2) of the CRR have been met" goes beyond CRR requirements. As it happens, this expectation derives directly from one of the conditions set out in Article 149 of the CRR, which states, among other things, that the institution must have demonstrated to the satisfaction of the competent authority that the use of the less sophisticated approach is necessary on the basis of the nature and complexity of the institution's total exposures of this type. Therefore, the CRR requires that the reversion should not be based on an opportunity but on a necessity. In turn, the existence of a necessity implies that objective and intuitive criteria are predefined and applied consistently across exposure classes and/or exposure types with similar features in terms of modelling. A further reason why the ECB does not agree with the criticism expressed in the comment is that it mixes different and independent requirements set out in Articles 149 and 150 of the CRR. In this regard, it is crucial to make clear that these two CRR articles pursue different goals, their scopes of application are different, and their requirements are independent and additive, meaning that even if the requirements set out in Article 150 are met, this is a necessary though not sufficient condition for the reversion, as the requirements set out in Article 149 must also (and more importantly) be fulfilled. Furthermore, the ECB disagrees with the comment in that it presumes that different exposure classes invariably have different risk characteristics, meaning that – using the terms of the CRR – different exposure classes cover different exposure types. This does not always hold true, as demonstrated by the fact that exposure types are not limited within single exposure classes, and it is certainly not infrequent to observe exposure types that span several exposure classes. For this reason, it might be informative for the assessment of the RLSA to also consider the own funds requirement (OFR) impact on other similar exposure types/classes subject to similar modelling difficulties. For example, if applying the predefined objective and intuitive criteria would lead to a request for reversion to the use of the SA for a number of exposure types/classes, but where the request to revert to the SA is submitted by the institution for only a subset of them, or alternatively if the request is to revert some of them to the SA and others to Foundation IRB (FIRB), then the OFR impact of the reversal to both the SA and FIRB for all of them might be highly informative regarding the institution's intention to reduce its OFR. • First of all, the ECB does not agree with the request to remove the reference to "any reasons or impediments that arose after the original authorisation". This reference is necessary since Article 149 of the CRR governs the case of RLSA where the IRB has been used previously. Therefore, if the IRB approach has been used previously, any reversion necessarily would require "reasons or impediments that arose after the original authorisation". Without this condition, there would	**No change**

#	Comment	ECB response and analysis	Status
	149 of the CRR and ensuring a sufficient degree of flexibility for the banking system.	be no necessity as required under Article 149 of the CRR; rather an arbitrary decision by institutions. For the sake of clarity, the ECB does not intend to prevent the reduction in the number on models, but aims to combine this goal with the need to ensure that such a reduction is obtained without any cherry-picking. • The ECB does not agree with the comment for two reasons. Firstly, where modelling issues lead to a request for the use of the SA, it is not possible to disregard the possibility to revert to the use of FIRB if the modelling issues affect only the LGD and CFF parameters. Moreover, in the case considered above, if using F-IRB led to a higher OFR than when using the SA, the consideration of the OFR becomes necessary to inform the assessment and verify that the institution is not looking to reduce its OFR. Secondly, paragraph 46 of the guide does not preclude the possibility of using the supervisory slotting criteria approach (SSCA) for specialised lending exposures. At the same time, for the purposes of the assessment of both conditions set out in Article 149 of the CRR related to the necessity of reversion and to the lack of intent to reduce the OFR, the possibility of using the SSCA as an alternative to the requested reversion to the SA cannot be disregarded. This consideration is independent of the fact that the switch from the use of AIRB or FIRB to the use of SSCA does not fall within the scope of Article of 149. • The ECB does not agree with the proposed amendment to remove the reference to the sentence “Institutions should consistently apply across exposure classes and/or exposure types with similar features in terms of modelling (in particular with regard to points (a) and (b) of paragraph 43) the criteria defined to assess whether the requirements set out in Article 149(1) and (2) of the CRR have been met” so as not to constrain reversion for the following reasons: (1) internal operational capacity of the subsidiary to keep proper oversight f the IRB over time; (2) IT plan; (3) expected run-down of the business; (4) relations with peers. Regarding reason (1), the ECB does not consider the reference to a subsidiary to be generally valid in itself. Conversely, with reference to the modelling features, the relevant concept is exposure type as defined in Article 142(1)(2) of the CRR. In this regard, it is to be noted that this concept is by default defined at group level, as the possibility of using a differentiated approach within the group is allowed only under certain conditions. Regarding reason (2), the ECB does not consider the reference to IT plans to be generally valid. In fact, the ECB believes that in the event of weaknesses in the IT infrastructure, the group must act to resolve these issues instead of reverting to the use of less sophisticated approaches in order to avoid the necessary investments needed to adequately support the use of the IRB approach. Regarding reason (3), the ECB agrees in general that the RLSA might be appropriate for business that is being run off. However, the ECB notes that the request made in the comment to remove the quoted sentence is not appropriate because both points (a) and (b) of paragraph 43 refer to such cases. In fact, in point (a) reference is made to the non-strategic nature of exposures, while in point (b) reference is made to the availability of minimum representative data which is also relevant for businesses in run-off. Regarding reason (4), the ECB does not consider the reference to relations with peers to be generally valid. Business models happen to be different across institutions and divergences in the use of the SA, FIRB and AIRB across institutions (or peers) might be	

#	Comment	ECB response and analysis	Status
		justified and not necessarily incompatible with the need to ensure a level playing field. • The reference to the fact that institutions should provide convincing evidence that there is no intention to reduce own funds requirements where the reversion leads to a non-negligible reduction of capital requirements is necessary and requested under Article 149 of the CRR, which states that “the institution has demonstrated to the satisfaction of the competent authority that the use of the Standardised Approach is not proposed in order to reduce the own funds requirement of the institution”. • The ECB disagrees that the expectation that “institutions should consistently apply across exposure classes and/or exposure types with similar features in terms of modelling the criteria defined to assess whether the requirements set out in Article 149(1) and (2) of the CRR have been met” leaves insufficient room for each institution to define a proper model simplification strategy. In any case, this expectation derives directly from one of the conditions set out in Article 149 of the CRR, in the sense that the institution must have demonstrated to the satisfaction of the competent authority that the use of the requested less sophisticated approach is necessary on the basis of the nature and complexity of the institution’s total exposures of this type. Therefore, the CRR requires that the reversion be based not on an opportunity but on a necessity. In turn, the existence of a necessity implies that objective and intuitive criteria are predefined and consistently applied across exposure classes and/or exposure types with similar features in terms of modelling. To avoid any misunderstanding, institutions might choose a combination of both quantitative and qualitative criteria for that purpose. The ECB would also note that the comment refers to a legal text that will enter into force in the future. Conversely, the guide on internal models refers to the law currently applicable, since the ECB is required to apply the current law. In this regard, the ECB expects in due time to introduce relevant changes into its guide to internal models once the new law enters into force.	
6	Paragraphs 43-44 Respondents commented on the ECB’s expectations regarding the requirement set out in Article 149 of the CRR that the RLSA is not proposed in order to reduce the institution’s own funds requirement. They submitted that the guide be amended along the following lines: • It should provide guidance regarding what could be considered “convincing evidence” about the absence of an intent to reduce the OFR. The following example is proposed: “The reduction of capital requirement is caused by excessive conservatism of the current RWEA, e.g. due to application of conservative corrections, missing (collateral) data, (over) conservative (expert) based model, and not by nature (high risk) of the exposures. In this case, institutions are expected to estimate a "best-estimate" RWEA for the purposes of the point 4(d) of this paragraph”. Respondents highlighted that without this guidance, an unwarranted feedback loop could be created: the current model is not fulfilling the relevant CRR requirements, for which reason RWEA add-ons/MoC are added, which in turn does not allow for reversion to a less sophisticated approach, as it leads to a reduction in the RWEA. • It should provide guidance regarding what might qualify as a “non-negligible reduction” of own funds requirements. The following wording is proposed: “The following reduction is presumed to be negligible: no more than 1.5% of decrease in the overall EU parent institutions consolidated risk-weighted exposure amounts for credit and dilution risk (or other relevant consolidation level) AND no more than a decrease of 15% or less of the risk-	The reference to the need for institutions to provide convincing evidence that there is no intention to reduce own funds requirements where the reversion leads to a non-negligible reduction of capital requirements is necessary and called for under Article 149 of the CRR, which states that the institution must demonstrate to the satisfaction of the competent authority that the RLSA is not proposed in order to reduce the institution’s own funds requirement. In addition, unfortunately it is not possible to broadly define or provide examples of convincing evidence since they are specific to each individual case. Lastly, the ECB does not agree with the request made to include the suggested paragraph into the guide. Broadly speaking, the ECB does not agree that RWAs are overestimated where limitations/add-ons are imposed on currently applied risk parameters, estimates or RWAs. Conversely, the restrictions are there to prevent the RWAs from being underestimated as the identified deficiencies are rectified. As a consequence, the ECB considers it right and proper to take account of limitations when assessing the existence of intent to reduce the OFR. In any case, even in the event of a material reduction in the OFR due to the reversion to the use of less sophisticated approaches, the institution can easily prove that its intention was not to reduce the OFR, for example by sterilising the OFR relief caused by that reversion. The ECB does not agree with the proposal to use, for the purpose of fulfilling the requirements set out in Article 149 of the CRR, the thresholds defined in Commission Delegated Regulation (EU) No 529/2014. Firstly, because the definition of the quantitative criteria for the identification of material model changes	**No change**

#	Comment	ECB response and analysis	Status
	weighted exposure amounts for credit and dilution risk associated with the range of application of the internal rating systems, which covered exposures reverting to a less sophisticated approach." The above thresholds are aligned with Commission Delegated Regulation (EU) No 529/2014 and would set a consistent expectation. • The guide should not refer to potential supervisory measures (such as limitations). Potential limitations (e.g. the ones expected after an internal model investigation – IMI) may not be known in advance. • • Rather than referring to "convincing" evidence about the lack of intention to reduce the OFR, it should use the word "supporting". In fact, with respect to Basel 3, the RWA impact is a relevant aspect to be considered when assessing reversion to a less sophisticated approach, especially given the introduction of the output floor under Basel 3.	pursues different objectives in comparison with the corresponding criteria set out in Article 149 of the CRR for RLSA. Secondly, because it is not appropriate to establish predefined thresholds for all kinds of RLSA. In fact, given the exceptional nature of RLSA, the legislator purposely decided to grant discretion to the competent authority in this assessment, as confirmed by Article 149 of the CRR, which explicitly refers to the "satisfaction of the competent authority". • The ECB does not agree with the request to amend the paragraph. The case of limitations already in place versus limitations in the process of being adopted following the conclusion of an IMI are equivalent in the eyes of the ECB. In the second case, the potential impact of limitations can be approximated based on the evidence submitted in the assessment report delivered to the institution. • The reference to the need for institutions to provide convincing evidence that there is no intention to reduce the own funds requirement where the reversion leads to a non-negligible reduction of capital requirements is necessary and called for under Article 149 of the CRR, which states that the institution must have demonstrated to the satisfaction of the competent authority that the RLSA is not proposed in order to reduce the institution's own funds requirement. Moreover, the expected introduction of the output floor under the future regulation is not an element considered valid by the ECB in assessing the lack of intent to reduce the OFR.	
7	Paragraph 49 Several requests for clarification were received in relation to this paragraph, including clarification that the return to compliance plan covers only model-related non-compliances. Clarification was likewise requested regarding the timing of the submission of the return to compliance plan.	The guide has been updated to clarify that only model-related compliance issues are in scope of the return to compliance plan. The timing of the submission of the return to compliance plan must allow the ECB to issue a decision before the first external reporting of the post-merger entity.	Amended

4.3 Internal governance (GT Section 3)

No key comments are included in this feedback statement on Section 3 of the general topics chapter.

4.4 Internal validation (GT Section 4)

No key comments are included in this feedback statement on Section 4 of the general topics chapter.

4.5 Internal audit (GT Section 5)

No key comments are included in this feedback statement on Section 5 of the general topics chapter.

4.6 Model use (GT Section 6)

#	Comment	ECB response and analysis	Status
1	Paragraph 97 Some respondents considered that a new legal entity might alternatively refer to an already existing legal entity for which the application of internal models was not yet authorised, as well as to new legal entities set up either to run new businesses or existing businesses under the perimeter of the already authorised models ("spin-off"). In this case, the respondents considered that a consistent application of the authorised approach merits some additional clarification for the extension to additional exposures that are not significantly different from the scope of the existing coverage and suggested clarifying this point in the paragraph. In addition, within the case of "extension to additional exposures that are not significantly different from the scope of the existing coverage", the respondents considered that the ECB should acknowledge that spin-offs may be considered as having met the conditions of Article 145(1) and (2) of the CRR considering the existing experience of the institution also for the purpose of applying the IRB approach at both individual and consolidated level under point (b) and not only for the purpose of its application at consolidated level under point (a) only. Moreover, several respondents considered that further clarification should be introduced in the last sentence of paragraph 97 to ensure absolute clarity.	The ECB considers that the provisions of paragraph 97 refer to the extension of the IRB approach to a new legal entity or to additional exposures at an already existing entity. The provisions are with respect to the experience test requirements set out in Article 145 of the CRR, irrespective of the previous treatment of these exposures. The authorisation for the extension needs to be granted considering also all applicable regulatory requirements, in particular the scope of application of the extended rating system. On the second part of the comment, regarding the fulfilment of the experience test requirements when calculating own funds requirements at consolidated and individual levels, the ECB considers it relevant to evidence that these requirements are met, given the dual application of the model (i.e. both at individual and consolidated levels). Therefore, no further changes have been applied to the paragraph in this regard. Lastly, the ECB agrees to further clarify the last sentence of paragraph 97 and slight amendments have indeed been included.	Amended

4.7 Management of changes to the IRB approach (GT Section 7)

No key comments are included in this feedback statement on Section 7 of the general topics chapter.

