

# Supervisory Statement | SS12/13

# Counterparty Credit Risk

December 2023

(Updating July 2021)



BANK OF ENGLAND  
PRUDENTIAL REGULATION  
AUTHORITY

Near final





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## 1 Introduction

1.1 This supervisory statement (SS) is addressed to firms that are subject to the provisions of the Capital Requirements Regulation (CRR). This statement:

- clarifies the Prudential Regulation Authority's (PRA) expectations as to the inclusion of securities financing transactions (SFTs) in the calculation of the credit valuation adjustment capital requirement;
- clarifies the identification of qualifying central counterparties;
- sets out the factors which the PRA expects such firms to take into account when applying for certain permissions related to the counterparty credit risk regulatory framework; and
- sets out the PRA's approach to model changes for Internal Model Method (IMM) models [and Value-at-Risk (VaR) models used for SFTs ('SFT VaR Method' models)].

1.2 This statement should be considered in addition to the requirements in [Article 162 of the Credit Risk: Internal Ratings Based Approach (CRR) Part of the PRA Rulebook]; the Credit Valuation Adjustment Risk, Counterparty Credit Risk (CRR) [and Credit Risk Mitigation (CRR)] Parts of the PRA Rulebook; and the high level expectations outlined in 'The PRA's approach to banking supervision'.<sup>1</sup>

## 2 Factors which the PRA expects firms to take into account when applying for certain permissions related to the counterparty credit risk regulatory framework.

### Use of 'Internal CVA model' for the calculation of the maturity factor 'M'

2.1 This section sets out the PRA's expectations for granting a firm permission to use its own one-sided credit valuation adjustment internal models (an 'Internal CVA model') for the purpose of estimating the Maturity factor 'M', as proposed under [CRR Article 162(2)(h) of the Credit Risk: Internal Ratings Based Approach (CRR) Part.]

2.2 The Maturity factor 'M' is intended to increase own funds requirements to reflect higher risks associated with medium and long-term over the counter (OTC) derivative portfolios where the exposure profile of contracts extends beyond one year. The adjustment is only applicable to firms using the Internal Model Method (IMM) for the calculation of exposure values.

2.3 Subject to permission being granted by the PRA, firms may replace the formula for the Maturity factor 'M', as set out in [CRR Article 162(2)(g) of the Credit Risk: Internal Ratings Based Approach (CRR) Part], with the 'effective credit duration' derived from the firm's Internal CVA model.

2.4 Internal CVA models are complex by nature and modelling practices vary significantly across the industry. The PRA considers the creation of an acceptable model resulting in an appropriate credit duration to be challenging. Accordingly, the PRA expects firms to demonstrate a strong case for permission to be granted.

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<sup>1</sup> Available at: <https://www.bankofengland.co.uk/prudential-regulation/publication/pras-approach-to-supervision-of-the-banking-and-insurance-sectors>.

2.5 A firm that wishes to make an application under [CRR Article 162(2)(h) of the Credit Risk: Internal Ratings Based Approach (CRR) Part] should provide a satisfactory justification for the use of an internal CVA model for estimating the maturity factor 'M'. The PRA does not consider the reduction of the own funds requirements for counterparty credit risk to be a reasonable justification. The PRA will also require highly conservative modelling assumptions within a firm's Internal CVA model for the purpose of [CRR Article 162(2)(h) of the Credit Risk: Internal Ratings Based Approach (CRR) Part].

2.6 To apply for the CRR Article 162(2)(h) of the Credit Risk: Internal Ratings Based Approach (CRR) Part], firms should contact the PRA.

### **Permission to set the maturity factor 'M' to 1 for the Counterparty Credit Risk default charge**

[This sub-section has been deleted in its entirety.]

## **3 Inclusion of securities financing transactions in the scope of the CVA own funds requirement**

3.1 This section sets out the PRA's determination of when risk exposures arising from securities financing transactions (SFTs) are material and should be deemed covered transactions for the purpose of the own funds requirements for credit valuation adjustment (CVA) risk in accordance with the Credit Valuation Adjustment Risk Part of the PRA Rulebook.

3.2 SFTs are not defined in the regulation. The PRA considers that, for these purposes, SFTs should include:

- repurchase transactions; and
- securities or commodities lending or borrowing transactions.

3.3 SFTs generally need not be included within the scope of a firm's CVA charge since they are typically accounted for based on their substance as secured lending arrangements. However, firms can be exposed to CVA risk as a result of SFT transactions. For example, the transfer of an asset and its forward sale (which underpin the legal form of the SFT) would be recognised as a derivative in the event of a subsequent deterioration in the creditworthiness of the counterparty to the SFT. The PRA considers that this CVA risk may be material where the following three conditions are met:

- the SFT's counterparty has demonstrated a recent deterioration of its creditworthiness;
- a severe deterioration of the SFT's counterparty's creditworthiness would lead to a previous transfer being accounted for as a sale and therefore the recognition of a derivative that would be included in the scope of the CVA charge; and
- the SFT transactions do not benefit from adequate credit risk mitigation. An example would be where the SFTs are not included in a master netting agreement that has the effect of reducing exposure to credit risk.

3.4 Where these conditions are met, firms must include SFTs as covered transactions for the purpose of own funds requirements for CVA risk. The PRA may review firms' methodology for determining the inclusion of these SFT transactions in the scope of own funds requirements for CVA risks.

