



EUROPEAN CENTRAL BANK  
BANKING SUPERVISION

## Feedback statement

Responses to the public consultation  
on the draft ECB guide to internal  
models – General topics chapter

November 2018



# Contents

|          |                                                                                                        |          |
|----------|--------------------------------------------------------------------------------------------------------|----------|
| <b>1</b> | <b>Introduction and overview of responses</b>                                                          | <b>2</b> |
| 1.1      | Context                                                                                                | 2        |
| 1.2      | Structure of the feedback statement                                                                    | 2        |
| 1.3      | Statistics on the responses                                                                            | 2        |
| 1.4      | Adoption of the ECB guide                                                                              | 4        |
| <b>2</b> | <b>Comments and amendments to the draft ECB guide to internal models – General topics (GT) chapter</b> | <b>5</b> |
| 2.1      | General remarks and introduction (GT section 1)                                                        | 5        |
| 2.2      | Overarching principles for internal models (GT section 2)                                              | 6        |
| 2.3      | Roll-out and permanent partial use (GT section 3)                                                      | 6        |
| 2.4      | Internal governance (GT section 4)                                                                     | 7        |
| 2.5      | Internal validation (GT section 5)                                                                     | 8        |
| 2.6      | Internal audit (GT section 6)                                                                          | 9        |
| 2.7      | Model use (GT section 7)                                                                               | 10       |
| 2.8      | Management of changes to the IRB approach (GT section 8)                                               | 11       |
| 2.9      | Third-party involvement (GT section 9)                                                                 | 11       |

This document is intended to give an overview of the comments received during the public consultation on the draft ECB guide to internal models – General topics chapter, and provide an assessment of those comments. It also explains the amendments made to the ECB guide as a result of the public consultation.

# 1 Introduction and overview of responses

## 1.1 Context

On 28 March 2018 the European Central Bank (ECB) launched a public consultation on the ECB guide to internal models – General topics chapter (hereinafter guide or ECB guide). The public consultation ended on 28 May 2018. While not being required, this consultation was conducted with a view to enhancing transparency and in order to collect responses from relevant parties. In addition to soliciting written comments, the ECB also gave industry participants and interested parties the opportunity to raise questions on the guide with senior representatives of the ECB on 18 April 2018, during a public hearing in teleconference format. While the comments made during the public hearing are not reflected in the figures below (see section 1.3), they have nonetheless been taken into account. The ECB has thus 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 by them. Amendments to the guide have been made as a result of the comments received.

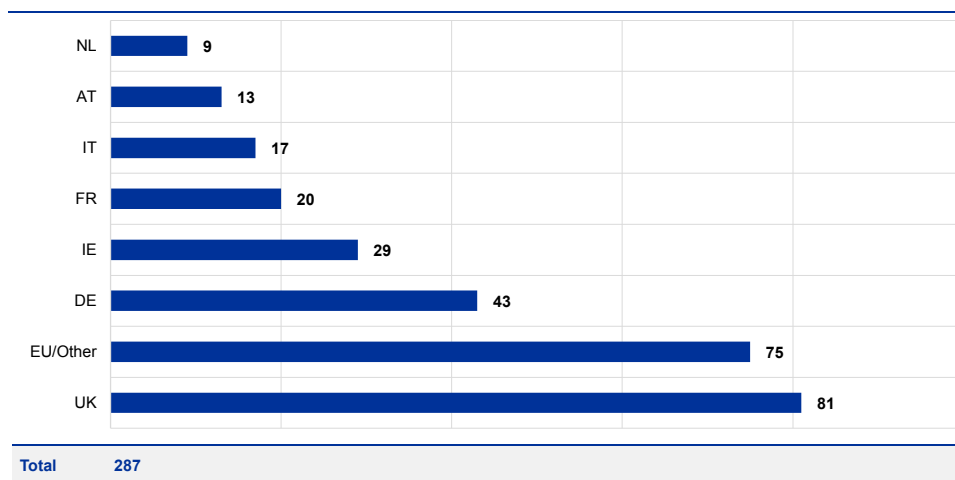
Part 2 of this document summarises the key comments received and the resulting amendments to the guide. However, it only lists the most relevant and frequent groups of comments and/or amendments. In several cases further minor changes have been incorporated in the document to clarify certain aspects that were raised during the public consultation.

## 1.3 Statistics on the responses

In total, 12 responses were received containing 287 individual comments (all in English). **Figures 1** and **2** show the breakdown of the responses by country of origin and category of respondent. **Figure 3** shows the responses by section and comment type.