4.8 Third-party involvement (GT Section 8)

No key comments are included in this feedback statement on Section 8 of the general topics chapter.

5 Comments and amendments to the revised ECB guide to internal models – credit risk (CR) chapter

The paragraph numbers indicated in this chapter of the feedback statement refer to the credit risk chapter of the final ECB guide to internal models, as published with this feedback statement, unless noted otherwise.

5.1 Scope of the credit risk chapter (CR Section 1)

	Comment	ECB response and analysis	Status
1	General comment Respondents stressed that the guide should include specific provisions in order to accommodate the potential modelling specificities and constraints of models covering portfolios characterised by a low number of relevant available observations. Respondents pointed out that the EBA Guidelines on PD and LGD have been specified in a flexible manner to accommodate various estimation methodologies and portfolio types, allowing human judgement to be used in the event of data scarcity.	The current applicable regulatory framework and the principles set out in the guide do not distinguish modelling requirements on the basis of the underlying available number of observations and its principles have been designed to accommodate different methodologies, in line with prevailing regulations. It is up to the institutions to define the most appropriate modelling methodologies, considering the characteristics of the underlying portfolios. However, in specific situations of scarcity of internal data, the guide suggests several additional principles that should be taken into account. In particular, paragraphs 50 and 52 describe principles on model application and risk quantification regarding the use of human judgement and the underlying number of relevant available observations.	**No change**

5.2 Data maintenance for the IRB approach (CR Section 2)

#	Comment	ECB response and analysis	Status
1	Paragraphs 7-8 Several respondents considered that the principle of having a non-live production version of the model implemented and fully tested before applying for an initial model approval, a roll-out of the IRB approach or a material model change, would be onerous and could delay submission to the ECB of the model application. In particular, it may be hard to synchronise all of the IT components.	An institution applying for an initial model approval, a roll-out of the IRB approach or a material model change should ensure that all the underlying requirements are met, as stated in Article 144 of the CRR. In particular, institutions should be able to provide a clear picture of the implementation of a version of the model in an IT environment that would allow the model to be implemented and COREP reporting to take place on the basis of the IRB approach once initial permission is granted, as stated in Article 144(g) of the CRR. The ECB considers that, for these purposes, the institution should be able to demonstrate how the functional and technical requirements will be implemented and that this can be achieved, in particular, by implementing the proposed model into a live or, if duly justified, non-live production environment. In case of material changes or extensions, the application package should be complete in terms of scope and documentation (as stated in Article 8 of Commission Delegated Regulation (EU) No 529/2014). In particular, the institution should submit all necessary documentation so that the scope of the request can be understood (e.g. a clear description of the model change) as well as technical and process documentation, which should include documentation on the functional and technical/IT requirements. In addition, a typo has been corrected in paragraph 8.	**Amended**
2	Paragraphs 7-8 Several respondents asked for clarification of the principles included in paragraphs 7 and 8, in terms of the evidence that institutions should submit in order to able to calculate own funds requirements, to submit the respective COREP reporting and to use the model for internal risk measurement and management purposes. In this context, respondents considered that the assessment of IT implementation should be based on the readiness of the institution to fulfil the relevant principles, not to ensure the IT link between the core engine of the new model in a parallel production environment (which serves several applications throughout the institution) or its integration in an end-to-end workflow which encompasses, in particular, input collection and communication of the risk parameter outputs to downstream systems or the downstream COREP reporting layer.	According to the principles described in paragraph 7 (and then applied in paragraph 8), more precisely in letters (c), (d) and (e), institutions should be ready to fulfil the relevant principles upon approval of the model. Therefore, institutions should demonstrate their ability to be ready upon model approval. For example, in the case of COREP reporting figures, the clarifications that the ECB provides in paragraph 26 of the general topics chapter refer to the implementation of the new or changed model (i.e. the go-live in a production environment). In this context, the ECB recognises that some constraints may exist, and therefore a timeframe of three months for this implementation is granted. Article 144(g) is therefore clarified in paragraph 7(d) and the institution should be able to submit the COREP reporting figures upon implementation of the new model and calculated with the that new model. Therefore, expectations with regards to the full implementation of the model, including the set-up and integration of the necessary infrastructure and IT processes, are clarified in paragraph 26 of the general topics chapter.	**No change**

5.3 Use of data (CR Section 3)

	Comment	ECB response and analysis	Status
1	Paragraph 38 One respondent called for the requirements to be relaxed so that negative results when analysing the representativeness of external data are solely a strong indication of bias and should mainly trigger further valid analyses. In this regard, it was submitted that a testing approach that pays no heed to statistical significance runs the risk of drawing overly simplistic conclusions. The respondent would like to temper the requirement so that negative analysis results are only a strong indication of bias and should not necessarily have further ramifications other than triggering further analyses. The respondent fears, especially in portfolios with few defaults, that a single default event with correlated borrowers at the institution level may lead to statistical artefacts. Remaining uncertainties could also be addressed by a category B MoC.	Representativeness of data is at the core of the beneficial use of external data. Therefore, the institution needs to analyse and provide evidence of adequacy and where there are deficiencies or bias, it needs to take further steps, such as adjustments and MoCs. We would explicitly reject the notion that no further action is necessary where there is no statistically significant proof of deficiencies. Instead, where statistical uncertainty exists and the institution cannot provide adequate evidence for representativeness, it needs to address this uncertainty. Please also refer to paragraphs 125 and 126 of the guide for further specification. Paragraph 38 was amended to highlight more clearly the ECB's expectation.	**Amended**
2	Paragraph 46 Some respondents proposed a relaxation of paragraph 46 in order to avoid the additional burden of independent re-ratings in situations where human judgement is the main component during a rating assignment.	The comment targets paragraph 46(b) of the guide, which focuses on situations in which human judgement is the main component during a rating assignment. In this paragraph, the ECB conveys its understanding that as part of the assessment of the consistency of the rating assignment process, institutions should carry out an "an analysis of consistency in a representative sample by having obligors re-rated independently by different analysts". As these situations are more sensitive due to their expert-based nature and the guide accepts the analysis based on a representative sample instead of full replication, the ECB considers the burden to be acceptable in view of the related risk.	**No change**
3	Paragraphs 55 to 57 Regarding the use of data in the context of consolidations, some respondents considered that the acquired data would not be representative and should be excluded.	Paragraph 163 of EBA/GL/2017/16 states that "institutions should not exclude any defaults observed in the historical observation period that fall within the scope of application of the LGD model". If defaults fall within the scope of a rating system, they should be considered to contain valuable information that should not be discarded. It is the ECB's understanding that the issues of data representativeness for calibration of risk parameters can be addressed via an appropriate adjustment instead.	**No changes**

5.4 Definition of default (CR Section 4)

#	Comment	ECB response and analysis	Status
1	Paragraph 62 Consistent identification of default among common obligors with exposures in different jurisdictions Some respondents claimed that exceedance of the materiality threshold for more than 90 days in a given country (including a country outside the EU) is not an indication that an obligor will default in other countries for the purpose of the default definition in those countries. Conversely, it should trigger a global unlikeliness-to-pay assessment and, if needed, a default downgrade but it should not automatically lead to default. These respondents consider that the supervisory expectation set out in paragraph 62 of the guide goes beyond the provisions of EBA/GL/2016/07, which do not require such action from institutions and	Pursuant to Article 178(1) of Regulation (EU) No 575/2013 and Article 3(1) of ECB Regulation (EU) 2018/1845, the days past due trigger of default (under Article 178(1)(b) of Regulation (EU) No 575/2013) and the unlikeliness-to-pay triggers of default (under Article 178(1)(a) of the same Regulation) must be assessed with regard to all exposures of an obligor to a banking group and thus by consolidating all information about the different exposures and the behaviour of the obligor across the banking group. In addition, pursuant to paragraph 79 of EBA/GL/2016/07, institutions should ensure "that default of a single obligor is identified consistently […] with regard to all exposures to this obligor in all relevant IT systems" across an institution and/or the (entire) organisational structure of a group. In jurisdictions outside the euro area, a materiality threshold which differs from the one set by the ECB	**Amended**

#	Comment	ECB response and analysis	Status
	instead acknowledge that there may be different default triggers based on national discretion. Some respondents also noted that, in their understanding, where a global client has exposures in jurisdictions in which national competent authorities set a different materiality threshold, carrying out a parallel counting of days past due limited to the portion of the exposures within that jurisdiction would not provide an accurate assessment of the credit quality of the obligor concerned. It was also noted that putting this parallel counting of days past due into practice would be excessively burdensome in terms of processes, especially in cases where most of the client's exposure is booked in an SSM jurisdiction. Another respondent remarked that, for consolidation purposes, the number of days past due for obligors holding exposures under both SSM and non-SSM jurisdictions should be calculated considering the materiality threshold applied in the jurisdiction of the parent company, whereas local materiality thresholds – if first exceeded for 90 consecutive days – should trigger default only in the jurisdiction outside the SSM for local exposures. An unlikeliness-to-pay assessment would then be required to evaluate the propagation of the default status across legal entities.	may apply under national law. In this case, an institution in a non-participating Member State should assess the materiality of a credit obligation past due against a threshold defined by the competent authority of that Member State, which could be different from the materiality threshold set out in ECB Regulation (EU) 2018/1845. This means that the materiality thresholds – and, as a result, the definitions of default – applied by an institution in a non-participating Member State and by a significant institution could be different, even if both belong to the same banking group. That scenario is one of the situations addressed in paragraph 83 of EBA/GL/2016/07. However, the provision laid down in paragraph 83 must be read in conjunction with paragraph 79, which requires a consistent identification of defaults across the whole banking group. Consequently, the ECB understands that to achieve full compliance with the regulation, significant institutions should make use of the provisions set out in paragraph 58 of EBA/GL/2016/07, which require institutions to specify additional indications of unlikeliness-to-pay. Against this background, the ECB would submit that the guide is not introducing new regulatory requirements beyond those already laid down in Level 1 and Level 2 texts. Conversely, paragraph 62 reiterates the need to adopt a group-wide view in default detection and sets supervisory expectations on how significant institutions should act to ensure compliance with that requirement. Regarding the respondents' concerns over the excessive burden due to parallel days past due calculation and the question of immateriality, it bears repeating that paragraph 82 of EBA/GL/2016/07 foresees that where the identification of default of an obligor in a manner fully consistent across the institution, the parent undertaking or any of its subsidiaries is very burdensome, requiring development of a centralised database of all clients or implementation of other mechanisms or procedures to verify the status of each client at all entities within the group, institutions need not apply such mechanisms or procedures if they can demonstrate that the effect of non-compliance is immaterial because there are no or very limited number of common clients among the relevant entities within a group and the exposure to these clients is immaterial. This provision appears to respond perfectly to the respondents' concerns in this regard. To conclude, no changes are deemed necessary to paragraph 62 of the revised guide following the public consultation, except for further clarification that where an obligor has exposures under both SSM and non-SSM jurisdictions in which national competent authorities set different materiality thresholds, significant institutions should check both the ECB materiality threshold and the materiality threshold(s) applicable in the other jurisdiction(s), and these materiality thresholds must be computed on the basis of consolidated exposures and arrears.	
2	Paragraph 63 and first part of Paragraph 64 Treatment of joint credit obligations for non-retail exposures Some respondents expressed concerns over the supervisory expectation according to which it is considered best practice for institutions to apply the requirements set out in paragraphs 95 to 105 of EBA/GL/2016/07 on the treatment of joint credit obligations (JCOs) for retail exposures and also joint credit obligations involving non-retail exposures. According to the respondents, it would be extremely complex and burdensome to apply the treatment of JCOs to non-retail obligors as it would require a case-by-case assessment. They also remark that the expectation set out in paragraph 63 of the guide is inconsistent with the clarification provided by the EBA in Q&A 2018_4431[2], which leaves it up to institutions to	The ECB would like to clarify that a "best practice" is understood as one, though not the only, set of actions or measures which ensures compliance with certain prudential requirements in a prudentially sound manner, although institutions are free to ensure compliance in another manner. Therefore, the ECB acknowledges the stance provided by the EBA in Q&A 2018_4431. On the alleged creation of a new type of obligor that would conflict with Article 147 of Regulation (EU) No 575/2013, it is worth clarifying that this is neither intended nor done. Conversely, the first part of paragraph 64 of the guide clarifies supervisory expectations on JCOs for non-retail exposures on the basis of the provisions laid down in EBA/GL/2016/07 (paragraphs 96-105) and on the feedback statement to the public consultation to EBA/GL/2016/07, where it is	No change