## 4 Calculating own fund requirements for exposures to central counterparties: Identifying qualifying central counterparties

4.1 The following will be qualifying central counterparties (QCCPs):

- authorised Central Counterparties (CCPs);
- recognised third country CCPs, including third country CCPs that enter the Temporary Recognition Regime (TRR) in accordance with the Central Counterparties (Amendments, etc., and Transitional Provision) (EU Exit) Regulations 2018; and
- any other third country CCPs benefiting from the transitional provisions under article 497 of the CRR.

4.2 The Bank of England's register of authorised CCPs, recognised third country CCPs, and CCPs that intend to offer clearing services and activities under the TRR is available at the following link: <https://www.bankofengland.co.uk/financial-stability/financial-market-infrastructure-supervision>.

4.3 Deleted

4.4 The PRA expects firms to notify the PRA if notification has been received that a CCP no longer reports its hypothetical capital (Kccp).

### 4A Monitoring of model limitations

4A.1 Article 286(4) of the CRR states that firms using the IMM must have in place a formal process through which senior management shall be aware of the limitations and assumptions of the model and the impact those limitations and assumptions can have on the reliability of the model output.

4A.2 In complying with these requirements the PRA expects that all firms should be able to make readily available a single, comprehensive inventory of limitations and assumptions that may affect the output of the IMM to senior management, the PRA and other stakeholders. This should include all limitations and assumptions identified during the validation of the individual models which make up the IMM framework, as well as overarching limitations and assumptions which affect the calculation of Effective Expected Positive Exposure (EEPE) under both the current and stress period calibration. The inventory should include, but is not limited to, assumptions and limitations associated with the following:

- risk factors used by the business in the pricing of transactions included in the scope of the IMM, whose variability is not captured in the forecasting distribution used to calculate the exposure;
- the number of paths used, and the granularity of the time grid on which those paths are realised, should the firm use Monte Carlo simulation to estimate the exposure;
- any fixed parameters or constants determined by expert judgement which are used in the models to generate the forecast distribution under either the current or stressed calibration;

- collateralised exposure including the duration of the margin period of risk, and whether firms may continue to make (but not receive) trade-related cashflow payments during all or part of that period;
- the treatment of margining, and whether models recognise margin for which a firm may have called but not yet received from its counterparty as a result of the ordinary settlement cycle;
- calibration of models including the selection of calibration instruments, the length of historical time periods, or the use of proxy data;
- identification of a stress period which coincides with a period of increased credit default swap or other credit spreads for a representative selection of counterparties as per CRR Article 292(3); and
- the value assumed for any assets consistent with a jump to default of the underlying obligation as per CRR Article 291(5)(e).

4A.3 The PRA expects that firms should have in place a process for estimating the potential impact that limitations and assumptions may have on the key model outputs of exposure and capital requirements. The impact of a model assumption should be assessed relative to plausible alternative assumptions. The sophistication of the methodology used and the frequency of estimation, should be commensurate with the materiality of the limitation or assumption. Where quantitative models are used then these should be reviewed by a team independent from the model developer with a degree of rigour commensurate with materiality. Where the potential impact of an assumption or limitation on the total CCR capital requirement calculated using the IMM is material, firms should apply a prudent capital add-on in order to compensate for the risk. Capital add-ons for model limitations may be offset against other model risk-related capital add-ons, for example any capital buffer derived through back-testing, only to the extent that they can be clearly shown to derive from the same underlying limitation.

4A.4 The PRA expects that firms should take into account the effect of collateral when assessing the potential impact of model limitations and assumptions. Collateral reduces the absolute level of exposure to a counterparty but at the same time increases the relative materiality of any understatement of risk. This is particularly true for exposures covered by excess collateral beyond the amount needed to offset the current exposure, for example where a firm recognises the effect of initial margin posted by the counterparty. The PRA expects firms to ensure that the recognition of collateral in IMM does not reduce exposure to a level at which the output of the model is subject to excessive model risk.

4A.5 In meeting this expectation, for exposures covered by excess collateral required to meet a regulatory obligation calculated in accordance with Chapter I, Section 4 of Commission Delegated Regulation (EU) 2016/2251,<sup>1</sup> the PRA will expect firms to floor the *EEPE* as per equation [1] below.

$$[1] \text{ EEPE} = \max[\text{EEPE}_{\text{modelled}}, \text{EEPE}_0(0.05 + 0.95e^{-IM/1.9\text{EEPE}_0})]$$

where  $\text{EEPE}_{\text{modelled}}$  is the *EEPE* estimated by the model recognising all collateral;  $\text{EEPE}_0$  is the *EEPE* recognising only collateral sufficient to offset the current market value; and *IM* is the volatility-adjusted value of excess collateral available over and above the amount required to

<sup>1</sup> Or third country requirements deemed to be equivalent under Article 13 of Regulation (EU) 648/2012.

offset the current market value. This floor should be applied at the level of each individual netting set.

4A.6 As well as monitoring the potential impact on the total CCR capital requirement calculated using the IMM, firms are expected to routinely identify individual counterparties and specific product types for which the impact of model limitations and assumptions may be particularly acute. Firms should have in place a process to ensure that credit officers and other stakeholders are made aware when there is a risk that exposure to a counterparty is materially understated as a result of deficiencies in the model. Senior management should be aware of any product types included in the IMM despite the presence of a model limitation which makes the model inherently unsuitable for estimating exposure for that particular product.

## 4B Treatment of unsettled margin

4B.1 Firms with permission under CRR Article 285 are required to capture the effects of margining within the calculation of Effective Expected Positive Exposure, which is derived from the profile of estimated Expected Exposure (EE). The PRA considers that firms are not required to estimate the initial EE recognising only collateral which has settled at the time of calculation. One example where it could, depending on circumstances, be appropriate to calculate initial EE on the basis of collateral which has not yet settled, is where the delay in settlement of collateral arises as a result of the ordinary collateral call and settlement cycle. A firm which calculates the initial EE on the basis of collateral which has not yet settled would be expected to monitor the impact of this modelling choice on an ongoing basis and hold capital against any understatement of economic risk. Firms would not be expected to recognise collateral in the initial EE which has been called for but disputed or otherwise delayed.

