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Consultation Paper

Draft Regulatory Technical Standards

on the authorisation of initial margin
models under Article 11(15) of EMIR

Contents

| | |
|--|-----------|
| Responding to this Consultation | 1 |
| 1. Executive Summary | 4 |
| 2. Background and rationale | 7 |
| 3. Draft regulatory technical standards | 12 |
| 4. Accompanying documents | 56 |
| Draft cost-benefit analysis / impact assessment | 56 |
| 5. Overview of questions for consultation | 61 |

Responding to this consultation

The EBA invites comments on all proposals put forward in this paper and in particular on the specific questions summarised in Section 5.

Comments are most helpful if they:

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

Submission of responses

To submit your comments, click on the 'send your comments' button on the consultation page by 17/06/2026. Please note that comments submitted after this deadline, or submitted via other means may not be processed.

Publication of responses

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

Data protection

The protection of individuals with regard to the processing of personal data by the EBA is based on Regulation (EU) 1725/2018 of the European Parliament and of the Council of 23 October 2018. Further information on data protection can be found under the [Legal notice section](#) of the EBA website.

Executive Summary

These RTS establish supervisory procedures for the authorisation and ongoing monitoring of initial margin (IM) models used by counterparties to mitigate exposures arising from non-centrally cleared OTC derivatives. It is designed to promote consistency in supervisory assessment across the EU, improve efficiency in the authorisation process, and to reduce operational duplication, while maintaining a risk-sensitive and proportionate approach that ensures material risks are adequately captured at the counterparty level proportionate to the size, complexity, and risk characteristics of the counterparty's portfolios. The amount of initial margin reflects potential future exposure and depends on factors such as portfolio composition, underlying volatility, and expected closeout and replacement periods. The RTS reinforces that initial margin models must be suitable for the specific characteristics of each counterparty's portfolios, taking into account institution-specific risk profiles and market exposures, even when based on a centrally validated pro forma model.

For pro forma IM models, ie. models established, published, and revised through market-led initiatives, the European Banking Authority (EBA) has a new central role as validator of pro forma initial margin models under Regulation (EU) No 648/2012 (EMIR¹) on uncleared over-the-counter (OTC) derivatives as amended by Regulation (EU) 2024/2987(EMIR 3²). This central validation function ensures that standardised models used across multiple counterparties meet regulatory expectations for capturing material risks in non-centrally cleared OTC derivative portfolios. By performing this validation, the EBA provides a consistent baseline for competent authorities (CAs), allowing them to focus supervisory assessment of counterparty-specific aspects of model implementation, while avoiding duplication of work already performed by the EBA. The central validation also aim at strengthening convergence across the EU, ensuring that the treatment of key model elements — such as the inclusion of risk factors, calibration assumptions, and methodological choices — is consistent for all counterparties adopting the same standardised framework. In addition, the EBA's role facilitates ongoing monitoring of developments in standardized models, capturing updates and/or changes that may affect multiple institutions and ensuring that CAs are informed of any material "delta" between centrally validated elements and counterparty-specific implementations.

The RTS applies to counterparties that belong to a group with an aggregate monthly average notional amount of non-centrally cleared OTC derivatives exceeding EUR 750 billion. Smaller entities within these groups may also fall within the scope of the RTS. In instances where the group was already validated by EU authorities, competent authorities are expected to consider validation for other group entities if the portfolio characteristics and risk factors are sufficiently comparable.

¹Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (Text with EEA relevance), *OJ L* 201, 27.7.2012, p. 1.

² Regulation (EU) 2024/2987 of the European Parliament and of the Council of 27 November 2024 amending Regulations (EU) No 648/2012, (EU) No 575/2013 and (EU) 2017/1131 as regards measures to mitigate excessive exposures to third-country central counterparties and improve the efficiency of Union clearing markets (Text with EEA relevance), *OJ L*, 2024/2987, 4.12.2024, p. 1.

margin practices, and implementation of risk factor coverage. The RTS is designed to promote consistency in supervisory assessment across the EU, improve efficiency in the authorisation process, and reduce operational duplication, while maintaining a risk-sensitive and proportionate approach that ensures material risks are adequately captured at the counterparty level, accounting for size, complexity, and risk characteristics of the counterparties' portfolios.

The RTS covers both qualitative and quantitative aspects of IM models. Qualitative requirements include governance, management and senior management oversight, model development and validation processes, audit scope, reconciliation, IT robustness, outsourcing, and documentation quality. These elements ensure that the institution has robust procedures in place for model development, monitoring, and internal control, and that the responsibilities of key functions are clearly defined and effectively executed. Quantitative requirements include completeness and accuracy of positions, inclusion of material risk factors across asset classes, treatment of maturity mismatches and non-linear dependencies, calibration procedures (confidence level, MPOR, no cross-asset diversification), adjustment procedures, data quality and use of proxies, and back-testing. Collectively, these requirements ensure that the IM model produces reliable, risk-sensitive margin estimates and that any model limitations or deviations are identified, investigated, and addressed in a timely manner.

Finally, the RTS establishes a connection to the EBA's central validation process through to back-testing and the Margin Average Shortfall (MAS) methodology. While MAS is maintained as a supervisory tool to prioritise netting sets for back-testing analysis, it is not used to determine regulatory consequences as it resembles an Expected Shortfall measure, as opposed to the Value-at-Risk framework of initial margin. The RTS introduces a streamlined, aggregated approach to back-testing, focusing on all overshootings (i.e., losses exceeding the initial margin) across selected portfolios to identify material weaknesses, model biases, or calibration issues. This allows competent authorities to assess counterparty-specific model performance in the context of ongoing supervisory monitoring, while benefiting from the consistent and comparable validation results provided by the EBA's central validation function of the general, standardised elements of pro forma models.

[Link with old draft RTS on IMMV](#)

This RTS reflects a significant change compared to the previous draft RTS for initial margin models³. The RTS has been substantially revised to align with EMIR 3, notably the establishment of the EBA as central validator of pro forma models and the application of the RTS exclusively to counterparties belonging to large groups with monthly aggregate average outstanding notional (AANA) of at least EUR 750 billion. The emphasis of the RTS has shifted toward specifying supervisory assessment techniques, ensuring that competent authorities have clear guidance on evaluating counterparty-specific model implementation. Furthermore, relevant elements and feedback from the previous draft have been taken into account, while maintaining alignment with the updated regulatory framework and operational expectations.

³ [Regulatory Technical Standards on IMMV under EMIR | European Banking Authority](#)

Furthermore, the EBA will also publish guidelines on the authorisation of IM models.

Next steps

Following the feedback received from the consultation, the EBA will revise the proposed draft RTS, where appropriate, and submit them in their final form to the European Commission for adoption.

Background and rationale

1. EMIR 3 introduced amendments to Article 11(3) of EMIR to require competent authorities to authorise the IMM used by counterparties for OTC derivatives contracts not cleared at a CCP, as well as any significant changes to those models before they are applied. At the same time, EMIR 3 also amended the scope of application of the mandate set out in Article 11(15), first subparagraph, point (aa) of EMIR. Specifically, it restricted the scope of the requirement to credit institutions and investment firms that have, or belong to a group that has, a monthly average outstanding notional amount of non-centrally cleared OTC derivatives of at least EUR 750 billion whereas the personal scope of application of the original mandate included all financial counterparties as well as non-financial counterparties referred to in Article 10 of EMIR.
2. In addition, the changes introduced by EMIR 3 mandate the EBA to establish a central validation function for pro forma models such as ISDA Standard Initial Margin Model (ISDA SIMM), the predominant model used by counterparties globally for computing regulatory initial margin for non-centrally cleared OTC derivatives. The new regime requires that any model used by counterparties for such non-centrally cleared trades – as well as any changes to those models – be authorised by competent authorities, and, in the case that the model is based on a pro forma model, also validated by the EBA.
3. These Final Draft RTS on the Initial Margin Model Validation (IMMV) complement the ESAs RTS on uncleared OTC derivatives⁴, which establish that counterparties, within the scope of EMIR, exchange Initial Margins (IM) when they enter an OTC derivatives transaction not cleared by a central counterparty (CCP), and to do so, they are allowed to use an IM model.
4. IM may be modelled by pro forma models and non-pro forma models. In accordance with Article 11(12a), sixth subparagraph of EMIR a “pro forma model” means an initial margin model established, published, and revised through market-led initiatives”. The substantive requirements for these models are already set out in Article 11 of EMIR, and the Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards for risk-mitigation techniques for OTC derivative contracts not cleared by a CCP (‘RTS for Risk Mitigation Techniques for OTC derivative contracts not cleared by a CCP’).
5. According to EMIR 3, where the initial margin model referred to is based on a pro forma model, the counterparty must first apply to the EBA for the validation of that model. The EBA validation is meant to cover general elements of the pro forma model that are not counterparty or portfolio specific. Competent authorities may grant authorisation only where the pro forma

⁴ Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories with regard to regulatory technical standards for risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty (Text with EEA relevance), *OJ L 340*, 15.12.2016, p. 9.

model has been validated by EBA. Where the initial margin model is not based on a pro forma model, the counterparty applies directly to the competent authority for authorisation.

6. In this context, EMIR provides a mandate under Article 11(15), first subparagraph, point (aa) for the EBA in cooperation with ESMA to establish supervisory procedures for the initial and ongoing validation of the risk management procedures (ie. Initial margin models) referred to in Article 11. This scope of firms captured includes credit institutions authorised in accordance with Directive 2013/36/EU and investment firms authorised in accordance with Directive 2014/65/EU that have, or belong to a group that has, a monthly AANA of non-centrally cleared OTC derivatives that exceeds EUR 750 billion. The calculation of AANA is set out in regulatory technical standards developed by the ESAs in accordance with points (a), (b) and (c) of paragraph 15.
7. Within groups where monthly AANA exceeds 750 billion, smaller entities may also fall under scope; in these cases, competent authorities are expected to take into account the authorisation already performed for another entity of the same group when assessing the adequacy of the model used by the smaller counterparty, provided that portfolio characteristics and risk factors are sufficiently comparable.
8. Given the complexity and breadth of Article 11, outlined below is the mandate's scope, and how it intersects with the RTS for Risk Mitigation Techniques for OTC derivative contracts not cleared by a CCP:
9. The term validation is to be understood broadly and as inherited from previous versions of EMIR and the RTS, and encompassing specifications as regards the supervisory procedures for the *authorisation* by competent authorities of the risk management procedures further to the EBA's validation (as already noted, a role which did not exist under the previous versions of EMIR).
10. Given that requirements for the supervisory procedures on collateral and segregation are already covered in the RTS for Risk Mitigation Techniques for OTC derivative contracts not cleared by a CCP, this draft RTS should only address supervisory procedures that relate to the IM model, not to collateral or segregation requirements.
11. Accordingly, this RTS defines the tools and methods for assessing whether the IM model users comply with the substantive requirements already set out in Article 11 of EMIR and the RTS for Risk Mitigation Techniques for OTC derivative contracts not cleared by a CCP with the aim of promoting consistency of approach between competent authorities, and to avoid duplicative processes between the EBA validation and competent authorities' authorisation assessment.
12. This RTS is divided into chapters addressing firstly the scope of the RTS, and then respectively the supervisory procedures to authorise models that are based on a pro forma model (Chapter 2) and models that are not based on a pro forma model (Chapter 3). Given that pro forma models are already validated by the EBA for its general aspects before authorisation by the competent authorities, the RTS avoids duplicating the work of the EBA's validation in the assessment techniques set out for the authorisation by competent authorities of pro forma models.

13. The chapters of the RTS are further divided into verification techniques for the qualitative elements, i.e. governance related aspects, and quantitative elements, i.e. relating to the model-engine. Given the limited role that the counterparty specific elements of an IM model's governance will have in the EBA's validation of pro forma models, the sections on authorisation by competent authorities of qualitative aspects of both pro forma and non pro forma models, mirror each other.

14. More specifically, the qualitative requirements cover all the following elements:

- The role of the management body and senior management;
- The role of the model development unit
- The audit scope process
- The internal validation scope and process
- The reconciliation process
- The robustness of the IT systems
- The outsourcing in relation to elements relating to the IM model
- The quality and auditability of the documentation

15. As regards quantitative requirements instead, the following aspects are covered:

- The completeness and accuracy of the positions captured by the model
- The inclusion of material risk factors, for all risk classes,
- Assessment of maturity mismatches and non-linear dependencies;
- Elements relating to calibration, including those relating to the application of an appropriate confidence level, MPOR, and no-diversification across risk classes;
- Use of the adjustment procedures referred to in Article;
- Data quality and use of proxies;
- Back-testing requirements.

