



# **POLICY ADVICE ON THE BASEL III REFORMS ON CREDIT VALUATION ADJUSTMENT (CVA) AND MARKET RISK**

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**EBA**

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# Abbreviations

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<b>AM</b>	advanced method for CVA
<b>AVA</b>	additional value adjustment
<b>BA-CVA</b>	basic approach for CVA
<b>BCBS</b>	Basel Committee on Banking Supervision
<b>CCP</b>	central counterparty
<b>CCR</b>	counterparty credit risk
<b>CDS</b>	credit default swap
<b>CfA</b>	call for advice
<b>CIU</b>	collective investment undertaking
<b>COREP</b>	common reporting framework
<b>CRD IV</b>	Directive 2013/36/EU
<b>CRD V</b>	Directive (EU) 2019/878
<b>CRR</b>	Regulation (EU) No 575/2013
<b>CRR2</b>	Regulation (EU) 2019/876
<b>CSR</b>	credit spread risk
<b>CTP</b>	correlation trading portfolio
<b>CVA</b>	credit valuation adjustment
<b>DRC</b>	default risk charge
<b>DVA</b>	debit valuation adjustment
<b>EAD</b>	exposure at default
<b>EMIR</b>	Regulation (EU) No 648/2012
<b>EMIR REFIT</b>	Regulation (EU) 2019/834
<b>ESMA</b>	European Securities and Markets Authority
<b>ES</b>	expected shortfall
<b>EU</b>	European Union
<b>FAQ</b>	frequently asked question
<b>FRTB</b>	fundamental review of the trading book
<b>FRTB-IMA</b>	internal models approach for market risk under the FRTB
<b>FRTB-SA</b>	standardised approach for market risk under the FRTB
<b>FVA</b>	funding valuation adjustment

<b>FX</b>	foreign exchange
<b>GIRR</b>	general interest rate risk
<b>IMA</b>	internal models approach for market risk
<b>IMA-CVA</b>	internal models approach for CVA
<b>IMM</b>	internal model method for CCR
<b>IRB</b>	internal ratings-based
<b>IRC</b>	incremental risk charge
<b>LGD</b>	loss given default
<b>LH</b>	liquidity horizon
<b>MPoR</b>	margin period of risk
<b>MRF</b>	modellable risk factor
<b>NFC</b>	non-financial counterparty
<b>NMRF</b>	non-modellable risk factor
<b>OEM</b>	original exposure method for CCR
<b>OTC</b>	over-the-counter
<b>P&amp;L</b>	profit and loss
<b>PD</b>	probability of default
<b>PSA</b>	pension scheme arrangement
<b>PSE</b>	public sector entity
<b>Q&amp;A</b>	question and answer
<b>QCCP</b>	qualifying central counterparty
<b>QIS</b>	quantitative impact study
<b>RCAP</b>	regulatory consistency assessment programme
<b>R-SbM</b>	reduced sensitivity-based method
<b>RFET</b>	risk factor eligibility test
<b>RRAO</b>	residual risk add-on
<b>RTS</b>	regulatory technical standards
<b>RWA</b>	risk-weighted asset
<b>SA</b>	standardised approach
<b>SA-CVA</b>	standardised approach for CVA
<b>SA-CCR</b>	standardised approach for CCR
<b>SFT</b>	securities financing transaction
<b>SM</b>	standardised method for CVA

**SREP**           supervisory review and evaluation process  
**VaR**            value at risk  
**WWR**           wrong way risk



## Executive summary

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1. This document outlines the EBA policy response to Section 4 and Section 7 of the CfA<sup>1</sup> on the implementation of the Basel III post-crisis reforms standards<sup>2</sup> that the EBA received from the European Commission on 5 May 2018. In addition, this document addresses the mandate under Article 519b(1) of Regulation (EU) 2019/876 (i.e. CRR2<sup>3</sup>), which requires the EBA to report on the impact, on institutions in the Union, of international standards to calculate the own funds requirements for market risk.
2. This document should be read together with the QIS report developed for the purposes of addressing those same two mandates (i.e. the CfA in the regulatory area of CVA and market risk, and the mandate under Article 519b(1) of the CRR2), which is published alongside this paper.
3. The Basel III post-crisis reforms standards were published by the BCBS on 7 December 2017, while the standards on minimum capital requirements for market risk (i.e. the FRTB) were published by the BCBS on 14 January 2019<sup>4</sup>. With regard to CVA risk, on 28 November 2019 the BCBS published a consultative document<sup>5</sup> on targeted final revisions to the CVA risk standards issued on 7 December 2017.
4. Section 4 of the CfA puts forward requests to the EBA related to the own funds requirements for CVA risk, while Section 7 of the CfA puts forward requests to the EBA related to own funds requirements for market risk. For the other sections of the CfA, the EBA provided its advice on 5 August 2019<sup>6</sup>, considering the different deadlines envisaged in the CfA.
5. On the basis of its analyses and assessments performed for the purposes of the CfA, the EBA puts forward the following policy recommendations in response to the CfA requests on CVA risk and market risk.

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<https://eba.europa.eu/documents/10180/2207145/Call+for+advice+to+the+EBA+for+the+purposes+of+revising+the+own+fund+requirements+for+credit%2C%20operational+market+%26+credit+valuation+adjustment+risk+040518.pdf>

2 <https://www.bis.org/bcbs/publ/d424.pdf>

3 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0876>

4 <https://www.bis.org/bcbs/publ/d457.pdf>

5 <https://www.bis.org/bcbs/publ/d488.pdf>

6 <https://eba.europa.eu/-/eba-advises-the-european-commission-on-the-implementation-of-the-final-basel-iii-framework>



### **Recommendation CVA 1: General position related to the CfA on CVA**

Considering the ongoing targeted revisions to the CVA risk framework at international level, as proposed in the BCBS consultative document on targeted final revisions to the CVA risk standards, at this stage the EBA refrains from providing policy recommendations in this regulatory area, except where these were considered relevant at the time of producing this advice, irrespective of the ongoing revisions to the CVA risk standards. At the same time, the EBA continues to support the policy recommendations that it put forward in its report on CVA, which are recalled in the context of this response to the CfA.

### **Recommendation CVA 2: CVA exemptions**

Consistent with its previous positions, the EBA considers that the CVA risk generated by the CVA exemptions can be substantial and should be captured prudentially. In particular, it is noted that institutions in the EU are not required to hold capital for CVA risk stemming from the transactions currently exempt, which is inconsistent with a risk-based capital requirements framework.

Therefore, while also recalling the importance of the alignment with international standards for CVA risk, the EBA recommends that the CVA exemptions should be fully removed, subject to phasing-in measures that are commensurate with the expected impact of the revisions to the CVA risk framework, when the impact of such revisions can be more accurately assessed.

### **Recommendation CVA 3: Proportionality treatment for CVA risk**

By building on the proportionality framework for CCR already envisaged in the CRR2 as well as exploiting the consistency in the treatment of CCR and CVA risk that would provide its usage, the EBA recommends that, if the simplified treatment for CVA risk envisaged in the Basel III post-crisis reforms were included in the CRR, the thresholds for its usage should be based on the market value of the on- and off-balance sheet derivative business, as defined in Article 273a(3) of the CRR2, while the level for the thresholds should be set so that it is consistent with that established for the use of the simplified SA-CCR, as specified in Article 273a(1) of the CRR2.

In addition, consistent with policy recommendation 13 put forward by the EBA in its report on CVA, and in light of the very low number of institutions that currently apply Article 385 of the CRR and the availability of the simplified treatment under the revised CVA framework, the EBA suggests removing the treatment under Article 385 of the CRR and replacing it with the simplified treatment.

### **Recommendation MR 1: Treatment of unrated covered bonds**

The EBA recommends clarifying that unrated covered bonds should, for the purposes of the FRTB-SA, be considered rated using — as a proxy — the credit quality of the issuing institution and should therefore attract the risk weight corresponding to such credit quality.

**Recommendation MR 2: Use of the recalibrated Basel II SA as a simplified approach**

Consistent with its response to the CfA on the implementation of the SA-CCR and FRTB in the EU published in November 2016, the EBA supports the use of the recalibrated SA as a simplified standardised approach for institutions that do not exceed the thresholds referred to in Article 325a(1) of the CRR2.

**Recommendation MR 3: Size of trading book business and business subject to market risk**

The EBA recommends clarifying how institutions should compute the size of their trading book business and their business subject to market risk in accordance with Article 94 and Article 325a, in particular:

- (1) the positions that institutions should exclude, in accordance with Article 94(3)(a);
- (2) what is meant by long and short positions in the context of these two articles as the current wording may lead to various interpretations.

**Recommendation MR 4: Conditions for disregarding an overshooting due to an NMRF**

The EBA recommends providing the EBA with an RTS mandate for defining the conditions for disregarding an overshooting due to an NMRF.

**Recommendation MR 5: Correlation among risk factors in the ES**

The EBA recommends removing the requirement on correlations to be consistent with the applicable liquidity horizons and requiring the use of correlation estimates based on 10-day returns in the ES calculation, in accordance with the ES calculation formula in Article 325bc(1). The EBA thus recommends amending Article 325bh(2) as follows:

*Institutions may use empirical correlations within broad categories of risk factors and, for the purposes of calculating the unconstrained expected shortfall measure  $UES_T$  as referred to in Article 325bb(1), across broad categories of risk factors only where the institution's approach for measuring those correlations is sound, consistent with the base time horizon of 10 days in accordance with Article 325bc(1), and implemented with integrity.*

**Recommendation MR 6: Use test requirements**

The EBA recommends providing further details on the degree of alignment required between the IMA and the internal risk management model, based on the requirements set out by the Basel FRTB standards. The EBA thus recommends amending Article 325bi(1)(f) as follows:

*Any internal risk measurement model, including pricing models, [...] shall not differ significantly from the models that the institution uses for its internal risk management. At a minimum the following requirements shall be fulfilled:*

- *Pricing models that are a feature of both internal risk measurement models and internal risk management models shall be similar. Those pricing models shall constitute an integral part of the internal identification, measurement, management and internal reporting of price risks within the institution's trading desks.*
- *Internal risk management models shall, at a minimum, be used to assess the risk of the positions that are subject to market risk own funds requirements, although they may assess a broader set of positions.*
- *Any trading desk's risk management model shall be based on the methodologies used in the institution's internal risk management model with regard to risk factor identification, parameter estimation and proxy concepts and deviate only where this is appropriate due to regulatory requirements. An institution's internal risk measurement model and its internal risk management model shall address an identical set of risk factors.*