## 5 Annual SMF attestation for Internal Model Method models

5.1 The PRA expects an appropriate individual in a Senior Management Function (SMF) role to provide to the PRA on an annual basis written attestation that:

- the firm's IMM models for which it has received a permission comply with the requirements in Part Three Title II of the CRR, and any appropriate PRA counterparty credit risk supervisory statements; and
- where a model has been found not to be compliant, a credible plan for a return to compliance is in place and being completed.

5.2 Firms should agree the appropriate SMF for providing compliance attestations with the PRA, noting that the PRA would not expect to agree more than two SMFs to cover all the firm's IMM models as described in Part Three Title II of the CRR.

## 5A Annual SMF attestation for standardised approach to CVA risk

[All text in this chapter is new and has not been underlined.]

5A.1 For firms with permission to use the standardised approach to CVA risk (SA-CVA), the PRA expects an appropriate individual in an SMF role to provide to the PRA on an annual basis written attestation that:

- the firm's internal approaches for which it has received a permission comply with the requirements in the Credit Valuation Adjustment Risk Part, and any appropriate PRA counterparty credit risk supervisory statements; and



- where internal approaches have been found not to be compliant, a credible plan for a return to compliance is in place and being completed.

5A.2 Firms should agree the appropriate SMF for providing compliance attestations with the PRA, noting that the PRA would not expect to agree more than two SMFs to cover all the firm's SA-CVA approaches, as described in the Credit Valuation Adjustment Risk Part.

## 5B Annual SMF attestation for SFT VaR Method models

[All text in this chapter is new and has not been underlined.]

5B.1 For firms using the SFT VaR Method in accordance with Articles 221(1) or 221(3) of the Credit Risk Mitigation (CRR) Part, the PRA expects an appropriate individual in an SMF role to provide the following written attestations to the PRA:

- (i) an annual attestation that the firm is either (a) fully compliant, (b) materially compliant, or (c) materially non-compliant with the relevant CRR requirements, PRA rules and Ss; and
- (ii) where the individual in the SMF role attests that the firm is materially non-compliant under the prior bullet, the attestation should include confirmation that a credible plan for a return to compliance in a timely manner is in place and is being implemented.

5B.2 Firms should agree the appropriate SMF for providing compliance attestations with the PRA. The PRA does not expect to agree to more than two SMFs covering all of the firm's SFT VaR Method models.

## 6 Internal Model Method: process for model changes

6.1 This section describes the PRA's approach for post-approval changes to Counterparty Credit Risk Internal Model Method (IMM) models as defined in Section 6 of Title II, Chapter 6 of the CRR and Internal Models approach for Master netting agreements ('Repo VaR') as defined in Article 221 of the CRR, including extensions of the scope of approval, and roll out of portfolios according to the roll-out plan; it suggests the documentation the PRA would seek to support the proposed change and provides an overview of the PRA's response to these advised changes.

6.2 The framework for post-approval model changes outlined here forms one integral element of the wider regime for calculating counterparty credit risk using advanced methods but does not encompass the entirety of the regime. To run this regime effectively, the PRA will deal with firm-driven actions (such as model changes) and also undertake other work (such as reviews and thematic work).

6.3 The PRA regards the post-approval regime as critical to maintaining confidence in the high standards which firms have been set during their initial CRR permission applications. An effective post-approval framework, which is the objective of the proposals in this paper, will provide this assurance while firms' models are adjusted over time, without imposing a disproportionate burden on firms and on the PRA.

6.4 The PRA will ask for prior information only for the most material changes (defined in paragraph 6.10) to their IMM or Repo VaR model, as described in paragraph 6.13. The PRA

envisages that this will typically result in only a few pre-notifications on average per year per firm, even from the largest firms. For details about the changes, the PRA will rely to the extent it can on information generated internally by the firms. This should foster a pragmatic, 'no surprises', and proportionate regime.

6.5 Other changes should be reported in summary form only and after implementation. The arrangements allow for firms to agree *de minimis* thresholds below which no report needs to be made at all.

6.6 The PRA will review in due course, with input from the industry, how the process is operating.

### Defining Materiality

6.7 Firms should notify the PRA of significant changes to IMM or Repo VaR models prior to these changes being implemented for capital purposes. The permission will offer some broad guidelines around factors which constitute significant change. The starting point is the assumption that firms will proactively advise supervisors of significant events or issues affecting the operation of the advanced model with the onus on the firm to judge what is significant.

6.8 The PRA's approach to assessing the significance of issues will be based on the materiality of changes, which in turn will be governed by the substance of the change as relevant to the firm rather than measurement against a predefined set of parameters. Once notified, the firm supervisor will evaluate the proposed change on a case by case basis. It is expected that both the firm and its respective supervisor will in the course of time reach a common understanding of the type of change that warrants consultation and approval.

6.9 Changes to a firm's model can be categorised as low or high impact depending on the level of materiality. This spectrum at one end denotes simple, minor changes which do not warrant prior consultation with the PRA. The other end is characterised by significant, high-impact changes which will need to be reported in advance and require PRA approval. These boundaries will encompass a middle range of changes that will be reported but which may or may not warrant PRA review.