2 Available at https://www.eba.europa.eu/single-rule-book-qa/-/qna/view/publicId/2018_4431.

#	Comment	ECB response and analysis	Status
	specify in their internal policies and procedures the treatment of JCOs for non-retail exposures and for default contagion between exposures. Other respondents claimed that the expectation put forward in the first part of paragraph 64 of the guide de facto introduces a new type of obligor, which is not aligned with Article 147 of Regulation (EU) No 575/2013.	pointed out that “a joint obligor should be counted as a separate obligor […]” (pages 106-107).	
3	Paragraph 69 Conversion of exposures in non-euro currencies for the purpose of the days-past-due calculation Some respondents claimed that the daily conversion of non-euro exposures to euro may cause the days past due counter to become highly volatile if the past due is close to the materiality threshold. As the days past due counter would be reset only if the exchange rate leading the past due amounts fell below the materiality threshold, this volatility would generally make it harder for institutions to reliably anticipate risk management mitigating actions and could lead to a late recognition of defaults. Several suggestions were put forward by the respondents, such as requiring a less frequent (e.g. monthly) exchange rate conversion, stabilisation mechanisms whereby the exchange rate remains fixed at the day of first activation of the days past due counter and a reset is possible only where the past due amount in the currency of denomination decreases, or even by stating that changes to the exchange rate should not, under any circumstances, trigger a reset in the counting of days past due. Another respondent remarked that the supervisory expectation set out in paragraph 69 of the guide goes beyond EBA/GL/2016/07, which do not impose such a mechanism. Lastly, one respondent observed that paragraph 69 essentially requires the implementation of an alternative days past due counter for any non-SSM jurisdiction.	The provision laid down in paragraph 69 of the guide stems from the joint reading of Articles 3(1) and 3(3) of ECB Regulation (EU) 2018/1845 in conjunction with paragraph 21 of EBA/GL/2016/07. Further explanation is outlined in Section B.2 of the Feedback Statement – Responses to the public consultation on the draft ECB Regulation on the materiality threshold for credit obligations past due. As for the concern regarding the implementation of an alternative days past due counter for any non-SSM jurisdiction, this does not seem to be necessary: it would be sufficient to append to all amounts in non-euro currencies the corresponding exchange rate at the end of the corresponding day, within the same engine.	**No change**
4	Paragraph 73 Treatment of certain types of moratoria and disputes as technical defaults Some respondents noted that moratoria where payment suspension allowed by law is retroactively recorded in the systems after defining and checking the eligibility criteria are not covered under the proposed paragraph 73 of the guide. Other respondents remarked that the proposed paragraph 73 of the guide does not envisage treatment as technical defaults for past due situations linked to disputes initiated before the default classification where the suspension of the counting of days past due is recorded in the systems after the classification due to delays in formally notifying the dispute. A few respondents observed that paragraph 71 would be inconsistent with the last sentence of paragraph 73 of the guide.	The ECB acknowledges that the first two sets of comments have merit and has therefore reworded paragraph 73 of the guide has to include the following: (i) moratoria granted on the basis of applicable laws having retroactive effects from a period in which the obligor was less than 90 days past due on material credit obligations may be treated as a technical default also where the credit decision approving the moratorium was taken when the days past due counter had already reached 90 consecutive days; and (ii) disputes which fulfil the requirements set out in paragraph 19 of EBA/GL/2016/07 and that are initiated before the default classification, where the corresponding suspension of the counting of days past due is recorded in the systems after the classification in default due to delays in the formal notification of the dispute, may qualify for treatment as technical default in accordance with paragraph 23(a) of EBA/GL/2016/07. Regarding the alleged contradiction between paragraph 71 and the last sentence of paragraph 73 of the guide, the ECB would like to clarify that no such contradiction exists: while in paragraph 71 it is stated that, in accordance with paragraph 19 of EBA/GL/2016/07, suspension is an optional practice that significant institutions may decide to apply and not a prescribed requirement, the last sentence of paragraph 73 makes clear that a general treatment of disputes as technical defaults is not recommended as it would lead to an unwarranted inflation of technical past due situations. However, for the sake of clarity, this expectation has now been specified further in the guide.	**Amended**
5	Paragraph 79 Calculation of diminished financial obligation for the purpose of distressed restructuring	The ECB would like to clarify that, in accordance with paragraph 52 of EBA/GL/2016/07, the calculation of NPV is needed for the purpose of default detection, with no exceptions. Moreover, the amount by which the financial obligation has diminished in the event of	**Amended**

#	Comment	ECB response and analysis	Status
	Some respondents remarked that the calculation of net present value (NPV) causes a disproportionate effort and is too burdensome and complex. In their view, it should not be the only way to assess the existence of a financial loss due to a distressed restructuring. They suggest that the identification of the loss should be adapted to the portfolio and the complexity of the products, or it should be enforced only where it is required for default detection (e.g. where there is no default yet and exceedance of the 1% threshold is doubtful) or for LGD estimation. Otherwise, according to the respondents, the NPV calculation should be dispensed with. Another respondent asked for confirmation that a default trigger based on a threshold on the diminished financial obligation would not need to be computed retroactively after adjusting the threshold.	distressed restructuring is part of the information that should be collected in the reference dataset used for LGD estimation in accordance with paragraph 109(c) of EBA/GL/2017/16. Given these circumstances, paragraph 79 of the guide makes clear that no exemptions are foreseen for the NPV calculation and that, in the ECB's understanding, where the threshold set out in accordance with paragraph 51 of EBA/GL/2016/07 is changed, a retroactive comparison of the already existing distressed restructurings against the new threshold is not expected for the purpose of default detection. This has been further clarified in paragraph 79 of the guide to avoid misunderstanding.	
6	Paragraphs 83, 85 and 86 Return to non-defaulted status for exposures subject to distressed restructuring Several respondents asked for clarifications and provided suggestions on various topics pertaining to the return to non-defaulted status of exposures subject to distressed restructuring. Specifically, respondents queried: (1) why outstanding immaterial past due amounts would prevent the return to non-defaulted status for these exposures contrary to exposures not subject to distressed restructuring; (2) how the probation period for these exposures would react to the new applicable default triggers in light of EBA Q&A 2022_6527; and (3) the criteria to be considered at obligor level for allowing a return to non-defaulted status when the defaulted obligor has exposures not subject to distressed restructuring in addition to exposures subject to distressed restructuring.	Regarding the first question, all defaulted exposures subject to distressed restructuring are also considered forborne non-performing and, in accordance with paragraph 54 of EBA/GL/2016/07, all forborne non-performing exposures should also be classified as defaulted and subject to distressed restructuring. The conditions for forborne non-performing exposures to return to (forborne) performing status are set out in Article 47a(6)(c) of Regulation (EU) No 575/2013. Among other things, they include the requirement that no past due amounts are outstanding following the forbearance measures. Moreover, EBA Q&A 2021_5860 clarifies that past due amounts should be considered without applying the materiality threshold specified in Commission Delegated Regulation (EU) 2018/171. Therefore, a defaulted exposure subject to distressed restructuring may return to non-defaulted status only if it exits forborne non-performing status and this requires, inter alia, that no past due amounts, even immaterial ones, remain outstanding after the distressed restructuring. Conversely, for exposures not subject to distressed restructuring, paragraph 71(a) of EBA/GL/2016/07 requires the assessment of whether, at the end of the observation period of at least three months, any trigger of default continues to apply. As further clarified in EBA Q&A 6527, delays in payments of up to 90 days and non-material past due amounts do not represent, per se, an automatic trigger to keep such exposures in defaulted status. Nevertheless, significant institutions have the freedom to operationalise paragraphs 71(b) and 71(c) of EBA/GL/2016/07 in a way that also prevents the return to non-defaulted status for exposures not subject to distressed restructuring where the obligor has outstanding past due amounts. Regarding the second question, EBA Q&A 2022_6527 states that, for exposures subject to distressed restructuring, there is a rebuttable presumption that the probation period should be reset as soon as the exposure becomes more than 30 days past due, unless this delayed payment is not related to financial difficulties of the obligor, as this would represent an indication of unlikeliness to pay. The ECB believes that broadly speaking the probation period should be reset whenever a new default trigger applies and that the probation period should start again immediately after the reset in light of paragraphs 72 and 73 of EBA/GL/2016/07. This understanding has now been reflected in paragraph 86 of the guide. Regarding the third question, a defaulted obligor with exposures not subject to distressed restructuring in addition to exposures subject to distressed restructuring may return to non-defaulted status when the criteria for allowing the return to non-defaulted status applicable to exposures subject to distressed restructuring are fulfilled by all exposures subject to distressed restructuring and when, at the same time, the criteria applicable to exposures not subject to distressed restructuring are fulfilled by all exposures not subject to distressed restructuring. This has now been further clarified in paragraph 83 of the guide so as to avoid any possible misunderstanding.	Amended

#	Comment	ECB response and analysis	Status
7	Paragraphs 91 and 92 Adjustments to risk estimates in the case of changes to the definition of default A number of respondents asked for further clarification on the scope and level of detail of the retrospective simulation of changes to the definition of default. Others asked for examples of similar classifications of data reflecting the changes to the definition of default that institutions could use as alternatives to the retrospective simulation and to the parallel run. Moreover, a few respondents suggested that a qualitative assessment may suffice for assessing the impact of changes to the definition of default in risk estimates.	The scope of the retrospective simulation should encompass all changes to the definition of default, whether related to the days past due trigger or to unlikeliness to pay triggers. In practice, it is particularly important for significant institutions to include, in their retrospective simulation, changes to unlikeliness to pay triggers as possible future changes to the definition of default would mainly concern such triggers given that the days past due trigger is fixed to a large extent by Article 178(1)(b) of Regulation (EU) No 575/2013 in conjunction with Commission Delegated Regulation (EU) No 2018/171 and ECB Regulation (EU) 2018/1845. At the same time, the ECB acknowledges that a full retrospective application of unlikeliness to pay triggers may be very challenging. As a result, the chosen wording of "retrospective simulation" already acknowledges that some of these triggers may not be perfectly replicated and thus might only be simulated as reliably as possible. While running the retrospective simulation, significant institutions may adjust their historical data to reflect changes to the definition of default by means of a parallel run or similar classifications of data. Institutions have the freedom to define such classification methods insofar as they achieve the same results as the retrospective simulation and the parallel run, i.e. by gauging how historical data are affected by the changes to the definition of default. However, the ECB considers that the sophistication of these methods should be proportionate to the relevance of the changes. For instance, methods based on expert opinions should be applied only for minor qualitative changes to the definition of default. Irrespective of the approach chosen by significant institutions to reflect changes to the definition of default in the historical data (retrospective simulation, parallel run and/or other classification methods), the ECB expects a minimum of two years of data reflecting the changes to the definition of default to be considered for the purpose of adjusting risk estimates.	**Amended**

5.5 Probability of default (CR Section 5)

	Comment	ECB response and analysis	Status
1	Paragraphs 95, 173 and 202 Some respondents asked for clarification on whether the condition "*unless there are no sufficient data available for the training sample*" applies to both OOS and OOT testing, or to OOT only. A number of other respondents asked for such condition to apply to both OOS and OOT. Some respondents mentioned that the waiving of OOS and OOT should not be limited to cases involving insufficient data, arguing that the inclusion of the most recent observations enhances data representativeness, fosters the identification of potential emerging/new patterns, and may in particular bias LGD estimates.	The regulation requires OOS and OOT testing. The ECB makes clear that the condition "*unless there are no sufficient data available for the training sample*" applies only to OOT testing, thus providing flexibility for institutions to apply appropriate techniques to avoid overfitting, while still requiring OOS testing as a minimum method at the time the model is developed. For the sake of clarity, the ECB considers cross-validation techniques as acceptable if the expectations stated in these paragraphs are fulfilled, notably with regards to the assessment of the performance of the model(s). As for the point raised that OOT analysis might (potentially) result in the exclusion of relevant recent data, the ECB does not consider this a valid reason for institutions to a priori waive the OOT analysis, considering also that the OOT analysis does not require the exclusion of the most recent data per se.	**No change**
2	Paragraph 96 Some respondents asked for the requirements set out in paragraph 96 to be relaxed so as to account for various estimation methodologies and types of portfolios, specifically for low default portfolios.	The ECB considers that a model performs adequately if it does so on the whole population as well as on sub-ranges of application where the latter are defined as material and economically significant and identified by splitting relevant risk drivers. The ECB's view is that, under these conditions, the underperformance of the	**No change**