16. As noted above, certain elements of an IM model, such as the risk factor setup, are covered by the EBA as part of its validation work in the context of a pro forma model. Consequently, the tasks assigned to competent authorities for pro forma models (Chapter 2 in the draft RTS) are less extensive than those for nonpro forma models (Chapter 3 in the draft RTS), which require a full supervisory assessment. This distinction between Chapters 2 and 3 is currently driven by the

ISDA SIMM: elements specified at the ISDA SIMM level fall under Chapter 3, but not Chapter 2, as competent authorities would not need to cover these elements.

17. It is noted also that ISDA SIMM may in future change the scope of what is decided centrally versus what is decided at counterparty level and, furthermore, it cannot be excluded that a new pro forma model may be introduced by market-led initiative. Accordingly, the draft RTS require competent authorities to potentially apply provisions from Chapter 3 also in the context of a pro forma model, if they consider that certain elements are not general in nature but are instead counterparty-specific. This provision is not expected to be used under current circumstances; however, it may become relevant in the future should a new pro forma model be introduced or should ISDA change the scope of elements specified as part of the ISDA SIMM.
18. In addition the EBA plans, as part of its ongoing monitoring, to indicate whether the provisions allowing competent authorities to apply elements from the broader supervisory framework for non-pro forma models should be used in the context of a pro forma model. Specifically, if the EBA identifies that certain elements, currently covered only under the full supervisory assessment (Chapter 3), are relevant for counterparty-specific implementation of pro forma models, it will communicate this guidance to competent authorities through its monitoring reports. This ensures that supervisors are aware of any instances where additional assessment beyond the standard scope of the pro forma model is warranted, while maintaining consistency and avoiding unnecessary duplication of the EBA's central validation work.

Outsourcing and validation

19. The acquisition or use of the ISDA SIMM framework does not constitute outsourcing, as it concerns a standardised industry methodology rather than a delegated service. Nevertheless, validation of the IM model should be performed by each institution on its own portfolios, since ISDA's generic calibration does not account for institution- or portfolio-specific characteristics; the RTS therefore explicitly requires validation to be conducted on the actual portfolio held by the institution.

Back-testing

20. The RTS maintains the MAS as a relevant indicator to support the identification and prioritisation of netting sets for which back-testing should be performed. MAS measures the absolute average riskiness of a netting set in the event of a counterparty default, as it is proportional to the absolute exposure size—reflected in both a netting set's profit and loss profile and its associated IM. As MAS, resembles Expected Shortfall methodology, it is not directly comparable to the IM, which relies on a Value-at-Risk measure. Given that MAS is not directly comparable to IM, it is only used as an indicator rather than to determine the supervisory consequences (for example, model remediation or temporary model use restrictions) of the back-testing results. The RTS introduces a simplified and more focused back-testing approach, which no longer requires extensive overshooting analysis for each netting set but instead mandates a comprehensive assessment that takes into account all overshootings observed. This aggregated view enables

the identification of material weaknesses, systemic biases, or calibration issues in the IM model, while reducing unnecessary operational burden and ensuring that validation remains risk-sensitive and proportionate.

Transition Period

21. In December 2024, the EBA published a [No Action Letter on the application of EMIR⁵](#), stating that, until the RTS on the authorisation of initial margin models (RTS on IMMA) developed in accordance with Article 11(15), point (aa), of EMIR become applicable, competent authorities should not prioritise any supervisory or enforcement action in relation to the processing of applications for initial margin (IM) model authorisation received as a result of the entry into force of EMIR 3.
22. With a view to unwinding the No Action Letter in an orderly fashion, counterparties will be prioritized according to the size of their AANA. The date of application of the RTS depends on adoption proceedings, the duration of which cannot be predicted. The specific dates mentioned below are indicative and may change after consultation. The RTS are planned to apply:
- a. to counterparties with AANA above EUR 2 250 bn) from 1 January 2028,
 - b. to counterparties with AANA > EUR 750 bn and <= EUR 2 250 bn six months later (i.e. from 1 July 2028)

⁵ [The EBA publishes a no action letter on the application of the European Market Infrastructure Regulation | European Banking Authority](#)

Draft regulatory technical standards

COMMISSION DELEGATED REGULATION (EU) .../...

of **XXX**

supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards specifying the supervisory procedures for the authorisation by competent authorities of the risk management procedures of counterparties under Article 11(3)

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories ⁽¹⁾⁶, and in particular the fifth subparagraph of Article 11(15) thereof in relation to the first subparagraph, point (aa) of that Article,

Having regard to Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards for risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty ⁽²⁾⁷,

Whereas:

(1) As risk mitigation techniques for non-centrally cleared OTC derivatives are already specified in detail in Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards for risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty, it is necessary to specify supervisory procedures in relation to the authorisation by competent authorities of the initial margin model as required under Article 11(3) of Regulation (EU) No 648/2012. Those requirements include general conditions which are to be complied with at all times.

⁶ (1) Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (OJ L 201, 27.7.2012, p. 1, ELI: <http://data.europa.eu/eli/reg/2012/648/oj>).

⁷ (2) Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories with regard to regulatory technical standards for risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty (OJ L 340, 15.12.2016, p. 9, ELI: http://data.europa.eu/eli/reg_del/2016/2251/oj)

(2) Regulation (EU) 2024/2987 of the European Parliament and of the Council of 27 November 2024 amending Regulations (EU) No 648/2012, (EU) No 575/2013 and (EU) 2017/1131 as regards measures to mitigate excessive exposures to third-country central counterparties and improve the efficiency of Union clearing markets (3)⁸, amended Article 11(3) of Regulation (EU) No 648/2012 requiring competent authorities to authorise the initial margin models used by counterparties for non-centrally cleared OTC derivatives contracts, as well as any significant changes to those models before they are applied. At the same time, Regulation (EU) 2024/2987 also restricted the scope of application of the mandate as set out in Article 11(15), first subparagraph, point (aa), of EMIR, to credit institutions and investment firms that have, or belong to a group that has, a monthly average outstanding notional amount of non-centrally cleared OTC derivatives of at least EUR 750 billion.

(3) The assessment by competent authorities of institutions' compliance with the requirements to use initial margin models to compute initial margin does not only relate to the initial application of an institution for permission to use an initial margin model but also applies to applications for changes to those models that the institution has been granted permission to use, and to the on-going review of the models that the institution is permitted to use. Therefore, competent authorities should apply the same criteria to each of these aspects of the assessment of compliance with the requirements to use initial margin models. Hence, the provisions provided in this Regulation should apply to all of the above cases, in order to harmonise the application of those methodologies by competent authorities and avoid the circumvention of prudential requirements.

(4) Where competent authorities assess the compliance of an institution with the applicable requirements other than for the initial application for authorisation, competent authorities should apply only the rules that are relevant to the scope of the assessment, and should, in each case, build on the conclusions from previous assessments as the starting point.

(5) The assessment techniques used by competent authorities should be appropriate to verify the requirements, taking into account the nature, size and complexity of an institution's structure and business model, the complexity of the initial margin models and the nature of products they cover, the quality of evidence provided by the institution and the resources available to the competent authorities themselves. For this reason, competent authorities should have the option to use supervisory judgement, while also seeking to ensure harmonisation and comparability of supervisory practices across different jurisdictions. Competent authorities should also have the option to exercise their discretion by carrying out additional checks to those specified in this Regulation, as necessary.

(6) In accordance with Article 11(12a) of Regulation (EU) No 648/2012, the European Banking Authority (EBA) has been given a role to set up a central validation function for the elements and general aspects of pro forma models, and changes thereto, used or to be

⁸ (3) Regulation (EU) 2024/2987 of the European Parliament and of the Council of 27 November 2024 amending Regulations (EU) No 648/2012, (EU) No 575/2013 and (EU) 2017/1131 as regards measures to mitigate excessive exposures to third-country central counterparties and improve the efficiency of Union clearing markets (OJ L, 2024/2987, 04.12.2024, ELI:<http://data.europa.eu/eli/reg/2024/2987/oj>).

used by financial counterparties and non-financial counterparties referred to in Article 10 of Regulation (EU) No 648/2012. In its role as a central validator, EBA validates the elements and general aspects of those pro forma models, including their calibration, design and coverage of instruments, asset classes and risk factors.

(7) This Regulation also sets out a comprehensive approach, providing assessment techniques for non pro forma models which counterparties use bilaterally.

(8) Pro forma models will be validated by the EBA for their general aspects ahead of authorisation by competent authorities. This Regulation should help avoid duplicating the work of the EBA's validation in the assessment techniques set out for the authorisation by competent authorities of pro forma models. For non-pro forma models, this Regulation should set out additional verification techniques of significant risk factors for competent authorities to perform.

(9) To promote the efficient use by competent authorities and counterparties of their resources, this Regulation should lay out that a competent authority may choose, in the context of authorisation, to rely on the contents of counterparties' internal documentation where it is of sufficiently good quality. Similarly, the competent authority may rely on the evidence collected in the context of the authorisation process for another entity of the group, as long as the characteristics of the two entities allow a meaningful comparison.

(10) To ensure that the framework and internal documentation of the internal model application set out a clear and coherent decision-making process by the counterparty, the techniques set out in this Regulation should be assessed and used as a whole by competent authorities.

(11) Counterparty's governance and three lines of defence is integral to the proper use and implementation of its initial margin models. Given the important role of senior management of each counterparty in decision making and approval of initial margin models, it is necessary for this Regulation to set out techniques to assess whether senior management of such counterparties demonstrates a sound understanding of the initial margin model applied and have adequate information and escalating channels to report and address weaknesses in such model.

(12) The unit responsible for margin modelling has a central role in ensuring the ongoing adequacy of the initial margin model. To ensure a comprehensive assessment, authorisation techniques should include an assessment of the unit's remit, participation in and reporting to decision making bodies, and suitable resourcing.

(13) The audit function of a counterparty can provide valuable independent insight into the compliance of the initial margin model, both in terms of a counterparty's policies and procedures, and applicable requirements of Article 18(1), point (c) of delegated Regulation (EU) 2016/2251. Assessment techniques should include those that assess the audit function's independence, auditing of the initial margin model and reporting to the counterparty's senior management and management body to ensure effective internal audits.

(14) The internal validation process provides independent second-line review to the unit responsible for assessing the configuration and implementation of the initial margin model. The assessment should cover methods that verify the resource and experience of the unit and other staff members involved, their role in the monitoring of the performance of the model, regular internal validation and reporting to ensure adequate second line review of the internal model. Counterparty specific elements and pro forma model elements should be differentiated.

(15) Counterparties rely on technology for the continuous and accurate usage of initial margin models. This Regulation should lay out validation techniques for the robustness of the IT system.

(16) Where important or critical functions applicable to the initial margin have elements that have been outsourced, this Regulation should lay out assessment techniques to ensure that these outsourced elements do not unduly impact the senior management oversight, continuity, and quality of the initial margin model by the counterparty. These supervisory procedures should be limited to outsourcing as it affects the IM model governance, validation and performance.

(17) Initial margin model assessment relies on comprehensive and complete documentation. The Regulation should lay down requirements for competent authorities to assess the quality and auditability of documentation produced and retained by counterparties.

(18) Initial margin models should capture all significant risks arising from entering into the non-centrally cleared OTC derivative contracts included in the netting set. While the EBA will provide validation of general aspects of the quantitative requirements of the pro forma model, the validation will not address counterparty and portfolio level elements.

(19) Non-linear dependencies not captured in initial margin models can result in overshooting and an amplification of tail risk. Given the challenges in the use of pro forma models in more complex and non-linear portfolios, this Regulation should lay down specific assessment techniques related to non-linear dependencies.

(20) In certain instances, it is appropriate for an initial margin model to use a longer margin period of risk (MPOR) and for a counterparty to have mitigation measures in the event of increased liquidation periods. This Regulation should include assessment techniques for competent authorities to assess the extent to which counterparties have considered a longer MPOR.

(21) The historical data used to calibrate an initial margin model and the shocks applied to that data, need to be appropriate in the context of change in volatility regimes. Assessment techniques included in this Regulation should assess the appropriateness of shocks applied and the counterparty's policies for mitigating instances where the shocks applied are no longer appropriate.

(22) Changes in market conditions may require counterparties to adjust the value of the margins to be exchanged. This Regulation should include assessment techniques for general

aspects and also counterparty specific elements subject to competent authorities' authorisation.

(23) Where counterparties use proxies for risk factors, for example due to insufficient data, the counterparty should assess the representativeness of the proxy data and put in place remedial measures where flaws in the proxy are identified. This Regulation should lay down supervisory techniques for competent authorities to assess the appropriateness of proxies used by counterparties.

(24) Back-testing is essential to assess the accuracy and reliability of margin models under actual and hypothetical market conditions, and to detect any deficiencies that may arise over time. To preserve market integrity and to mitigate systemic risk, this Regulation should set out the assessment techniques for competent authorities to assess that back testing is appropriately designed and performed.