**Figure 1**

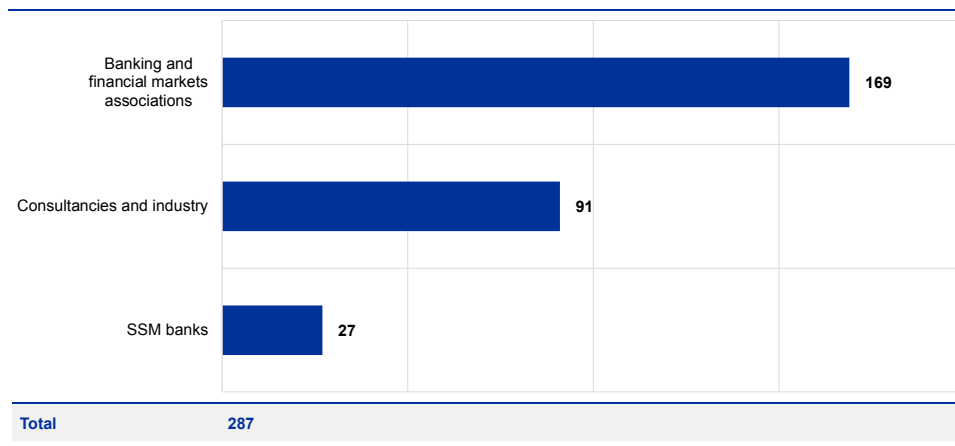
Responses by country of origin (number)



Other: European banking associations and other institutions

**Figure 2**

Responses by type of respondent (number)



**Figure 3**

Responses by section (number) and type of comment (in %)

|                      |                                                         |                           | Breakdown by type of comment, in % |               |          |
|----------------------|---------------------------------------------------------|---------------------------|------------------------------------|---------------|----------|
| Section of the guide |                                                         | Number of comments        | Amendment                          | Clarification | Deletion |
| 1                    | Introduction/general                                    | <div><div></div></div> 20 | 0                                  | 100           | 0        |
| 2                    | Overarching principles for internal models <sup>1</sup> | <div><div></div></div> 26 | 38                                 | 54            | 8        |
| 3                    | Roll-out and PPU                                        | <div><div></div></div> 17 | 41                                 | 53            | 6        |
| 4                    | Internal governance                                     | <div><div></div></div> 26 | 65                                 | 35            | 0        |
| 5                    | Internal validation                                     | <div><div></div></div> 65 | 55                                 | 45            | 0        |
| 6                    | Internal audit                                          | <div><div></div></div> 60 | 59                                 | 38            | 3        |
| 7                    | Model use                                               | <div><div></div></div> 27 | 22                                 | 63            | 15       |
| 8                    | Mgmt. of changes to the IRB approach                    | <div><div></div></div> 35 | 40                                 | 51            | 9        |
| 9                    | Third-party involvement                                 | <div><div></div></div> 11 | 27                                 | 64            | 9        |
| Total                |                                                         | 287                       | 45                                 | 51            | 4        |

1) The comments on overarching principles relating to IG, IV and IA were added to the respective sections.

## 1.4 Adoption of the ECB guide

A complete draft proposal for the adoption of the ECB guide to internal models – General topics chapter was sent by the Supervisory Board to the Governing Council of the ECB on 6 November 2018. The guide, as adopted by the Governing Council on 12 November 2018, was published on the ECB website on 15 November 2018, together with this feedback statement.