### Examples of change

6.10 Changes may involve several aspects of the advanced model framework. The following are examples of changes the PRA deems to be significant and therefore requiring prior approval by the PRA (please note that this is not an exhaustive list):

- (a) Development of new models to cover products currently not in the scope of the permission, eg equity derivatives, interest rate derivatives.
- (b) A model change resulting in a change in Counterparty Credit Risk (CCR) capital requirements for the UK consolidation group greater than 5% in both directions (that is, either increase or decrease of capital) or a change in gross EAD (for clarity the EAD should be calculated gross of netting, margin and collateral) of 5% in both directions. While the PRA would be open to suggestions from firms as to their preferred level for this threshold, or the basis on which it is calculated, the final parameter would need to be agreed between the firm and the PRA. As a benchmark the PRA intends that a change in CCR capital requirements of 5% should be considered significant or a change in gross EAD of 5% should be considered significant.
- (c) A model previously deemed immaterial becomes material if it will calculate EAD greater than 5% of gross EAD or contribute more than 5% of CCR related capital requirement.

- (d) Changes to the calculation system. These could include:
- (i) Structural changes to the system used to generate exposure profiles.
  - (ii) Re-development/optimisation of existing routines which could lead to significant changes in the output of the model.

6.11 The following are examples of changes the PRA deems to be less significant and therefore require post-notification to the PRA (please note that this is not an exhaustive list):

- (a) Extension of current models to new product types (product types currently not in the scope of the permission) eg swaps, caps, swaptions, etc.
- (b) Changes to currently approved models. These may be related to:
  - (i) Introduction of new risk factors (eg introduction of a new market risk factor in the simulation engine such as new currencies, new interest rate curves. It is not expected that this will cover increases in the granularity of particular risk factor curves).
  - (ii) Changes to the evolution process of existing risk factors.
  - (iii) Calibration methodology.
  - (iv) Changes to the pricing functions used.
- (c) Changes to the models due to changes in the composition of the portfolios and products traded (eg changes due to merger and/or acquisitions).
- (d) A significant change to the outputs of the model resulting from a series of changes that in isolation may not be significant but cumulatively have a significant effect.

6.12 Firms may agree more detailed materiality thresholds with the PRA, if they wish.

### **Parallel running and the experience requirement**

6.13 Depending on the materiality of changes, the requirements with regards to parallel running as defined under Article 289(2) of the CRR may change. The PRA does not intend to apply any formal requirement for parallel running to changes of IMM and Repo VaR systems. The PRA would, however, expect firms themselves to include parallel running to the extent they deem necessary as part of their normal general project management disciplines when introducing new or enhanced risk management tools.

6.14 It is expected that firms will demonstrate that the model is appropriate through back testing. Firms are expected to back-test the advanced model and the relevant components that input into the calculation of EAD using historical data movements in market risk factors considering a number of distinct time horizons out to at least one year. The back testing should cover a range of observation periods representing a wide range of market conditions.

### **Change to the governance process**

6.15 This section describes the process firms are expected to follow when pre-notifying or post-notifying a model change.

#### **Pre-notifying a change**

- **Step 1.** The firm should advise the PRA about future proposed changes as far in advance as possible. In addition to this, during IMM reviews the firm will be expected to advise the

PRA of its current thinking on future changes, across the group. The firm should expect that a decision by the PRA regarding pre-approval of a change can take up to six months.

- **Step 2.** The firm should submit a short description of the change.
- **Step 3.** The firm should conduct a self-assessment of the change against the relevant CRR rules, noting any areas of non-compliance with details of how and when these gaps will be closed and set out which CRR rules are not considered relevant.
- **Step 4.** If the change is recognised to be significant as per paragraph 6.10 prepare and submit the material set out in Appendix B.
- **Step 5.** Send the material from Steps 2, 3 and 4 to the PRA. The material needs to be sent sufficiently far in advance of the proposed change to allow time to review it prior to implementation. If the PRA chooses to review the change, it may ask for additional information and if necessary meetings or on-site visits. The PRA is content for firms to provide internal documentation for this purpose provided this addresses clearly and sufficiently the process requirements set out above.

### Post-notifying a change

6.16 Where the change belongs to category (a), (b), (c), (d) in paragraph 6.11 the firm can notify the PRA after it has occurred. The firm should provide the following:

- (a) a short description of the change, including the date on which the change was implemented;
- (b) confirmation that the change has been reviewed through the firm's internal governance processes; and
- (c) confirmation that a self-assessment of the change against the CRR rules has been completed and has not identified any areas of non-compliance.

6.17 After the post-notification, the PRA might request additional information, including internal documentation consistent with the relevant parts of Appendix B.

6.18 The PRA is also prepared to respond constructively to proposals from firms on a cumulative *de minimis* figure for immaterial models, changes to which will not require post-notification. The PRA envisages this total figure being in the region of a 5% increase or decrease in the CCR related capital requirement or EAD of the model for the UK consolidation group. Accordingly, a firm may nominate a number of models, each of which account for no more than a 5% change in the CCR related capital requirement or EAD and which in total account for no more than a 5% change in CCR related capital or EAD, for which neither pre-notification nor post-notification is ordinarily necessary.

### Fees

6.19 There will be some circumstances where a fee will be applied — for example, when a firm is extensively changing the scope of its model approval or following a merger or acquisition that impacts the materiality of business in scope of an IMM permission.

### Self-assessment

6.20 The self-assessment process described in paragraph 6.15, Step 3 needs only be an assessment against CRR rules that are relevant to the change in question. While it is the firm's responsibility to decide on the method of conducting the self-assessment, the PRA expects the self-assessment to be sufficiently rigorous to allow the firm to identify areas of non-

compliance. In the case where areas of non-compliance have been identified the PRA expects firms to provide a detailed process for becoming compliant in the areas identified.