(25) In order to support orderly and effective first-time authorisation of the use of initial margin models, and to provide sufficient time for both competent authorities and the different types of counterparties to prepare for the assessment in accordance with this Regulation, competent authorities should apply the assessment techniques set out in this Regulation only from 1 January 2028 respectively 1 July 2028, depending on the size of the counterparties' OTC trading activities.

(26) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the EBA.

(27) The EBA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Banking Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1093/2010 of the European Parliament and of the Council⁹.

HAS ADOPTED THIS REGULATION:

⁹Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC (OJ L 331, 15.12.2010, p. 12–47. ELI: <http://data.europa.eu/eli/reg/2010/1093/oj>).

CHAPTER 1 GENERAL PROVISIONS

Article 1

Subject matter and scope

1. For the purpose of authorising the use of an initial margin model, for either initial applications, or applications for material extensions or changes, and where the counterparty is a credit institution authorised in accordance with Directive 2013/36/EU or investment firms authorised in accordance with Directive 2014/65/EU, and has or belongs to a group that has an aggregate month-end average notional amount of non-centrally cleared OTC derivatives that is more than or equal to EUR 750 billion, competent authorities shall assess risk management procedures which apply to the initial margin models.

Article 2

Structure of the assessment

1. Competent authorities shall apply Chapter 2 in the context of supervisory procedures to authorise initial margin models based on a pro forma model.
2. Competent authorities shall apply Chapter 3 in the context of supervisory procedures to authorise initial margin models that are not based on a pro forma model.

Article 3

Proportionality and use of validation and audit reports

1. To execute supervisory procedures, competent authorities shall apply the assessment methodology set out in this Regulation in a manner that is proportionate to the size, complexity, and risk characteristics of each counterparty's non-centrally cleared OTC derivatives portfolios, taking into account the nature of the financial instruments covered by the initial margin model, the degree of model sophistication required, and in the case of an initial margin model based on a pro forma model, the extent of the differences in risk profile between the portfolios considered under the central validation and those which are counterparty-specific. For this purpose, the competent authority shall distinguish between the following categories of product and modelling complexity, in increasing order of portfolio complexity:
 - (a) exclusively, standard linear instruments with high liquidity, for which sensitivities is straightforward and risk factor mapping is unambiguous;
 - (b) portfolios that include linear instruments and standard options without path-dependent features or exotic payoffs, requiring moderately complex sensitivity generation and mapping procedures;
 - (c) portfolios that contain complex or exotic instruments, instruments with path-dependent or discontinuous payoffs, instruments referencing multiple underlyings or currencies, or other instruments requiring approximations, or model adjustments that introduce material model risk.

2. Competent authorities may rely on:
 - (a) the evidence collected in the context of the authorisation of another entity of the same group, provided that the portfolio characteristics and risk factors are sufficiently comparable between those two entities;
 - (b) the contents of internal validation reports, audit reports, or other independent control documentation produced by the counterparty, provided that such material is sufficiently detailed and robust to inform the assessment of the initial margin model in accordance with this Regulation.

CHAPTER 2 SUPERVISORY PROCEDURES FOR INITIAL MARGIN MODELS BASED ON A PRO FORMA MODEL

Article 4

Assessment provisions for models based on a pro forma model

1. When assessing an initial margin model that is based on a pro forma model, competent authorities shall focus their supervisory assessment on aspects that are specific to the implementation and use of the model by the counterparty. To that end, the competent authority shall:
 - (a) consider the scope of the EBA validation work pursuant to its function under Article 11(3), third subparagraph of Regulation (EU) No 648/2012;
 - (b) assess the qualitative requirements in accordance with Section 1;
 - (c) assess the quantitative requirements in accordance with Section 2; and
 - (d) assess any remaining aspect as set out in paragraph 3.
2. For the purpose of the assessment referred to in paragraph 1, counterparties shall provide competent authorities with a report mapping the elements of the model that are determined by the model developer of the pro forma model and those that are counterparty specific.
3. For the purpose of paragraph 1(a), there shall be a presumption that all elements included in Chapter 3 but not included in Chapter 2, have been assessed by the EBA validation of the pro forma model, and shall not be covered in the assessment performed by competent authorities.
4. Where the competent authority determines, following the assessment performed by the EBA, that certain elements included in Chapter 3, but not included in Chapter 2, are not specified by the pro forma model and are instead specific to the counterparty, the competent authority shall include those elements within the scope of its own

assessment as part of the authorisation process. In doing so, the competent authority shall refer to the assessment techniques set out in Chapter 3.

SECTION 1 ASSESSMENT OF QUALITATIVE REQUIREMENTS

Article 5

General aspects of the assessment of qualitative requirements

1. To ensure that a counterparty has established an internal governance process to assess the appropriateness of the initial margin model on a continuous basis, in accordance with Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities shall account for all relevant factors when assessing the governance arrangements of the internally implemented initial margin model.
2. Competent authorities shall ensure that the decision-making process of the counterparty regarding all aspects of initial margin models, including aspects relating to margin disputes, is clearly laid down in the counterparty's model governance framework and internal documentation, in accordance with Article 18(2) of Delegated Regulation (EU) 2016/2251.
3. To assess whether a counterparty is compliant with the requirements of internal governance, including requirements on the role of senior management and management body, internal organisation, the model development unit, audit, internal validation, robustness of IT infrastructure, and completeness of policy and procedures for outsourcing, competent authorities shall verify whether a counterparty has a clear organisational structure for the governance and management of the model with well-defined, transparent and appropriate lines of responsibility, taking into account the nature, scale and complexity of the activities of the counterparty, and shall verify in particular all of the following:
 - (a) the role of the senior management and management body in accordance with Article 6;
 - (b) the resources of the model development unit, in accordance with Article 7;
 - (c) the independence, the resources, the process for addressing the conclusions and recommendations of the audit function, in accordance with Article 8;
 - (d) the adequacy and independence of the internal validation process, in accordance with Article 9;
 - (e) the margin reconciliation and dispute settlement process, in accordance with Article 10;
 - (f) the change management process when changes or updates are made to the pro forma model, in accordance with Article 11;
 - (g) the robustness of IT systems, in accordance with Article 12; and

- (h) the risks towards the model provider and outsourcing, in accordance with Article 13
- (i) the quality and auditability of the documentation, in accordance with Article 14

Article 6

Senior management and management body

1. In assessing the soundness of the role of the senior management and management body as referred to in Article 5(3), point (a), competent authorities shall verify that the counterparty's senior management and management body are actively involved in and ensure that adequate resources are allocated to the management of the initial margin model.
2. Competent authorities shall verify that the senior management and the management body of the counterparty have a sound understanding of the internal margin model and are aware of the limitations and assumptions of the model used, and the impact those limitations and assumptions can have on the reliability of the output of the initial margin model. This verification should include at a minimum the following:
 - (a) that, following a proposal from the model development unit, the management body, or the committee designated by it, approves all relevant policies and procedures related to the implementation of the initial margin model, including the appropriate organizational structure, ensuring that the model is implemented with integrity;
 - (b) that the management body or the committee designated by it takes appropriate corrective action when weaknesses are identified in initial margin model including where those weaknesses are identified by the model development unit, the qualified parties tasked with the internal validation of the model, the audit function, or any other control functions of the counterparty;
 - (c) that the management body or the committee designated by it is aware of and follows up on, at least once a year, the recommendations raised by the audit function, the model development unit or the validation function in relation to the initial margin model;
 - (d) that, following a proposal from the model development unit, and after due consideration of the conclusions and recommendations raised in the internal validation and audit reports, the management body or the committee designated by it approves the methodologies, extensions and material changes applied to the initial margin model;
 - (e) that the management body or the committee designated by it is aware of the model's ongoing performance, including under stress conditions as evidenced by:
 - (i) the back-testing referred to in Article 14(3) of Delegated Regulation (EU) 2016/2251;

- (ii) the assessments resulting from the validation, internal audit and risk control function reporting;
 - (iii) internally developed statistics on reconciliation of initial margins and margin disputes between counterparties.
- (f) that the model development unit provides notice to the management body or the committee designated by it of material changes to or extensions of the use of initial margin models.

Article 7

Model development unit

In assessing the internal governance of the counterparty in relation to the model development unit as referred to in Article 5(3), point (b), and in accordance with Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities shall verify in particular all of the following:

- (a) that the model development unit ensures the units responsible for originating, renewing, or trading exposures cannot alter the model implementation without appropriate control
- (b) that the model development unit is appropriately represented in the counterparty's decision-making bodies and is involved in the decision-making process relating to the initial margin model.
- (c) that the model development unit is adequate and proportionate to the size of the counterparty and to the risks of the counterparty's business, and that it has the appropriate resources to perform its tasks effectively;
- (d) that the model development unit reports their findings concerning the analysis in points (e) and (f) to the senior management;
- (e) that the model development unit is responsible for the quantitative outcome of any initial margin model that the counterparty is using for the calculation of initial margins;
- (f) that the model development unit is responsible for producing reports on the output of the initial margin model, controlling input data integrity, and analysing the output of the initial margin model. If appropriate some of these activities may be assigned to the risk unit.

Article 8

Audit process

1. To assess the independent review of the initial margin model as part of the audit process as referred to in Article 5(3), points (c) and (d), and in accordance with Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities shall verify that the audit is independent, that the resources assigned to it are appropriate and that the process established within the counterparty to address the

recommendations coming from the audit is adequate, by verifying, in particular, all of the following:

- (a) that the internal or external audit of the counterparty reviews all the initial margin models on at least an annual basis as per Article 18(1)(b) of Delegated Regulation (EU) 2016/2251 and delivers the conclusions of that review in a report submitted to the counterparty's senior management and management body, as referred to in Article 6;
 - (b) that the report referred to in point (a) provides sufficient information to the counterparty's senior management and management body on the compliance of the initial margin model with all applicable requirements referred to in Article 18(1)(c), of Delegated Regulation (EU) 2016/2251 and identifies and document at least on an annual basis those areas where it is necessary to carry out a detailed review of compliance with those requirements;
 - (c) that the audit is adequate, proportionate and performs its tasks effectively.
2. Competent authorities shall review the latest and other relevant reports produced by the audit in accordance with paragraph 1, and verify that remediations of issues identified by the audit are appropriate and complete.
 3. Competent authorities shall verify whether a regular audit of the counterparty's compliance with the provisions of Chapter I, Section 4 of Delegated Regulation (EU) 2016/2251 and this Regulation takes place and whether appropriate remediation plans are being produced and followed.

Article 9

Internal validation process

1. To assess whether the internal validation process for an initial margin model based on a pro forma framework, meets the requirements in Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities shall verify, in particular, all of the following:
 - (a) that the internal validation is conducted by personnel independent from the team responsible for the implementation of the initial margin model;
 - (b) that the internal validation process is adequately resourced, including staff that is sufficiently experienced and qualified to perform such tasks;
 - (c) that the performance of the model implementation is monitored on a continuous basis by conducting internal validation at least annually;
 - (d) where the validation of extensions or changes to the model implementation is sought, such extensions or changes are approved by management body, or committee designated by it, and subject to internal validation before the application for validation is submitted to the competent authority;
 - (e) that the findings of the internal validation are reflected in a validation report and are remediated in a timely and documented manner;
 - (f) that the validation report is comprehensive and sound.

2. Competent authorities shall verify that, as part of the initial and ongoing internal validation, the counterparty distinguishes between elements of the model that are determined by the pro forma framework and those that are counterparty-specific. The annual internal validation shall be performed using the actual portfolios of the counterparty, and shall not be considered satisfied solely by the validation performed by the developer of the pro forma model. Accordingly, competent authorities shall verify that all of the following conditions are met:
 - (a) for counterparty-specific elements at least all of the following:
 - (i) the accuracy of the implementation of the model, including sensitivity generation, risk factor mapping, and application of the aggregation logic as prescribed by the proforma model;
 - (ii) the appropriateness of the model for the counterparty's portfolio composition, and risk profile;
 - (iii) the performance of the implemented model with respect to the counterparty's portfolio, supported by back-testing or other suitable statistical tools;
 - (b) for elements related to the pro forma model at least all of the following:
 - (i) the model assumptions, calibration approach, limitations, and their implications for the counterparty's margin adequacy;
 - (ii) limitations in the pro forma model that may have a material effect on the counterparty's exposures;
 - (iii) processes to apply mitigating measures, such as add-ons or exclusions, where the pro forma model is insufficient for specific portfolios or instruments;
 - (iv) the counterparty's procedures for engaging with the model developer to raise concerns about systemic deficiencies in the pro forma model.
3. Competent authorities shall verify that the counterparty's internal validation process is embedded in its model governance framework, and that it enables the counterparty to manage and escalate issues arising from the use of the pro forma model in a timely and effective manner.