## 2 Comments and amendments to the draft ECB guide to internal models – General topics (GT) chapter

### 2.1 General remarks and introduction (GT section 1)

| # | Comment                                                                                                                                                                                                                                                                                                                          | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Amendment |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Respondents stressed that the ECB guide includes references to European Banking Authority (EBA) level 2 texts which have not yet been finalised or adopted by the European Commission. Institutions should not therefore be expected to be compliant with articles which are not legally binding.                                | The ECB will apply the rules established in the relevant provisions of Regulation (EU) No 575/2013 (CRR) <sup>1</sup> . The provisions of the Final Draft Regulatory Technical Standards (RTS) <sup>2</sup> and other references are referred to in the ECB guide merely as good practices for interpretative purposes.                                                                                                                                                                                                                                                            | No change |
| 2 | Respondents stressed that it is unclear when the ECB guide to internal models will be binding and deployed in inspections.                                                                                                                                                                                                       | The guide does not constitute a binding instrument. As set out in Chapter 1, the guide provides transparency on how the ECB understands the (already existing and binding) relevant regulatory provisions which the ECB aims to operate consistently within the framework of the Single Supervisory Mechanism (SSM). The guide is not intended to go beyond the applicable European Union (EU) and national law currently in force.                                                                                                                                                | No change |
| 3 | Respondents remarked that the ECB seems to favour a lighter process, in view of its proposed “two-step approach”. In this spirit, they encouraged the ECB to adapt and ease any requirements related to model changes and internal review processes, as significant regulatory changes will be taking place in the coming years. | The “two-step approach” was designed to allow for a timely transition to the new definition of default so as to facilitate a swift build-up of reliable time series, thereby improving the reliability of subsequent amendments to rating systems. However, it does not favour a lighter approach. The regulatory requirements and the ECB’s understanding of them, as summarised in the guide, do not interfere with the “two-step approach”. Further information and guidance on the “two-step approach” was provided via direct communication to the institutions in June 2018. | No change |

<sup>1</sup> Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1), referred to in this document as “CRR”. For the purposes of this document the reader’s attention is also drawn to the corrigendum published on 30 November 2013 (OJ L 321, 30.11.2013, p. 6).

<sup>2</sup> Final Draft Regulatory Technical Standards on the specification of the assessment methodology for competent authorities regarding compliance of an institution with the requirements to use the IRB Approach in accordance with Articles 144(2), 173(3) and 180(3)(b) of Regulation (EU) No 575/2013 (EBA/RTS/2016/03), referred to in this document as “Final Draft RTS”.

## 2.2 Overarching principles for internal models (GT section 2)

| # | Comment                                                                                                                                                                                                                                                                                                           | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Amendment |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Several respondents welcomed the fact that the ECB encourages institutions to implement a model risk management framework (MRMF), but asked the ECB to design transparent and more detailed requirements. Another respondent commented that there is no legal basis to require institutions to establish an MRMF. | Model risk, as defined in Article 3(11) of Directive 2013/36/EU (CRD IV) <sup>3</sup> (see also Article 3(12) of the CRR), is “the potential loss an institution may incur as a consequence of decisions that could be principally based on the output of internal models, as a result of errors in the development, implementation or use of such models”. The ECB considers that it is important to adequately address and mitigate this risk; hence it is the ECB’s understanding that institutions should have a corresponding framework and policy in place to address it (see details in section 2.3 of the ECB guide).<br><br>A more granular specification is not envisaged at present, but might be developed once different practices across the SSM countries have been further analysed.<br><br>Finally, as mentioned above the ECB guide is not intended to go beyond the existing applicable EU and national law, but aims to provide transparency on how the ECB aims to apply the rules and regulatory expectations consistently across the SSM. | No change |
| 2 | Respondents stressed that there is a need to allow the delegation of powers from management body to senior management or from senior management to a designated committee thereof.                                                                                                                                | According to Article 189 of the CRR “all material aspects of the rating and estimation process shall be approved by the institution’s management body or a designated committee thereof and senior management”. As stated in paragraph 17 of the ECB guide, the institution should assess the appropriateness of designated committees of the management body in order to ensure that they provide an adequate support function for effective decision-making procedures. These committees should be given a clear mandate and should be chaired by a member of the management body. However, a greater degree of delegation from the management body to senior management or from senior management to a designated committee thereof is not in line with CRR requirements and hence not envisaged.                                                                                                                                                                                                                                                             | No change |
| 3 | One respondent asked for clarification as to whether small legal entities of global systemically important institutions (G-SIIs) or other systemically important institutions (O-SIIs) could make use of “option (c)”.                                                                                            | The ECB considers that “option (c)” (separate staff for development and validation within the same unit) of paragraph 20 could be suitable for small legal entities which are not classified as G-SIIs or O-SIIs. The wording in the ECB guide has been amended slightly to clarify this aspect (see paragraph 23).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Amended   |