6.21 It is important to highlight that a high-level 'gap analysis' or a process that places reliance on the firm's governance process or on the firm's developmental process to deliver a compliant approach is unlikely to form an adequate self-assessment.

### **PRA response**

6.22 To pre-notified changes: Following pre-notification, the PRA will make a prompt initial assessment of the material and determine whether a full review is needed or not. If a full review is not judged necessary, then the firm may make the change as planned. If a full review is judged necessary, then the firm will be informed, any on-site review work executed and a decision reached. In very limited circumstances, to be agreed on a case by case basis, the PRA may be prepared to allow firms to implement the proposed change in the interim, subject to an additional element of conservatism being applied.

6.23 Decision options for pre-notified changes are: 'approve', 'approve with hard ongoing conditions' and 'reject'. Firms will be given the opportunity to address issues prior to a formal decision being issued.

6.24 To post-notified changes: The PRA may take no action, or may select a change or portfolio for subsequent review as part of the review process.

6.25 [Deleted]

6.26 Updating the Direction: In the spirit of accuracy and transparency, any revisions to the permission decision should be reflected in the permission document and published as a subsequent version of the original. Generally, changes to the scope will warrant a change to the permission and require formal action. However, not every model change will warrant an update, even if it is a significant change. Following review of a significant change, there may follow a recommendation to add conditions.

### **Pillar 2**

6.27 Depending on the magnitude of the effect on the firm's capital position, the change may also trigger a review of the firm's capital position under Pillar 2, possibly resulting in the request for a submission of a fresh ICAAP.

6.28 The firm should not rely on the PRA to ensure that a notified change is compliant and should not assume that the lack of an immediate response to a submission positively indicates that the change is compliant: responsibility for compliance rests with the firm.

### **Summary**

6.29 The PRA observes that the assessment of significant changes cannot be a mechanistic approach given the individual characteristics of each firm. The PRA recognises that there will be a process of learning and refinement on both sides in terms of reaching an understanding of what is considered to be significant.

6.30 A diagram covering the key steps is attached as Appendix A.

## **7 SFT VaR Method: process for model changes**

[All text in this chapter is new and has not been underlined.]

### **Submission of changes to SFT VaR Method models**

7.1 In accordance with Articles 221(10) and 221(11) of the Credit Risk Mitigation (CRR) Part, a firm must:

- (a) obtain prior approval for material changes to SFT VaR Method models if it has a permission under Article 221(1) of the Credit Risk Mitigation (CRR) Part;
- (b) pre-notify material changes to SFT VaR Method models if it uses the SFT VaR Method in accordance with Article 221(3) (but does not have a permission under Article 221(1) of the Credit Risk Mitigation (CRR) Part); and
- (c) post-notify all other changes to SFT VaR Method models on at least a quarterly basis.

7.2 The PRA considers that an extension to the scope of an SFT VaR Method model, or the transfer of additional portfolios to the SFT VaR Method, would fall within the scope of changes referred to in Articles 221(10) and 221(11).

7.3 The PRA considers that the notification of changes referred to in Article 221(11) of the Credit Risk Mitigation (CRR) Part may be made in summary form.

7.4 The PRA expects that a firm wishing to make a change to its SFT VaR Method models should self-assess the proposed change against all relevant PRA rules and SS expectations. The PRA considers that this self-assessment should be sufficiently rigorous to identify areas of non-compliance and that a high-level gap analysis or assessment that places reliance on the firm's governance process for model development is unlikely to form an adequate self-assessment.

7.5 Firms are responsible for ensuring that SFT VaR Method models and any changes to SFT VaR Method models are materially compliant with the relevant requirements. Firms should not assume that the lack of a response from the PRA to a submission indicates that the change is compliant or materially compliant.

7.6 There will be some circumstances where a fee will be applied, for example, when a firm is extensively changing the scope of its model approval or following a merger or acquisition that impacts the materiality of business in scope of an SFT VaR Method permission.

#### **Examples of material and immaterial changes**

7.7 The PRA considers that SFT VaR model changes should be considered to be material if they meet any of the following criteria:

- (a) development of new models to cover products currently not in scope of existing models;
- (b) a model change resulting in a change in CCR capital requirements for the UK consolidation group greater than 5% in either direction (that is, either an increase or decrease of capital requirements) or a change in gross EAD (calculated gross of netting, margin, and collateral) greater than 5% in either direction;
- (c) changes to the calculation system. These could include:
  - (i) structural changes to the system used to generate exposure profiles; and
  - (ii) re-development or optimisation of existing routines which could lead to significant changes in the output of the model;
- (d) any other change that significantly impacts the operation of the model.

7.8 The PRA considers that the following types of changes are not likely to be material unless one of the criteria in paragraph 7.7 is also met:

(a) other changes to currently approved models. These could include:

(i) introduction of new risk factors;

(ii) changes to the evolution process of existing risk factors;

(iii) calibration methodology; and

(iv) changes to the pricing functions used;

(b) changes to the models due to changes in the composition of the portfolios and products traded (eg changes due to merger and/or acquisitions).

### Back-testing

7.9 The PRA expects firms to demonstrate that model changes are appropriate through back-testing. Firms are expected to back-test SFT VaR Method models and the relevant components that input into the calculation of EAD using historical data movements in market risk factors considering a number of distinct time horizons out to at least one year. The back-testing should cover a range of observation periods representing a wide range of market conditions.

### Documentation

7.10 The PRA expects firms applying for permission to make a material change to an SFT VaR Method model, or pre-notifying a material change to an SFT VaR Method model, to submit the information set out in Appendix B.