	Comment	ECB response and analysis	Status
	Two respondents also raised concerns over the level of granularity of sub-ranges on which PD model performance should be tested according to paragraph 96, noting that a model might not perform as expected in every cluster defined at the required level of granularity.	model on a sub-range might make PD estimates less reliable and question the model's appropriateness and its risk drivers. The institutions continue to assess the materiality of the underperformance and may test other relevant risk drivers. If the population of the sub-ranges considered is too low, these segments will not be deemed material and therefore paragraph 96 would not apply.	
	Paragraph 103 Meaningful risk differentiation using very granular rating scales Some respondents expressed concerns that the requirement of "using very granular rating scale only in cases where institutions are able to empirically confirm the risk differentiation" in paragraph 103 may restrict the use of master scales and therefore called for a degree of flexibility to be introduced. Moreover, some respondents asked for clarification of the term "very granular scale".	It is the ECB's understanding that master scales are subject to the same requirements as other rating scales. Hence, also for master scales, institutions should ensure adequate risk differentiation across grades and very granular scales should be used only where the institution is able to empirically confirm risk differentiation across grades. Moreover, the ECB will not prescribe what qualifies as very granular as this will depend on portfolio type, available data and the scope of application of the scale.	No change
3	Paragraph 108 Some respondents raised doubts regarding the second part of paragraph 108, starting with "*When, under paragraph 62(a) of the EBA Guidelines on PD and LGD, an institution performs a rating transfer across different rating systems that do not share the same obligor rating scale, (…)*". The respondents argued that the paragraph seems to mix the concepts of "rating scales" and "rating systems", which is particularly critical when the institution has just one master rating scale for all rating systems. In addition, the remainder of the paragraph suggests that the provision actually refers to individual rating systems in a institution, thus making it unclear as to whether the automated alignment of PDs, including MoC after a rating transfer, from one rating system to another should be interpreted.	The highlighted part of paragraph 108 refers to situations in which a material proportion of exposures or obligors within a rating system receives a rating due to rating transfers. As such, the ECB expects institutions to have in place automatic procedures so as to ensure that the transferred ratings are updated when the rating of the third party changes. It should be noted that, when an institution performs a rating transfer across different rating systems that do not share the same obligor rating scale, it should ensure that the mapping between rating scales is performed in such a way that the final PD estimate (including MoC) assigned to the guaranteed exposure amount is not better than the final PD estimate (including MoC) being transferred from a third party. In response to the comments received, a slight editorial change is proposed in paragraph 108.	**Amended**
4	Paragraphs 108, 109 and 110 Some respondents asked for further clarification with respect to paragraph 109, which states that "*(…) institutions should not assign a rating to an obligor that is better than the rating of the third party (…)*". Considering that the rating of the third party may come from a different rating system or rating scale, the respondents considered that PDs should be compared, rather than ratings. This would also serve to align the terminology between paragraph 110 and 108.	The ECB agrees with the comment and has further aligned paragraphs 108, 109 and 110.	**Amended**
5	Paragraph 114 One respondent asked for further clarification on the shadow rating model approach, asking if past internal ratings could be used as a target variable for the shadow rating model.	Without excluding any modelling approach, Section 5.1.5 applies to shadow rating models where the target variable is an externally provided rating.	**No change**
6	Paragraphs 101, 102 and 103 Some respondents argued that the expectations with respect to the distribution of obligors or facilities across grades or pools, as set out in paragraph 101, cannot be met if a predefined master scale is used. One respondent suggested that the expectations regarding risk differentiation/heterogeneity across grades in paragraph 103 should be lowered, on the understanding that it does not allow for the use of a master scale in practice. Some respondents argued that the homogeneity and heterogeneity expectations set out in paragraphs 102(b) and 103 cannot be met in practice when the institution uses a grade scale based on predefined PD bands.	The ECB acknowledges that the use of master scales is a widespread practice and recognises the benefits of it for risk management purposes. It is also acknowledged that, depending on the specificities of how a master scale is defined, it might be more difficult to meet the supervisory expectations. In any case, the ECB understands that the legal requirements continue to apply, regardless of how exactly institutions define their grade scales.	**No change**
7	Paragraphs 102, 103 and 175 Some respondents suggested that the indications regarding lack of homogeneity within grades described in paragraphs 102(b) for PD and 175(b) for LGD should not be considered as such in situations where	With respect to the homogeneity expectations, paragraph 102(a) clarifies the ECB's understanding of the concept, while paragraph 102(b) describes a situation in which the expectation would not be met in the ECB's view. It is the ECB's understanding that this	**No change**

	Comment	ECB response and analysis	Status
	further differentiation would lead to data scarcity for the parameter quantification. Moreover, some respondents suggest that the homogeneity and heterogeneity expectations set out in paragraphs 102 and 103 should be adapted in the case of low default portfolios as, in their understanding, these paragraphs rely on the default rates. In this sense, they noted that these expectations may be misaligned with Article 36 of Commission Delegated Regulation No 2022/439.	poses no issue with respect to the volume of available data. As for the heterogeneity expectations, the last sentence to have been added clarifies that very granular scales should be used only where the institution is able to empirically confirm risk differentiation across grades. The ECB understands that this expectation is compatible with institutions performing an analysis while not relying solely on the default rates, provided that the granularity of the scale defined by the institution is not excessive. Finally, the ECB considers that these supervisory expectations do not conflict with the minimum criteria that competent authorities must apply when verifying compliance among institutions with the IRB requirements set out in Commission Delegated Regulation No 2022/439. The ECB believes that the reference to data availability for non-retail portfolios is an acknowledgment that the same techniques described in the relevant articles of the Commission Delegated Regulation for retail exposures might not be directly applicable to non-retail exposures in the event of data scarcity. However, institutions are still expected to comply with the requirements of Article 170 of the CRR, even if such compliance must be evidenced using alternative methods other than those described in the Commission Delegated Regulation. Moreover, the ECB expects that, at grade level, the aforementioned data scarcity is not the result of an inadequate grade scale definition (e.g. an excessively granular scale) or of the process in place for assigning exposures to grades (e.g. due to concentrations within a few grades).	
8	Paragraphs 105 and 106 Two respondents raised concerns over paragraphs 105 and 106. Firstly, the question was raised about the priority between one-year and two- to three-year performance metrics in model development, particularly whether paragraph 105 mandates the use of two- to three-year performance metrics. Attention was also drawn to the need for better interpretation of grade assignment dynamics and the lack of comprehensive criteria within the guidance. Specifically, the respondents sought further clarity on terms such as “appropriate balance” in paragraph 105(a) and the steps to be taken when risk driver information is missing, pointing to paragraph 105(c).	Paragraph 105 states the importance of adequately considering risk over both a short-term (one-year) and a longer-term (e.g. two- to three-year) horizon when assigning obligors or facilities to grades or pools, meaning that one-year performance metrics need to be calculated. Moreover, the institution should be able to demonstrate that the risk over a longer time horizon is also adequately anticipated. It is important to note that for some portfolios, there may not be a clear link between the sensitivity to economic conditions and a decrease in discriminatory power over the longer horizon. As a result, the focus should be on achieving accurate risk assessment over both short and longer horizons without placing excessive emphasis on specific “performance metrics” as a rigid requirement. Paragraphs 105 and 106 do not provide precise criteria for every possible situation, as the right criteria to be used may depend on the unique risk characteristics of the portfolio in question. The ECB considers that the balance of short- and long-term drivers is appropriate when it anticipates and reflects the risk not only at a one-year but also at a longer horizon. For most portfolios, a horizon of two to three years is considered appropriate, as emphasised in paragraph 105(b). With regards to Article 105(c), management of the drivers should be consistent with Article 70 of EBA/GL/2017/16.	**No change**
9	Paragraphs 105 and 106 Several respondents asked for additional clarification on grade assignment dynamics (GAD) expectations and how these expectations are aligned with the requirements of Commission Delegated Regulation (EU) No 2022/439 (“*it is desirable that the PD estimates are relatively stable over time in order to avoid the excessive cyclicality of own funds requirements*”).	The supervisory expectation regarding GAD is described in paragraphs 105 and 106 of the guide. It is the ECB’s understanding that in order to satisfy this expectation, institutions should make all reasonable efforts to come up with assignment processes that are able to recognise risks specific to the obligors and at the same time anticipate plausible changes in economic conditions (i.e. grade assignments that are not excessively sensitive to changes in economic conditions). It is the ECB’s understanding that this expectation is aligned with Commission Delegated Regulation (EU) No 2022/439, according to which it is desirable that the PD estimates are relatively stable over time in order to avoid the excessive cyclicality of own funds requirements.	**No change**
10	Paragraph 122 One respondent asked that paragraph 122(d) be amended so as to clarify that the obligors/facilities to	An amendment has been made to paragraph 122(d) in order to clarify that only facilities/obligors present and not defaulted at the beginning of the one-year	**Amended**

	Comment	ECB response and analysis	Status
	be taken into account for one-year default rates calculation are those present at the beginning of the one-year observation period.	observation period should be counted in the one-year default rate calculation.	
11	Paragraph 122 Two respondents asked for further clarification regarding the concept of "obligors that cease to exist" introduced in paragraph 122(e). One respondent asked for clarification on the difference between an obligor/facility that ceases to exist and one that cannot be observed. Additionally, one respondent pointed to the inconsistency between paragraph 122(e) and paragraph 80(a) of EBA/GL/2017/16. Another respondent further pointed to the inconsistency between paragraphs 122(e) and 122(f) of the guide.	An amendment has been made to paragraph 122(e), noting that the term "cease to exist" applies, for example, when the relevant credit contractual relationship is terminated during the one-year observation period. To be clear, this is irrespective of the reason for the termination of that relationship. Considering the amendment made to paragraph 122(e), the ECB considers that facilities that "cannot be observed" referred to in paragraph 122(d) cover a broader range of situations than those facilities that "cease to exist" as referred to in paragraph 122(e). The ECB submits that there is no inconsistency between paragraphs 122(e) and 80(a) of EBA/GL/2017/16, or between paragraphs 122(e) and 122(f). It should be noted that in paragraph 122(e), the ECB would explicitly make clear that the understanding there conveyed is without prejudice to any adjustments and/or MoCs that may be made or introduced upon identifying any deficiency in data representativeness as described in paragraphs 28 to 33 of EBA/GL/2017/16 and in line with paragraph 34 and Section 4.4 of EBA/GL/2017/16.	Amended
12	Paragraph 122 Two respondents raised concerns over the tracking of obligors migrating between rating models, rating systems, approaches for calculating capital requirements within the observation period, as required under paragraph 122(f), arguing inconsistency between model development and model implementation (where is not possible to predict migrations). One respondent stated that for modelling purposes, the obligor is considered as pertaining to the rating model/system to which it belongs when it enters into default and remains in that rating model/system until the end of the default period. Two respondents asked for flexibility regarding the treatment of sales of credit obligations (paragraph 122(f)), invoking the conservatism of failing to take them into account.	The ECB would point out that this requirement is specified under Section 5.2.2 on calculation of the one-year default rate and observed average default rates for PD quantification purposes. The ECB sees no inconsistency with model implementation, noting that where data used for risk quantification are not representative of the application portfolio, in accordance with paragraphs 28 to 33 of EBA/GL/2017/16 and in line with paragraph 34 and Section 4.4 thereof, institutions should analyse and remediate any potential bias in the risk parameter estimates. The ECB believes that the practice suggested by one respondent of considering an obligor in the rating system to which they were assigned at the moment of default does not comply with the applicable regulation (in particular with paragraphs 73-78 of EBA/GL/2017/16), which rather requires an obligor to be considered in the rating system to which it was assigned at the beginning of the observation period. The ECB also considers the requested flexibility regarding the treatment of sales of credit obligations to be non-compliant with applicable regulation (in particular with paragraphs 73-78 of EBA/GL/2017/16). Additionally, the ECB fails to see the alleged conservatism of the suggested flexibility.	No change
13	Paragraphs 122 and 123 Some respondents raised concerns over paragraph 123 that the requirements of paragraph 122 on the one-year DR calculation cannot be fulfilled for external data in the same manner as for internal models due to the intrinsic nature of external data.	Paragraph 123 adopts the general stance that default rates derived from aggregated data should fulfil the same requirements as default rates derived from internal data. However, in the specific case where aggregated external data from a rating agency (or similar organisation) are used, the guide already states that it is sufficient to ensure that the default rate calculation is aligned with applicable regulations.	No change
14	Paragraph 124 Some respondents claimed that the conditions set out in paragraph 124(a) to (c) are very likely to be met.	Paragraph 124 has been amended to clarify that the use of overlapping time windows is expected only in the event of significant differences of overlapping vs. non-overlapping approaches in conjunction with any of the criteria set out in sub-paragraphs (a) or (c).	Amended
15	Paragraphs 125 and 126 Some respondents expressed general concerns regarding the overall complexity of the requirements contained in paragraphs 125 and 126. Moreover, some respondents asked for clarification on how to proceed in situations where a conclusive assessment of representativeness is not possible; in particular when it comes to the requirement of paragraph 126 that no conclusions should be drawn in the event of a lack of statistical evidence due to data scarcity issues.	The ECB expects institutions to follow the principles of paragraph 38 where the representativeness of the data cannot be proven. While paragraph 125 refers to proof of representativeness, paragraph 126 provides more detailed guidance on how institutions are expected to fulfil the requirements of paragraph 38 in the context of risk quantification. In the interests of clarity, paragraphs 38, 125 and 126 have been restructured and reworded.	Amended

	Comment	ECB response and analysis	Status
		Broadly speaking, the institutions will remain responsible for the conclusiveness of their representativeness assessment. It is the ECB's understanding that where data representativeness cannot be proven, according to paragraph 38, institutions should assess the model's performance and ensure that the parameter estimates are not biased based on quantitative and qualitative analyses specifically designed for this purpose. Consequently, the analyses described in paragraph 126 should not preclude institutions from conducting complementary analyses to ensure that the parameter estimates are not biased. This principle applies especially where no conclusions can be drawn from statistical evidence due to data scarcity. For the sake of clarity, and following the approach described in paragraph 38, if representativeness cannot be proven, institutions may still use external or pooled data, although an appropriate MoC should typically be applied in such cases.	
16	Paragraph 126 Some respondents raised concerns over the feasibility of the comparison described in paragraph 126 due to data availability issues.	Institutions are expected to make all reasonable efforts to collect relevant historical data. However, where information on risk drivers is not available across the entire period representative of the likely range of variability, institutions may rely on information available over a shorter period to conclude whether the parameter estimates are biased, although this must be duly justified and documented. In this case, institutions are expected to pay close attention to any possible constraints in using data for a shorter period (such as where the ratio of PDs to DRs may change over time in response to the economic environment).	No change
17	Paragraph 130 Several respondents voiced concerns over the statement made in paragraph 130(a), which states that under no circumstances should a calibration approach (at segment level vs. grade or pool level) be adopted to overcome data scarcity at grade or pool level, lack of evidence of discriminatory capacity, or homogeneity or heterogeneity across grades. Some respondents perceived it as being more prescriptive than the provisions of the EBA Guidelines on PD and LGD. Others argued that it might, in some cases, prompt institutions to adopt unreliable non-parametric approaches in the event of data scarcity.	The commented statement should not be misinterpreted as a requirement not to choose the most appropriate calibration approach given the data available. The purpose of paragraph 130(a) is to reiterate that institutions must ensure compliance with the risk differentiation requirements irrespective of the approach they adopt for risk quantification (meaning, in particular, irrespective of whether an institution considers the long-run average default rate at grade/pool level or at calibration segment level for calibration purposes). The statement is fully aligned with the regulation, and especially with the EBA Guidelines on PD and LGD, since risk differentiation requirements are not by any means contingent on the risk quantification. By adding such an explicit reference – that the risk differentiation requirements hold valid irrespective of the approach adopted by the institution for risk quantification purposes – the ECB is aiming to avoid potential misinterpretations among supervised entities and supervisors.	No change
18	Paragraph 130 A few respondents remarked that the provisions of paragraph 130(b) should cover situations in which not all risk drivers used to assign a counterparty/exposure to a certain grade or pool might be available over a historical period that is representative of the likely range of variability of default rates. Some respondents noted that this situation applies in particular to risk drivers related to ESG factors.	The ECB stresses that the need to estimate long-run averages (LRAs) of default rates at both calibration segment and grade level, regardless of the calibration approach, is a regulatory requirement (set out in paragraph 92 of EBA/GL/2017/2016). By adding the new paragraphs, the ECB is simply seeking to clarify a set of supervisory expectations that already apply. The ECB acknowledges that institutions might not have long series of observed one-year default rates (readily) available covering the entire period representative of the likely range of variability. In this regard, in paragraph 130(c) the ECB clarifies that it expects institutions to make all reasonable efforts to obtain such long series with sufficient data quality, and paragraph 130(e) clarifies its expectations in the exceptional case of an institution being unable to obtain long series of one-year default rates.	No change
19	Paragraph 130 Several respondents commented that the recalculation of grades or pools back through time, as referred to in paragraph 130(c), might be too burdensome or practically impossible for certain portfolios, especially where new risk drivers have been recently introduced.	The ECB expectations described in the second sub-paragraph of paragraph 130(c) consist of a waterfall approach aiming at obtaining long series of one-year default rates by grade which are of utmost importance for obtaining the LRA default rate. That considered, it is the understanding of the ECB that the usefulness of the long series outweighs their potential burden.	No change