Article 10

Reconciliation process

1. Competent authorities shall assess the margin reconciliation process, in particular, whether:
 - (a) the counterparty has established a process to reconcile initial margin amounts with its counterparties, and to investigate, resolve and document material discrepancies;
 - (b) the counterparty has experienced frequent or unexplained disagreements or disputes with counterparties in the exchange of initial margin amounts under the pro forma model;

- (c) as part of investigating material discrepancies, the counterparty identifies at least the following cases:
 - (i) the source of the discrepancy is linked to discrepancies in the trades, mapping of risk factors, valuation methods, or the calculation of sensitivities;
 - (ii) such disagreements or disputes are concentrated in specific product types or asset classes.
- 2. Competent authorities shall use the information obtained via the assessment referred to in paragraph 1, when assessing the quantitative requirements in accordance with section 2.

Article 11

Change management

Competent authorities shall assess the change management, in particular whether:

- (a) the counterparty has established an appropriate governance structure and process for managing changes to the pro forma model and the counterparty's implementation;
- (b) changes arising from modifications to the design or scope of the pro forma model, as well as local changes affecting the counterparty's use or implementation of the pro forma model, are identified and incorporated in a timely manner;
- (c) the counterparty performs appropriate validation or review of such changes prior to their implementation in the margin calculation framework.

Article 12

Robustness of IT systems

To ensure that the initial margin model facilitates a timely, accurate and appropriately segregated exchange of collateral in accordance with Article 11(3) of Regulation 648/2012, competent authorities shall verify both of the following:

- (a) whether the IT systems related to the initial margin calculation and exchange provide accurate results in a timely manner;
- (b) whether appropriate remediation capabilities are in place in case of problems encountered in relation to the IT systems referred to in point (a).

Article 13

Risks towards the model provider and outsourcing

- 1. As part of their overall risk management framework, counterparties shall identify, assess, and manage all risks arising from the acquisition and use of a pro forma model developed by a third party. This shall include at least:

- (a) establishing documented contingency plans to be implemented where the continued use of a model based on a pro forma framework is no longer viable;
 - (b) ensuring they maintain the operational and technical capability to calculate initial margin using the standardised approach for all relevant netting sets.
2. Where a counterparty has outsourced some or all important or critical functions, activities or services related to the design, calibration, implementation, internal validation and audit of a pro forma model, going beyond the purchase of the pro forma model and subsequent model and calibration updates or changes, competent authorities shall verify that the outsourcing does not hinder the application of the assessment methodology referred to in this Regulation and, in particular, all of the following:
- (a) that the senior management, as well as the management body or its risk committee, are actively involved in the supervision and decision-making over the important or critical functions, activities or services outsourced to a service provider and over the initial margin model obtained from a service provider;
 - (b) that the counterparty's own staff have sufficient resources including expertise, knowledge and understanding of the important or critical functions, activities or services delegated to third parties and of the structure of the initial margin model obtained from a service provider;
 - (c) that the counterparty has direct access to the relevant information of the outsourced functions, activities or services
 - (d) that the continuity of the outsourced functions, activities or services is ensured, including by means of appropriate business contingency and continuity plans;
 - (e) that full access and audit rights are granted to the competent authority of the counterparty that outsourced important or critical functions, activities or services, in relation to all relevant information and the service provider cooperated with the competent authority in connection with the outsourced activities.

Article 14

Quality and auditability of the documentation

Competent authorities shall verify whether the documentation submitted by a counterparty in support of its application for the use of an initial margin model or material extensions or changes to the initial margin model meets at least all of the following:

- (a) it is approved at the senior management level of the counterparty;
- (b) it is complete, consistent, accurate, and up-to-date, including all relevant information on the model, including its internal implementation.

- (c) it provides for the identification of, at the minimum, the author, reviewer, authorising agent and owner, dates of development and approval of the document;
- (d) it is version numbered and provides a comprehensive overview of the history of the amendments to the document;
- (e) it is sufficiently detailed to allow a knowledgeable third party to understand and replicate the set-up of the initial margin models and its processes.

SECTION 2 ASSESSMENT OF QUANTITATIVE REQUIREMENTS

Article 15

General aspects of the assessment of quantitative requirements

When verifying the compliance of a pro forma model, competent authorities shall apply Section 2 to assess the quantitative requirements:

- (a) completeness and accuracy of the positions;
- (b) sound internal implementation of the pro forma model;
- (c) material risk factors are identified and captured in the margin model, as set out under Article 18;
- (d) non-linear dependencies are recognised within the pro forma model and treated accordingly, as set out under Article 19;
- (e) the model uses assumed variations based on a one-tailed 99 percent confidence interval over a MPOR of at least 10 days, as set out under Article 20;
- (f) parameter calibration is to be performed at least annually, based on historical data from a time period with a minimum duration of 3 years and maximum duration of 5 years, set out under Article 21;
- (g) procedures for adjusting the value of the margins to be exchanged due to a change the parameters caused by a change in market conditions, as set out under Article 22;
- (h) the use and verification of proxies, as set out under Article 23;
- (i) independent and thorough back testing, as set out under Article 24.

Article 16

Completeness and accuracy of the positions

When assessing the appropriateness of the initial margin model in accordance with Article 18 of Delegated Regulation (EU) 2016/2251, competent authorities shall assess the completeness and accuracy of the positions captured by the model. In particular, competent authorities shall:

- (a) verify that the counterparty has established robust procedures to ensure that all relevant positions are correctly and fully included in the population of positions subject to the initial margin calculation;
- (b) assess the process by which positions are sourced, validated, and reconciled between front-office systems, back-office systems and the pro forma model, including controls to detect and correct any omissions or inaccuracies;
- (c) require the counterparty to demonstrate the traceability of positions from trade capture through to their inclusion in the initial margin calculation.

Article 17

Sound internal implementation of the pro forma model

1. When assessing the appropriateness of the initial margin model in accordance with Article 18 of Delegated Regulation (EU) 2016/2251, competent authorities shall verify whether the model has been implemented in line with the modalities set out by the model developer. In particular, competent authorities shall verify:
 - (a) in accordance with paragraph 2, whether the mapping between the counterparty's risk factors and the pro forma model's risk factors is sound;
 - (b) in accordance with paragraph 3, whether sensitivities are computed as specified in the pro forma model, where the model developer provides for such specification;
 - (c) in accordance with paragraph 4, whether risk weights and correlations are applied as specified in the pro forma model, where the model developer provides for such specification.
2. Competent authorities shall assess the mapping of internal risk factors to the risk factors defined in the pro forma model. In particular, competent authorities shall:
 - (a) ensure that the counterparty has an appropriate understanding of the pro forma model's risk factor definitions and taxonomy relevant for its netting sets, including the classification by asset class, tenor and other relevant dimensions;
 - (b) evaluate the methodology used by the counterparty to map its internal risk factors to the risk factors defined in the pro forma model. This evaluation shall include at least:
 - (i) a verification as to whether the counterparty maintains a comprehensive mapping table identifying how each internal risk factor is linked to the corresponding pro forma model risk factor;
 - (ii) an assessment whether the mapping is complete, consistent across products and trading desks, correct in light of the pro forma model taxonomy, and sufficiently granular;
 - (iii) the methodology used for the mapping, including any interpolation, transformation, or aggregation techniques applied;

- (iv) a verification that any approximations or assumptions made in the mapping are well justified;
 - (v) a verification that there is an established process to review and update the mapping framework following changes to the pro forma model taxonomy or product scope.
3. Competent authorities shall assess the calculation of sensitivities. In particular, competent authorities shall:
- (a) verify that the sensitivities used as inputs to the pro forma model are calculated in accordance with the methodology prescribed by the pro forma model developer, and reflect the appropriate shock sizes, valuation conventions, and model assumptions;
 - (b) assess whether the counterparty applies any approximations or simplifications in the generation or processing of sensitivities, whether these approximations are justified, and whether they may have a material impact on the resulting margin figures;
4. For the purposes of paragraph 1, competent authorities shall assess the application of risk weights and correlations in the aggregation of the pro forma model. In particular, competent authorities shall:
- (a) verify that the counterparty correctly applies the risk weights according to the bucket structure of the pro forma model in accordance with the model developers' definitions and taxonomy;
 - (b) verify that the counterparty has implemented the aggregation and correlation framework of the pro forma model correctly, including the application of intra- and inter-bucket correlations, and the treatment of cross-asset-class exposures where applicable;
 - (c) verify whether the counterparty is able to trace, for any initial margin computation, the full path from individual trades to the final margin amount, including the calculation of sensitivities, the mapping of risk factors, and the aggregation of results.

Article 18

Material risk factors

When assessing the counterparty's compliance with Article 14(2) of Delegated Regulation (EU) 2016/2251, competent authorities shall:

- (a) analyse the structure of the counterparty's internal risk factors relevant to the calculation of initial margin;
- (b) verify that the counterparty's identification process detects and assesses any internal risk factors that are not covered by the pro forma model (risks not in pro forma model);
- (c) verify that the counterparty's identification process recognises instruments for which the pro forma model does not yield an adequate initial margin due

to internal risk factors not covered by the model, and that these instruments are excluded from the scope of application of the model;

- (d) ensure that the assessment covers at least:
- (i) the risk classes that are material in terms of the counterparty's initial margin exposure or portfolio composition; and
 - (ii) the financial instruments or product types that represent a material share of the counterparty's derivatives activity or contribute significantly to the sensitivities used in the pro forma model.

In determining materiality, competent authorities shall take into account the size and complexity of the positions concerned.

Article 19

Non-linear dependencies

When assessing the counterparty's compliance with Article 14(2), point (i) of Delegated Regulation (EU) 2016/2251, competent authorities shall:

- (a) verify, for netting sets with material vega or gamma risk, that back-testing of those netting sets does not reveal a cluster of overshootings or significant overshootings attributable to unmodelled non-linearities;
- (b) assess whether the counterparty has internal processes in place to identify non-linearities that are not captured by the model but have a material impact on the profit and loss of the netting set, and whether there is a policy requiring the exclusion of such netting sets from the scope of the initial margin model and their treatment under the standardised method for the calculation of the initial margin whenever significant non-linearities remain uncaptured by the model.

Article 20

Confidence level/MPOR

When assessing compliance with the requirement that the initial margin model uses assumed variations based on a one-tailed 99 percent confidence interval over a MPOR of at least 10 days in accordance with Article 15 of Delegated Regulation (EU) 2016/2251, competent authorities shall:

- (a) assess whether the counterparty monitors events and circumstances that would warrant a MPOR longer than 10 days;
- (b) assess whether the counterparty has in place mitigation measures to address potential risks of increased liquidation periods longer than those considered in the model;

Article 21

Parameter calibration

1. When assessing the counterparty's compliance with Article 16(1) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:
 - (a) assess whether the counterparty monitors whether the shocks applied to the risk factors remain appropriate in the context of a change in volatility regimes and the circumstances where the counterparty decided to perform adjustments as set out in Article 16(8) of Delegated Regulation (EU) No 2016/2251 and as assessed in accordance with Article 22;
 - (b) assess whether the counterparty's policies include mitigating actions to be taken when the shocks are no longer considered appropriate due to a shift in volatility regimes but an ad-hoc recalibration is not deemed necessary. This assessment shall be performed in conjunction with the assessment referred to in Article 22 relating to the procedures adjusting margin levels.
2. When assessing the counterparty's compliance with Article 16(2) of Delegated Regulation (EU) No 2016/2251, competent authorities shall require identification of the stressed period used in each calibration and verify that the counterparty verifies that it represents a period of significant financial stress for its actual positions. The competent authority shall assess that the counterparty considers to adjust the value of the margins to be exchanged or implements other remediation measures in case this verification fails.

Article 22

Adjustment procedures

When assessing the counterparty's compliance with Article 16(8) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:

- (a) obtain a clear understanding of those procedures, and assess whether the procedures adjusting the value of the margins to be exchanged only cater for changes in market conditions, or whether other circumstances where the model does not perform as intended are considered;
- (b) verify that the procedures referred to in point (a) are adequately documented and they are consistent with the mitigation measures referred to in Article 20 point (b) of this Regulation;
- (c) review practical implementation of such procedures through examples and triggers;
- (d) verify that the counterparty tracks the use of policies for adjusting margins and builds statistics on usage patterns, to identify potential systemic issues in the model in the context of some netting sets or financial instruments;
- (e) assess whether the statistics referred to in point (d) imply potential weaknesses in the model in the context of some netting sets or financial instruments.