7.11 The PRA expects firms to submit the following information when post-notifying the PRA of a non-material SFT VaR model change:

(a) a short description of the change, including the date on which the change was implemented;

(b) confirmation that the change has been reviewed through the firm's internal governance processes; and

(c) confirmation that a self-assessment of the change against relevant CRR requirements, PRA rules and SS expectations has been completed and that no areas of material non-compliance have been identified.

7.12 Following post-notification of a change the PRA may request additional information, including internal documentation consistent with the relevant parts of Appendix B.

### Pillar 2

7.13 A change to an SFT VaR Method model may trigger a review of the firm's capital position under Pillar 2, depending on the magnitude of the effect on the firm's capital position. The PRA may request submission of revised Internal Capital Adequacy Assessment Process (ICAAP) documentation.

## 8 Standardised approach to CVA: general expectations

8.1 This section sets out the PRA's expectations with regards to the methodologies used in the standardised approach to CVA risk as described in Chapter 5 of the Credit Valuation Adjustment Risk Part of the PRA Rulebook.

### Regulatory CVA

8.2 For the purposes of calculating regulatory CVA, the PRA expects:

(a) that a firm should have a documented process to address instances where such inputs for particular contracts cannot be calculated or obtained on a given day.

(b) that firms with exposures to counterparties subject to a margin agreement should appropriately consider model risk or scenarios where risk mitigation may not perform as expected.

(c) that firms have a documented policy for determining the appropriate margin period of risk. This policy should consider where the minimum margin period of risk defined in the rules would not be sufficient to mitigate the risk.

### Qualitative requirements – CVA desk independent from line of business

8.3 For the purposes of rule 5.13(14)(a) of the Credit Valuation Adjustment Risk Part of the PRA Rulebook, the PRA expects firms to consider the CVA desk to be independent from a firm's line of business. Firms may therefore use current and historical market data acquired from the CVA desk in its exposure models.

### Delta and vega sensitivities – use of alternative methodologies

8.4 In calculating the risk factor shifts under rule 5.18 of the Credit Valuation Adjustment Risk Part of the Rulebook, firms may use adjoint algorithmic differentiation (AAD) and other similar computational techniques if doing so is consistent with the firm's internal risk management calculations and the relevant validation standards described in the SA-CVA methodology.

### Foreign exchange risk – treatment of onshore and offshore currencies

8.5 For the purposes of the SA-CVA foreign exchange risk class in accordance with rule 5.26 of the Credit Valuation Adjustment Risk Part of the Rulebook, the PRA expects that onshore and offshore currencies should be treated as identical provided there is a consistently high historical correlation between the currencies.

## 9 CVA Transitional Provisions

9.1 This section sets out the PRA's expectations with regard to the transitional provisions described in Chapter 7 of the Credit Valuation Adjustment Risk Part of the PRA Rulebook.

### 9A Amendments to transactions subject to transitional provisions

9A.1 The transitional provisions in Rule 7.1 of the Credit Valuation Adjustment Risk Part of the PRA Rulebook do not apply to new trades entered into on or after 1 July 2025. The PRA expects firms to consider whether amendments made to trades in scope of the transitional



provisions during the transition period are such that the trade should be classified as a new trade.

9.A2 The PRA expects the following cases could *prima facie* indicate a trade should be considered a new trade, and thus subject to CVA risk capital requirements:

- a) If the amendments involve materially changing the notional amounts or the maturity;
- b) If the amendments involve novation of trades to a third-party;
- c) If trades or amendments are the output of compressions cycles or other trade aggregation / consolidation processes which take as inputs one or more trades with the counterparties listed in rule 7.1(1) (a) – (c) of the CVA Risk Part of the PRA Rulebook entered into on or after 1 July 2025; and
- d) If the amendments materially affect the economics or CVA risk of the trade that would otherwise undermine the intent of the transitional to apply only to previously exempt trades.

## **9B Recalculation of the legacy exempt ratio in the transitional provisions**

9B.1 The transitional provision in rule 7.1(2) of Credit Valuation Adjustment Risk Part of the PRA Rulebook applies a legacy exempt ratio calculated on 1 July 2025 to reflect the proportion of CVA risk from previously exempted trades. Rule 7.3 specifies that firms should recalculate the legacy exempt ratio at any point when there is a material change in quantum or risk of the firm's transactions with counterparties that were exempted prior to 1 July 2025. The PRA expects that a recalculation would be necessary as a minimum in situations where a firm materially changes its counterparty trading profile or business model.