	Comment	ECB response and analysis	Status
	In this context, some respondents asked to be allowed to use proxies for deriving grade or pools on a best efforts basis when it is not to fully recalculate the current rating assignment process. A few respondents asked whether the meaning of “long” and “reasonable efforts” could be further clarified.	In line with the waterfall approach, institutions should firstly make efforts to recalculate the new assignment back through time and secondly, and only where such recalculation is not possible, assess whether the use of historical rating assignments based on previous versions of the assignment methodology would be adequate. In this sense, the ECB is already providing for a possible proxy (whose adequacy is to be assessed on a case-by-case basis) that should be assessed by institutions for the purpose of obtaining long series of one-year default rates by grade (where the assignment back through time is not possible). The indication of this proxy does not rule out the assessment and consideration of other potential proxies which may prove to be more adequate than the use of historical ratings. Such other proxies should be considered on a case-by-case basis and is a matter for the institutions themselves to decide upon. The term “long” refers to the period covering the full period representative of the likely range of variability of default rates, while the expression “reasonable efforts” refers to the set of activities that institutions are expected to undertake to ensure the availability and quality of historical data. The ECB believes that these concepts are clearly set out in the paragraph.	
20	Paragraph 130 One respondent suggested clarifying paragraph 130(e) to further specify those aspects that would qualify as “other things”, for adjusting the observed average of one-year default rates.	As stated in paragraph 130(e), the adjustments must be reflective of the variability of the default rates. While the ECB saw fit to explicitly note grade assignment dynamics as being one of the factors influencing the variability of the default rates at grade level, by using the expression “among other things” the ECB wishes to clarify that grade assignment dynamics are not the exclusive factor driving the variability of default rates at grade level, as, for example, the variability of the one-year default rates at calibration segment level or portfolio level can also influence the variability of one-year default rates at grade level.	No change
21	Paragraph 131, 132, 133 and 135 Some respondents pointed out that, depending on the calibration approach, there might be situations in which deviations between the PD and the LRA DR at grade/pool level might be acceptable. Therefore, they call on the ECB to make this point clearer. Also, in relation to these comparisons, some respondents asked that it be performed for individual reference dates and not considering the period of the likely range of variability of one-year default rates, thus avoiding problems derived from potential changes over time in the distribution of risk drivers.	For calibrations performed at grade or pool level, it is the ECB’s understanding in accordance with paragraph 92(a) of EBA/GL/2017/16 that the PD of each grade or pool is not expected to differ from the LRA default rate at that same level, as indicated in paragraph 131 of the guide. For calibrations performed at calibration segment level, in accordance with paragraph 92(b) of the EBA Guidelines on PD and LGD, the comparison between the estimated PDs and the LRA default rate at grade or pool level should be performed as additional calibration tests and no systematic deviations should exist, as described in more detail in paragraph 135 of the guide. On top of this, the ECB also expects institutions to perform complementary analysis by reference dates as indicated in paragraph 136 of the guide. In any case, and as requested in paragraph 28 of EBA/GL/2017/16, the data used for calibration of risk parameters should be representative of the application portfolio and thus, the ECB does not expect significant changes in the ranges of values of the risk drivers over time. Otherwise, the representativeness of the data used for risk quantification purposes would be compromised, in which case the ECB would expect institutions to apply adequate methodologies to correct the identified deficiencies to the extent possible (in accordance with paragraph 38 of EBA/GL/2017/16 and as foreseen in paragraph 130(d) of the guide).	No change
22	Paragraphs 130 to 135 Several respondents perceive the paragraphs included in Section 5.2.3 as prescribing a grade level calibration in a much more restrictive way than that described in EBA/GL/2017/16.	The ECB stresses that the need to calculate LRA default rates at both calibration segment and grade level, regardless of the calibration approach, is a regulatory requirement (set out in paragraph 92 of EBA/GL/2017/2016). By adding the new paragraphs, the ECB is simply seeking to clarify a set of regulatory requirements that already apply.	No change
23	Paragraphs 132 and 136 Several respondents asked for additional clarification regarding GAD expectations in the PD risk quantification phase. In particular, the respondents asked for further clarification regarding the role that	It is the ECB’s understanding that grade assignment dynamics (GAD) are an input for the risk quantification phase, that is, there are neither supervisory expectations regarding GAD within the risk quantification phase (these requirements belong to the PD structure phase and are described in paragraphs	

	Comment	ECB response and analysis	Status
	GAD plays in the additional calibration tests described in paragraph 132 of the guide, and the comparisons between (i) average PDs, (ii) average DRs and (iii) LRA default rates at calibration segment level as requested in paragraph 136. Various scenarios and differing interpretations of paragraph 136 are raised by the respondents.	105 and 106 of the guide), nor expectations for this dynamic to be changed during the quantification phase. In this context, the ECB highlights that the goal of the additional calibration tests and the analyses requested in paragraph 136 is to assess the soundness of the PD estimates. In particular, it is the ECB's understanding that the comparison between (i) the average PD (before MoC) at calibration segment level with (ii) the one-year default rate and (iii) the LRA default rate at calibration segment level for each of the calculation dates adopted for LRA default rate calculation is a powerful tool for supervised entities and supervisors alike when assessing the soundness of PD estimates.	
24	Paragraph 135 Several respondents asked for further clarification regarding the ECB's expectations with respect to the direction and materiality of deviations between the estimated PDs and the LRA default rate of the grades. Some of them also remarked that the requested comparison between the RWEAs resulting from the current calibration and the RWEAs resulting from the use of alternative PDs calculated on the basis of the LRA default rate at grade level for the application portfolio would be too burdensome and even unreasonable when the deviations observed are not systematic.	In the ECB's understanding, the deviations between the estimated PDs and the LRA default rate of the grades are considered non-systematic if the direction of divergences across grades is random, irrespective of the materiality or the statistical significance of such deviations. Thus, it might be the case that systematic deviations – i.e. deviations occurring in the same direction for a number of consecutive grades – are observed, even if not material or statistically significant, and on the contrary, that material or statistically significant deviations are observed, even if not systematic. In the ECB's view, both situations need to be assessed further. In this respect, an assessment of the difference between the RWEAs resulting from the current calibration and the RWEAs resulting from the use of alternative PDs calculated on the basis of the LRA default rate at grade level for the application portfolio provides valuable information in order to assess the appropriateness and soundness of the calibration approach. In the ECB's view, this analysis is enabled by the required calculation, under paragraph 130(b) of the guide, of the LRA default rate both at grade or pool level and at calibration segment level, irrespective of the level at which the calibration is performed. The ECB considers that the usefulness of this analysis outweighs its potential burden.	**No change**
25	Paragraphs 136 and 137 Some respondents noted that, where it is not possible to adequately take account of any overrides applied when assigning obligors to grades or pools during the calibration process, the requested use of an appropriate adjustment (AA) and a corresponding MoC could be burdensome. They therefore call for this requirement to be relaxed. One respondent also asked for further clarification on how to proceed with the comparisons requested in paragraph 136 of the guide in reference dates for which the historical recalculation of grade assignments is impossible.	As indicated in paragraph 89 of EBA/GL/2017/16, institutions should conduct the calibration after taking into account any override applied in the assignment of exposures to grades or pools. In its Q&A 2019/5029, the EBA provides further guidance on how to proceed when historical grade assignments that result from the application of overrides are not available (an appropriate adjustment plus MoCs must be applied). In this context, the ECB argues that paragraph 137 simply provides further guidance on how to put into practice a regulatory requirement which is already enforceable in the applicable regulation. The ECB added a footnote to paragraph 136 clarifying that where the backward recalculation of assignments in some historical reference dates is not possible, this comparison might be conducted in a shorter period. As mentioned in paragraph 130(c) of the guide, the ECB expects such situations to be exceptional.	**Amended**
26	Paragraph 137 Calibration to the LRA default rate taking into account overrides Some respondents asked for clarification as to whether the requirement to include overrides in the assignments to grades or pools in paragraph 137 applies also to model development. Moreover, some respondents considered the requirement overly burdensome, while others considered the reference to "new override policy" to be overly specific and suggested replacing it with the phrase "potentially updated override procedures".	The requirement to include overrides in the assignment of obligors to grades or pool stems from the EBA Guidelines on PD and LGD and is further clarified in EBA Q&A 2019_5029. The ECB provides a further understanding on how the appropriate adjustments and MoC could be quantified and lifted. This requirement is specific to the calibration process, as also evident from the first sentence of paragraph 137 "[..] *for the purpose of calibrating PD estimates to the LRA default rate* [..]". The ECB agrees to make clear that the application of the new overrides policy is only relevant insofar as applicable. Paragraph 137 has therefore been amended accordingly.	Amended

5.6 Loss given default (CR Section 6)

	Comment	ECB response and analysis	Status
1	Paragraph 143 One respondent asked for clarification regarding the "minimum number of defaults" referred to in paragraph 143 in the form of a reference.	The ECB understands that the assessment of whether the historical experience of an institution contains a sufficiently minimum number of defaults is to be performed on a case-by-case basis to account for portfolio specificities, among other concerns.	**No change**
2	Some respondents called for the removal of paragraph 153(b), on the grounds that (i) it is not compliant with EBA/GL/2017/16 paragraph 132 (this paragraph does not mention losses stemming from NPV variation), 134 (which refers to write-offs up to the default date) and 137; (ii) it does not line up with accounting rules for positions held to maturity; and (iii) it penalises institutions within the SSM area vs. outside institutions.	Article 5(2) of Regulation (EU) No 575/2013 defines the economic loss as covering several effects, most notably discount effects. According to the same article, "loss" means economic loss, including material discount effects, and material direct and indirect costs associated with collecting on the instrument. Paragraph 153(b) specifies the understanding of the ECB on how to reflect economic losses caused by restructurings. The ECB does not believe that its stance contradicts paragraphs 132, 134 and 137 of the EBA Guidelines.	**No change**
3	Paragraph 150 Calculation of realised LGD at facility level using aggregated information One respondent asked for clarification as to whether the methodology for the allocation of recoveries and costs to each individual facility could be based on appropriate adjustments and MoC in paragraph 150.	In the ECB's understanding, the use of appropriate adjustments and MoC may be considered part of the appropriate allocation methodology, provided that the approach is duly justified and documented.	**No change**
4	Paragraph 154 One respondent asked for clarification of the term "significant" referred to in paragraph 154(b) of the guide, which may elicit varying interpretations.	The ECB understands that the assessment of whether the proportion of subsequent defaults occurring on individual facilities over a period of more than nine months is significant is to be performed on a case-by-case basis so as to account for portfolio specificities, among other concerns.	**No change**
5	Paragraph 156 Some respondents expressed the expectation that CRR3 would extend the time period for conducting Article 500 adjustments and asked for further guidance on this.	A footnote has been added to clarify that this version of the guide is based on the version of the CRR applicable as of the date of its publication.	**Amended**
6	Paragraph 157 Several respondents sought clarification on paragraph 157, especially the sentence "In the case of a parent, the ECB considers that the adjustment at the consolidated level should reflect the adjustment conducted by the qualifying subsidiary or subsidiaries only."	The paragraph has been updated to clarify that this means that additional observed defaults that are not part of the qualifying subsidiaries may not be adjusted.	**Amended**
7	Paragraph 160 Clarifications were requested regarding the concept of "sufficiently long time".	This paragraph of the guide has been simplified in response to the feedback received.	**Amended**
8	Paragraph 166 Some respondents challenged the wording of paragraph 166 and asked for clarification of "unless institutions can provide firm evidence that this approach has a significant and unjustifiable biasing impact".	It has been clarified that if it is apparent that the inclusion of these data points would unduly inflate the maximum recovery period which in reality should be much shorter, then steps should be taken to use a more appropriate and shorter period	**Amended**
9	Paragraph 172 Some respondents asked for paragraph 172 to be amended so as to adopt a 12-month fixed horizon as regards the observation date of the risk drivers for the LGD parameter, as in their view doing so would (i) make the development sample more representative, and (ii) ensure alignment with the upcoming CRR3 regarding the credit conversion factor (CCF). Some respondents further suggested clarifying the requirement through illustrative examples and/or by the ECB setting out certain approaches considered eligible.	The ECB would point out that the current wording is aligned with paragraph 122 of the EBA Guidelines and, notably, fully aligned with the application of the risk parameter. As of the date of the own funds requirement calculation, the distance to default ranges from one day to one year. It is therefore expected that the reference dates for risk drivers should ensure consistency with the expected distribution of defaults over the one-year horizon, as stated in paragraph 172. The ECB considers the principle-based guidance to be sufficient on this topic, acknowledging also that multiple approaches/methodologies might meet the expectations set out (which are to be assessed case	**No change**