Article 23

Use of proxies

When assessing the counterparty's compliance with Article 16(10) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:

- (a) verify whether the counterparty monitors for the most material OTC derivative contracts for which available data is considered sufficient and reflective of the true volatility of their OTC derivative contract or portfolio of OTC derivative contracts whether the shocks and correlations used in the model are in line with the available data or whether the counterparty has in place remediation measures that are implemented in case the shocks and correlations are not leading to conservative level of margins;
- (b) verify whether the counterparty monitors for the most material OTC derivative contracts or portfolio of OTC derivative contracts for which data is considered insufficient or not reflective of the true volatility whether the model leads to a conservative level of margins or whether the counterparty has in place other remediation measures that are implemented in case the margins are not sufficiently conservative.

Article 24

Back-testing requirements

1. In assessing that the performance of the initial margin model is monitored on a continuous basis, as required by Article 14(3) of Delegated Regulation (EU) 2016/2251, competent authorities shall verify all of the following:
 - (a) that the unit of the counterparty performing the back-testing is independent from the trading units responsible for originating, renewing or trading exposures;
 - (b) how back-testing is performed, including in relation to the technical elements included or excluded from the realised market values of non-centrally cleared derivatives;
 - (c) that the counterparty assesses the impact of the assumptions made in the back-testing programme, at least in the context of the validation referred to in 18(1) point (a) of Delegated Regulation (EU) No 2016/2251;
 - (d) that the counterparty applies the same pricing methods, model parametrisations, market data and any other techniques used in the counterparty's end-of-day valuation process, or a close approximation of it, and that where it applies a Taylor series approximation as pricing method approximation, the counterparty computes at least the material first- and second order terms to reflect the change in the market value of the non-centrally cleared OTC derivative contracts in the netting set;
 - (e) that the counterparty ensures that, where the model does not cover all asset classes referred to in Article 17(2) of Delegated Regulation (EU) 2016/2251, the change in the market value of the non-centrally cleared OTC derivative contracts in the netting set only encompasses the change in the market value

of the non-centrally cleared OTC derivative contracts in the netting set stemming from instruments covered by the initial margin model;

- (f) whether the counterparty has implemented a robust process to assess the results of back-testing for each netting set subject to the initial margin model on quarterly basis and that this process includes:
- (i) establishing and maintaining written procedures to identify, record, and evaluate instances of overshooting, defined as occasions where actual variation in the value of positions exceeds the model's predicted initial margin level;
 - (ii) establishing clear thresholds for the number of overshootings over the back-testing horizon, corresponding to zones indicating:
 - a. A green zone where the number of overshootings is low and consistent with the statistical confidence level of the model. A counterparty shall allocate a netting set to this zone where the probability that the observed deviations are compatible with a model that fulfil regulatory requirements is greater than or equal to 5%.
 - b. A yellow zone where the number of overshootings moderately exceeds expected levels. A counterparty shall allocate a netting set to this zone where the probability that the observed deviations are compatible with a model that fulfil regulatory requirements is lower than 5% and greater than or equal to 0.1%.
 - c. A red zone where the number of overshootings significantly exceeds expected levels. A counterparty shall allocate a netting set to this zone where the probability that the observed deviations are compatible with a model that fulfil regulatory requirements is lower than 0.1%.
 - (iii) comparing these following two numbers and assessing the root-causes behind any material deviations where present:
 - a. The total number of netting sets classified as green, yellow, and red;
 - b. The expected number of netting sets in each classification, based on the total number of netting sets and the probability thresholds defined in point (ii);
 - (iv) reporting back-testing outcomes periodically to senior management, the management body or the committee designated by it;
 - (v) escalating to senior management, the management body or the committee designated by it, on an ad-hoc basis, when back-testing

indicates that the hypothesis of correct model calibration should be rejected for material netting sets;

- (vi) maintaining sufficient records to demonstrate the consistency of back-testing results with the model's calibration assumptions over time, including historical trends in overshooting frequencies.
 - (g) whether the counterparty has defined appropriate actions in case the results are not broadly consistent with the expectations referred to in point (f)(iii) and there is a systematic pattern of excessive overshootings indicating weaknesses in the initial margin model.
 - (h) that, on a quarterly basis, the counterparty selects, if available, a sample of 15 red-zone, 10 yellow-zone, and 5 green-zone netting sets with the highest margin average shortfalls, and performs a single, consolidated analysis of the back-testing results for this sample. to that end the competent authority shall identify common patterns and root causes of overshootings across the sample, including model deficiencies, inappropriate parametrisations, data issues, and portfolio-specific characteristics, and the counterparty shall document any material trends and the actions taken to address material weaknesses . Where more than one type of back-testing is performed, each netting set shall be categorised according to the most severe zone classification it receives across all back-tests, and its margin average shortfall shall be the highest observed for that netting set in the back-test(s) corresponding to that classification.
2. For the purpose of this Regulation, the margin average shortfall for back-testing for each netting set ns shall be the average zero floored additional margin over all T days in the back-testing period, multiplied by 100, and calculated as follows:

$$MAS_s^{ns} := 100/T \sum_{t=1}^T \max(0, A_{s,t}^{ns})$$

Where:

- MAS_s^{ns} — denotes the margin average shortfall for each netting set.
- $A_{s,t}^{ns} = PL_t^{ns} - IM^{ns}$ — denotes the additional margin required to cover the exceedance of IM observed when an overshooting occurs.
- PL_t^{ns} — denotes the change in the market value at date t over the time horizon used in the backtesting.
- IM^{ns} — denotes the initial margin amount computed by the initial margin model, against which overshootings are identified.

CHAPTER 3

SUPERVISORY PROCEDURES FOR INITIAL MARGIN MODELS NOT BASED ON A PRO FORMA MODEL

Article 25

General aspects of the assessment

When assessing an initial margin model that is not based on a pro forma model, competent authorities shall:

- (a) assess the qualitative requirements in accordance with Section 1;
- (b) assess the quantitative requirements in accordance with Section 2.

SECTION 1

ASSESSMENT OF QUALITATIVE REQUIREMENTS

Article 26

General aspects of the assessment of qualitative requirements

1. To ensure that a counterparty has established an internal governance process to assess the appropriateness of the initial margin model on a continuous basis, in accordance with Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities account for all relevant factors when assessing the governance arrangements of the internally implemented initial margin model.
2. Competent authorities shall ensure that the decision-making process of the counterparty regarding all aspects of initial margin models, including aspects relating to margin disputes, are clearly laid down in the counterparty's model governance framework and internal documentation, in accordance with Article 18(2) of Delegated Regulation (EU) 2016/2251.
3. To assess whether a counterparty is compliant with the requirements on internal governance, including requirements on the role of senior management and management body, internal organisation, the model development unit, audit, and internal validation, competent authorities shall verify whether a counterparty has a clear organisational structure for the governance and management of the model with well-defined, transparent and appropriate lines of responsibility, taking into account the nature, scale and complexity of the activities of the counterparty, and shall assess in particular all of the following:
 - (a) the role of the senior management and management body, in accordance with Article 27;
 - (b) the resources of the model development unit, in accordance with Article 28;
 - (c) the independence, the resources, the process for addressing the conclusions and recommendations of the audit function, in accordance with Article 29;

- (d) the adequacy and independence of the internal validation process, in accordance with Article 30;
- (e) the margin reconciliation and dispute settlement process, in accordance with Article 31;
- (f) the robustness of IT systems, in accordance with Article 32;
- (g) the completeness of policies and procedures for outsourcing in accordance with Article 33;
- (h) the quality and auditability of the documentation, in accordance with Article 34

Article 27

Senior management and management body

1. In assessing the soundness of the role of the senior management and management body as referred to in Article 26, competent authorities shall verify that the counterparty's senior management and management body are actively involved in and ensure that adequate resources are allocated to the management of the initial margin model.
2. Competent authorities shall verify that the senior management and the management body of the counterparty have a sound understanding of the internal margin model and are aware of the limitations and assumptions of the model used, and the impact those limitations and assumptions can have on the reliability of the output of the initial margin model. This verification should include at a minimum the following:
 - (a) that, following a proposal from the model development unit, the management body, or the committee designated by it, approves all relevant policies and procedures related to the implementation of the initial margin model, including the appropriate organizational structure, ensuring that the model is implemented with integrity;
 - (b) that the management body or the committee designated by it takes appropriate corrective action when weaknesses are identified in initial margin model including where those weaknesses are identified by the model development unit, the qualified parties tasked with the internal validation of the model, the audit function, or any other control functions of the counterparty;
 - (c) that the management body or the committee designated by it is aware of and follows up on, at least once a year, the recommendations raised by the audit function, the model development unit or the validation function in relation to the initial margin model;
 - (d) that, following a proposal from the model development unit, and after due consideration of the conclusions and recommendations raised in the internal validation and audit reports, the management body or the committee

- designated by it approves the methodologies, extensions and material changes applied to the initial margin model;
- (e) that the management body or the committee designated by it is aware of the model's ongoing performance, including under stress conditions as evidenced by:
 - (i) the back-testing referred to in Article 14(3) of Delegated Regulation (EU) 2016/2251;
 - (ii) the assessments resulting from the validation, internal audit and risk control function reporting;
 - (iii) internally developed statistics on reconciliation of initial margins and margin disputes between counterparties.
 - (f) that the model development unit provides notice to the management body or the committee designated by it of material changes to or extensions of the use of initial margin models.

Article 28

Model development unit

In assessing the internal governance of the counterparty in relation to the model development unit as referred to in Article 26(3)(b) of this Regulation, and in accordance with Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities shall verify in particular all of the following:

- (a) that the model development unit ensures the units responsible for originating, renewing, or trading exposures cannot alter the model implementation without appropriate control
- (b) That the model development unit is appropriately represented in the counterparty's decision-making bodies and is involved in the decision-making process;
- (c) That the model development unit is adequate and proportionate to the size of the counterparty and to the risks of the counterparty's business, and that it has the appropriate resources to perform its tasks effectively;
- (d) That the model development unit reports their findings concerning the analysis in points (e) and (f) to the senior management;
- (e) That the model development unit is responsible for the quantitative outcome of any initial margin model that the counterparty is using for the calculation of initial margins;
- (f) That the model development unit is responsible for producing reports on the output of the initial margin model controlling input data integrity, and analysing the output of the initial margin model, unless assigned to another independent risk unit.

Article 29

Audit process

1. For the purposes of assessing the independent review of the initial margin model as part of the audit process as referred to in Article 26, and in accordance with Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities shall verify that the audit is independent, that the resources assigned to it are appropriate and that the process established within the counterparty to address the recommendations coming from the audit is adequate, by verifying, in particular, all of the following:
 - (a) that the internal or external audit of the counterparty reviews all the initial margin models on at least an annual basis as referred to in Article 18(1)(b), of Delegated Regulation (EU) 2016/2251 and delivers the conclusions of that review in a report submitted to the counterparty's senior management and management body, as referred to in Article 27;
 - (b) that the report referred to in point (a) provides sufficient information to the counterparty's senior management and management body on the compliance of the initial margin model with all applicable requirements referred to in Article 18(1), point (c), of Delegated Regulation (EU) 2016/2251 and identifies and document at least on annual basis those the areas where it is necessary to carry out a detailed review of compliance with those requirements;
 - (c) that the audit is adequate, proportionate and performs its tasks effectively.
2. Competent authorities shall review the latest and other relevant reports produced by the audit in accordance with paragraph 1 and verify that remediations of issues identified by the audit are relevant, material, and credible.
3. Competent authorities shall verify whether a regular audit of the counterparty's compliance with the provisions of Chapter I, Section 4 of Delegated Regulation (EU) 2016/2251 and this Regulation takes place and whether appropriate remediation plans are being produced and followed.

Article 30

Internal validation process

1. For the purposes of assessing whether the internal validation process for an initial margin model as referred to in Article 26, meets the requirements in Article 18(1) of Delegated Regulation (EU) 2016/2251, competent authorities shall verify in particular all of the following:
 - (a) that the internal validation is conducted by personnel independent from the team responsible for the implementation of the initial margin model;
 - (b) that the internal validation process is adequately resourced, including staff that is sufficiently experienced and qualified to perform such tasks;
 - (c) that the performance of the model implementation is monitored on a continuous basis by conducting internal validation at least annually;

- (d) that such extensions or changes are approved by management body, or committee designated by it, and subject to internal validation before the application for validation is submitted to the competent authority;
 - (e) that the findings of the internal validation are reflected in a validation report and are remediated in a timely and documented manner;
 - (f) that the validation report is comprehensive and sound.
2. Competent authorities shall verify that, as part of the initial and ongoing internal validation of an initial margin model, the general structure of the model is internally validated, including at a minimum the following:
- (a) the appropriateness of the initial margin model and its underlying model assumptions and calibration processes;
 - (b) the performance of the initial margin model, making use of back-testing and other suitable statistical tests;
 - (c) the accuracy of the model implementation.