## 2.3 Roll-out and permanent partial use (GT section 3)

| # | Comment                                                                                                                                                                                                                                                                                   | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Amendment |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Respondents stated that in many cases the five-year time frame for compliance with the initially approved roll-out plan is not feasible. Instead, the time period for the roll-out should be defined on an individual basis (e.g. by taking into account the institution’s risk profile). | The ECB considers that the time frame for the initially approved roll-out should generally not exceed five years. The ECB considers this time frame to be appropriate and manageable for institutions. In cases where an institution that is in the roll-out phase cannot fulfil this requirement, a change of the approved roll-out plan is necessary, subject to permission by the competent authorities. As mentioned in paragraph 40 of the ECB guide, Article 7(3) of the Final Draft RTS provides a good understanding of the conditions under which the competent authority may approve any changes to the sequence and time period of the plan. | No change |
| 2 | Respondents suggested that institutions should not be required to monitor                                                                                                                                                                                                                 | As the compliance with PPU provisions requires compliance with the conditions described in Article 150 of the CRR, the ECB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | No change |

<sup>3</sup> Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (OJ L 176, 27.6.2013, p. 338), referred to in this document as “CRD IV”.

|   |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|   | compliance with permanent partial use (PPU) provisions on an annual basis but on a longer-term (multi-year) basis in line with the roll-out / PPU plan.                                | understands that institutions need to ensure on an ongoing basis that exposures under PPU fall within the categories listed in Article 150(1) of the CRR. To avoid the risk of non-compliance, institutions should implement measures and triggers for a re-assessment of the suitability for PPU of PPU-authorised exposure classes or types of exposure. As the exposures may change, a regular review is appropriate to ensure ongoing compliance with the Regulation. The burden of repeating the corresponding analysis is expected to be limited. |           |
| 3 | Respondents asked for clarification of whether the initial internal ratings based (IRB) coverage ratio of 50% would implicitly replace corresponding thresholds on the national level. | As stated in paragraph 2 of the ECB guide, the guide does not replace, overrule or affect applicable EU and national law.                                                                                                                                                                                                                                                                                                                                                                                                                               | No change |

## 2.4 Internal governance (GT section 4)

| # | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Amendment |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | <p>Respondents commented on the concept of "materiality of rating systems". They asked for:</p> <ul style="list-style-type: none"> <li>• a relabeling of the concept so that it is not confused with "materiality of changes to rating systems";</li> <li>• clarification to ensure harmonisation of the materiality assessment (as well as to provide institutions with greater flexibility in defining the materiality threshold of their rating systems);</li> <li>• greater clarity on meaningful differences in requirements between material and non-material rating systems.</li> </ul> | <p>The concept of "materiality of rating systems" (as defined in paragraph 44 of the guide) helps institutions to differentiate between material and non-material rating systems, whereas the "materiality of changes to rating systems" (as defined in paragraph 105) is about the assessment and classification of changes to the rating systems.</p> <p>The ECB deems the concept of "materiality of rating systems" to be an essential consideration in model risk management as the more material a rating system is, the higher are the risks resulting from any potential shortcomings. Furthermore, although the same requirements apply to all rating systems, additional requirements may apply to more material rating systems, in particular to internal reporting and internal validation (see also paragraph 46).</p> <p>Whether a rating system is material depends on the individual situation of the institution and hence needs to be defined by the institution itself on the basis of a set of quantitative and qualitative criteria (such as those set out in paragraph 44), especially given that internal or external factors (e.g. economic factors, business strategy) might change and have an impact on the materiality classification.</p> <p>Finally, as the assessment of the materiality of rating systems should also be communicated to the competent authority, a mechanism is in place that allows that authority to check the assessment and ensure that it is complete.</p> | No change |
| 2 | Respondents stated that it is not proportionate to require management board approval for all outsourcing policies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The ECB guide (see paragraph 49) aims to encourage institutions to define which policies should be approved at both levels (management body and senior management level). It specifies that, at a minimum, the following should be considered as requiring approval at both levels: (i) risk management policies that could have a material impact on the institution's rating systems and risk estimates; and (ii) policies covering the risk of a third-party provider for model-related tasks ceasing to operate (in relation to IT infrastructure and contingency planning). The guide, therefore, does not require management approval for all outsourcing policies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No change |
| 3 | Respondents stated that the frequency of reporting to senior management on the comparison between estimated probability of default (PD) and realised default rates should be linked to the annual validation of risk estimates, as reporting more frequently than annually is considered excessively burdensome.                                                                                                                                                                                                                                                                               | In order for senior management to ensure on an ongoing basis that the rating systems are operating properly in accordance with Article 189(2)(c) of the CRR, the ECB understands that the comparison of estimated PD with realised default rates (among other things) should be reported to senior management more frequently than annually. In the understanding of the ECB, a higher than annual reporting frequency is important for the most material models and a lower but at least annual frequency might be appropriate for less material models. This has been clarified in paragraph 54 of the ECB guide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Amended   |