	Comment	ECB response and analysis	Status
		by case). Therefore, the ECB does not consider it appropriate to explicitly mention any specific approach/methodology.	
10	Paragraph 174 Several respondents asked that accommodation be made for various estimation methodologies and types of portfolios, specifically for low default portfolios, in the requirements set out in paragraph 174. The respondents submitted that the LGD model should perform adequately (in terms of discriminatory power and predictive power) on economically significant and material sub-ranges of application of the rating systems only where applicable.	The ECB believes that a model should perform adequately on the population as a whole as well as on sub-ranges of application regardless of the estimation methodology or the nature of the portfolio (e.g. high-default portfolios (HDPs) vs. low-default portfolios (LDP)). The ECB is of the view that the underperformance of the model on a sub-range might call in question the construction of the model and the selection of risk drivers. Institutions are responsible for assessing the materiality of underperformance. While various estimation methodologies are allowed, they must all satisfy the same regulatory requirements.	**No change**
11	Paragraph 181 A number of respondents contended that paragraph 181 was more prescriptive than the EBA Guidelines on PD and LGD and queried the requirement that when estimating future recoveries on defaults arising from similar vintages, allowance be made for various estimation methodologies and types of portfolios, such as low default portfolios.	In the ECB's view, the guide is not prescribing a more granular approach than is presently the case under the EBA Guidelines on PD and LGD. The EBA Guidelines on PD and LGD specify that estimation should be based on a similar period of time on similar exposures. While various estimation methodologies are allowed, they must all satisfy the same regulatory requirements.	**No change**
12	Paragraph 188 One respondent viewed footnote 91 in paragraph 188 (which states that for institutions using pooled data, the pool should be representative of the portfolio and that the comparison between internal and pooled data should consider the maximum common period possible) as being stricter than Article 179(1) of the CRR. The respondent called for footnote 91 to be removed.	Article 179(a) of Regulation (EU) No 575/2013 states that all relevant data should be incorporated, which is in line with footnote 91 and the specification of the maximum common period. Therefore, the ECB does not share the view that footnote 91 is stricter than Article 179(1) of the CRR.	**No change**
13	Paragraph 190 A number of respondents argued that the LGD reference value for the two worst years should not be considered in the LGD estimate or to drive conservative values of the risk parameter. More specifically, the respondents state that a reliable downturn estimation quantification should not consist in applying the highest years of LGD and that this should be reflected in the guide.	The reference value should not be considered an appropriate quantification of downturn LGD without other considerations. The downturn LGD should be appropriate for the portfolio in scope and only thereafter the reference value included as a check. There is nothing in the guide that contradicts this. The purpose of the guide is to provide transparency on how the ECB understands those rules and how it intends to apply them when assessing whether institutions meet these requirements. In this instance no further clarification is required as this would merely be repeating the EBA Guidelines on DT LGD.	**No change**
14	Two respondents submitted that the interpretation of the EBA Guidelines on PD and LGD in paragraph 192 of the guide seems too restrictive by prescribing an excessively "long-run view" of the expected loss best estimate (EL_{BE}) parameter.	According to Article 181(1)(h) of Regulation (EU) No 575/2013, EL_{BE} should refer to expected loss given current economic circumstances and exposure status. Paragraphs 183 to 185 of the EBA Guidelines on PD and LGD further clarify this requirement. Paragraph 124 sets out the ECB's understanding of how institutions should comply with this requirement. In particular, the ECB clarifies that in its view, where one of the conditions referred to in paragraph 184 is met, EL_{BE} estimates based on the long-run average LGD for defaulted exposures sufficiently reflect current economic conditions, and that no further adjustments to address this issue should be made.	**No change**

5.7 Conversion factors (CR Section 7)

#	Comment	ECB response and analysis	Status
1	Paragraph 195 A few respondents queried the scope of paragraph 195, and hence the scope of conversion factor	The ECB confirms that paragraph 195 refers to committed credit lines, where the ECB's understanding on committed credit facilities is provided in the very same paragraph, notably in letters a) and b).	**No change**

#	Comment	ECB response and analysis	Status
	modelling, asking in particular for further clarification with respect to “uncommitted limits”. Moreover, some respondents called for the expectations on the application of “unadvised limit” to be relaxed. In particular, they claimed that it should be sufficient to assess whether there are indications of deterioration of the obligor’s creditworthiness to disregard the unadvised limit.	In the ECB’s view, the unadvised limit may be disregarded only where the institution conducts an additional assessment of the obligor’s creditworthiness, including a re-rating or rating confirmation. The ECB considers the latter to be a crucial aspect of the assessment of the obligor’s creditworthiness, and therefore a necessary condition for disregarding the “unadvised limit”.	
2	Paragraph 204 Several respondents argued that the use of an arithmetic average of the yearly averages of realised CCFs does not comply with Article 182(1)(a) of the CRR.	The ECB’s understanding is that Article 182(1)(a) of the CRR does not exclude the interpretation reflected in paragraph 204(c), i.e. the use of the arithmetic average of the yearly averages of realised CCFs.	No change
3	Paragraph 207(b) Some respondents called for the requirements to be relaxed to be eligible for defining CCFs mostly based on judgemental considerations, as referred to in paragraph 207(b), by making it sufficient to meet either the condition of (i) low materiality of the exposures or (ii) data scarcity. One respondent also asked for further clarification on “low materiality”.	Paragraph 207(b) clarifies the ECB’s stance that when certain circumstances are met, institutions should be able to define CCFs based on judgemental considerations instead of using both historical experience and empirical evidence. It is the ECB’s expectation that both circumstances – (i) low materiality of the exposures and (ii) data scarcity – for the application of fixed yet conservatively specified CCFs are met. Low materiality alone should not prevent institutions from estimating CCFs based on their data. In case of data scarcity of a material portfolio, the institution should make every effort to calculate appropriate estimates. Materiality signifies appropriateness for the specific situation of the institution and portfolio. It is therefore to be considered on a case-by-case basis and is a matter for the institutions themselves to decide upon.	No change
4	Paragraph 207(b) Some respondents asked that the minimum value of 100% as CCF estimates be removed since, in their view, it might be too conservative and might not be justified for certain portfolios. Some respondents asked for further clarification regarding point (b)(iii) and for the guide to be clearer that no MoC is being requested on top of the 100% minimum value, but rather that once the MoCs considered necessary have been added, the final CCF estimates with MoC must be at least 100%.	It is the understanding of the ECB that, due to the issue of data scarcity (as noted in paragraph 207(b)(ii), it is not possible to affirm that CCF figures obtained on the basis of available data are conservative. Therefore, as a result of the necessary conservativeness related to the available data being unsatisfactory, in accordance with Article 179(1)(f) of the CRR, the ECB considers it necessary that a minimum value of 100% be applied as a CCF estimate. The ECB can confirm that the minimum value of 100% applies to the final CCF estimates. Paragraph 207(b)(iii) has been slightly amended to ensure absolute clarity regarding the minimum value of 100% as CCF estimates.	Amended

5.8 Model-related MoC (CR Section 8)

	Comment	ECB response and analysis	Status
1	Paragraph 208 Some respondents remarked that paragraph 208 imposes new requirements regarding the quantification of category C MoC (MoC C) for continuous models.	Paragraph 208 specifies that institutions should be able to ensure monotonicity in their final estimates. ECB expectations on MoC C specific to direct estimates are reflected in paragraph 210.	No change
2	Paragraph 208 MoC should not affect rank ordering Some respondents commented that the requirements that (i) the MoC should not affect rank ordering, and (ii) the monotonicity of the final estimates in paragraph 208 go beyond the EBA Guidelines on PD and LGD and that a degree of flexibility should be introduced. One respondent asked for clarification on the meaning of “not affecting the rank ordering”.	The guide sets out the ECB’s understanding of the applicable regulation, which is not confined by the EBA Guidelines on PD and LGD. In line with paragraph 99 of the latter, it is the ECB’s understanding that the margin of conservatism should not affect rank ordering. In particular, the ECB understands that the rank ordering abilities of the rating system should be generally preserved by the final estimates, i.e. the final estimates should still reflect the rank ordering provided by the grades assigned by the rating system and institutions should be able to ensure monotonicity in their final estimates while still reflecting the uncertainty	Amended

	Comment	ECB response and analysis	Status
		at grade/pool level. Paragraph 208 has been simplified accordingly.	
3	Paragraph 210 Some respondents raised concerns over the level at which the MoC for the general estimation error should be estimated. In particular, they claimed that the quantification of category C MoC at grade/pool level might produce undesirable effects such as incentives to use less granular rating scales.	According to Article 170 of the CRR, the number of grades and pools should be sufficient to achieve meaningful risk differentiation of the PD at the grade or pool level. In this sense, it is the ECB's understanding that rating scales are fixed on the basis of a sound risk differentiation. The institution should quantify the MoC after this risk differentiation. Therefore, it should not arbitrarily use less granular rating scales because of considerations related to the quantification of an MoC.	**No change**
4	Paragraph 210 Some respondents expressed concerns regarding the impact of the number of observations on the quantification of MoC C. In particular, they claimed that is not possible to have similar uncertainty at calibration segment level vis-à-vis grade level as the number of observations is necessarily different.	It is the ECB's understanding that when the statistical uncertainty/sampling error of one grade is significantly different from other grades due, for instance, to the number of observations per grade, the MoC should be quantified at grade/pool level. Nevertheless, when quantifying MoC at grade level, institutions may take into account information at other levels (calibration segment level or other grades), as long as the resulting MoC adequately reflects the uncertainty of each grade.	**No change**
5	Paragraph 210 Several respondents asked for clarification regarding the MoC C calculation. More precisely, they inquired whether default dependency between obligors should be considered a driver for MoC calculation, and whether institutions should prioritise the variability of default rates across time as a primary input for MoC. They also asked why paragraph 210 does not mandate the assumption of identically distributed default rates when it already requires consideration of dependency between default rates over time in the quantification of the MoC.	The ECB expects MoC C to rely primarily on the distribution of the estimator, calculated as the average of one-year default rates for the grade or pool over time. The primary source of uncertainty is associated with the statistical uncertainty of each one-year default rate and by the length of the time series. Paragraph 210 focuses primarily on statistical aspects and does not diminish the importance of analysing other relevant assumptions specific to the institution's chosen method.	**No change**
6	Paragraph 210 Several respondents asked for clarification on the ECB's expectations with regard to MoC C estimation in cases where the number of observations and defaults in each grade is very low. In particular, how a disproportionate level of conservatism can be avoided in the case of a low default portfolio. The aspect of low default portfolios was also mentioned in the context of potentially higher MoC due to lower data availability, which was considered counterintuitive, as greater conservatism would have to be applied to less risky portfolios.	Paragraph 210(a) in the guide refers to a lower number of observations rather than a low number of defaults. The ECB expects the statistical uncertainty of the LRA estimate to increase with a lower number of observations per grade and a shorter time series. Therefore, a higher category MoC C is expected to be applied to account for the increased uncertainty. This approach aligns with a fundamental principle of statistics. Notably, the regulatory requirements allow institutions to choose an appropriate modelling approach and overall model architecture based on their individual portfolio characteristics and accordingly address the quantification of MoC C in order to ensure alignment with the considerations set out in the previous paragraph.	**No change**

5.9 Review of estimates (CR Section 9)

No key comments are included in this feedback statement on Section 9 of the credit risk chapter.

5.10 Calculation of maturity for non-retail exposures (CR Section 10)

No key comments are included in this feedback statement on Section 10 of the credit risk chapter.

6 Comments and amendments to the revised ECB guide to internal models – market risk (MR) chapter

The paragraph numbers in this chapter of the feedback statement refer to the market risk chapter of the final ECB guide to internal models, as published with this feedback statement, unless noted otherwise.