**Recommendation MR 7: Establishment of a validation unit**

The EBA recommends clarifying that the validation function may be organisationally separate from the risk control unit, as this would be the set-up with the clearest segregation of duties between model development and validation. The EBA thus recommends amending Article 325bi(1)(b) as follows:

*An institution shall have a risk control unit that is independent from business trading units and that reports directly to senior management; that unit shall be responsible for designing and implementing any internal risk-measurement model and shall be responsible for the overall risk management system; that unit shall produce and analyse daily reports on the output of any internal model used to calculate capital requirements for market risks, and on the appropriateness of measures to be taken in terms of trading limits; that unit or an organisationally separate validation unit shall conduct the initial and on-going validation of any internal model used for the purposes of this Chapter.*

### Recommendation MR 8: Documentation requirements

The EBA recommends adding a more specific requirement for internal models to be well documented in line with the Basel FRTB standards and thus suggests amending Article 325bi(1)(e) as follows:

*The institution shall have in place a documented set of internal policies, procedures and controls for monitoring and ensuring compliance with the overall operation of its internal risk-measurement models. The institution's internal risk measurement models shall be well documented.*

### Recommendation MR 9: RTS mandate on PDs and LGDs in the default risk charge model

The EBA suggests clarifying in Article 325bp paragraphs 5(d) and 6(c) that institutions that have been granted permission under the IRB approach, for given obligors, to estimate default probabilities and, for given facilities, to estimate loss given default should use the methodology set out therein only for their trading book issuers and issues, for which default probability estimates are available for the corresponding obligors under their IRB approach and loss given default estimates are available for the corresponding facilities under their IRB approach.

The EBA suggests clarifying in Article 325bp paragraphs 5(e) and 6(d) that, in addition to institutions that have not been granted IRB permission, institutions that have been granted permission under the IRB approach should develop an internal methodology or use external sources to estimate the default probabilities and loss given default for their trading book issuers or issues, for which no default probability or loss given default estimates are available under their IRB approach.

### Recommendation MR 10: Constant position assumption in the default risk charge model

The EBA recommends clarifying the requirements on the modelling of positions with a maturity of less than 1 year (or 60 days in the context of equity sub-portfolios) in the default risk charge model. The EBA proposes laying down the constant position assumption as a basic requirement (by keeping Article 325bn(1)(d) unchanged) but still requiring institutions to monitor that the uncaptured maturity mismatches between positions and their hedges do not lead to a material underestimation of risk by amending Article 325bo(3) as follows:

*Institutions shall ensure that, where maturity mismatches between a hedging instrument and the hedged instrument that could occur during the interval between the maturity of a hedging*

*instrument and the 1-year time horizon are not captured in their internal default risk model, this does not lead to a material underestimation of risk [...].*

#### **Recommendation MR 11: Reporting of backtesting and P&L attribution results**

The EBA recommends explicitly clarifying that competent authorities should be provided on a quarterly basis with backtesting and P&L attribution results and relevant time series for all desks for which the institution has been granted supervisory permission to use the IMA, regardless of whether or not the positions on these desks are actually capitalised with the IMA.

#### **Recommendation MR 12: Use of data inputs in the risk measurement model**

The EBA recommends amending the mandate to issue guidelines on the use of data inputs in the ES to a mandate to issue draft RTS on the use of data inputs in the risk measurement models referred to in Article 325bc (the ES) and Article 325bk (the NMRF stress scenario risk measure).

#### **Recommendation MR 13: Treatment of CIUs**

The EBA recommends that, in the event that the Delegated Act referred to in Article 461a of the CRR2 introduces the possibility of treating positions in CIUs — where a look-through is not possible — as positions in a hypothetical portfolio, a mandate for the EBA to issue RTS for specifying how banks are supposed to build such a hypothetical portfolio should be included in the context of legislative amendments to the CRR.

#### **Recommendation MR 14: Exclusion of items deducted from capital from own funds requirements for FX risk**

The EBA recommends including in the context of legislative amendments to the CRR the specification that positions related to items that are deducted from an institution's capital are not subject to a FX-risk capital requirement, in line with the FRTB standards.

**Recommendation MR 15: Calculation of own funds requirements for FX risk at consolidated level**

The EBA recommends that the own funds requirements for FX risk at consolidated level, where the permission outlined in Article 325b has not been granted, should be calculated with respect to a unique currency, i.e. the reporting currency at consolidated level.

**Recommendation MR 16: Structural FX**

The EBA recommends including, also in the context of the new FRTB approaches, the structural FX provision, i.e. the possibility for institutions, subject to the approval of the competent authority, to remove, from the net open position in the foreign currency, those positions that have been taken for the purposes of partially or totally hedging the capital ratio.

For the purposes of harmonising practices among EU jurisdictions on the structural FX provision, the EBA recommends, in the context of legislative amendments to the CRR, including a mandate to issue draft regulatory standards aimed at specifying:

- (i) the capital ratio to be hedged for the purposes of structural FX;
- (ii) the criteria for a position in a currency different from the reporting currency to be considered as taken or maintained for the purposes of partially or totally hedging the capital ratio;
- (iii) the criteria for a position in a currency different from the reporting currency to be considered of a structural nature;
- (iv) how institutions shall calculate the maximum position that may be exempted, including the frequency of such a calculation;
- (v) the requirements to be met by an institution's risk management framework for managing structural FX positions, including governance, documentation and ongoing monitoring requirements.

**Recommendation MR 17: P&L attribution requirements**

The EBA recommends setting the P&L attribution requirement as a requirement to be met for the use of the IMA.

In addition, the EBA recommends that a mandate is included in Article 325bg(4) as follows:

4. *The EBA shall develop draft regulatory technical standards to specify:*

*(a) the criteria necessary to ensure that the theoretical changes in the value of a trading desk's portfolio are sufficiently close to the hypothetical changes in the value of a trading desk's portfolio for the purposes of paragraph 2, taking into account international regulatory developments;*

*(b) the desks that are meeting the P&L attribution requirements for the purposes of Article 325az(1);*

*(c) the consequences for an institution with trading desks that meet the P&L attribution requirements in accordance with point (b) but where the theoretical changes in the value of a trading desk's portfolio still present misalignment with respect to the hypothetical changes in the value of a trading desk's portfolio on the basis of the criteria identified in point (a);*

*(d) the frequency at which the P&L attribution is to be performed by an institution;*

*(e) the technical elements to be included in the theoretical and hypothetical changes in the value of a trading desk's portfolio for the purposes of this article;*

*(f) the manner in which institutions that use the internal model are to aggregate the total own funds requirement for market risk for all their trading book positions and non-trading book positions that are subject to foreign exchange risk or commodity risk, taking into account point (b) and point (c).*

#### **Recommendation MR 18: Qualitative add-on for multiplier**

The EBA recommends maintaining the possibility of increasing the multiplication factor in line with the FRTB and the current CRR, and thus proposes amending Article 325bf(6) as follows:

*The multiplication factor ( $m_c$ ) shall be the sum of the value of at least 1.5 and an add-on between 0 and 0.5 in accordance with Table 3 [...].*



# 1. Policy advice on CVA risk

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## 1.1 Background

6. 'Credit valuation adjustment' or 'CVA' is an adjustment to the fair value of a portfolio of transactions with a counterparty to account for counterparty credit risk (CCR). CVA is commonly viewed as the price of CCR and should be recognised in the fair value measurement of derivative instruments under accounting requirements (e.g. IFRS 13 in the EU), thus having a direct impact on P&L figures and banks' financial statements.
7. During the financial crisis, banks suffered significant CCR losses on their OTC derivatives portfolios; however, the majority of these losses did not come from actual counterparty defaults but rather from fair value adjustments on derivatives, particularly CVA. According to the BCBS<sup>7</sup>, roughly two-thirds of CCR losses were due to CVA losses and only about one-third were due to actual defaults. It is worth mentioning that, while CVA losses occurred from the global deterioration of the credit quality of most participants in the derivative markets, CVA losses were highly concentrated on banks' exposures to monoline insurers and credit derivative product companies that were providing credit protection on asset-backed securities and structured credit derivative instruments (especially senior and super-senior CDO tranches).
8. Under the Basel II framework<sup>8</sup>, banks were required to hold capital against the variability in the market value of their derivatives in the trading book, but there was no requirement to capitalise against losses due to CVA. At the same time, the CCR framework under Basel II was designed to capitalise for default and migration risk, rather than the potential accounting losses that can arise from CVA.
9. To address this shortcoming, the BCBS introduced the CVA framework — and its related (CVA) capital charge — under the Basel accord, as part of the Basel III framework<sup>9</sup>. Under this framework, institutions calculate capital requirements for CVA risk under two approaches: either (1) the AM, subject to approval for the use of the IMM for CCR and approval for the use of an internal model for specific risk of debt instruments; or (2) the SM.
10. In the EU, the CVA risk framework has been included in Regulation (EU) No 575/2013<sup>10</sup> (Capital Requirements Regulation – CRR), under Part III, Title VI. Under the CRR, institutions calculate capital requirements for CVA risk by applying either the AM (Article 383 of the CRR) or the SM (Article 384 of the CRR), as envisaged in the Basel standards; however, institutions using the OEM for CCR may apply — subject to the prior consent of the competent authority — an

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<sup>7</sup> <https://www.bis.org/press/p110601.pdf>

<sup>8</sup> <https://www.bis.org/publ/bcbs128.pdf>

<sup>9</sup> <https://www.bis.org/publ/bcbs189.pdf>

<sup>10</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R0575>

alternative treatment (Article 385 of the CRR). This alternative treatment was introduced in the CRR to account for proportionality in the CVA framework, whereby institutions with supposedly limited exposures to CVA risk may use a less complex method for the calculation of own funds requirements for CVA risk.

11. In the CRR, the EBA was assigned a series of mandates in the regulatory area of CVA risk that served the objective of completing the technical specifications of the CVA risk framework, with a view to ensuring its harmonised implementation in the EU. Among the papers developed to address the mandates in the area of CVA risk, the EBA published in February 2015 its report on CVA<sup>11</sup> under Article 456(2) of the CRR (hereafter referred as the 'report on CVA'), together with its Opinion<sup>12</sup> on CVA risk.
12. In its report on CVA, the EBA analysed the treatment of CVA risk as set out under the CRR and put forward a series of policy recommendations aimed at addressing identified issues related to the CVA framework as implemented in the EU, and also provided recommendations concerning the review of the CVA framework in Basel, alongside the ongoing revisions to the standards on the minimum capital requirements for market risk (i.e. the FRTB).
13. In July 2015, the BCBS issued a consultative document<sup>13</sup> on revisions to the CVA risk framework, with the aim of (as particularly noted in that paper):

- Capture all CVA risks and allow better recognition of CVA risk hedges, thus also enhancing the risk sensitivity of the framework.