## 2.5

### Internal validation (GT section 5)

| # | Comment                                                                                                                                                                                                                                                                                                                                     | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Amendment |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Respondents expressed concerns about the requirements for "initial validation" in the context of material changes and extensions. They stressed the need to clarify whether the same validation standards for initial validation of new models are also expected for material model changes and extensions.                                 | In the ECB guide the term "initial validation" refers to the validation of new models as well as the validation of material changes and extensions to approved models (see paragraph 19 of the guide). In the case of material changes and extensions, the ECB understands that the validation exercises should be conducted on those aspects directly or indirectly affected by the change (this understanding is also supported by Article 11(4) of the Final Draft RTS). The ECB guide has been slightly amended to clarify this aspect (paragraph 70(g)).                                                                                                                                                                                                                                                                                                                                                                                | Amended   |
| 2 | Respondents stressed the need to clarify which level of consolidation a validation should be performed at and to what degree the group can support its lower-level entities.                                                                                                                                                                | As stated in section 5.1 of the ECB guide, the internal validation should be performed at all relevant levels (consolidated, sub-consolidated, solo level) at which the institution has received permission to use the rating system. To ensure that the validation activities at the different levels are consistent, the group validation function can provide support to validation functions at lower levels (sub-consolidated and/or individual level). However, responsibility for the delegated validation tasks should be retained at the level at which the rating system is approved. Sufficient in-house knowledge should also be ensured at this level. See also section 9.2.1 on internal and external outsourcing of internal validation and internal audit tasks and section 9.2.5 on in-house knowledge. Paragraph 67 of the ECB guide has been added in order to clarify the link between the two sections mentioned above. | Amended   |
| 3 | Respondents expressed strong concerns about the requirements with which the internal validation unit has to comply, namely that it should conduct not only back-testing but also discriminatory power and stability analyses for material rating systems, without taking the results from the credit risk control unit (CRCU) into account. | The ECB guide aims to ensure that the internal validation unit has a high level of independence from the CRCU, especially for material rating systems. Therefore, the ECB considers that it is important for these aspects (back-testing, discriminatory power, stability analysis) to be analysed or tested by the validation function in order to provide an independent opinion on the most material rating systems (see paragraph 70(h)). Furthermore, as stated in Article 185(b) and (c) of the CRR, not only back-testing but also other quantitative validation methods are within the scope of the internal validation of risk estimates.                                                                                                                                                                                                                                                                                           | No change |
| 4 | Respondents expressed concerns regarding the frequency of certain validation tasks, which some consider to be burdensome.                                                                                                                                                                                                                   | Article 174(d) of the CRR requires a "regular cycle of validation that includes monitoring of model performance and stability, review of model specification, and testing of model outputs against outcomes". The guide clarifies that the ECB deems it important for the validation analyses referred to in paragraph 70(h) to be performed annually (if not specified otherwise) to ensure that the rating systems are operating properly and to fulfil the corresponding CRR requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                 | No change |
| 5 | Respondents suggested that expectations regarding benchmarking analyses should be clarified, especially with regard to retail portfolios with limited availability of public information.                                                                                                                                                   | In the ECB's understanding, benchmarking analyses may deliver valuable inputs to the assessment of a rating system's performance, especially for low-default portfolios. If no or only limited external data are available to conduct a benchmarking analysis, the institution should provide and document sufficient evidence (see also paragraph 70(h)(viii) of the ECB guide).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | No change |
| 6 | Respondents asked for clarification of the analyses of representativeness with regard to the "dataset used to build the model" (e.g. in the case of very old models).                                                                                                                                                                       | As stated in paragraph 70(h)(iii) of the ECB guide, the dataset used to build the model must be representative of the actual obligors or exposures (Article 174(c) of the CRR). Further, the guide states that the range of application of the model should be in line with the approved one, in accordance with Article 143(3) of the CRR. This means that the "dataset used to build the model" should be the last approved one (i.e. including all material changes since the initial model approval).                                                                                                                                                                                                                                                                                                                                                                                                                                    | No change |
| 7 | Respondents expressed concerns and asked for clarification regarding the analysis of the "replication of the model development phase" as the requirement was considered to be too burdensome.                                                                                                                                               | As stated in paragraph 70(h)(x) of ECB guide, the "replication of the model development phase" analyses should include challenging the model design, assumptions and methodology (this understanding is also supported by Article 30(3)(b) and Article 44(3)(b) of the Final Draft RTS). The ECB considers, however, that a stepwise initial validation process, including an interaction with the model development at every step of the development phase, may not be sufficient to perform this challenge effectively. Regardless of the validation approach followed, the validation unit should provide an overall conclusion on the model to ensure that individual model strengths and weaknesses are evaluated on an overall basis. The wording in the ECB guide has been slightly amended, including the subheading, which now reads "review of the model specification".                                                           | Amended   |
| 8 | One respondent asked if the relevant CRR                                                                                                                                                                                                                                                                                                    | Equity exposure was not in the scope of the targeted review of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | No change |

articles for equity exposure could be added to the regulatory reference table of section 5.