Article 31

Reconciliation process

1. Competent authorities shall assess the margin reconciliation process, in particular whether:
- (a) the counterparty has established a process to reconcile initial margin amounts with its counterparties, and to investigate, resolve and document material discrepancies;
 - (b) the counterparty has experienced frequent or unexplained disagreements or disputes with counterparties in the exchange of initial margin amounts under the pro forma model.
 - (c) as part of investigating material discrepancies, the counterparty identifies at least the following cases:
 - (i) the source of the discrepancy is linked to discrepancies in the trades, mapping of risk factors, valuation methods, or the calculation of sensitivities;
 - (ii) such disagreements or disputes are concentrated in specific product types or asset classes.
2. Competent authorities shall use the information obtained via the assessment referred to in paragraph 1, when assessing the quantitative requirements in accordance with section 2.

Article 32

Robustness of IT systems

1. For the purpose of ensuring that the initial margin model facilitates a timely, accurate and appropriately segregated exchange of collateral in accordance with Article 11(3) of Regulation 648/2012, competent authorities shall verify both of the following:
 - (a) whether the IT systems related to the initial margin calculation and exchange provide accurate results in a timely manner;
 - (b) whether appropriate remediation capabilities are in place in case of problems encountered in relation to the IT systems referred to in point (a).

Article 33

Outsourcing

1. Where a counterparty has outsourced to a service provider important or critical functions, activities or services relating to the implementation of an initial margin model, competent authorities shall verify that the outsourcing does not hinder the application of the assessment methodology referred to in this Regulation and, in particular, all of the following:
 - (a) that the senior management, as well as the management body or its risk committee, are actively involved in the supervision and decision-making over the important or critical functions, activities or services outsourced to a service provider and over the initial margin model obtained from a service provider;
 - (b) that the counterparty's own staff have sufficient resources including expertise, knowledge and understanding of the important or critical functions, activities or services delegated to third parties and of the structure of the initial margin model obtained from a service provider;
 - (c) that the counterparty has direct access to the relevant information of the outsourced functions, activities or services;
 - (d) that the continuity of the outsourced functions, activities or services is ensured, including by means of appropriate business contingency and continuity plans;
 - (e) that full access and audit rights are granted to the competent authority of the counterparty that outsourced important or critical functions, activities or services, in relation to all relevant information and the service provider cooperated with the competent authority in connection with the outsourced activities.

Article 34

Quality and auditability of the documentation

Competent authorities shall verify whether the documentation submitted by a counterparty in support of its application for the use of an initial margin model or

material extensions or changes to the initial margin model meets at least all of the following:

- (a) it is approved at the senior management level of the counterparty;
- (b) it is complete, consistent, accurate, and up-to-date, including all relevant information on the model, including its internal implementation;
- (c) it provides for the identification of, at the minimum, the author, reviewer, authorising agent and owner, dates of development and approval of the document;
- (d) it is version numbered and provides a comprehensive overview of the history of the amendments to the document;
- (e) it is sufficiently detailed to allow a knowledgeable third party to understand and replicate the set-up of the initial margin models and its processes.

SECTION 2 QUANTITATIVE REQUIREMENTS

Article 35

General aspects of the assessment of quantitative requirements

When verifying the compliance of a non-pro forma model, competent authorities shall apply Section 2 to assess the quantitative requirements:

- (a) completeness and accuracy of the positions, as set out under Article 36
- (b) material risk factors are identified and captured in the non-pro forma model, as set out under Article 37
- (c) significant foreign exchange risk factors are incorporated in the non-pro forma model, as set out under Article 38
- (d) significant interest rate risk factors are incorporated in the non-pro forma model, as set out under Article 39
- (e) significant equity risk factors are incorporated in the non-pro forma model, as set out under Article 40
- (f) significant commodity risk factors are incorporated in the non-pro forma model, as set out under Article 41
- (g) significant credit spread risk factors are incorporated into the non-pro forma model, as set out under Article 42
- (h) maturity mismatches are recognised within the non-pro forma model and treated accordingly, as set out under Article 43
- (i) non-linear dependencies are recognised within the non-pro forma model and treated accordingly, as set out under xx, as set out under Article 44

- (j) the model uses assumed variations based on a one-tailed 99 percent confidence interval over a MPOR of at least 10 days, as set out under Article 45
- (k) parameter calibration is to be performed at least annually, based on historical data from a time period with a minimum duration of 3 years and maximum duration of 5 years, set out under Article 46
- (l) procedures for the adjusting the value of the margins to be exchanged due to a change the parameters caused by a change in market conditions, as set out under Article 47
- (m) data quality standards adhere to minimum standards, as set out under Article 48
- (n) the use and verification of proxies, as set out under Article 49
- (o) prevention of netting across risk classes, as set out under Article 50
- (p) independent and thorough back testing, as set out under Article 51

Article 36

Completeness and accuracy of the positions

Competent authorities shall assess the completeness and accuracy of all positions captured by the model, when assessing the appropriateness of the model as referred to in Article 18 of Delegated Regulation (EU) 2016/2251. In particular, competent authorities shall:

- (a) verify that the counterparty has established robust procedures to ensure that all relevant positions are correctly and fully included in the population of positions subject to the initial margin calculation;
- (b) assess the process by which positions are sourced, validated, and reconciled between front-office systems, back-office systems and the non pro forma model, including controls to detect and correct any omissions or inaccuracies;
- (c) require the counterparty to demonstrate the traceability of positions from trade capture through to their inclusion in the initial margin calculation.

Article 37

Material risk factors

1. When assessing the counterparty's compliance with the first subparagraph of Article 14(2) of Delegated Regulation (EU) No 2016/2251 competent authorities shall:
 - (a) assess policies and metrics of the counterparty as regards how risks are identified, and what triggers the inclusion of a new risk factor in the initial margin model;
 - (b) assess whether the policies are sufficiently detailed and the metrics used to assess the materiality of a risk factor are suitable for ensuring the inclusion

- of all material risks for the netting sets for which the counterparty uses the model;
- (c) assess whether the counterparty monitors the performance of the model as regards the inclusion of all material risks for its netting sets, and whether there is any policy requiring actions in case the model does not capture the corresponding material risks.
2. For the purpose of the assessment referred to in paragraph 1, point (c), competent authorities may require the counterparty assess whether material risks are captured on the most material netting sets. For this purpose, the competent authority may assess the overshootings that those netting sets have faced, and shall identify whether there are structural deficiencies, for example, the absence of a risk factor, that can explain observed material weaknesses, where applicable.

Article 38

Foreign exchange risk factors

When assessing the counterparty's compliance with Article 14(2), point (a) of Delegated Regulation (EU) No 2016/2251, competent authorities shall verify that all foreign exchange risk factors reflecting the spot exchange rate between two currencies are included in the model. For this purpose, the competent authority may verify that the model documentation specify that all spot exchange rates are shocked to determine the initial margin for its netting sets.

Article 39

Interest rate risk factors

1. When assessing the counterparty's compliance with Article 14(2), point (b), of Delegated Regulation (EU) No 2016/2251, in relation to requirement for an initial margin model to incorporate interest rate risk factors corresponding to the denomination of the individual currencies of the contracts in the netting set, the competent authority shall assess the policies of the counterparty in relation to the inclusion of interest rate risk factors, and shall verify:
- (a) that there are interest rate risk factors for each currency for which the model may be used to exchange margin;
 - (b) that different curves are treated separately, including curves referencing a different tenor and inflation curves;
 - (c) that for major currencies, all of the following criteria apply:
 - (i) the counterparty's internal policies have established criteria to decide on the number of risk factors to be used to model a curve, and that such criteria are based on the materiality of the curves;
 - (ii) at least six maturity buckets are used to model yield curves where the exposure is material and where the yield curve is for a currency which is one of the most liquid, as referred to in Annex I to Commission Delegated Regulation (EU) 2022/2058 of 28 February 2022;

- (iii) the criteria referred to in point (i) are accompanied by an analysis showing that the number of risk factors used allows for the volatility across different tenors to be captured;
 - (d) verify that the basis risk between any two given curves is either implicitly captured by the fact that two curves are modelled directly, or by the fact that a basis curve representing the difference between those two curves is included in the initial margin model;
 - (e) verify that vega risk is sufficiently captured by verifying that the counterparty's internal policies have established criteria to decide on the number of risk factors to be used to model a surface, and that such criteria allows for the volatility across different points of a surface to be captured.
2. For the purposes of paragraph 1, point (c), where the number of risk factors used to model a curve may not be appropriate in the context of a currency that is not major, but is material for the counterparty, the competent authority may require the counterparty to show that the number of risk factors used still allows for the volatility across different tenors to be captured, in light of the actual exposures held by the counterparty.

Article 40

Equity risk factors

1. When assessing the counterparty's compliance with Article 14(2), point (e) of Delegated Regulation (EU) No 2016/2251, competent authorities shall verify that the model ensures that each equity on a single name and index is shocked and treated separately. For single names, the competent authority shall verify that the counterparty either models directly the risk factor corresponding to the equity name, or it does so by means of a systematic and idiosyncratic risk factor that are both shocked.
2. As part of the assessment of paragraph 1, competent authorities shall:
 - (a) verify that the basis risk between two different equity names is captured by either modelling the two equity names directly or by means of a basis risk factor;
 - (b) assess whether the risk in changes in equity curves is duly captured by ensuring that for material curves, a sufficient number of risk factors used allows for the volatility across different tenors to be captured;
 - (c) Verify that vega risk is sufficiently captured by verifying that the counterparty's internal policies have established criteria to decide on the number of risk factors to be used to model a surface, and that such criteria allows for the volatility across different points of a surface to be captured.

Article 41

Commodity risk factors

1. When assessing the counterparty's compliance with Article 14(2), point (e) of Delegated Regulation (EU) No 2016/2251, competent authorities shall verify that the model ensures that each commodity and commodity index is shocked and treated separately.
2. As part of the assessment of paragraph 1, in relation to the modelling of commodity risk, competent authorities shall:
 - (a) verify that the basis risk between similar but not identical commodities towards which the counterparty has material exposure is captured, including the basis risk stemming from a different place of delivery and basis due to maturity mismatches. When making this assessment, the competent authority shall verify that the counterparty models two different commodities directly or captures the basis by means of a basis risk factor;
 - (b) assess whether the risk in changes in commodity curves is duly captured by ensuring that for material curves, a sufficient number of risk factors used allows for the volatility across different tenors to be captured;
 - (c) verify that vega risk is sufficiently captured by verifying that the counterparty's internal policies have established criteria to decide on the number of risk factors to be used to model a surface, and that such criteria allows for the volatility across different points of a surface to be captured.

Article 42

Credit spread risk

1. When assessing the counterparty's compliance with Article 14(2), point (g) of Delegated Regulation (EU) No 2016/2251, competent authorities shall verify that the model ensures that each issuer credit spread and credit spread index is shocked and treated separately. For single names, the competent authority shall do by verifying that the counterparty either models directly the risk factor corresponding to the issuer, or it does so by means of a systematic and idiosyncratic risk factor that are both shocked.
2. As part of the assessment of paragraph 1, competent authorities shall:
 - (a) verify that the basis risk between two different issuer names is captured by either modelling the two names directly or by means of a basis risk factor;
 - (b) assess whether the risk in changes in credit spread curves is duly captured by ensuring that for material curves, a sufficient number of risk factors used allows for the volatility across different tenors to be captured;
 - (c) verify that vega risk is sufficiently captured by verifying that the counterparty's internal policies have established criteria to decide on the number of risk factors to be used to model a surface, and that such criteria allows for the volatility across different points of a surface to be captured.

Article 43

Maturity mismatches

When assessing the counterparty's compliance with Article 14(2), point (h) of Delegated Regulation (EU) No 2016/2251, competent authorities shall verify that the model is such that it implies that positions that are not identical are not netted and that the residual risk that is present between two similar, while not identical positions, is captured.

Article 44

Non-linear dependencies

When assessing the counterparty's compliance with Article 14(2), point (i) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:

- (a) assess for which risk factors the counterparty's initial margin model includes second-order sensitivities, such as gamma and cross-gamma terms, and whether the model directly captures curvature risk arising from non-linear dependencies;
- (b) verify, for netting sets with material vega or gamma risk, that back-testing of those netting sets does not reveal a cluster of overshootings or significant overshootings attributable to unmodelled non-linearities;
- (c) assess whether the counterparty has internal processes in place to identify non-linearities that are not captured by the model but have a material impact on the profit and loss of the netting set, and whether there is a policy requiring the exclusion of such netting sets from the scope of the initial margin model and their treatment under the standardised method for the calculation of the initial margin whenever significant non-linearities remain uncaptured by the model.