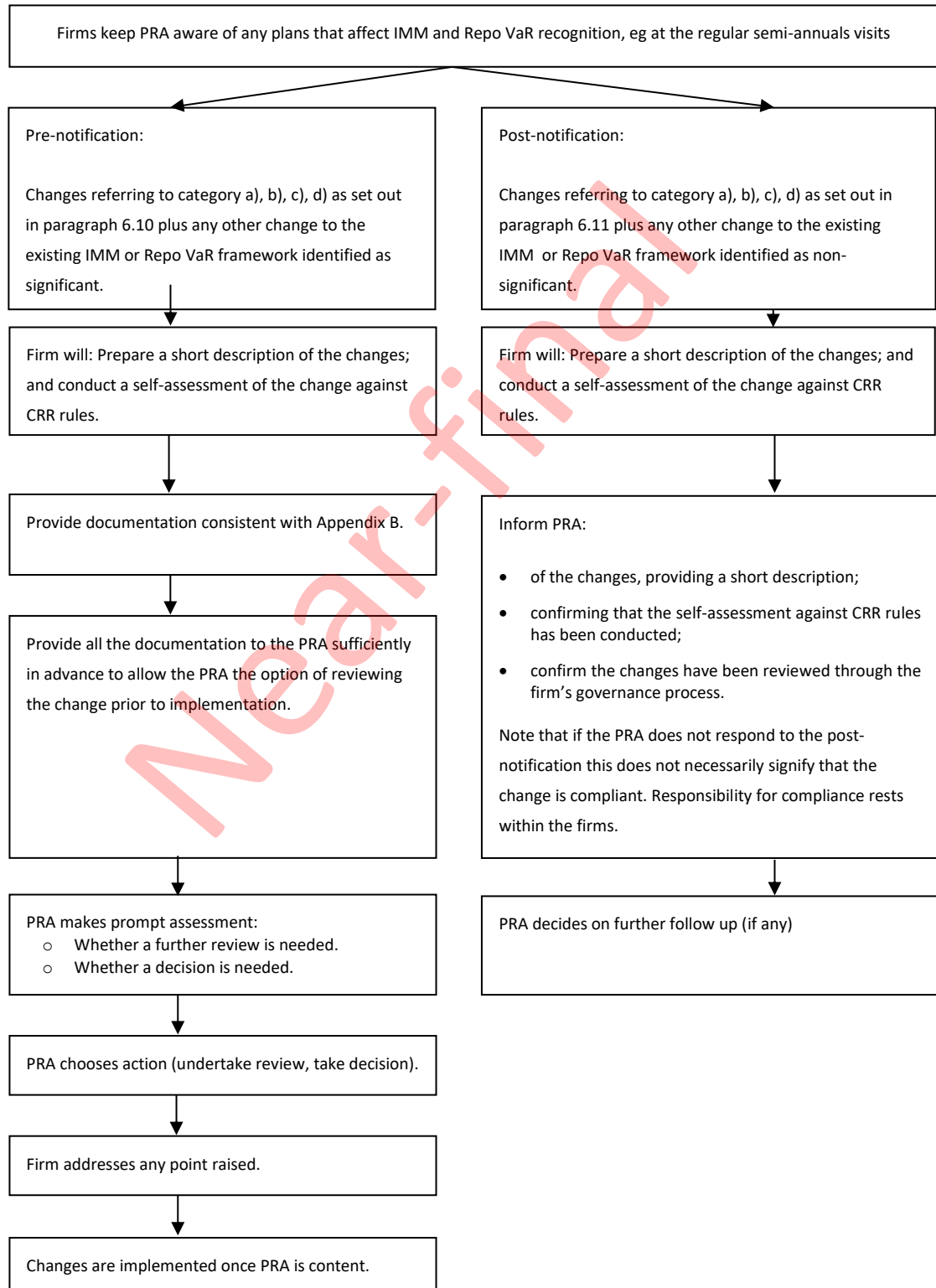
## Appendices

- 
- A IMM and Repo VaR post-approval model changes process
- 
- B Documentation required for material changes

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## Appendix A: IMM and Repo VaR Post-Approval Model Changes Process

For all model changes, firms are expected to complete the pro-forma, which can be found on the Bank of England's website at [www.bankofengland.co.uk/pr/Pages/authorisations/crr/applying.aspx](http://www.bankofengland.co.uk/pr/Pages/authorisations/crr/applying.aspx).



## Appendix B: Documentation required for material changes

This appendix sets out the documentation that the PRA expects firms to submit for material changes to IMM models (in accordance with paragraph 6.15 (step 4)) and material changes to SFT VaR Method models (in accordance with paragraphs 7.7 and 7.10) if the changes to the IMM or Repo VaR model are recognized to be material, further documentation will be necessary for review from the PRA. The following list represents minimum expectations which should be met when applying for material changes. The PRA may ask for further information and/or documentation on a case by case basis. This section is divided in two main categories:

- Changes to models
- Changes to the counterparty risk system

### Changes to models (new model being introduced or changes to existing models)

The following is the minimum information that should be provided for changes to models.

- Self-assessment against relevant CRR requirements, PRA rules and SS expectations. This should include an assessment against any requirement relevant to the changes made and sign-off from an appropriate individual in an SMF role attesting that the model is fit for purpose and meets regulatory requirements.
- Distribution of risk for an appropriate parallel run period for the transactions covered by the model changes according to the following categories (each table should include number of trades, Positive MtM, EAD, PFE, regulatory capital requirements using the old model, regulatory capital requirements using the new model):
  - (i) Product (if more than one) for number of trades; positive MtM; and exposure and capital measures calculated gross of netting;
  - (ii) Counterparty Credit Rating (ie Probability of Default rating);
  - (iii) Industry;
  - (iv) Country/Geographic region.
- Independent validation report relevant to the changes to models.
- Back-testing results for an appropriate parallel run period.
- Sign off minutes for model approval from the relevant committees.

The following information should be provided if documentation previously submitted has changed as a result of the changes to models.

- Technical documentation outlining the methodology used to model and calibrate risk factors. This documentation should also include the methodology used to estimate the relationship between risk factors, eg correlation.
- Technical documentation for the methodology used to price the product(s) modelled.
- Technical documentation for the modelling of collateral if modelled jointly with exposures.

- Technical documentation outlining the implementation of netting/margining rules for the new model.
- Updated policy for:
  - (i) Back-testing
  - (ii) Stress Testing
  - (iii) Wrong Way Risk
  - (iv) Collateral management
  - (v) Validation policy

### **Changes to the counterparty risk system**

If changes to the system occur in conjunction with material changes to models the latter would result in a separate submission of documents as outlined in the section 'Changes to models (new model being introduced or changes to existing models)'. The following is the minimum information that should be provided for changes to the counterparty risk system.