internal models (TRIM) project. No changes have therefore been made to the ECB guide in this respect.

## 2.6 Internal audit (GT section 6)

| # | Comment                                                                                                                                                                                                                                                                                                                                           | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Amendment |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Respondents stressed the need to further clarify the role of internal audit and internal validation in the context of the model risk management (MRM) framework.                                                                                                                                                                                  | The ECB guide already specifies the independence requirements of the CRCU, the internal validation and internal audit functions. In addition, the guide provides transparency regarding the aspects institutions should consider when setting up an MRM function and policy. However, more granular guidance on the set-up of an MRM function or framework is not envisaged at this stage, as the optimal set-up for managing model risk within an institution depends on the individual specificities of the institution (e.g. whether a central or local MRM function to address all or specific risk types is more suitable).                                                                                                                                                                                                                                                                                                      | No change |
| 2 | Respondents highlighted that there is a need for further clarification of the minimum set of tasks to be performed by each of the three lines of defence (also with a view to avoiding any duplication of work).                                                                                                                                  | The ECB guide already provides general and specific guidance on the organisational set-up requirements and the tasks to be performed by the CRCU (section 4.5), the internal validation function (sections 2.5 and 5) and the internal audit function (sections 2.6 and 6). In particular, section 5 provides a detailed description of the tests and analyses to be performed by the CRCU or the validation function depending on the materiality of the rating systems. Institutions may find further guidance in Articles 10-17 of the Final Draft RTS, which also provide information on the organisational and task-specific requirements of the three functions, and which are already included as references in the ECB guide. More granularity in the guidance and in the definition of tasks would limit institutions in their individual set-up and in the allocation of tasks across units and is not therefore envisaged. | No change |
| 3 | Respondents stressed that the internal audit has no operational function and should rely on the work performed by the validation function, in that the validation function reviews the models on an ongoing basis while the internal audit reviews the framework, including those aspects relating to the validation function and its governance. | According to Article 191 of the CRR, internal audit, as an independent auditing unit, "shall review at least annually the institution's rating systems and its operations". To fulfil this role, internal audit should carry out an annual general risk assessment of all aspects of the rating systems in order to draw up and execute the appropriate annual work plan. As mentioned in paragraph 82, for the purpose of the general risk assessment the internal audit should develop its own opinion on the areas of rating systems to be reviewed, but can take into consideration the analysis performed by the internal validation function where appropriate. The aspects on which internal audit should form its opinion are provided in the same paragraph.                                                                                                                                                                 | No change |
| 4 | Respondents stressed that a minimum frequency of 3 years for performing a thorough review should not be imposed; on the contrary, the frequency of the reviews should be consistent with the audit cycle and risk assessment.                                                                                                                     | According to Article 191 of the CRR, the internal audit must review at least annually the institution's rating systems and its operations. As mentioned above, to fulfil this requirement institutions should perform a general risk assessment to establish the appropriate annual work plan, including those areas showing a high/increased risk. Areas not showing any sign of an increased risk are subject to a deep-dive mission at least every three years in order to provide a thorough update of the internal audit opinion on them. The rationale behind the three-year minimum frequency is based on Article 101(1) of CRD IV, which states that competent authorities shall review on a regular basis, and at least every 3 years, institutions' internal approaches for the calculation of own funds requirements. This frequency is also based on institutions' observed practices.                                    | No change |
| 5 | Respondents remarked that the management body cannot go into the details of the different auditing techniques applied.                                                                                                                                                                                                                            | Paragraph 83 of the ECB guide has been amended to clarify that the auditing techniques should be documented, but do not have to be approved by the management body, as is the case, for example, with the annual work plan and the internal audit reports.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Amended   |
| 6 | Respondents asked for clarification of internal audit's role in the review of model changes and extensions.                                                                                                                                                                                                                                       | Paragraph 85 of the ECB guide has been amended to clarify that for extensions and changes to the IRB approach, institutions must submit reports of their independent review or validation. If the material change affects the validation methodology or validation-related processes as described in paragraph 85, those aspects should be subject to an independent assessment by the internal audit function.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Amended   |