CVA depends on two components: (1) the credit risk of the counterparty, and (2) the expected exposure of the netting set, with the latter varying over time depending on changes in the market risk factors that affect the value of the transactions in the netting set. The current framework for CVA risk covers the credit risk component of CVA, but not the exposure component. As a consequence, the current framework also does not recognise the hedges that banks put in place to hedge the variability of the exposure component of CVA. The revised CVA framework takes into account the exposure component of CVA risk, along with its associated CVA hedges.

- Align with industry practices related to CVA accounting.

Accounting CVA standards and industry practices related to CVA risk have evolved, and the regulatory CVA formula used in the AM does not incorporate many of the hedging strategies that banks now employ under various accounting regimes, and this could thus lead to a regulatory capital for CVA risk that is not in line with actual CVA risk. With a view to bringing the regulatory CVA risk charge more in line with banks' accounting and internal risk practices and also considering the increased converge in accounting practices related

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<sup>11</sup> <https://eba.europa.eu/documents/10180/950548/EBA+Report+on+CVA.pdf>

<sup>12</sup> <https://eba.europa.eu/documents/10180/983359/EBA-Op-2015-02+%28EBA+Opinion+on+CVA+risk%29.pdf>

<sup>13</sup> <https://www.bis.org/bcbs/publ/d325.pdf>

to CVA, under the revised CVA standards banks are allowed to use their models for calculating accounting CVA, subject to some conditions aimed at representing best and prudential practices for CVA calculations.

- Align/ensure consistency with the market risk framework.

CVA is a fair value adjustment recognised in the P&L and is sensitive to the same risk factors as instruments held in the trading book. Consequently, the capital charge for CVA risk should be closely linked to the capital charge for market risk. In line with this principle, the revised CVA framework has been designed and calibrated to be consistent with the approaches used in the revised market risk framework.

14. In the 2015 consultative document on revisions to the CVA risk framework, the BCBS proposed the following hierarchy of approaches for calculating CVA capital charges, which envisages an overhaul of the current approaches:

- The 'FRTB-CVA framework' consisted of a proposed SA-CVA and a proposed IMA-CVA, and to use this framework the eligibility criteria for its usage had to be satisfied and approval had to be obtained from the competent authority. The two approaches were developed to be very similar to the FRTB-SA and FRTB-IMA, respectively, but with some simplifications, to avoid undue computational burden.
- The 'basic CVA framework' would apply to banks that do not meet the FRTB-CVA requirements or that do not have the resources to apply the FRTB-CVA framework. This framework consists of a single BA-CVA, which was developed as an improved version of the current SM for CVA risk.

15. Taking into account the comments received to the consultative document, the BCBS finalised the CVA risk standards as part of the Basel III post-crisis reforms published on 7 December 2017. Similar with the other post-crisis reforms (e.g. on credit risk, operational risk, output floor, and SFTs), the revised CVA risk framework is set to be implemented as of 1 January 2022.

16. Under the BCBS revised CVA framework published within the Basel III post-crisis reforms in December 2017, institutions may finally calculate own funds requirements for CVA risk under the following approaches:

- The SA-CVA, subject to meeting eligibility criteria and supervisory approval.

This approach is an adaptation of the FRTB-SA. In particular, under this approach institutions need to calculate CVA sensitivities of their regulatory CVA to delta and vega risk factors, and then prescribed formulas and risk weights are provided to calculate risk-weighted sensitivities and aggregate them to obtain the capital requirement for CVA risk.

- The BA-CVA otherwise.

Under the standards, this approach is in turn composed of two sub-approaches: the reduced BA-CVA (where CVA hedges are not permitted), and the full BA-CVA (where CVA hedges are permitted).

The capital requirements for CVA under the BA-CVA is calculated as  $K = \beta \cdot K_{reduced} + (1 - \beta) \cdot K_{hedged}$ , where  $K_{reduced}$  and  $K_{hedged}$  are respectively the capital requirements under the reduced BA-CVA and full BA-CVA, and  $\beta = 0.25$  if  $K_{hedged}$  is calculated, otherwise  $\beta = 1$  (i.e.  $K = K_{reduced}$ ).

- In addition, institutions whose aggregate notional amount of non-centrally cleared derivatives is less than or equal to EUR 100 billion (i.e. the ‘materiality threshold’) may choose to set the CVA capital requirement equal to the capital requirement for CCR. However, the competent authority may not allow the usage of such approach if it determines that the CVA risk stemming from the bank’s derivative positions materially contribute to the bank’s overall risk.

17. With respect to the approaches for calculating CVA capital requirements on which the BCBS consulted, it is noted that the possibility of employing the IMA-CVA has been removed. On the contrary, a simpler approach than the BA-CVA has been included for institutions below the materiality threshold to cater for proportionality considerations. The BCBS communicated its intention to remove the IMA-CVA approach as part of its March 2016 consultative document on constraints on the use of internal model approaches for reducing variation in credit RWAs<sup>14</sup>. In this document, it was noted that the BCBS had reservations as to whether CVA can be effectively captured within an internal model designed to capture market risk in the trading book, and that it considered that the additional complexity of the IMA-CVA is not warranted for these purposes.

18. Following these publications, in April 2019 the BCBS launched the Basel Consolidated Framework<sup>15</sup> for consultation. This new section of the BCBS website sets out the consolidated version of its global standards for the regulation and supervision of banks. Within the Basel Consolidated Framework, the standards on the CVA framework have been included within the standards on the calculation of RWAs for market risk, and are specified in the MAR50<sup>16</sup> standards ‘Credit valuation adjustment framework’.

19. In the consultation<sup>17</sup> associated with the Basel Consolidated Framework, the BCBS also consulted on proposals for technical amendments to the BCBS standards and published new FAQs, some of which refer to the CVA framework. The consultation on the draft Basel Consolidated Framework ended on 9 August 2019.

20. Finally, the BCBS issued on 28 November 2019 a consultative document<sup>5</sup> on targeted final revisions to the CVA risk standards published in December 2017 as part of the Basel III post-crisis

<sup>14</sup> <https://www.bis.org/bcbs/publ/d362.pdf>

<sup>15</sup> <https://www.bis.org/bcbs/publ/d462.htm>

<sup>16</sup> [https://www.bis.org/basel\\_framework/chapter/MAR/50.htm?inforce=20220101](https://www.bis.org/basel_framework/chapter/MAR/50.htm?inforce=20220101)

<sup>17</sup> <https://www.bis.org/bcbs/publ/d462.pdf>

reforms. In this consultative document, the BCBS proposed targeted revisions to the CVA risk standards intended to:

- Align the CVA risk framework with the revised market risk framework (i.e. the FRTB): to this end, the BCBS proposed adjustments to a set of risk weights; it proposed to introduce index buckets under the SA-CVA; and it proposed adjustments to the cross-bucket aggregation formula under the SA-CVA.
- Further align the CVA risk framework with the underlying CVA risks, by considering a set of adjustments to the overall calibration of the CVA risk framework: in particular, the BCBS proposed some revisions to the scope of transactions subject to capital requirements for CVA risk; it proposed to lower to 5 business days the floor for the MPoR of clearing members' exposures to clients under the SA-CVA; and it considered adjustments to the  $m_{CVA}$  multiplier under the SA-CVA, and respective adjustments to the calibration of the BA-CVA via the application of a general scalar to the overall BA-CVA capital requirement.

21. The EBA is supportive of the efforts of the Basel Committee to ensure an appropriate calibration of the revised CVA risk framework.

## 1.2 Scope of this report on CVA

22. Following the publication of the Basel III post-crisis reforms in December 2017, the European Commission submitted the CfA<sup>1</sup> on the implementation of those standards in the EU to the EBA on 5 May 2018. The CfA section related to the CVA risk framework is Section 4, which requests that the EBA:

- Estimate the capital impact of introducing the revised framework for CVA risk.
- Estimate the capital impact of removing the CVA exemptions under Article 382 of the CRR, including highlighting potential inconsistencies related to the exemptions and ways to address them.
- Provide estimates and considerations related to the proportionality of capital requirements for CVA to firms with less exposure to CVA risk, including on alternative thresholds to the one specified in the BCBS standards to allow these firms the use of simplified approaches. Assessments related to the calibration of such approaches is also required.
- Highlight any unintended issues, and provide any recommendations to address them where appropriate, related to (1) the definition of regulatory CVA, (2) the application of CVA risk capital requirements for fair-valued SFTs, and (3) the recognition of credit indices as eligible CVA hedges.

23. The CfA requires the EBA to provide its assessments on the basis of the framework that would take into account any amendments to the CVA and market risk standards that the BCBS would have adopted before the deadline for delivering the response to the CfA, which for its CVA and

market risk parts is 30 September 2019. With regard to the market risk section of the CfA, this means that the assessment should be performed on the basis of the market risk standards finalised in January 2019, while for CVA risk the assessment should take into account the amendments made by 30 September 2019 to the CVA standards finalised in December 2017 as part of the Basel III post-crisis reforms.

24. In this regard, by the deadline of 30 September 2019 set out in the CfA, the BCBS had not performed amendments to the CVA risk standards<sup>18</sup>. Therefore, the assessment made by the EBA for the purposes of the CfA could not fully consider the changes proposed by the BCBS in its November 2019 consultative document on the targeted revisions to the CVA standards. In particular, the EBA notes that any final revisions to the CVA standards would clearly have a direct consequence on the EU implementation of the revised CVA framework.
25. Given the targeted final revisions to the CVA standards, the EBA's advice should be read with this in mind, and the EBA's assessment is consequently based on the current proposed framework (i.e. the CVA risk framework finalised in December 2017). Nevertheless, to the extent possible and as appropriate, the EBA took into account aspects related to the ongoing revisions in this response to the CfA.
26. The EBA considers that the present advice on CVA risk should suffice for the purposes of the implementation in the EU of the CVA risk framework, also taking into account the scope of the ongoing BCBS consultation. While the EBA supports further monitoring the impact of the revisions to the CVA risk framework, it considers that, taking into account the scope of the ongoing revisions that are also considered as appropriate in this advice, there is no need for additional advice on the implementation of the CVA risk framework at a later stage, once the revisions are completed at international level.
27. At the same time, the EBA continues to support the policy recommendations that it put forward in its report on CVA, which are recalled in the context of this response to the CfA. In this regard, the EBA also notes that some policy recommendations put forward in that report (particularly policy recommendations 1 and 5, which remain applicable regardless of the CVA revisions) had not yet been taken into account by legislators, despite the possibility of doing this in the context of legislative amendments to the CRR that have occurred since the publication of the report on CVA.