6.1 Scope of the market risk chapter (MR Section 1)

#	Comment	ECB response and analysis	Status
1	Respondents asked for clarification on the process of adapting the guide to internal models to the forthcoming Fundamental Review of the Trading Book (FRTB) framework.	The ECB guide to internal models targets the approaches currently used for Own Funds Requirements (OFR). For the market risk internal models approach (IMA), the new approach envisaged under the FRTB will be implemented only once CRR3 has been finalised. Moreover, a consultation on a revised market risk chapter of the guide is possible only once CRR3 has been adopted. Therefore, the ECB decided to informally exchange views with the industry on the draft FRTB Supervisory Expectations (SE) in July 2022. The outcome of that informal consultation process has been reviewed and will feed into an updated proposal for the FRTB SE, which will be the basis for a further adjustment of the guide going forward.	**No change**

6.2 Scope of the internal model approach (MR Section 2)

#	Comment	ECB response and analysis	Status
1	Paragraph 10 Respondents asked for clarification of the last sentence of paragraph 10, regarding credit valuation adjustment (CVA) hedges for counterparties that are exempted from the own funds requirement for CVA risk.	The ECB does not share the respondents' view that only the general risk of CVA hedges, for counterparties exempted from CVA OFRs, should be in scope of the IMA. Conversely, the ECB's expectation is that both the general and specific risk of these CVA hedges are in scope of the IMA, which is consistent with the EBA Q&A 2013_402. For added clarity, the last sentence of paragraph 10 has been redrafted.	**Amended**
2	Paragraph 31 Respondents objected to the perceived change of treatment for own credit spread risk, following the addition of the last sentence to paragraph 31.	The sentence added to paragraph 31 clarifies current expectations and does not change the current treatment of own credit spread risk. The revised paragraph 31 refers to the funding spread of own liabilities and is not about funding or liquidity valuation adjustments as calculated for a given funding set of (partially) uncollateralised derivatives. The fair value of own liabilities depends on the funding and credit spread of the institution issuing the liability. The ECB is of the view that under Article 367(1)(a) of the CRR, these price risks should be captured by the model whenever they are material.	**No change**

6.3 Regulatory back-testing of VaR models (MR Section 3)

#	Comment	ECB response and analysis	Status
1	Paragraph 52 of the current guide One respondent asked for clarification with regard to the deletion of paragraph 52.	The deletion of paragraph 52 reflects the changes made to Article 106(3) by CRR2 (Regulation (EU) 2019/876 amending Regulation (EU) No 575/2013). Article 106(3) of the previous version of the CRR allowed institutions to exclude internal or external credit derivative hedges from the regulatory trading book. Meanwhile, Article 106(3) of CRR2 requires these hedges to be included in the trading book for the purpose of calculating the own funds requirement for market risk. Therefore, as the legal basis for paragraph 52 ceased to exist, it has been removed. The ECB is aware of the EBA no-action letter and will take it into account accordingly where needed.	**No change**

6.4 Aspects of internal validation of market risk models (MR Section 4)

No key comments are included in this feedback statement on Section 4 of the market risk chapter.

6.5 Methodology for VaR and stressed VaR (MR Section 5)

#	Comment	ECB response and analysis	Status
1	Paragraph 109 Respondents pointed to an objective difficulty in providing an inventory of analyses that had been performed many years earlier.	The ECB acknowledges the respondents' point and has modified paragraph 109 accordingly.	**Amended**

6.6 Methodology for IRC models focusing on default risk (MR Section 6)

#	Comment	ECB response and analysis	Status
1	Paragraph 138 One respondent called for strict requirements around the test environment, when this is used by institutions to provide IRC calculations over a period of 15 days, as specified in paragraph 138.	The ECB considers that small discrepancies might exist with respect to the positions in scope between the production and the test environment and that this would be considered by the assessment team when conducting the investigation. Therefore, the ECB does not see the need to further specify the expectation set out in paragraph 138.	**No change**
2	Paragraph 141 One respondent asked for paragraph 141 to include specific expectations regarding the IRC estimation convergence.	The ECB considers that its expectations regarding IRC accuracy and stability are sufficiently clear and that there is no compelling need to define in the guide how the institution should demonstrate that the number of simulations used is sufficient.	**No change**

#	Comment	ECB response and analysis	Status
3	Paragraph 142 One respondent called for specific expectations about the calculation of an IRC 95% confidence interval, as set out in paragraph 142.	The ECB considers that there is no need to prescribe in the guide how institutions should calculate a 95% confidence interval around the IRC estimate.	No change
4	Paragraph 144 Respondents pointed to an objective difficulty in providing an inventory of analyses that had been performed many years earlier.	The ECB acknowledges the respondents' point and has modified paragraph 144 accordingly.	Amended
5	Paragraphs 148-149 One respondent asked for 148 and 149 to include some constraint on the IRC issuers correlations.	The ECB considers it more appropriate to analyse possible deviations between the IRC correlations assumptions and market-derived correlations, based on the portfolio setup, rather than prescribing a certain percentage threshold in the guide. Moreover, paragraph 151 already addresses the need for a sensitivity analysis with regards to the IRC correlation assumptions.	No change
6	Paragraph 156 One respondent suggested that paragraph 156 should include more prescriptive expectations about the approaches that could be used by institutions to assign rating grades.	The ECB considers that the purpose of paragraph 156 is to make institutions aware that certain information around IRC positions, with respective issuer or obligor ratings, PDs and RRs, might be requested and hence should be readily available. The paragraph does not intend to reduce upfront the modelling freedom for IRC by imposing further restrictions.	No change
7	Paragraph 158 Some respondents raised questions about the meaning of "PDs derived in combination with market prices" and of "correction" in paragraph 158, whereby PDs that are not derived in combination with current market prices should be compared with PDs derived in combination with current market prices where the relevant corrections were performed to obtain real world PDs. One respondent also objected to the legal ground for the expectation. Another respondent asked for clarification on whether IRB PDs should be subject to this expectation. Finally, a respondent strongly agreed with the new requirement but asked the ECB to further specify how the outcome should be used.	With regard to the first point, PDs derived in combination with market prices indicate market implied PDs. These are intended as a starting point and therefore need to be adjusted via further transformation/correction in order to arrive at real world PDs. The ECB does not intend to specify in detail how this transformation/correction should be performed, though it would note that there are several approaches in the literature that could be used and that institutions are free to choose the approach they would like to use. With regard to the legal ground for the expectation set out in paragraph 158, the EBA IRC Guidelines state that relevant corrections should be made for implied PDs, and that resulting real world PDs should be compared against the historical record. Conversely, based on Article 376(2) of the CRR, the ECB considers it necessary to perform a similar comparison when historical records are used in the first place. Paragraph 158 of the guide has been amended to clarify that the expectation to analyse differences with respect to estimates that are derived in combination with current market prices, where the relevant corrections were performed to obtain real-world PDs, does not apply to IRC PDs that are PDs from a supervisory-approved IRB approach. The ECB welcomes the fact that one particular respondent agrees with the new requirement but does not intend to specify in detail how the outcome should be used.	Amended
8	Paragraph 159 Certain respondents questioned whether it would be possible to meet the expectation set out in paragraph 159, in relation to a conceptually sound methodology for deriving PDs, when the institution has no IRB approach. They asked for further clarification on how this could be achieved.	The ECB notes that the requirement for a conceptually sound IRC methodology is specified in Article 368(1) of the CRR. Paragraph 159 merely provides some indication on the kind of analysis that is expected.	No change
9	Paragraph 160 Several respondents objected to the requirement that basis risk must be reflected in PDs and to the expectation that risk sensitivity must be achieved after applying the PD floor. Concerns were also raised over the expectation that institutions calculate ratios of adjacent PDs, as the respondents believe that this could lead to the conclusion that several PDs are outliers.	The ECB notes that Article 375(1) of the CRR generally applies to the IRC model and that the requirements on PDs are not necessarily exhaustive in this regard. The ECB notes that the requirement of meaningful differentiation of risk, under Article 372 point (a) of the CRR, also broadly applies to the IRC model and, therefore, that expectations regarding PD should be satisfied after applying the floor. The ECB adjusted the last sentence of paragraph 160 to clarify that the ratios between adjacent rating grades should be analysed while focusing on potential outliers. It is the ECB's understanding that the results of these analyses should be reflected in the calibration process.	Amended

#	Comment	ECB response and analysis	Status
10	Paragraph 161 Respondents asked the ECB to clarify the meaning of "expected losses" in paragraph 161 and how the comparison with IRC PDs should be performed. It was also asked whether the analysis expected under paragraph 161 should be performed when PDs from an IRB approach are used.	The guide has been amended to clarify the term "expected losses" in paragraph 161.	**Amended**
11	One respondent expressed concerns that the model use requirements for IRC are weak throughout Section 6 of the guide and suggested explicitly referencing the EBA Guidelines on internal governance.	The EBA Guidelines on internal governance are referenced in the general topics chapter of the guide, which provides overarching principles for internal models. Therefore, the ECB believes that there is no need to introduce another reference in the IRC section (Section 6 of the guide).	**No change**

6.7 Risks-not-in-the-model engines (MR Section 7)

#	Comment	ECB response and analysis	Status
1	Paragraph 186 One respondent argued that footnote 97, in paragraph 186, should allow for the possibility of calculating the impact quantification of the RNIME as an average, over the same period as VaR/sVaR, or IRC respectively.	Given the nature of the risks-not-in-the-model engines (RNIME), the ECB does not generally expect an RNIME to be quantified on a daily basis for VaR/sVaR, or weekly for IRC. However, if this is the case, the institution may use a 60-day average or a 12-week average respectively. A footnote was included to clarify this aspect.	**Amended**

7 Comments and amendments to the revised ECB guide to internal models – counterparty credit risk (CCR) chapter

The paragraph numbers in this chapter of the feedback statement refer to the counterparty credit risk chapter of the final ECB guide to internal models, as published with this feedback statement, unless noted otherwise.

7.1 Scope of the counterparty credit risk chapter (CCR Section 1)

No key comments are included in this feedback statement on Section 1 of the counterparty credit risk chapter.

7.2 Trade coverage (CCR Section 2)

No key comments are included in this feedback statement on Section 2 of the counterparty credit risk chapter.

7.3 Margin period of risk and cash flows (CCR Section 3)

#	Comment	ECB response and analysis	Status
1	General comment Exposure spikes in margined trading should be part of the Pillar 2 framework pursuant to Article 104a(1)(a) of Directive (EU) 2019/878 (CRD), as these spikes are currently not part of the CRR.	According to Articles 292(1)(a) and 289(5) of the CRR, cash flows resulting from transaction terms generally need to be covered in the IMM, as already outlined in paragraph 20 of the existing guide. These cash flows may also be covered as part of the RNIEPE framework if they are not material, as defined in this framework. As potential RNIEPE add-ons fall under the scope of Article 3 of the CRR, the introduction of such add-ons expands the range of possibilities for institutions to account for such cash flows and the resulting exposure spikes. The first footnote in guide paragraph 96 has been clarified.	**Amended**
2	Paragraph 18(f) Paragraph 18(f) refers to the concepts of “illiquid collateral” and derivatives and collateral that “cannot be easily replaced”. The respondents noted that the concept of “cannot be easily replaced” should apply only to OTC derivatives under Article 285(3)(b) of the CRR.	The wording has been amended to reflect the intended meaning: “The concepts of “illiquid collateral” and over-the-counter (OTC) derivatives that “cannot be easily replaced” in the context of “stressed market conditions”, and of “concentration” of transactions or securities in a particular counterparty.”	**Amended**
3	Paragraph 24 It is understood that the start of “exchange of collateral” refers to the time when the margin call is issued.	This understanding is correct. The margin call is now mentioned in this paragraph as the start of the exchange process.	**Amended**
4	Paragraph 24	This understanding is correct.	**No change**

#	Comment	ECB response and analysis	Status
	It is understood that the settlement related to the margin call and the grace period can be considered part of the regulatory margin period of risk (MPOR).		
5	Paragraph 24 It is understood that including collateral-on-transit entails extending the MPOR by one, two or more business days.	This understanding is not correct. The time used for the transit after issuing the margin call does not extend the MPOR, neither in a backward nor in a forward modelling approach.	No change
6	Paragraph 25 Initial margin and independent amount should not be taken into consideration for the purposes of Article 285(3) of the CRR, because they are not usually linked to the mark-to-market value of the netting set.	Article 285(3) of the CRR is not restricted to variation margin. All collateral that enters the closeout due to the agreed Credit Support Annex is relevant because the potential extension of MPOR is intended for a longer close-out due to illiquid collateral or trades that cannot be easily replaced.	No change
7	Paragraph 25 The threshold showing when a netting set is considered illiquid based on “one or more trades” in paragraph 25 seems overly restrictive and some materiality criteria would be needed.	The wording of this paragraph is consistent with Article 285(3) of the CRR, which does not consider materiality.	No change
8	Paragraph 25 The MPOR is expected to reflect frictions in the interchange of variation margin (VM), i.e. any illiquid collateral leg in a securities financing transaction (SFT) would be better treated by applying a sufficiently large haircut reflecting a potential liquidated for at least the amount recognised, which should not double count with an increased MPOR.	In the context of collateral and assuming here that SFTs are permitted in the IMM due to Article 283 of the CRR, Article 285(3) of the CRR is understood to reflect a longer close-out due to illiquid margin collateral. A potentially illiquid leg of an SFT would also need to be closed out or hedged during the MPOR, which might require additional time and would thus justify the inclusion of SFT legs when determining the MPOR length. If haircuts are used rather than simulation due to Article 285(7) of the CRR, then these haircuts reflect the MPOR length due to Articles 224(2) and 225(2)(c) of the CRR, which then refer to both margin collateral and the collateral leg of an SFT.	No change
9	Paragraph 26 It may not be appropriate to consider all the features and attributes of transactions and collateral outlined in paragraph 26 for each counterparty across all asset classes, which includes reference to readily observable data such as market price observations and liquidity due to Article 416 of the CRR.	Considering the listed items is seen as good practice to guide the analysis for potentially extending the MPOR. In concrete cases, not all these items may contribute to this analysis. Article 285(3)(b) of the CRR could then be applied on an appropriate (sub-) set of the (available) features and attributes listed in paragraph 26. It has now been clarified in the guide that sub-sets of these features and attributes may be taken and that the list is still non-exhaustive.	Amended
10	Paragraph 26 Footnote 22 is not clear on which metric is meant.	It was meant to use a quantitative indicator to measure market impacts, which has now been clarified.	Amended
11	Paragraph 29 The guidance provided in paragraph 29 exceeds Basel standards as well as regulatory rules in other jurisdictions. The intended harmonisation within the EU would come at the cost of divergence across regulatory regimes.	The ECB deals here only with the understanding of the CRR and does not find any evidence supporting such a divergence, as institutions and supervisors of any legislation implementing the Basel standards need to use concrete transaction and collateral attributes to determine whether the MPOR might need to be extended. The guide merely proposes some best practices to facilitate this analysis and to harmonise them within the SSM.	No change

7.4 Collateral modelling (CCR Section 4)

No key comments are included in this feedback statement on Section 4 of the counterparty credit risk chapter.