|   |                                                                                                      |                                                                                                                                                                                                                                                                                                     |         |
|---|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 7 | Respondents suggested adding the EBA Guidelines on internal governance to the regulatory references. | The regulatory references in the ECB guide have been updated accordingly and now include the EBA Guidelines on internal governance <sup>4</sup> , which entered into force on 30 June 2018. On that same date the EBA Guidelines on internal governance (GL 44) of 27 September 2011 were repealed. | Amended |
|---|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|

## 2.7 Model use (GT section 7)

| # | Comment                                                                                                                                                                                                                                                                                                    | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Amendment |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Respondents expressed concerns that applying the worst-performing rating grade for unrated exposures may be excessively conservative and stated that it goes beyond current requirements. Respondents also asked for clarification as to whether a certain marginal share of unrated exposures is allowed. | The ECB considers that different criteria for judgement (such as applying a downgrade with respect to average ratings) may not be enough to guarantee a sufficiently conservative treatment. In the ECB's view, therefore, applying the worst-performing grade is the best way to ensure a prudential process for managing and monitoring unrated exposures.<br><br>As stated in paragraph 94, the ECB considers non-rated exposures as temporary exceptions to the "ordinary" rating assignment process. As such, they should therefore be investigated, documented and justified in detail.                                                                                                                                                                | No change |
| 2 | Some respondents expressed concerns about the prudential treatment and process to monitor outdated ratings and remarked that it goes beyond current requirements (other respondents regarded the proposed approach as appropriate).                                                                        | The ECB considers that unreliable, inaccurate, incomplete or outdated data may lead to errors in institutions' risk estimation and in their calculation of own funds requirements. Further, when used in institutions' risk management processes such data may also lead to wrong credit and management decisions. Consequently, the ECB considers that institutions need to ensure that their procedures allow for a conservative measure of risk, such as a time-dependent downgrading for outdated ratings. For institutions to determine whether the size of non-rated and outdated ratings is immaterial, the corresponding exposures need to be monitored carefully (this understanding is also supported by Article 19(1)(a) of the Final Draft RTS). | No change |
| 3 | Respondents asked for clarification regarding the proposed treatment for deviations from internal policies.                                                                                                                                                                                                | Paragraphs 97 and 98 have been amended to clarify this aspect. Institutions must document the situations in which human judgement may override the inputs or outputs of the rating system. In addition, institutions should document instances in which internal override policies are overruled and report them to the relevant functions to assess the performance of the exposures affected.                                                                                                                                                                                                                                                                                                                                                              | Amended   |
| 4 | Respondents asked for clarification on the IRB use test with regard to the alignment of credit risk adjustments and IRB parameters.                                                                                                                                                                        | The wording of paragraph 90(d) has been amended. It now states: "The credit risk adjustments methodology for both performing exposures and exposures in default (or share of exposures in default) can be aligned to the calculation of own funds requirements, although some adjustments might be needed to comply with accounting standards (for example, International Financial Reporting Standards 9 (IFRS 9)). The institution should justify and document any significant deviations to ensure that the rationale for discrepancies is sound and understandable".                                                                                                                                                                                     | Amended   |
| 5 | Respondents remarked that a policy including an exhaustive list of override justifications cannot be rationally implemented and that the number of overrides should not be limited.                                                                                                                        | In general, situations in which there are too many overrides could be a strong indicator of model weaknesses. Therefore, identifying possible reasons for overrides and limiting the amount and frequency of overrides are key to enable the monitoring and analysis of these exposures and to trigger the corresponding actions if necessary. Paragraph 100(b) of the ECB guide has been slightly amended to clarify that only the scale of non-conservative overrides should be limited, while conservative overrides should not be limited. In addition, and this was kept unchanged, the maximum acceptable rate of overrides for each model should be defined (see also paragraphs 203-205 of EBA/GL/2017/16 <sup>5</sup> ).                            | Amended   |

<sup>4</sup> Guidelines on internal governance (EBA/GL/2017/11).

<sup>5</sup> Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures (EBA/GL/2017/16).