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<sup>18</sup> Except the technical amendments and FAQs provided as part of the Basel Consolidated Framework published for consultation.

**Recommendation CVA 1: General position related to the CfA on CVA**

Considering the ongoing targeted revisions to the CVA risk framework at international level, as proposed in the BCBS consultative document on targeted final revisions to the CVA risk standards, at this stage the EBA refrains from providing policy recommendations in this regulatory area, except where these were considered relevant at the time of producing this advice, irrespective of the ongoing revisions to the CVA risk standards. At the same time, the EBA continues to support the policy recommendations that it put forward in its report on CVA, which are recalled in the context of this response to the CfA.

28. The following content is structured as follows, to address the respective CfA requests:

- Section 1.3 will provide policy considerations on the CfA requests related to the CVA exemptions.
- Section 1.4 will provide policy considerations on the CfA requests related to proportionality in the implementation of the revised CVA framework.
- Section 1.5 will provide policy considerations on the CfA requests related to the definition of regulatory CVA under the SA-CVA.
- Section 1.6 will provide policy considerations on the CfA requests related to the application of CVA risk capital requirements to fair-valued SFTs.
- Section 1.7 will provide policy considerations on the CfA requests related to the recognition of credit indices as eligible CVA hedges.
- Section 1.8 suggests targeted adjustments to the CRR, in relation to specific provisions related to valuation adjustments.

29. These sections will particularly include qualitative feedback on these aspects provided by 179 institutions that completed a qualitative questionnaire on CVA risk, which was sent to them for completion by the EBA for the purposes of the CfA. The questionnaire on CVA risk was sent to institutions on 12 November 2018, with deadline for completion by institutions of 11 January 2019. Results from the QIS run for the purposes of the CfA — which are displayed in the QIS report published alongside this document — are also considered where relevant.

30. Regarding the QIS, it is noted that the EBA gathered data for the purposes of the CfA on CVA risk with a data collection carried out in the second half of 2018 and based on data with reference date as of end-June 2018. For the purpose of such data collection, an EU-specific template on CVA was included to assess the impact of the reintegration of the CVA exemptions and the relative calibration of CVA approaches on the basis of the CVA framework finalised in December 2017.



31. The EBA subsequently launched a data collection for the purposes of the CfA on market risk during the first half of 2019, gathering data with a reference date as of end-December 2018. In this data collection, the EBA refrained from requiring additional EU-specific data on CVA risk (e.g. on the CVA exemptions), being mindful of the potential additional burden for institutions and considering in particular the fact that the CVA risk framework had not been subject to amendments by the time that data collection was launched.

### 1.3 CVA exemptions

32. The CfA asked the EBA to assess the impact of moving from the current CVA risk framework to the revised CVA risk framework for the transactions exempted under the CRR. That is, the CfA requires the impact of reintegrating in the scope of the CVA risk capital charge the transactions that are currently exempted from own funds requirements for CVA risk under Article 382(3) and 382(4) of the CRR but which would not be exempted from own funds requirements for CVA risk under the Basel standards.

33. In addition, the CfA requires the EBA to also identify any potential inconsistencies or interpretational issues with the current definitions of the CVA exemptions that may prevent a sound identification of the transactions to be exempted, and to recommend the most appropriate way to address them in case any such inconsistencies or interpretational issues were found.

34. The scope of the CVA risk framework under the CRR is defined in Article 382 of the CRR. It includes all OTC derivative instruments in respect of all business activities other than credit derivatives recognised to reduce credit risk exposures. SFTs are also in the scope if the competent authority determines that the institution's CVA risk exposures arising from SFTs are material. Transactions with CCPs are exempt, although the exemption applies only when the CCP is deemed 'qualifying', in accordance with the definition set out under point (88) of Article 4(1) of the CRR.

35. The scope of the CVA framework under the CRR diverges from the Basel framework with respect to the transactions exempt from own funds requirements for CVA risk and specified under Article 382(3) and 382(4) of the CRR. These transactions, hereinafter referred to as 'CVA exemptions', are:

- transactions between clearing members and clients in the context of indirect clearing, when the clearing member is acting as an intermediary between the client and a qualifying CCP — Article 382(3) of the CRR;
- transactions with NFCs below the EMIR clearing threshold — Article 382(4)(a) of the CRR;
- transactions with intragroup counterparties — Article 382(4)(b) of the CRR;
- transactions with pension fund counterparties — Article 382(4)(c) of the CRR and Article 482 of the CRR;

- transactions with sovereign counterparties — Article 382(4)(d) of the CRR.
36. These exemptions were introduced in the CRR by the co-legislators, in response to concerns that the Basel CVA risk charge was too punitive and may have unintended effects. In particular, concerns were raised that some end-users of derivatives may stop using OTC derivatives to hedge their risks because of the additional cost. Other concerns were raised with respect to the structural characteristics of the EU market (e.g. compared with the US), namely the absence of a capital market union resulting in the EU being more bank intermediated than the US, the existence of different currencies in the EU, and the fact that some business activities are traditionally denominated in US dollars (commodities, aircrafts, etc.), thus making the use of cross-currency swaps much more central in the EU. Concerns were particularly significant among counterparties without a collateral agreement or CDS available on the market — the main risk-mitigant recognised under the CVA risk charge. In particular, these exemptions draw on the exempted counterparties under EMIR to centrally clear (or bilaterally collateralise) OTC derivatives.
37. The scope of the revised Basel CVA risk framework has not changed with respect to the current Basel CVA risk framework, except for the treatment of SFTs, which have to be included in the scope of the CVA risk charge when they are fair valued by an institution for accounting purposes. The CVA exemptions envisaged under the CRR would thus continue to represent a deviation from the Basel scope of transactions under the revised CVA framework.
38. However, as noted in the report on CVA<sup>19</sup>, it is worth clarifying that the exemption of intragroup transactions does not constitute per se a divergence from Basel but rather the specification of a treatment of intragroup transactions, which reflects the application of the Basel standards at the consolidated level of EU parent institutions. The main issue with the EU intragroup treatment of CVA risk in terms of compliance with international standards is its potential extension to third countries considered ‘equivalent’, which stems from cross-references to EMIR, rather than the provisions in the prudential framework, and which ideally should be removed.
39. Likewise, with regard to clients’ cleared transactions, the proposed revisions to the Basel standards waive clients to capitalise their CVA risk exposure to their clearing members for centrally cleared trades when specific requirements are met<sup>20</sup>, and therefore Article 382(3) of the CRR would not represent a complete<sup>21</sup> deviation from the Basel standards. Should the final Basel standards envisage such waiver for client exposures under particular conditions, the deviation under Article 382(3) of the CRR would consist of the waiver for clearing members to capitalise their CVA risk exposures to their clients, in relation to clients’ transactions with the

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<sup>19</sup> Please see page 34 of the report on CVA: ‘The exemption of intragroup transactions does not constitute per se a divergence from Basel, since the Basel standards are applicable on a consolidated basis to internationally active banks.’

<sup>20</sup> The transactions proposed to be exempted are those meeting the conditions of CRE5.4.14 to CRE5.4.16 of the Basel Consolidated Framework related to the standards on capital requirements for bank exposures to central counterparties.

<sup>21</sup> In addition, also the CVA standards waive CVA capital requirements on derivatives transacted directly with a qualified CCP.

clearing member when the clearing member is acting as an intermediary between the client and a qualifying CCP.

40. The EBA has long been analysing and considering the CVA exemptions. In particular, the EBA, in its report on CVA, put forward 16 policy recommendations related to the CVA risk framework, of which six<sup>22</sup> relate to the CVA exemptions. In that report, the EBA analysed the exemptions and outlined potential inconsistencies or interpretational issues related to the CVA exemptions, together with policy guidance and recommendations on some of the issues identified.

41. Consequently, the EBA refers to its report on CVA with regard to the inconsistencies identified and the interpretational issues on the definitions of the CVA exemptions. The EBA also makes reference to the EBA's published Q&As on CVA risk with regard to interpretational issues related to the CRR text. In particular, the following Q&As are relevant to the purposes of the CVA exemptions and should be considered to potentially clarify them:

- for centrally cleared clients' trades — Q&A 2016\_3009 and Q&A 2013\_692.
- for transactions with NFCs — Q&A 2013\_472, as well as the relevant guidance provided by the EBA RTS on exclusion from CVA of non-EU NFCs<sup>23</sup>, as adopted by Commission Delegated Regulation (EU) 2018/728.
- for intragroup transactions — Q&A 2015\_1929 and Q&A 2013\_471.

#### **Issues on the CVA exemptions highlighted by institutions in the qualitative questionnaire submitted for the purposes of the CfA**

42. In the feedback to the qualitative questionnaire submitted by institutions for the purposes of the CfA, many institutions commented that they did not find inconsistencies in the definitions of the CVA exemptions currently set out in the CRR, and that consequently there is no need for further clarification. Alternatively, the inconsistencies and interpretational issues highlighted in the report on CVA and in the published Q&A mentioned above were already believed to cover the main issues identified in the CVA exemptions.

43. Some institutions, however, reiterated their concern on some of those issues. For example, some institutions asked for further clarification in relation to Q&A 2016\_3009 and on whether for centrally cleared clients' transactions under Article 382(3) of the CRR, the clearing member should exempt only the QCCP-facing leg of a transaction cleared on behalf of a client or both the QCCP-facing leg and the client-facing leg. In this regard, the EBA considers that the guidance provided in Q&A 2016\_3009 and in the report on CVA already clarifies the issue raised.

<sup>22</sup> See policy recommendations 1, 3, 4, 5, 6, 16 in the report on CVA.