7.5 Modelling of initial margin (CCR Section 5)

No key comments are included in this feedback statement on Section 5 of the counterparty credit risk chapter.

7.6 Maturity (CCR Section 6)

No key comments are included in this feedback statement on Section 6 of the counterparty credit risk chapter.

7.7 Granularity, number of time steps and scenarios (CCR Section 7)

No key comments are included in this feedback statement on Section 7 of the counterparty credit risk chapter.

7.8 Calibration frequency and stress calibration (CCR Section 8)

No key comments are included in this feedback statement on Section 8 of the counterparty credit risk chapter.

7.9 Use test (CCR Section 9)

#	Comment	ECB response and analysis	Status
1	Paragraph 67 For model changes, paragraph 67 might lead to a breach of Article 289(1) of the CRR, which requires that the model used to calculate effective expected positive exposure (EEPE) be closely integrated in the day-to-day CCR management process if, for example, several months go by between starting the upfront implementation and issuing the decision. Material differences could exist during this period, depending on the kind of change.	The requirement to ensure adequate and sound implementation of a model change does not supersede the use test requirement in Article 289(1) of the CRR. Therefore, the guide has been clarified. The ECB thus considers offering both options (a) and (b) for the case of model extensions only, and option (b) for model changes.	**Amended**
2	Paragraph 67 If regular parallel runs last for several months, they might create excessive costs and would be excessively burdensome. Impact assessments, as requested in the ECB Guide on materiality assessment (EGMA), might be complicated for long periods of parallel runs, especially in the event of overlapping multiple model changes.	The ECB acknowledges efforts in the event of long periods of parallel runs for model changes by reconsidering run frequencies: Weekly parallel runs are recommended starting with the application but before sending the application letter so as to allow internal validation, in particular, to arrive at sound conclusions and to accurately assess the impact on capital requirements. Furthermore, weekly parallel runs are recommended from the time the IMI is notified until the on-site phase ends to demonstrate the robustness of the change to the assessment teams. The potential interaction of multiple changes will depend on how the test environments are set up; institutions might also want to check for potential	**Amended**

#	Comment	ECB response and analysis	Status
		unintended interactions, in which case frequent parallel runs are recommended. It is also noted that the materiality impact assessment when sending the application letter is one snapshot and might not be enough in itself to understand model changes and extensions; several runs not only support testing but also allow for a more comprehensive view of impacts. Paragraph 67(b) has been amended.	
3	Paragraph 68 Parallel runs starting three months before sending the application for model changes or extensions classified as “to be investigated” by the EGMA, and one month for ex ante notification, would be too burdensome in terms of IT resources.	The ECB sees it as beneficial that the model has been tested thoroughly and impacts are well known if test runs start already before the application letter is sent, which could also be achieved within two months if there is more than one test run per week, or within different (shorter) time periods (to be agreed with the JST) provided that this does not limit the validity of the results of the upfront implementation. The paragraph has been amended accordingly.	Amended

7.10 Validation (CCR Section 10)

No key comments are included in this feedback statement on Section 10 of the counterparty credit risk chapter.

7.11 Effective expected positive exposure (CCR Section 11)

No key comments are included in this feedback statement on Section 11 of the counterparty credit risk chapter.

7.12 Alpha parameter (CCR Section 12)

No key comments are included in this feedback statement on Section 12 of the counterparty credit risk chapter.

7.13 Risks not in effective expected positive exposure (CCR Section 13)

#	Comment	ECB response and analysis	Status
1	General The new RNIEPE framework is extremely burdensome. The guide fails to acknowledge that IMM methodology is computationally far more complex compared to market risk models implying conservative approximations and assumptions built into the model. 1. Many approximations in CCR models would lead to the monitoring and quantification of many RNIEPE. Because of the very conservative ratios, many minor RNIEPE would require a capital add-on. 2. RNIEPE would need to be quantified for stress and current calibration as it is unlikely that the exception	Generally, there is no need to calculate any of the RNIEPE add-ons if the respective risks are included in effective EPE or taken into account in a sufficiently conservative fashion in the sense of Article 292(1)(a) and (b) of the CRR. Regarding comment 1: Article 292(1) of the CRR already implicitly requires such monitoring and quantification to ensure that the items set out in sub-paragraphs (a) and (b) are reflected in a complete and conservative fashion, i.e. there is no new effort due to RNIEPE. The ratio levels are aligned with those for RNIME in market risk for consistency.	No change

#	Comment	ECB response and analysis	Status
	of "very similar ERE" can be proven without a calculation, while generally EREs are not expected to change with calibration. 3. The quarterly frequency for quantification, monitoring and update is too high given the computational intensity. Less material RNIEPE should be reviewed at least once a year. Furthermore, risks that are insufficiently captured, or not captured at all, are already identified in existing processes (e.g. back-testing). Therefore, the RNIEPE framework should be eliminated or thoroughly revisited.	Regarding comment 2: The ECB is of the opinion that for RNIEPE, which do not relate specifically to stress calibration, their calculation is not overly burdensome, since according to Article 292(4) of the CRR, the stress calibration must be consistent with the current calibration. RNIEPE specifically related to the stress calibration are considered a rare case by the ECB. Regarding the frequency of checking ERE dependency on calibration, the ECB sees that as part of risk identification, for which paragraph 104 of the guide applies. Regarding comment 3: A quarterly frequency is consistent with general reporting frequencies (e.g. COREP). On this point, the guide does not provide details on potential updates in relation to materiality. The guide does not propose a regular and potentially costly calculation, but considers an annual frequency or review, i.e. potentially recalculating. Institutions can reuse existing processes to identify and monitor new risks.	
2	General Given that the IMM has been validated in the past without RNIEPE, further clarity regarding the process would be needed to introduce and validate this new component in the IMM.	There is no "one size fits all" validation concept due to the very different types of possible RNIEPE. For example, the RNIEPE add-on related to cash flow spikes could be validated using various approaches, as these spikes can be calculated as a difference in expected exposures with and without taking into account cash flows during the MPOR and also directly using cash flows (e.g. from back office).	No change
3	General Some respondents asked for clarification regarding the supervisory expectation for the process of introducing the RNIEPE framework, especially as regards its timeline.	The details of the introduction process and, in particular, the timeline, are not in scope of the guide as such. If the RNIEPE framework is not implemented (this is not a requirement, as clarified in paragraph 94 of the guide), Article 292(1)(a) and (b) of the CRR would apply regarding the inclusion of risks in EEPE. For guidance on the process of making changes to the RNIEPE framework, please refer to paragraph 122, which should also be considered when introducing an RNIEPE framework.	Amended
4	Paragraph 93(w) and (x), formerly (u) Some respondents suggested changing the reference to the risk control unit.	Article 293(1)(a) of the CRR references Article 368(1)(b) of the CRR and is therefore also valid for the IMM. Nevertheless, Article 287(2) of the CRR also addresses that subject and has been added to "Relevant regulatory references".	Amended
5	Paragraph 96 There should be no overlap between a Pillar 1 flaw (or insufficient Pillar 1 coverage) addressed via either (1) an alpha increment or (2) an add-on.	The intention is not to increase alpha for institutions addressing missing risks or a simplified modelling of risks either in EEPE in a conservative way according to Article 292(1)(a) of the CRR, or via RNIEPE add-ons under an implemented RNIEPE framework.	No change
6	Paragraphs 96 (footnote 68, formerly 67) and 105 (footnote 72, formerly 70) Some respondents remarked that both footnotes refer to Article 3 of the CRR in relation to the capitalisation of the RNIEPE add-on. They asked whether the ECB intends to impose the capitalisation of RNIEPE add-ons under paragraph 96 when Article 3 of the CRR provides for an option at the credit institution's discretion to hold own funds in excess.	Capitalisation under Article 3 of the CRR is done on a voluntary basis and can also cover RNIEPE add-ons if an institution applies this framework, in analogy to the existing concept of RNIME. Please refer also to the answer provided on comment 3 above.	No change
7	Paragraphs 99 and 104(b) A number of respondents expressed doubts that IMM back-testing can be used to identify RNIEPE, while others doubted that back-testing could be used to validate EREs.	The ECB recognises that in many cases RNIEPE back-testing will not be feasible or beneficial, as acknowledged in the last sentence of paragraph 99 (which has not been changed). For example, for RNIEPE being quantified via the incremental metric, existing IMM back-testing processes might be applicable. Furthermore, the ECB considers back-testing to be one source of identification of RNIEPE, as expressed in paragraph 104(b) and which has been further clarified in paragraph 104 of the guide.	Amended
8	Paragraph 107, former sub-paragraph (b) Some respondents asked for the splitting of netting sets required under this paragraph to be removed, on the understanding that there would be no meaningful	The ECB is of the opinion that the disadvantages of using artificial netting set splits (especially for the incremental ERE under paragraph 108) outweigh the advantages of a potentially higher amount of conservatism and hence concurs with the view of the	Amended

#	Comment	ECB response and analysis	Status
	impact on parts of netting sets and because an artificial split would introduce additional uncertainty.	respondents. Sub-paragraph (b) in paragraph 107 has been removed.	
9	Paragraph 108(c) Several respondents believe that flooring of RNIEPE impacts at the level of the netting set would be punitive and fail to take account of diversified business structures with different counterparties.	The ECB considers the netting set level to be the appropriate level in allowing for the diversification effects of RNIEPE, in line with the treatment of EEPE under Article 284(1) of the CRR, according to which institutions must calculate exposures at netting set level, which also underlies the incremental metric since EEPE is calculated for one netting set.	No change
10	Paragraph 109 Some respondents asked for clarification of the definition of Δt_k. A further question was asked regarding flooring at the level of the overall ERE or for each time step t_k.	The paragraph has been amended to reflect the wording of Article 284(6) of the CRR in relation to the calculation of spike RNIEPE, where a finer time grid could be used. Since payments by the institution to the counterparty can only increase exposure, there would appear to be no need for a floor.	Amended
11	Paragraph 113 Respondents consider general quarterly updates to be too frequent and propose restricting the quarterly updates to RNIEPE add-ons.	The ECB agrees with the comment and also aligned this paragraph with the frequencies set out in paragraph 104.	Amended
12	Paragraph 114 Some respondents expressed concerns that the denominators in paragraph 114(a) and (b) are not aligned with paragraph 114(c) and (d), which could cause misinterpretations due to the overweighting of impacts under sub-paragraphs (a) and (b).	The differences between the denominators are indeed intended: Paragraph 114(a) refers to a single RNIEPE relating to one netting set and hence the denominator is the EEPE corresponding to that netting set. Paragraph 114(b) also refers to a single RNIEPE, but relating to several netting sets and hence the denominator is the EEPE corresponding to these netting sets. Paragraph 114(c) refers to all RNIEPE except the exposure spikes and hence the denominator is the EEPE corresponding to all netting sets of the IMM, assuming that all or almost all netting sets are affected by at least one RNIEPE. Paragraph 114(d) refers to exposure spikes. The denominator is the EEPE corresponding to all netting sets, avoiding a disproportionately high impact ratio (in comparison to using the EEPE corresponding to only the affected netting sets in the denominator, which would exclude unmargined trades).	No change
13	Paragraph 114 Some respondents stated that they would like to be able to choose between RWA and EEPE as the monitoring metric.	Since the exposure value, or for that matter EEPE, is the output of the IMM and risk weights are exogenous to the IMM, the ECB considers EEPE to be the most appropriate monitoring metric for RNIEPE. The ECB also notes that RNIEPE add-ons take the applicable risk weights and alpha parameter into account.	No change
14	Paragraph 116(c) Some respondents remarked that the cumulative threshold mentioned in paragraph 116(c) using all relevant ERE terms could be punitive and that a threshold exceedance in a single quarter is not appropriate.	Given that the impact of exposure spikes is addressed separately, the ECB considers the proposed threshold to be sufficiently high and not overly conservative (no change). The ECB concurs that observing a threshold exceedance over two quarters is a more reliable indication of an underestimation of risk. Paragraphs 118 and 119 have been amended accordingly.	Amended
15	Paragraph 119 No matter how material cash flow spikes are regarding the proposed thresholds in paragraph 119, they should not be included in EEPE, i.e. as part of OFRs for the IMM, because they are not considered part of the CRR.	For the relationship between cash flow spikes and the CRR, the ECB refers to paragraph 1 of Section 7.3. If cash flow spikes lead to RNIEPE add-ons, the guidance on a potential integration into EEPE – if these add-ons become material – is in analogy to other RNIEPE add-on types, which are capitalised under Article 3 of the CRR on a voluntary basis, but not under the OFRs for the IMM.	No change

8 Annex

No key comments are included in this feedback statement referring to the Annex of the guide.

9 Acronyms and Glossary

No key comments are included in this feedback statement referring to the Acronyms and Glossary sections of the guide.

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For specific terminology please refer to the SSM glossary (available in English only).