- Self-assessment against relevant CRR requirements, PRA rules and SS expectations. This should include an assessment against any requirement relevant to the changes made and sign-off from an appropriate individual in an SMF role attesting that the model is fit for purpose and meets regulatory requirements.
- Distribution of risk: distribution of risk, over an appropriate parallel run period, for the transactions covered by changes according to the following categories (each table should include number of trades, positive MtM, EAD, PFE, regulatory capital requirements prior to and after changes being applied):
  - (i) Product (if more than one) for number of trades; positive MtM; and exposure and capital measures calculated gross of netting;
  - (ii) Counterparty Credit Rating (ie Probability of Default rating);
  - (iii) Industry;
  - (iv) Country/Geographic Region.
- Operational arrangements (in the form of internal documentation or policies as relevant):
  - (i) Description of the Control Unit in charge of design of model (including organizational chart);
  - (ii) Description of the Control Unit in charge of implementation into production system (including organizational chart);
  - (iii) Description of the Control Unit in charge of initial and ongoing validation of Counterparty Risk Exposure Model (including organizational chart);
  - (iv) Data integrity assessment and policy around data quality;
  - (v) Sample reports of the output of the model (as used and seen by model users);

(vi) Impact on trading limits (ie change in credit policy with regards to allocation/management of credit limits).

- Back-testing analysis and results for an appropriate parallel running period.

The following information should be provided if documentation previously submitted has changed as a result of the changes to the counterparty risk system.

- Updated policy for:
  - (i) Stress Testing
  - (ii) Wrong Way Risk
  - (iii) Back-testing
  - (iv) Collateral
  - (v) Validation (covering both initial and ongoing validation)

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## Annex: Changes to SS12/13

This annex details the changes that have been made to this SS following its initial publication in December 2013:

### 2023

#### December 2023:

Following the publication of PS17/23 'Implementation of Basel standards', this SS was updated to reflect clarifications on the annual SMF attestations for IMM models and the standardised approach to CVA risk. These revisions are detailed in sections 5 and 5A, paragraphs 5.1 to 5.2; and 5A.1 to 5A.2. The statement was also updated to remove the subsection on the permission to set the maturity factor 'M' to 1 for the Counterparty Credit Risk default charge. This was previously detailed in paragraphs 2.7 to 2.11, which has now been deleted.

This SS was also updated to reflect clarifications and the PRA's expectations around the Standardised Approach to CVA methodologies. These revisions are detailed in Section 8, paragraphs 8.1 to 8.5. The statement was also updated to include a section on CVA transitional provisions to reflect changes introduced by the adoption of an additional transitional arrangement. These revisions are detailed in Sections 9 A and B, paragraphs 9.1; 9A.1 and 9A.2; and 9B.1

These amendments are effective from 1 July 2025.

### 2021

#### July 2021:

Following the publication of PPS17/21 'Implementation of Basel standards',<sup>1</sup> this SS was updated to adjust the definitions of qualifying central counterparties (QCCPs) to reflect amendments to the UK regulatory regime for CCPs. The statement was also updated to reflect changes to the capitalisation of exposures under Article 310 to reflect changes introduced by adoption of updated Basel standards into PRA rules. These revisions are detailed in paragraphs 4.1 to 4.4. The statement was also updated to remove legacy obligations relating to relationships with EEA authorities under EU law. This was previously detailed in paragraph 6.25, which has now been deleted.

These amendments are effective from 1 January 2022.

### 2020

#### October 2020

This SS was updated following publication of Policy Statement (PS) 22/20 'Counterparty credit risk: Treatment of model limitations in banks' internal models'.<sup>2</sup> The changes set out the PRA's expectations with regards to the monitoring of model limitations in the Internal Model Method, as consulted on in CP17/19.<sup>3</sup> Additionally the statement has been updated to include PRA expectations regards to the treatment of unsettled margin, following the publication of PRA guidance on Monday 30 March 2020.<sup>4</sup> These revisions are found in Chapter 4A and Chapter 4B.

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<sup>1</sup> July 2021: <https://www.bankofengland.co.uk/prudential-regulation/publication/2021/february/implementation-of-basel-standards>.

<sup>2</sup> October 2020: <https://www.bankofengland.co.uk/prudential-regulation/publication/2019/counterparty-credit-risk-treatment-of-model-limitations-in-banks-internal-models>.

<sup>3</sup> July 2019: <https://www.bankofengland.co.uk/prudential-regulation/publication/2019/counterparty-credit-risk-treatment-of-model-limitations-in-banks-internal-models>.

<sup>4</sup> <https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/2020/exposure-value-for-internal-modelsmethod-counterparty-risk.pdf>

The PRA also made minor formatting changes throughout this SS to improve readability, including renumbering footnotes.

## **2016**

### **July 2016**

This SS was updated to provide clarifications to the reporting requirements for model changes. In addition, the process for informing the PRA of non-compliance has been clarified: specifically paragraphs 5.1, 5.2, 6.5, 6.7, 6.15, 6.16, 6.25, 6.27 and Appendices 1 and 2. Additionally, amendments were made for qualifying central counterparties (QCCPs). The amendments also clarify that further information on central counterparties (CCPs) can be found on the European Securities and Markets Authority (ESMA) website, and adjusts the notification arrangements when a CCP no longer reports its hypothetical capital (Kccp). These revisions are found in Chapter 4.

The PRA will keep the policy under review to assess what changes would be required due to intervening changes in the UK regulatory framework, including as a result of the referendum on 23 June 2016.

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