<sup>23</sup>

<https://eba.europa.eu/documents/10180/1748059/Final+draft+RTS+on+procedures+for+excluding+3rd+country+NFCs+%28EBA-RTS-2017-01%29.pdf/b1b52866-4cdc-4c64-938c-ebf1e8b8f04c>

44. Furthermore, an institution asked if individuals may be considered NFCs under Article 382(4)(a) of the CRR. The EBA already identified this issue in its report on CVA, noting that the qualification as NFC under EMIR is subject to the counterparty qualifying as ‘undertaking’. Consequently, non-undertaking counterparties (e.g. individuals) seem to be mechanically included in the scope of the CVA risk charge, which is probably an unintended consequence of the cross-reference to EMIR. While it is expected that in the context of the exemption for transactions with NFCs retail counterparties should also be excluded from the regulatory CVA risk charge, the EBA also notes that such exemption does not appear to exist under the scope of the CVA charge in the Basel framework.
45. Some institutions also asked for guidance on how to apply Article 382(4)(a) of the CRR for the purposes of the exemption related to NFCs established in a third country. In this regard, the EBA would refer to the RTS on the exclusion from CVA of non-EU NFCs developed under Article 382(5) of the CRR, which were adopted by the European Commission under Commission Delegated Regulation (EU) 2018/728. In addition, the EBA also reiterates that the current text in Article 382(4)(a) should be corrected when it specifies ‘where those transactions do not exceed the clearing threshold’, as the current CRR wording could lead to the unintended consequences mentioned in the background and rationale of that final draft RTS<sup>23</sup>.
46. In the responses to the qualitative questionnaire for the purposes of the CfA, some institutions also commented that the many references made under Article 382(4) of the CRR to EMIR and to other CRR articles increase the level of complexity when it comes to applying those provisions and that the type of counterparties to be excluded could be directly listed within the exemptions. Likewise, it was commented that the particular exemptions may not be mutually exclusive, as for example PSEs may potentially be considered under both Article 382(4)(a) and Article 382(4)(d) of the CRR. One bank also enquired about whether or not promotional banks should be treated as sovereign counterparties under Article 382(4)(d) of the CRR.
47. In this context, the EBA shares the view that the references to EMIR provisions in the context of the CVA exemptions have created a series of interpretational issues. Indeed, making references to other legislative texts may have unintended consequences (particularly because different legislative texts have typically different objectives), and it would therefore be better that the CVA exemptions in the CRR were defined independently, to ensure internal consistency within CRR provisions. Nevertheless, it is also acknowledged that the CVA exemptions took inspiration from those transactions subject to the exemption from the clearing requirement under EMIR, which therefore ensures a consistency in the scope of the exempted transactions between the two legislative texts.
48. Finally, one institution also advocated that market risk hedges (i.e. hedges to the market risk component of CVA) dedicated to the hedging of accounting CVA for exempted transactions should be exempted from the CVA risk capital charge, as they increase the capital requirements compared with a situation in which no hedging is applied. In this context, the EBA agrees that the existence of the CVA exemptions creates in this regard further issues related to the

treatment of CVA hedges of trades exempt from the scope of the CVA risk charge, which would be avoided if the CVA exemptions were removed.

### Expiry of the extension for the exemption of transactions with pension fund counterparties

49. With regard to the exemption for pension fund counterparties under Article 382(4), some institutions noted that there was some ambiguity about whether or not such exemption expired on 16 August 2018, which would have produced, as a consequence, the requirement — from 17 August 2018 — to include transactions with pension fund counterparties in the scope of the CVA risk charge.

50. In particular, according to Article 382(4)(c) of the CRR, transactions with PSAs are excluded from the own funds requirements for CVA risk ‘subject to the transitional provisions set out in Article 89(1) of that Regulation [i.e. EMIR] until those transitional provisions cease to apply’. The Commission had already extended, in accordance with Article 85(2) of EMIR, once by two years<sup>24</sup> and once by one year<sup>25</sup>, the three-year period referred to in Article 89(1) of EMIR. However, that extension ceased to apply on 16 August 2018.

51. Nevertheless, the Commission published a legislative proposal<sup>26</sup> amending EMIR (the so-called ‘EMIR REFIT’ proposal) on 4 May 2017. The EMIR REFIT proposal included amongst other measures a further extension of the temporary exemption for PSAs from the clearing obligation. Subsequently, ESMA published, on 3 July 2018<sup>27</sup> and 8 August 2018<sup>28</sup>, two communications in which — considering the ongoing EMIR REFIT legislative procedure, and the difficulties that certain PSAs would face to start clearing their OTC derivative contracts and trading them on trading venues before they could once again no longer be required to do so when EMIR REFIT comes into force — ESMA indicated that it expected competent authorities to not prioritise their supervisory actions towards entities that are expected to be exempted again in a relatively short period of time, and to generally apply their risk-based supervisory powers in their day-to-day enforcement of applicable legislation in a proportionate manner.

52. At that time the EBA did not issue similar statements for the purposes of the CVA exemption of transactions with PSAs under Article 382(4)(c) of the CRR. The reasons are threefold. First, similarly to ESMA, from a legal perspective, neither the EBA nor competent authorities possess any formal power to dis-apply a directly applicable EU legal text or even delay the start of some of its obligations. Therefore, any changes to the application of the EU rules would formally need to be implemented through EU legislation, and in this case through the amendments to EMIR resulting from the REFIT negotiations.

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<sup>24</sup> Refer to Commission Delegated Regulation (EU) 2015/1515.

<sup>25</sup> Refer to Commission Delegated Regulation (EU) 2017/610.

<sup>26</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017PC0208>

<sup>27</sup> [https://www.esma.europa.eu/sites/default/files/library/esma70-151-1462\\_communication\\_on\\_clearing\\_obligation\\_for\\_pension\\_scheme\\_arrangements\\_0.pdf](https://www.esma.europa.eu/sites/default/files/library/esma70-151-1462_communication_on_clearing_obligation_for_pension_scheme_arrangements_0.pdf)

<sup>28</sup> [https://www.esma.europa.eu/sites/default/files/library/esma70-151-1462\\_communication\\_on\\_clearing\\_obligation\\_and\\_trading\\_obligat\\_.pdf](https://www.esma.europa.eu/sites/default/files/library/esma70-151-1462_communication_on_clearing_obligation_and_trading_obligat_.pdf)

53. Second, from banks' point of view, the consequences of the end of the transitional period (or its 'suspension' until EMIR REFIT comes into force, i.e. if a transition period is re-included in EMIR) are much more limited in magnitude than those that would have affected PSAs (e.g. the clearing obligation). In practice, for banks they should be confined to the operational burden of re-including those transactions in banks' systems and to the resulting increase in CVA capital requirements. None of those effects were expected to be unmanageable, or that would have resulted in material unintended effects, considering that the reintegration of transactions with PSAs into the scope of the CVA risk charge was shown to be of limited impact (to this end the EBA carried out in-house analyses, confirming such results on the basis of data received via the CVA risk monitoring exercises). This result is confirmed also by the evidence given in the QIS carried out for the purposes of the CfA.
54. Moreover, due to the second paragraph of Article 382(4) of the CRR, the exemption of transactions with PSAs entered during the transitional period laid out in Article 89(1) of EMIR would have applied for the length of the contract of those transactions, i.e. only new transactions with PSAs (after the expiry of the transitional period) would have been subject to CVA risk capital requirements, further diminishing the potential impacts for banks to capitalise CVA risk for those transactions.
55. Third, any EBA statement on the extension could have been seen as pre-empting the legislators' decision while the legislative process was still undergoing, with which the EBA refrained from interfering. Consequently, in the absence of a legal basis for a further exemption of transactions with PSAs, institutions were expected to apply a CVA risk own funds requirement to their (new) derivative transactions with PSAs as of 17 August 2018.
56. On 20 May 2019, the legislators adopted Regulation (EU) 2019/834<sup>29</sup> (EMIR REFIT), which under Article 1(26) further extended the transitional period set out under Article 89(1) of EMIR until 18 June 2021. Consequently, the CVA exemption under Article 382(4)(c) of the CRR for transactions with PSAs is (again) applicable until 18 June 2021.
57. In addition, Article 1(24) of EMIR REFIT also amended Article 85(2) of EMIR, under which the 'Commission may adopt a delegated act in accordance with Article 82 to extend the two-year period referred to in Article 89(1) twice, each time by one year, where it concludes that no viable technical solution has been developed and that the adverse effect of centrally clearing derivative contracts on the retirement benefits of future pensioners remains unchanged'. Under such provision the Commission may therefore as applicable going forward further extend the transitional period under Article 89(1) of EMIR beyond 18 June 2021.

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<sup>29</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0834>

### Impact of the reintegration of the CVA exemptions and policy recommendation

58. The EBA report on CVA also provided an overview of the impact of the reintegration of the CVA exemptions in the scope of the CVA risk charge, and, on the basis that CVA risk generated by exempted transactions can be material and should be captured prudentially, the EBA recommended<sup>30</sup> that all the CVA exemptions should be reconsidered and possibly removed in the context of legislative amendments to the CRR, upon completion of a review of the CVA risk charge in Basel. The report also provided recommendations on how to amend the CVA risk framework as part of the Basel review. Furthermore, to partially address the risks generated by the CVA exemptions, the EBA recommended developing ‘an EBA coordinated approach for yearly monitoring the impact of transactions exempted from the CVA risk charge and for defining situations constituting a presumption of excessive CVA risks to be considered under SREP’.
59. This resulted in the EBA issuing, on 12 November 2015, a Consultation Paper on draft Guidelines on the treatment of CVA risk under SREP<sup>31</sup>, in which the EBA proposed an approach for determining situations of material CVA risk and for assessing the need for Pillar II own funds requirements to cover for material, uncapitalised CVA risks. However, due to continued developments in the CVA risk framework at international level, the EBA put the work on its draft Guidelines on the treatment of CVA risk under SREP on hold until further notice. Instead, the EBA focused on the yearly monitoring of the impact of transactions exempted from the CVA risk charge, which resulted in the EBA issuing its report on the 2015 CVA risk monitoring exercise<sup>32</sup> and its report on the 2016 CVA risk monitoring exercise<sup>33</sup>, published on 21 June 2017 and 4 May 2018, respectively.
60. The EBA’s reports on the CVA risk monitoring exercises showed — consistent with the report on CVA — the materiality of CVA risks that are currently not capitalised because of the CVA exemptions. For the purposes of those analyses however, the impact of the reintegration of the exempted transactions was performed using the current methods for calculating own funds requirements for CVA risk.
61. The CfA requires instead to calculate the impact of the reintegration — in the scope of the CVA risk capital charge — of the exempted transactions, using the revised methods for calculating CVA own funds requirements as set out in the Basel III post-crisis reforms standards. As can be seen in the QIS report, the reintegration of the CVA exemptions continues to have, on average, a material impact on CVA risk capital charges, which is consistent with material and, in some cases, excessive, uncapitalised CVA risks.