## 2.8 Management of changes to the IRB approach (GT section 8)

| # | Comment                                                                                                                                                                                                                                                                                                                                                                                          | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Amendment |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Respondents asked for clarification as to which unit would be considered independent for the role of confirming the assessment and classification of model changes.                                                                                                                                                                                                                              | The ECB guide aims to encourage institutions to establish a four-eye principle in order to ensure the accuracy of their impact assessments and the correctness and consistency of the resulting classifications. Paragraph 110 states that the assessment and classification should be confirmed by a unit independent of the one responsible for the assessment and classification of the change/extension. Therefore, it is up to the institution to define which independent unit is best suited to fulfil this role. Previous footnote 87 has been removed to avoid misunderstandings.                                                                                                                                                                                                                       | Amended   |
| 2 | Respondents proposed that for the purpose of the impact assessment, in the case of ex ante notifications a tolerance limit should be introduced for the time between the reference date and the date of notification.                                                                                                                                                                            | The ECB considers that in the case of ex ante notifications the time between the reference date and the date of notification should not exceed nine months (see paragraph 113(a)). The time frame proposed in the previous version (February 2017) of the ECB guide had already been amended to nine months (in that sense a tolerance period is already included). A further extension of the period would lead to a further distortion of the impact assessment as portfolio movements became more and more apparent. However, the corresponding paragraph has been slightly amended to clarify that the time between the reference date of the impact assessment and the date of the application/notification should not exceed nine months not only for ex ante notifications but also for material changes. | Amended   |
| 3 | Respondents stressed the complexity caused by the additional risk-weighted (RW) exposure amounts to be taken into account for capital calculation purposes in the event that a model change would lead to an increase in the RW exposure amounts (of more than 10%). They also asked for clarification as to why a linear reduction of simulated RW exposure amounts would be the best practice. | The ECB considers the approach described in paragraph 122 as the most appropriate for mitigating the risk of underestimation of own funds requirements, in the event that a material change would lead to a material increase in the RW exposure amount. In addition, it is considered as easier and more efficient for the tracking and monitoring of these amounts both by the institution and by the competent authority. The use of a linear reduction was considered appropriate because it seems easily implementable and understandable by all parties.                                                                                                                                                                                                                                                   | No change |

## 2.9 Third-party involvement (GT section 9)

| # | Comment                                                                                                                                                                                                                                         | ECB response and analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Amendment |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | Respondents suggested eliminating the requirements for outsourcing if group members are within the SSM framework and easing the requirements if they are within the EU.                                                                         | The ECB considers that the responsibility for delegated tasks should be retained by the outsourcing institution. This also applies in the case of internal outsourcing. As stated in the ECB guide, all outsourcing requirements for IRB-related tasks should be subject to a formal contract or similar documented agreement (in the case of internal outsourcing between different entities within the same group, provisions such as service level agreements or other written agreements may be considered as sufficient, subject to the materiality of the tasks outsourced). Furthermore, a different treatment of SSM and non-SSM (but still EU) group members would lead to an unequal treatment of institutions within the EU and hence is regarded as inappropriate. The requirements for external outsourcing outside the EU are already higher as the ECB guide states that institutions should discuss their plans with the ECB if they intend to outsource certain activities to "outside the EU".<br><br>As pointed out in the guide, institutions should consider the EBA guidelines on outsourcing and the ECB's thematic review on outsourcing, once finalised, for more detailed guidance on outsourcing requirements. | No change |
| 2 | One respondent asked for clarification of the extent to which a third party could provide support for validation analyses that require access to the data pool within the framework of a pool model approach developed by the same third party. | If an institution uses data that are pooled across institutions and a third party is developing the rating system, the institution should verify that the validation activities regarding that rating system are not performed by the same third party. However, the third party may assist the institution in its validation activities by performing those validation tasks which require access to the pooled data (this is also supported by Article 4(3) of the Final Draft RTS). In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Amended   |

|   |                                                                                                                          |                                                                                                                                                                                                                                                                                                                         |           |
|---|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|   |                                                                                                                          | any case, the responsibility for delegated tasks should be retained by the outsourcing institution. Paragraph 134 has been added to clarify this aspect.                                                                                                                                                                |           |
| 3 | One respondent asked for more granular guidance on the circumstances under which an engagement is deemed as outsourcing. | The general principles regarding outsourcing have already been provided in the ECB guide (see paragraph 124). As pointed out above, institutions should consult the EBA guidelines on outsourcing and the ECB's thematic review on outsourcing, once finalised, for more detailed guidance on outsourcing requirements. | No change |