Article 45

Confidence Level and MPOR

1. When assessing compliance with the requirement that the initial margin model uses assumed variations based on a one-tailed 99 percent confidence interval over a MPOR of at least 10 days in accordance with Article 15 of Delegated Regulation (EU) No 2016/2251, the competent authority shall:
 - (a) assess how the model ensures that the 99th percentile confidence level is achieved by analysing for example the level of shocks applied and assessing how the corresponding losses are determined in analytical models or the simulation of the loss distribution in simulation based models;
 - (b) assess how the model takes into account the MPOR, and ensures that this is at least 10 days and review whether the model considers risks of a MPOR longer than 10 days;
 - (c) assess whether the counterparty monitors events and circumstances that would warrant longer a MPOR longer than 10 days;

- (d) assess whether the counterparty has in place mitigation measures to address potential risks of increased liquidation periods longer than those considered in the model;
2. Where in accordance with Article 16(6) of Delegated Regulation (EU) No 2016/2251, the counterparty uses first a shorter period than the MPOR to calibrate parameters, and it then rescales them so as to obtain parameters reflecting the MPOR horizon, competent authority shall:
- (a) require a detailed explanation of the methodology for both calibrating on shorter periods and adjusting parameters to the MPOR;
 - (b) ensure empirical data supports the assumptions underlying the adjustment methodology, including statistical properties and distribution assumptions;
 - (c) assess that the adjustment methodology does not systematically underestimate initial margins compared to calibrating directly over the MPOR horizon.

Article 46

Parameter calibration

1. When assessing the counterparty's compliance with Article 16(1) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:
- (a) require the counterparty to provide the time series used to calibrate shocks and correlations and form a view on the appropriateness of shocks and correlation levels;
 - (b) confirm that recalibrations occur at least annually;
 - (c) assess the counterparty's policies on circumstances triggering more frequent calibration in accordance with Article 16(7) of Delegated Regulation (EU) No 2016/2251, and whether the following events are contemplated:
 - (i) volatility and correlation regime shifts;
 - (ii) overshootings or margin shortfalls linked to inappropriate parameter levels;
 - (d) assess whether the counterparty monitors whether the shocks applied to the risk factors remain appropriate in the context of a change in volatility regimes and the circumstances where the counterparty decided to perform adjustments as set out in Article 16(8) of Delegated Regulation (EU) No 2016/2251 and as assessed in accordance with Article 47.
 - (e) assess whether the counterparty policies include mitigating actions to be taken when the shocks are no longer considered appropriate due to a shift in volatility regime but an ad-hoc recalibration is not deemed necessary. This assessment shall be performed in conjunction with the assessment referred to in Article 47 relating to the procedures adjusting margin levels.
 - (f) verify that the historical period used in each calibration meets the minimum and maximum duration requirements, whether different periods are applied

for different risk classes, and assess the rationale for the chosen calibration window and how the choice made affects the initial margin levels.

2. When assessing the counterparty's compliance with Article 16(2) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:
 - (a) require identification of the stressed period used in each calibration and evidence that it constitutes at least 25% of the total data;
 - (b) confirm that at least one distinct stress period is identified per asset class, reflecting historically observed risks of risk factors in each class;
 - (c) where a single period of stress is applied for an entire asset class, require an impact analysis comparing parameter outcomes from different stress periods calibrated on subsets of risk factors within the asset class;
 - (d) where different periods of stress are used within an asset class, assess how the granularity to identify different stress periods is set, and assess whether that such level of granularity is appropriate;
 - (e) verify that the proportion of stressed data identified at least for each asset class in accordance with Article 16(4) reaches or exceeds 25% for each risk factor and the associated parameters, considering different stress periods across risk classes;
 - (f) assess the counterparty's definition of significant financial stress for each asset class, and compare it to standard definitions, ensuring alignment with commonly accepted stress events such as the 2007-2008 financial crisis or the COVID-19 pandemic;
 - (g) Where stressed data does not initially constitute 25% of calibration data, the competent authority shall:
 - (i) require the counterparty to document the process and criteria for replacing non-stressed data with stressed data;
 - (ii) verify consistency between the stressed period selected for replacement and the counterparty's definition of financial stress;
 - (iii) confirm that the replacement results in a final calibration dataset with at least 25% stressed data;
 - (iv) ensure that detailed records are maintained on replacements, including the rationale for specific stressed periods and their impact on parameters.
 - (h) verify that the counterparty tests the appropriateness of the stress period chosen on the basis of its actual positions.
3. When assessing the counterparty's compliance with Article 16(5) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:
 - (a) require documentation of the data weighting methodology;
 - (b) verify that each data point in the calibration period contributes equally to parameter estimates.

Article 47

Adjustment procedures

When assessing the counterparty's compliance with Article 16(8) of Delegated Regulation (EU) No 2016/2251 competent authorities shall:

- (a) obtain a clear understanding of those procedures, and assess whether those procedures adjusting the value of the margins to be exchanged only cater for changes in market conditions, or whether other circumstances where the model does not performed as intended are considered;
- (b) verify that the procedures referred to in point (a) are adequately documented and they are consistent with the mitigation measures referred to in Article 45(1)(d).
- (c) review practical implementation of such procedures through examples, triggers;
- (d) verify that the counterparty tracks the use of policies adjusting margins and builds statistics on usage patterns, to identify potential systemic issues in the model in the context of some netting sets or financial instruments;
- (e) assess whether the statistics referred to in point (d) hints to potential weaknesses in the model in the context of some netting sets or financial instruments.

Article 48

Data quality standards

1. When assessing whether the counterparty's data standards meet the minimum standards for the initial margin model to be considered reasonably accurate, the competent authority shall verify that:
 - (a) the counterparty documents, as part of its internal policies, any methodology used to fill in time series with missing data points, and that such documentation includes sound analysis showing that those methodologies do not affect the risk factors' volatilities and correlations;
 - (b) the counterparty established objective criteria setting out which methodology to fill in time series is used, where more than one methodology is available, and documented those criteria in its internal policies;
 - (c) the counterparty establishes, as part of its internal policies, the process to be followed whenever the values in a time series are changed, and that such process includes the documentation of the performed changes;
 - (d) the filtering of data, including flooring, capping and exclusions of outliers, is not performed unless the counterparty is able to demonstrate that the excluded data point relates to erroneous or stale data, and that it documents such an exclusion;
 - (e) the counterparty performs periodic quality checks on the time series used for the computation of the initial margin, and that those checks and the

corresponding results are documented. When making this assessment, the competent authority shall verify whether those checks monitor, for each time series, all the following:

- (i) the number of days for which data points were initially missing and were then filled in using a particular methodology;
 - (ii) the number of days for which data points were initially available and have been replaced using a particular methodology;
 - (iii) the number of days with no daily changes;
 - (iv) the maximum number of consecutive days with no daily change;
 - (f) the counterparty analyses, as part of the checks referred to in point (e), the effect that missing or replaced data and the methodology used to obtain the time series have on the risk factors' volatilities and correlations;
 - (g) the data quality of the time series used by the counterparty is appropriate. When making this assessment, the competent authority shall apply the assessment method referred to in paragraph 2.
2. For the purpose of the assessment method referred to in paragraph 1, point (g), the competent authority shall:
- (a) require the counterparty to provide a comprehensive overview of their time series used in the model. For each time series used, the overview shall include at least:
 - (i) the total number of days in the historical observation period used to calculate the initial margin;
 - (ii) the number of days with missing data in the time series before any adjustment is introduced by the counterparty;
 - (iii) the number of days without any daily change in the time series before any adjustment is introduced by the counterparty;
 - (iv) the maximum number of consecutive days without any daily change in the time series before any adjustment is introduced by the counterparty;
 - (v) the number of days for which data were initially available in the time series but were excluded or changed by the counterparty before being used in the calculation of the initial margin;
 - (b) based on the overview referred to in point (a):
 - (i) identify those times series used for risk factors that may be affected by low data quality. Where appropriate, the competent authority may use the following indicators as a basis for such identification:
 - a. time series with less than 10% of initially available data points;
 - b. time series with 20 consecutive business days without any daily change;

- c. time series with more than 20% of days with no changes;
 - d. time series for which more than 50% of the initially available data have been changed;
- (ii) require the counterparty to justify the use of those time series;
- (c) based on the overview referred to in point (a), select a sample of time series that are characterised by a high number of data points initially missing, and apply the following steps:
- (i) require the counterparty to provide the time series with the initial data points only, and the time series after they have been filled in;
 - (ii) verify that the time series have been filled in in accordance with the methodologies envisaged in the internal policies as referred to in paragraph 1, points (a) and (b), and that such methodologies are appropriate for the case at matter;
- (d) based on the overview referred to in point (b), select a sample of time series characterised by a high number of data points that were initially available but have been substituted by other data points, and apply the following steps:
- (i) require the counterparty to provide the time series with the initial data points only, and the time series after data points in the time series have been substituted;
 - (ii) verify that the data points have been replaced in accordance with the methodologies envisaged in the internal policies as referred to in paragraph 1, points (a) and (b), and that such methodologies are appropriate for the case at matter.

For risk factors for which proxy data are used, the assessment shall be performed on the proxy time series.

Article 49

Proxies

When assessing the counterparty's compliance with Article 16(10) of Delegated Regulation (EU) No 2016/2251, in relation to the use of proxies, competent authorities shall:

- (a) assess whether the counterparty monitors for the most material OTC derivative contracts for which available data is considered sufficient and reflective of the true volatility of their OTC derivative contract or portfolio of OTC derivative contracts whether the shocks and correlations used in the model are in line with the available data or whether the counterparty has in place remediation measures that are implemented in case the shocks and correlations are not leading to conservative level of margins;
- (b) assess whether the counterparty monitors for the most material OTC derivative contracts or portfolio of OTC derivative contracts for which data is considered insufficient or not reflective of the true volatility whether the

model leads to a conservative level of margins or whether the counterparty has in place other remediation measures that are implemented in case the margins are not sufficiently conservative.

Article 50

No netting across risk classes

When assessing the counterparty's compliance with Article 17(1) of Delegated Regulation (EU) No 2016/2251, competent authorities shall:

- (a) verify that diversification, and risk offsets are only recognized within the same asset class and that the shocks applied in the initial margin model do not combine exposures across asset classes;
- (b) verify whether internal policies adequately define the asset class boundaries and the treatment of positions spanning correlated but distinct asset class.

Article 51

Back-testing requirements

1. The competent authority should assess that back-testing is appropriately designed and performed to evaluate model performance in accordance with Article 14(3)-14(5) of Delegated Regulation (EU) No 2016/2251 by assessing:
 - (a) verify that the unit of the counterparty performing the back-testing is independent from the trading units responsible for originating, renewing or trading exposures;
 - (b) assess how back-testing is performed, including in relation to the technical elements included or excluded from the realised market values of non-centrally cleared derivatives;
 - (c) verify that the counterparty assesses the impact of the assumptions made in the back-testing programme, at least in the context of the validation referred to in 18(1) point (a) of Delegated Regulation (EU) No 2016/2251;
 - (d) verify that the counterparty applies the same pricing methods, model parametrisations, market data and any other techniques used in the counterparty's end-of-day valuation process, or a close approximation of it, and that where it applies a Taylor series approximation as pricing method approximation, the counterparty computes at least the material first- and second order terms to reflect the change in the market value of the non-centrally cleared OTC derivative contracts in the netting set;
 - (e) verify that the counterparty ensures that, where the model does not cover all asset classes referred to in Article 17(2) of Delegated Regulation (EU) 2016/2251, the change in the market value of the non-centrally cleared OTC derivative contracts in the netting set only encompasses the change in the

market value of the non-centrally cleared OTC derivative contracts in the netting set stemming from instruments covered by the initial margin model;

- (f) assess whether the counterparty has implemented a robust process to monitor the results of back-testing for each netting set subject to the initial margin model and that this process includes:
- (i) Establishing and maintaining written procedures to identify, record, and evaluate instances of overshooting, defined as occasions where actual variation in the value of positions exceeds the model's predicted initial margin level.
 - (ii) Establishing clear thresholds for the number of overshootings over the back-testing horizon, corresponding to zones indicating:
 - a. A green zone where the number of overshootings is low and consistent with the statistical confidence level of the model. A counterparty shall allocate a netting set to this zone where the probability that the observed deviations are compatible with a model that fulfil regulatory requirements is greater than or equal to 5%.
 - b. A yellow zone where the number of overshootings moderately exceeds expected levels. A counterparty shall allocate a netting set to this zone where the probability that the observed deviations are compatible with a model that fulfil regulatory requirements is lower than 5% and greater than or equal to 0.1%.
 - c. A red zone where the number of overshootings significantly exceeds expected levels. A counterparty shall allocate a netting set to this zone where the probability that the observed deviations are compatible with a model that fulfil regulatory requirements is lower than 0.1%.
 - (iii) Comparing these following two numbers and assessing the root-causes behind any material deviations where present:
 - a. The total number of netting sets classified as green, yellow, and red.
 - b. The expected number of netting sets in each classification, based on the total number of netting sets and the probability thresholds defined in point (ii);
 - (iv) Periodically reporting back-testing outcomes to senior management, the management body or the committee designated by it.
 - (v) On an ad-hoc basis, when back-testing indicates that the hypothesis of correct model calibration should be rejected for material netting