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<sup>30</sup> Please refer to policy recommendations 3, 4 and 15 of the report on CVA.

<sup>31</sup> <https://eba.europa.eu/documents/10180/1270333/EBA-CP-2015-21+%28CP+on+GL+on+Treatment+of+CVA+Risk+under+SREP%29.pdf>

<sup>32</sup> <https://eba.europa.eu/documents/10180/1886574/Report+on+2015+CVA+risk+monitoring+exercise>

<sup>33</sup> <https://eba.europa.eu/documents/10180/2087449/Report+on+2016+CVA+risk+monitoring+exercise.pdf>



62. In this regard, the EBA, consistent with what was expressed in its report on CVA, including the further reasons therein outlined, as well as its Consultation Paper on draft Guidelines on the treatment of CVA risk under SREP, considers that the CVA risk generated by the CVA exemptions can be substantial and should be captured prudentially. In particular, it is noted that institutions in the EU are not required at all<sup>34</sup> to hold capital for CVA risk on the transactions currently exempted, which is inconsistent with a risk-based capital requirements framework. Consequently, the EBA recommends that the CVA exemptions should be removed in the context of legislative amendments to the CRR.
63. The EBA also notes that under Directive (EU) 2019/878 (CRD V)<sup>35</sup> competent authorities are now more clearly able, under Article 104(1)(a), to impose additional capital requirements under the conditions set out in Article 104a of CRD V.
64. In particular, under the provisions in Article 104a(1)(a) of CRD V in combination with those under Article 104a(2), competent authorities shall impose an additional own funds requirement where on the basis of their supervisory review, the institution is exposed to risks or elements of risks that are not sufficiently covered, which also include elements of risks that are explicitly excluded from, or not explicitly addressed by the own funds requirements set out in Parts Three, Four and Seven of Regulation (EU) No 575/2013 and in Chapter 2 of Regulation (EU) 2017/2402. CVA risks that are explicitly excluded via the CVA exemptions would thus need to be further considered by competent authorities in their supervisory review, in line with those provisions, with the application of Pillar II capital charges for uncovered material CVA risks. These mandatory Pillar II requirements clearly question the relevance of maintaining the CVA exemptions.
65. These elements are considered to provide valid reasons for the removal of the CVA exemptions. While it is acknowledged that the exemptions currently outlined in the CRR mimic the exemptions for the clearing obligation under EMIR and are associated with a particular decision from the co-legislators when finalising the CRR, the EBA reiterates that the transactions exempted from the EMIR clearing obligation should always, in principle, be subject to a CVA risk charge, as they are not required to be collateralised and thus — other things being equal — generate a comparatively greater CVA risk. The removal of the CVA exemptions could also serve additional policy objectives, such as incentivising the central clearing of those transactions currently exempted from capital requirements for CVA risk.
66. The EBA recognises that the revised CVA framework as specified in the Basel III post-crisis reforms published in December 2017 appears to lead to a material increase in capital requirements for CVA risk as shown in the QIS report. Furthermore, the EBA also notes that the CVA standards in Basel have been reviewed in a way not always consistent with the policy

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<sup>34</sup> At least under Pillar I capital requirements.

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[https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L\\_.2019.150.01.0253.01.ENG&toc=OJ%3AL%3A2019%3A150%3ATOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2019.150.01.0253.01.ENG&toc=OJ%3AL%3A2019%3A150%3ATOC)

recommendations<sup>36</sup> that the EBA put forward on the review of the CVA framework, as set out in its report on CVA.

67. Among those revisions, the removal of the IMA-CVA — despite its usage was supported by the EBA as noted in the report on CVA — which complicated, potentially irremediably, the picture. In particular, should the increase in CVA capital requirements turn out to be partially a consequence of the removal of the IMA-CVA and of the subsequent use — for large derivative portfolios — of the less risk-sensitive SA-CVA, this may not be fully justified from a prudential perspective. In this regard, the EBA continues to support the recommendations and considerations it put forward in its report on CVA, including those regarding the use of the IMA-CVA and the overall calibration of the CVA risk charge.
68. In this regard however, the ongoing targeted revisions at international level to the CVA risk standards, which inter alia consider adjustments to reduce their overall capital impact, should also reduce the impact of the removal of the CVA exemptions and thus address, at least partially, the concerns over such action. Moreover, the impact numbers from removing the exemptions may give a biased picture, as institutions could for instance avoid part of the impact by hedging the exposures from counterparties being reintegrated into the CVA scope (as currently, due to the CVA exemptions, firms may not hedge the CVA risk to the exempted counterparties), and in addition some of the exempted transactions could be moved to central clearing, further diminishing the impact of removing the CVA exemptions.
69. Furthermore, while issues related to the calibration of the CVA risk charge should be considered in the implementation of the revised CVA standards, the EBA considers that the calibration of the CVA risk charge should, in principle, be considered separately from the removal of the CVA exemptions.
70. In this context, the EBA particularly notes that any revisions to the methods for calculating CVA risk capital requirements at international level should not be expected to alone avoid the capital impact due to the removal of the CVA exemptions, which represent the major contributor to the increase in capital requirements for CVA risk to ensure alignment with the Basel standards. The increase in capital requirements for CVA risk is an intrinsic consequence of the removal of the CVA exemptions, which will, however, ensure the capture of CVA risks stemming from those transactions for prudential purposes and the alignment with international standards.
71. In this regard, the EBA also particularly reiterates that the prudential regulatory framework in the EU and in the nine EU Member States that are BCBS members was evaluated by the BCBS in its RCAP as being ‘materially non-compliant’ with the minimum standards prescribed in the Basel framework<sup>37</sup>. This overall grade can be attributed largely to the CVA framework — because of the CVA exemptions — which was assessed as being ‘non-compliant’, i.e. the lowest grade in

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<sup>36</sup> Please refer in particular to policy recommendation 15 of the report on CVA.

<sup>37</sup> <https://www.bis.org/bcbs/publ/d300.pdf>

the four-grade scale. The removal of the CVA exemptions should consequently also have positive consequences for the purposes of the BCBS RCAP in the EU.

72. Although the removal of the CVA exemption is suggested, taking into account the above considerations the EBA also recommends that grandfathering and/or transitional provisions should also be employed commensurate with the expected impact of the revisions to the CVA risk framework, when the impact of such revisions can be more accurately assessed (e.g. after the BCBS has finalised the revised CVA risk framework). This should ensure a proportional phasing-in of the capital impact due to the removal of the CVA exemptions, thus being mindful of the consequences on institutions of such action.

#### **Recommendation CVA 2: CVA exemptions**

Consistent with its previous positions, the EBA considers that the CVA risk generated by the CVA exemptions can be substantial and should be captured prudentially. In particular, it is noted that institutions in the EU are not required to hold capital for CVA risk stemming from the transactions currently exempt, which is inconsistent with a risk-based capital requirements framework.

Therefore, while also recalling the importance of the alignment with international standards for CVA risk, the EBA recommends that the CVA exemptions should be fully removed, subject to phasing-in measures that are commensurate with the expected impact of the revisions to the CVA risk framework, when the impact of such revisions can be more accurately assessed.

## 1.4 Proportionality for CVA

73. As described above, the Basel revised framework for CVA risk includes:

- a SA-CVA;
- a BA-CVA, which can be employed either in a reduced version (i.e. without the recognition of CVA hedges) or in a full version (in which case CVA hedges are recognised); and
- a simplified treatment for CVA risk for banks that fall under the materiality threshold (i.e. aggregate notional amount of non-centrally cleared derivatives less than or equal to EUR 100 billion).

74. Institutions that use the simplified treatment calculate the capital requirement for CVA risk as 100% of the capital requirement for CCR. In particular, if chosen, this treatment must be applied to a bank's entire portfolio instead of the BA-CVA or the SA-CVA. The competent authority can remove this option if it determines that the CVA risk resulting from an institution's derivative positions materially contributes to the institution's overall risk.

75. The CfA requires to assess, among other things, the appropriateness of the proportionality of the CVA framework envisaged in the Basel standard. In particular, the EBA should consider the appropriateness of the threshold of EUR 100 billion for the aggregate notional amount of non-centrally cleared derivatives to use the simplified treatment to calculate own funds requirements for CVA risk. To assess the appropriateness of the threshold, the own fund requirements resulting from the simplified treatment should not be materially lower than the own funds requirements resulting from the BA-CVA, using the current scope of application of the own funds requirements for CVA risk under the CRR.
76. Furthermore, the EBA should assess how many institutions in the EU would be eligible under the simplified treatment and whether the abovementioned threshold is an adequate measure to identify institutions with limited CVA risk. The EBA should also assess alternative or additional (including relative) thresholds that could be used, making reference to the threshold proposed in the EU banking package (i.e. the legislative proposal that led to the CRR2) to determine the eligibility for the use of the simplified SA-CCR and the (revised) OEM.
77. Finally, the EBA should provide an estimate of the number of institutions applying the treatment laid out in Article 385 of the CRR to compute own funds requirements for CVA risk. Under this approach, institutions that apply the OEM may, subject to approval from the competent authority, apply a multiplication factor of 10 to the risk-weighted exposure amounts for CCR of exposure in the scope of the CVA risk framework instead of calculating own funds requirements for CVA risk. In this assessment, and considering the aforementioned simplified treatment, the EBA should propose whether to keep, amend or replace the treatment laid out in Article 385 of the CRR. The EBA should also assess the extent to which institutions that currently use the treatment laid out in Article 385 of the CRR would be eligible to use the simplified treatment introduced by the revised CVA framework.
78. For the analysis outlined in this section, 105 institutions submitted data meaningful for the purpose of the CfA (large institutions — 68; medium institutions — 32; small institutions — 5)<sup>38</sup>. Data provided were on a best-effort basis and were not audited. Accordingly, while data quality issues were considered to the extent possible in the development of the response to the CfA, results should be treated with caution.
79. In addition, it should be noted that the quantitative results considered in this section have been computed on the basis of the current CVA risk framework and the CVA risk framework finalised

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<sup>38</sup> For the purposes of the CfA, the EBA chose to classify institutions in the QIS sample as either 'large', 'medium' or 'small and non-complex', in accordance with the criteria specified in the May 2018 Council proposal for the CRR2 (available at <http://data.consilium.europa.eu/doc/document/ST-9055-2018-INIT/en/pdf>). Please see in particular Section 2.3.1 and 2.3.2. of the QIS report, developed for the purposes of addressing the first part of the CfA and published on 5 August 2019 (available at <https://eba.europa.eu/sites/default/documents/files/documents/10180/2886865/62e63ce7-2e78-445e-be66-5afacf54c7b7/Basel%20III%20reforms%20-%20Impact%20study%20and%20key%20reccomendations.pdf>) for further details on these definitions.

Compared with the draft proposal for the CRR2 from May 2018, in the final CRR2 the criteria for identifying small and non-complex institutions have been slightly changed, as additional conditions were added for an institution to be identified as small and non-complex. The updated classification could however not be used because the necessary data were not collected from institutions.

in December 2017 — i.e. the calculations do not reflect the changes to the CVA risk framework on which the BCBS was consulting at the time when this advice is published).

80. Nevertheless, it is considered that the results shown in this section would be relevant irrespective of the ongoing targeted revisions to the CVA risk standards at international level. This is because the ongoing revisions do not affect the capital requirements for CVA risk calculated under the simplified treatment, although they could reduce the capital requirements under the BA-CVA<sup>39</sup>. Consequently, the assessments made as regards the impact of the simplified treatment should remain applicable irrespective of the ongoing revisions, whereas with regard to the impact of the BA-CVA this would represent an upper bound for the purposes of this section (e.g. it would be overestimated), as it could be reduced under the ongoing revisions.

#### **1.4.1 Assessment of the appropriateness of the materiality threshold for the simplified treatment**

81. This section presents an assessment of the appropriateness of the Basel simplified treatment for calculating capital requirements for CVA risk under different thresholds. The assessment focuses on institutions' eligibility to use the simplified treatment as well as a comparison between the CVA capital requirements under the simplified treatment and the BA-CVA approach, with the purpose of establishing an appropriate threshold.

82. To fulfil the conditions of the CfA, the assessment of the resulting CVA capital charges under the simplified treatment has been performed using the current scope of application of the own funds requirements for CVA risk under the CRR (i.e. by not reintegrating the CVA exemptions). On the contrary, when considering the aggregate notional amount of non-centrally cleared derivatives to be compared with the materiality threshold, also derivatives exempted from the CVA charge under Article 382 of the CRR were included.

83. To assess the appropriateness of the Basel materiality threshold for the simplified treatment, the EBA collected data on institutions' notional amounts of derivatives not cleared either through a QCCP or through a CCP. As can be seen in Table 1, for 90% of institutions in the sample, their derivatives cleared through a QCCP represent 100% of their centrally cleared derivatives in terms of notional amount. For this reason, and to follow the general approach of the CRR, whereby non-QCCP cleared derivatives are generally in scope of the CVA risk charge, in the following the threshold used for the analysis is calculated making reference to the derivatives not cleared through a QCCP (rather than through a CCP). Nevertheless, results would be almost identical if the threshold were based on derivatives not cleared through a CCP.

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<sup>39</sup> It is however recognised that the ultimate scope of the CVA risk framework — i.e. in relation to the transactions to be included or excluded from the scope — should be considered for the purposes of assessing its impact. In this context, it should be noted that for the purposes of this section, the transactions considered for the particular analyses have been selected as requested by the CfA. Consequently, should a different scope of transactions be finally employed to determine capital requirements for CVA risk under the particular approaches to CVA risk, this should be considered to properly assess the ultimate impact of the CVA risk framework, including for the purposes of the simplified treatment.

Table 1. Distribution of the ratio of the notional amount of derivatives not cleared through a CCP to the notional amount of derivatives not cleared through a QCCP.

Percentile	Ratio
5th	97%
10th	100%
25th	100%
50th	100%
75th	100%
90th	100%
95th	100%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 95 banks.

## Analyses made using a threshold based on the aggregate notional amount of derivatives not cleared through a QCCP

### Number of banks eligible to use the simplified treatment

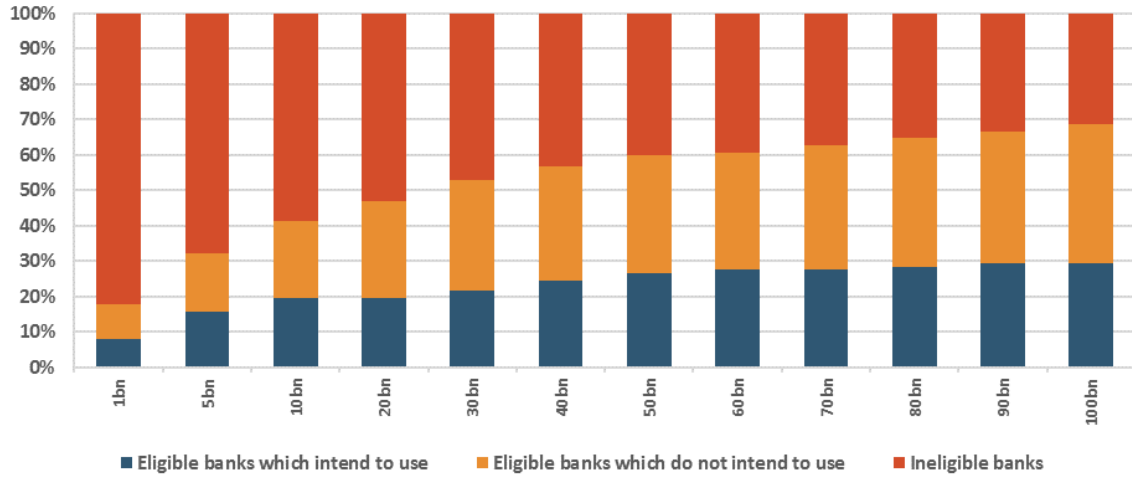
84. As can be seen in Figure 1, at the materiality threshold set by the BCBS, i.e. EUR 100 billion, around 70% of the institutions in the sample would be eligible to use the simplified treatment, of which around 30% flagged that they indeed intend to use it. However, Figure 2 shows that these banks cover only around 15% of the total current CVA RWAs under the CRR scope<sup>40</sup>. The number of eligible institutions reduces progressively as the threshold goes down, leaving around 20% of the banks in the sample eligible at a level of EUR 1 billion (less than 1% of total current CVA RWAs under CRR scope).

85. In terms of size of the institutions qualifying for the simplified treatment, Figure 3 shows that, at the EUR 100 billion threshold, 50% of large banks in the sample will be eligible as well as all medium and small banks. As the threshold decreases, the share of eligible large banks decreases. The number of eligible medium and small banks in the sample starts to reduce only when the threshold reaches around 30 billion and 3 billion, respectively (at the 1 billion threshold level, 41% of medium banks and 60% of small banks remain eligible).

86. It should however be noted that the sample available to the EBA — and considered for the purposes of this analysis — is limited and mainly composed of large and medium banks. If the full sample of EU banks was considered, the results, particularly with respect to the number of institutions eligible to use the simplified treatment, are expected to look very different, with the vast majority of institutions resulting eligible for the simplified treatment.

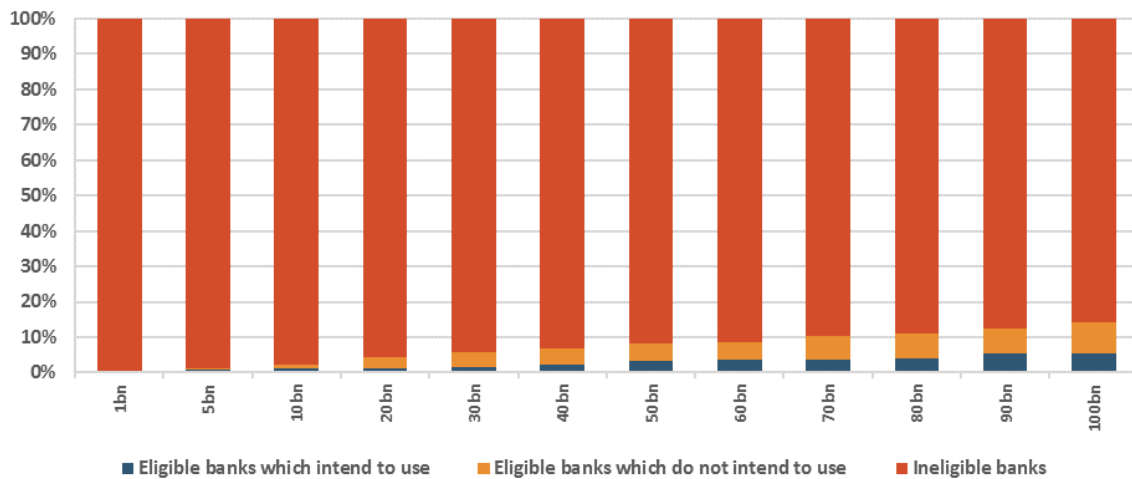
<sup>40</sup> Eligible banks for the simplified treatment cover only around 2% of the total notional amount of derivatives not cleared through a QCCP held by institutions in the sample.

Figure 1. Notional amount of derivatives not cleared through a QCCP (absolute threshold): share of banks in the sample eligible to use the simplified treatment for CVA risk.



Sources: EBA 2018-Q2 QIS data and EBA calculations.  
 Note: Based on a sample of 102 banks.

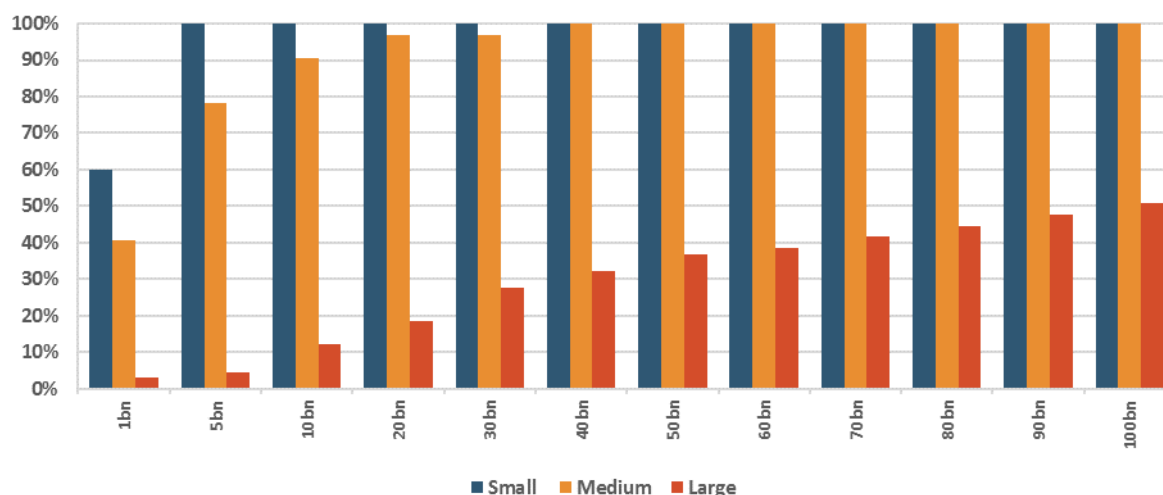
Figure 2. Notional amount of derivatives not cleared through a QCCP (absolute threshold): breakdown of current CVA RWAs (under CRR scope) by banks' eligibility to use the simplified treatment for CVA risk.