- sets, escalate to senior management, the management body or the committee designated by it;
- (vi) Maintaining sufficient records to demonstrate the consistency of back-testing results with the model's calibration assumptions over time, including historical trends in overshooting frequencies.
- (g) assess whether the counterparty has defined appropriate actions in case the results are not broadly consistent with the expectations referred to in point (f)(iii) and there is a systematic pattern of excessive overshootings indicating weaknesses in the initial margin model.
- (h) verify that, on a quarterly basis, the counterparty selects, if available, a sample of 15 red-zone, 10 yellow-zone, and 5 green-zone netting sets with the highest margin average shortfalls, and performs a single, consolidated analysis of the back-testing results for this sample, to that end the competent authority shall identify common patterns and root causes of overshootings across the sample, including model deficiencies, inappropriate parametrisations, data issues, and portfolio-specific characteristics, and the counterparty shall document any material trends and the actions taken to address material weaknesses. Where more than one type of back-testing is performed, each netting set shall be categorised according to the most severe zone classification it receives across all back-tests, and its margin average shortfall shall be the highest observed for that netting set in the back-test(s) corresponding to that classification.
2. For the purpose of this Regulation, the margin average shortfall for back-testing for each netting set ns shall be the average zero floored additional margin over all T days in the back-testing period, multiplied by 100, and calculated as follows:

$$MAS_s^{ns} := 100/T \sum_{t=1}^T \max(0, A_{s,t}^{ns})$$

Where:

- MAS_s^{ns} — denotes the margin average shortfall for each netting set.
- $A_{s,t}^{ns} = PL_t^{ns} - IM^{ns}$ — denotes the additional margin required to cover the exceedance of IM observed when an overshooting occurs.
- PL_t^{ns} — denotes the change in the market value at date t over the time horizon used to compute the backtesting.
- IM^{ns} — denotes the initial margin amount computed by the initial margin model, against which overshootings are identified.

Article 52

Entry into Force

1. This Regulation shall enter into force 20 days after its publication in the Official Journal of the European Union.

2. This Regulation shall apply from 1st January 2028 with the exception of counterparties that have, or belong to a group that has, an aggregate average notional amount of non-centrally cleared derivatives (AANA) that is above EUR 750 billion and below or equal to EUR 2 250 billion, calculated in accordance with Article 39 of Delegated Regulation (EU) 2016/2251 for the months March, April and May of the most recent calendar year. For these counterparties, this Regulation shall apply from 1st July 2028.

Accompanying documents

Draft cost-benefit analysis / impact assessment

This analysis presents the IA of the main policy options included in the Consultation Paper (CP) on regulatory technical standards (RTS) on Initial Margin Model Validation (IMMV).

Where relevant, it refers to the IA provided in the Final Draft Regulatory Technical Standards on Initial Margin Model Validation under article 11, paragraph 15 (aa) of Regulation (EU) No 648/2012 of the European Parliament and of the Council 4 July 2012 on OTC derivatives, central counterparties and trade repositories (EMIR) (RTS 2023/04) ('July 2023'), which was published in July 2023. Changes under Regulation (EU) 2024/2987 ('EMIR 3') meant that the Commission did not endorse (RTS 2023/04), and instead issued to the EBA a new mandate which this RTS partially addresses. Nonetheless, there is significant overlap between this RTS and RTS 2023/04, and this IA refers to the evidence and conclusion of the IA to RTS 2023/04 where relevant.

A. Problem identification and background information

In December 2024, EMIR 3 introduced new provisions for the use of initial margin models by counterparties used in the calculation of initial margins for non-centrally cleared OTC derivatives. It also assigned a new role for the EBA as a central validator of pro forma models (such as ISDA SIMM), to be performed before a competent authority can authorise the use of the pro forma model at counterparty level.

Included in EMIR 3 was a mandate under 11 (15 aa) that, in order to ensure consistent application of the article, the ESAs shall develop common draft regulatory technical standards specifying the supervisory procedures, to ensure initial and ongoing validation of the risk-management procedures applied by credit institutions authorised in accordance with Directive 2013/36/EU and investment firms authorised in accordance with Directive 2014/65/EU that have, or belong to a group that has, a monthly average outstanding notional amount of non-centrally cleared OTC derivatives of at least EUR 750 billion.

The risk management procedures used by counterparties in the calculation of initial margin are set out in Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories with regard to regulatory technical standards for risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty (the Joint ESA RTS).

The new mandate superseded the July 2023 RTS for which a Final Draft Regulatory Technical Standards had already been published. In the policy development of the July 2023 RTS, a survey was conducted of competent authorities on the size of AANA of firms in scope of the RTS.

A conclusion of the IA of the July 2023 RTS was that the full supervisory procedures for assessing validation that it set out, should only apply to counterparties with an AANA of more than EUR 750bn, or counterparties in a group with an aggregate average notional amounts AANA of EUR

750bn. This threshold was chosen as it covered the great majority of the market and confirmed by the results from a survey by the EBA of 17 Competent Authorities. The new RTS mandate under 11 (15) aa, (ie. which this IA assesses) applies to this scope of counterparties .

B. Policy objectives

The draft proposed RTS have been developed following Article 11 (15) (aa) of EMIR 3.0. They aim to

- ensure proportionate supervisory procedures that are used consistently by competent authorities while still allowing for supervisory judgment to be exercised according to the specificities of the counterparty and portfolio, supporting a level playing field for counterparties
- identify documentation and supervisory procedures that support an efficient authorisation process.

C. Baseline scenario

Without the RTS in place, competent authorities will authorise initial margin models of counterparties without common supervisory procedures within six months of receipt of application (point 3 of Article 11 (3) EMIR). This is likely to result in divergent approaches, duplicative work, and multiple supervisory procedures on counterparties within the same group that cannot be relied on between competent authorities because they do not share common supervisory procedures.

D. Options considered

There is a close overlap in the firms identified for full supervisory procedures in the July 2023 RTS and the current RTS, and that the previous RTS had been subject to a full consultation and IA. It is appropriate to assess to what extent the requirements for full supervisory procedures in the July 2023 RTS can be maintained in this RTS.

Policy issue 1 – Standards of qualitative requirements

Option 1a: Require the same procedures for internal controls, organisation and governance as set out in the previous RTS for full supervisory procedures.

Option 1b: Change the procedures for internal controls, organisation and governance previous RTS for full supervisory procedures.

The previous RTS included supervisory procedures for the qualitative requirements, including for outsourcing, internal model governance, senior management and management board, model development unit audit process, internal validation, robustness of IT infrastructure, and the quality and auditability of the documentation.

The new role of EBA as a central validator will provide validation of proforma models, such as the ISDA SIMM. The validation of the proforma model will consider aspects of the model that are not entity or portfolio specific, and therefore will not assess the elements noted above. It is therefore possible to maintain these requirements in the current RTS.

The qualitative supervisory procedures are appropriate for the range of firms captured by the RTS.

The qualitative requirements under Article 21 of the Joint ESA RTS sets out high level requirements on internal governance process, the independence and competence of staff performing validation, and auditing of the model.

The majority of counterparties will be subject to similar qualitative requirements via other legislation. For examples under DORA, the majority of counterparties will be subject to requirements including ICT Risk Management Framework, Third Party Risk Management, and Operational Resilience Testing. EBA Guidelines on internal governance under Directive 2013/36/EU, including role and responsibilities of the management body, organisational framework, outsourcing policy, internal control framework and independence of internal control functions. One option is to remove supervisory procedures for these requirements given the overlap with other legislation that the firms will be assessed against.

A disadvantage of this approach is that without outlining supervisory procedures, this will result in divergent approaches across competent authorities, including potentially not assessing the requirements if not explicitly included in the current RTS.

However relying on the implementation and supervision of other legislation risks that competent authorities will not consistently assess the legislations' relevance in the context of initial margin model authorisation and may not establish appropriate supervisory procedures.

Furthermore this approach would rely on all counterparties being subject to the same requirements under legislation and that revisions to other legislation will be line with the qualitative requirements for initial margin models under the Joint ESA RTS.

Option 1a is therefore assessed as the more appropriate choice given it will ensure a sufficient consistency of supervisory procedures among competent authorities

Policy issue 2 – Standards of Supervisory Procedures for quantitative elements

Option 2a: Require the same procedures for quantitative as the previous RTS for full supervisory procedures

Option 2b Further align supervisory procedures for quantitative elements with the Joint ESA RTS requirements.

The requirements for initial margin models are set out in the Joint ESA RTS under Article 14 (Calculation of initial margin) and Section 4 of the RTS (Approaches to the calculation of initial margin). The supervisory procedures should therefore address these requirements. The previous RTS did this, with the exception of more detailed instructions on back-testing requirements (establishing that counterparties subject to full supervisory procedures should perform both dynamic and static backtesting) and the ' margin average shortfall.

The previous RTS included supervisory procedures for both dynamic and static back-testing (to be applied in a proportionate way), including defining the time horizon and assessment of

performance (using the traffic lights approach). It made the policy choice of the use of the Margin Average Shortfall in favour of the ISDA Green Shortfall¹⁰.

While the supervisory procedures laid down in the July 2023 RTS establish a proportionate approach to the assessment of back-testing, the requirements on counterparties set down in the Joint ESA RTS are broader, and do not specify whether back-testing should be static or dynamic, and do not specify the time horizon(s)¹¹.

This implies the removal also of the Margin Average Shortfall as a supervisory measure. However MAS can be applied with minimal effort by counterparties and adjusted to their back testing approach. The Margin Average Shortfall is an objective and easily applied supervisory measure that can be applied by counterparties in their back-testing, allowing supervisors to identify netting sets which require more in-depth overshooting analysis. In the IA for the July 2023 RTS it was identified that MAS has some benefits over other measures, such as ISDA Green Shortfall, as it works consistently for all netting sets and is smoother regarding the impact of single overshootings. However it is noted that it resembles an expected shortfall measure, which is not directly comparable to the Initial Margin, which relies on a Value-at-Risk measure. Therefore, while MAS could be maintained as a supervisory test to help prioritise netting settings for further analysis, the use of MAS results should be subject to competent authorities' supervisory judgement.

Option 2b is assessed as the more suitable option given the greater proportionality it offers competent authorities and that it does not impose new criteria on counterparties in the validation of initial margin models.

E. Cost-Benefit Analysis

As a baseline scenario, irrespective of the current RTS, competent authorities will have to authorise initial margin models under Article 11 (3) of EMIR. The costs of staff, training and communication with counterparties are therefore already ongoing costs for competent authorities. The RTS therefore does not impose new costs but will allow for consistency between competent authorities in approach, and importantly the right to rely on other competent authorities' assessments where relevant, and that of internal control functions of counterparties and other third-party assessments. This may reduce the required resource for the authorisation process. For counterparties in scope of initial margin model authorisation, this RTS imposes no new costs, as the requirements that fall to them are outlined under the Joint ESA RTS. The RTS may reduce the cost of compliance for groups subject to the Article 11 (3) of EMIR as common parts of their authorisation application (for example on the qualitative elements of the assessment), may be duplicated across counterparties'

¹⁰ The ISDA Shortfall can be described as the least amount of additional margin to make a netting set green in the back-testing traffic light approach

¹¹ Article 20, Integrity of the modelling approach:

4. A counterparty shall monitor the performance of the model on a continuous basis. The performance analysis shall include a comparison between the risk measures generated by the model and realized market value of the derivatives in the netting set ('back-testing') every three months. The counterparties shall retain records of the results of that analysis.

5. The risk management procedures shall outline the methodologies used for undertaking back-testing, including statistical tests of performance.

6. The risk management procedures shall describe what results of the back-testing would lead to a model change, recalibration or other remediation action.

7. The modelling approach shall reflect the nature, scale and complexity of the risks inherent in the underlying OTC derivative contracts. The initial margin model shall reflect factors like parameter uncertainty, correlation, basis risk and data quality in a prudent manner.

authorisation applications, especially if they have centralised control functions and outsourcing agreements.

Overview of questions for consultation

1. Are there additional elements of either pro forma based models or models not based on pro forma models that these draft RTS should identify validation techniques for?
2. Are there elements of either pro forma based models or models not based on proforma models that these draft RTS should include to add further proportionality in the supervisory procedures used for authorisation?
3. Do you have any comments on the qualitative requirements for pro forma models?
4. Do you have any comments on the quantitative requirements for pro forma models?
5. Do you have any comments on the qualitative requirements for models not based on pro forma models?
6. Do you have any comments on the quantitative requirements for models not based on pro forma models?