Sources: EBA 2018-Q2 QIS data and EBA calculations.  
 Note: Based on a sample of 102 banks.



Figure 3. Notional amount of derivatives not cleared through a QCCP (absolute threshold): share of banks in the sample eligible to use the simplified treatment for CVA risk, by bank size.



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 102 banks.

### Comparison between the simplified treatment and the BA-CVA

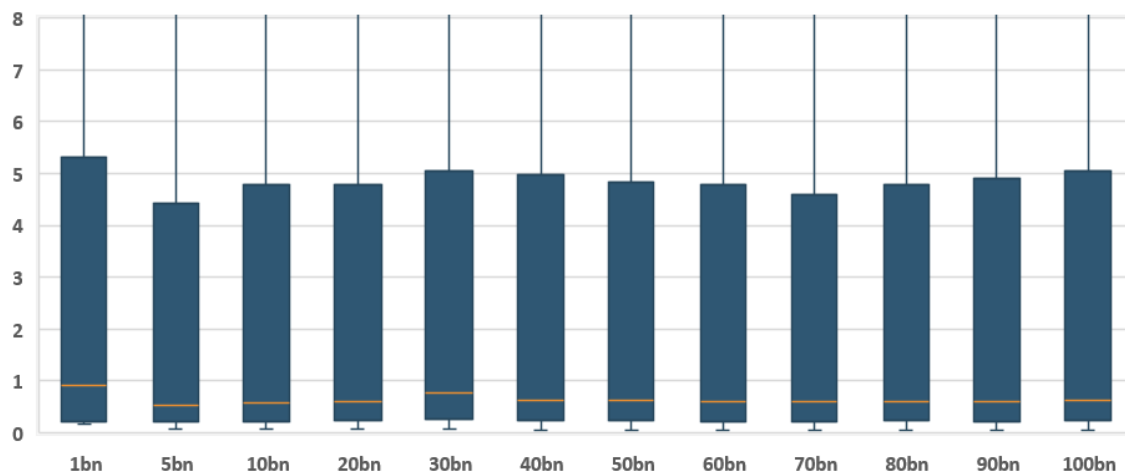
87. The EBA also assessed whether or not the simplified treatment is sufficiently prudent compared with the BA-CVA, which would need to be applied by institutions in the absence of the simplified treatment. The analysis considers the ratio of the CVA RWAs<sup>41</sup> calculated using the simplified treatment to the CVA RWAs calculated using the BA-CVA at different levels for the threshold of notional amounts of non-QCCP cleared derivatives, for those banks in the sample that will be eligible to use the simplified treatment at those specific levels.

88. As can be seen in Figure 4, the sample shows a high variability in results, with outliers at both the lower and upper tail. In addition, the median bank across all thresholds will experience a reduction in capital requirements when using the simplified treatment compared with the BA-CVA. However, for around 25% of the eligible banks, the capital requirements for CVA risk calculated using the simplified treatment are at least four times the capital requirements calculated using the BA-CVA.

89. It should however be considered that the results in Figure 4 are expected to look somewhat different if the BA-CVA is finally recalibrated downwards, as proposed in the consultative document on targeted revisions to the CVA standards that was under public consultation at the time this advice is published.

<sup>41</sup> Please note that this analysis made using the ratio of CVA RWAs produced by different approaches is with no loss of generality with respect to the use of capital requirements for CVA risk, as the numerator and denominator would be scaled by a common factor, to pass from the former to the latter and vice versa.

Figure 4. Notional amount of derivatives not cleared through a QCCP (absolute threshold): ratio of  $100\% \times$  CCR RWAs to BA-CVA RWAs (CRR scope of transactions), eligible banks only.



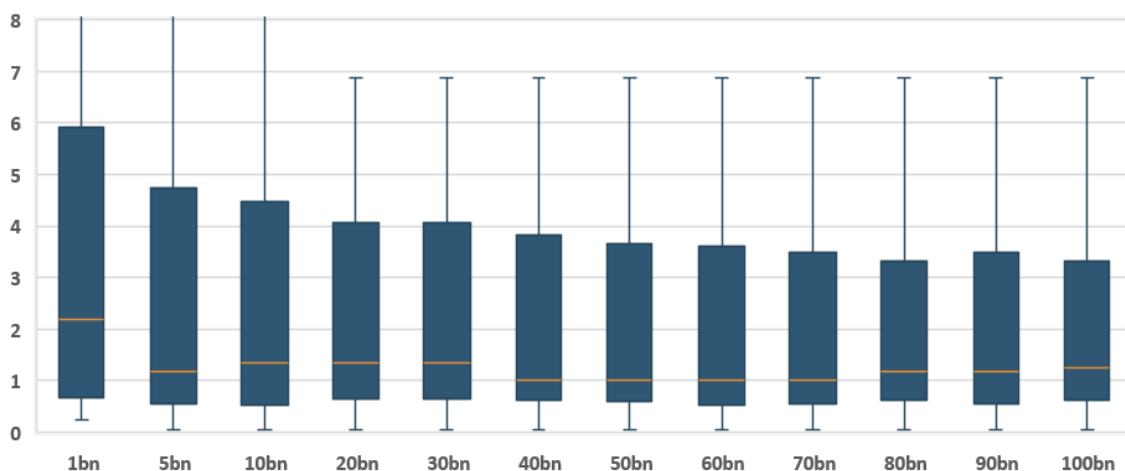
Sources: EBA 2018-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 52 banks. The median is represented by a line. Values below 1 mean that  $100\% \times$  CCR RWAs are lower than BA-CVA RWAs. For presentational purposes, the y-axis is partly censored.

### Comparison between the simplified treatment and the current CVA capital requirements

90. The EBA also inspected how capital requirements under the simplified treatment compare with the current capital requirements for CVA risk for those institutions eligible to use the simplified treatment in the sample. As can be seen in Figure 5, when the threshold is set to EUR 100 billion almost half of the eligible institutions will experience a reduction in capital requirements for CVA risk compared with current levels when using the simplified treatment, and the median bank has a ratio of  $100\% \times$  CCR RWAs to current RWAs of 1.3. This result seems to hold across threshold levels. This result, together with the above analysis, seems to suggest that the calibration of the simplified approach may not be sufficiently conservative.

Figure 5. Notional amount of derivatives not cleared through a QCCP (absolute threshold): ratio of  $100\% \times$  CCR RWAs to current CVA RWAs (CRR scope of transactions), eligible banks only.



Sources: EBA 208-Q2 QIS data and EBA calculations.

Notes: Based on a sample of 60 banks. The median is represented by a line. Values below 1 mean that  $100\% \times \text{CCR RWAs}$  are lower than current RWAs. For presentational purposes, the y-axis is partly censored.

## **Analyses made using a threshold based on the market value of on- and off-balance sheet derivative business**

91. As requested by the CfA, the EBA also analysed the number banks that would be eligible to use the simplified treatment for CVA risk while using absolute and relative thresholds based on the size of the on- and off-balance sheet derivative business, as specified in Article 273a of the CRR2. In this regard, the absolute threshold is based on the market value of the on- and off-balance sheet derivative business, while the relative threshold is based on the market value of the on- and off-balance sheet derivative business expressed as a percentage of the institution's total assets.
92. In particular, under Article 273a of the CRR2, to calculate the own funds requirements for CCR of their derivative transactions, institutions may employ the (revised) OEM and the simplified SA-CCR, when their on- and off-balance-sheet derivative business is equal to or less than (1) EUR 100 million and 5% of the institution's total assets, and (2) EUR 300 million and 10% of the institution's total assets, respectively.
93. Table 2 shows the share of institutions in the sample that would be eligible for the simplified treatment for CVA risk at different absolute and relative thresholds, including those allowed to use the (revised) OEM or the simplified SA-CCR, which are highlighted. As can be seen, under these thresholds the share of banks that would be eligible to use the simplified treatment would be lower than under the BCBS threshold (32% of institutions in the sample when the OEM thresholds are used and 40% of institutions in the sample when the simplified SA-CCR thresholds are used, versus around 70% of institutions in the sample when the BCBS threshold is used). In addition, all institutions in the sample that are eligible for the simplified treatment under the OEM or SA-CCR thresholds would also be eligible for the simplified treatment if the Basel threshold were used instead.
94. It should be noted that a definition for the thresholds based on the market value of derivatives, in accordance with Article 273a of the CRR2, is based on a scope of transactions different from the scope of transactions of the CVA risk framework. In particular, the on- and off-balance sheet derivative business as defined under Article 273a(3) includes all derivative positions except credit derivatives that are recognised as internal hedges against non-trading book credit risk exposures, whereas the CVA risk framework is generally applied to non-centrally cleared derivatives.

Table 2. Market value of on- and off-balance sheet derivative business in accordance with Article 273a of the CRR2 (absolute and relative threshold): share of banks eligible to use the simplified treatment for CVA risk.

Threshold (EUR million; % of total assets)	1%	5%	10%	15%
5	13%	14%	14%	14%
10	15%	16%	16%	16%
50	26%	27%	27%	27%
100	31%	32%	32%	32%
200	36%	39%	39%	39%
300	38%	40%	40%	40%
500	44%	49%	49%	50%
700	45%	52%	52%	53%
1000	46%	57%	58%	60%
1500	47%	63%	64%	66%
2000	50%	68%	69%	71%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 96 banks.

95. Consequently, if the CRR2 thresholds for CCR were to be used, it could potentially lead to situations in which some institutions that have comparatively higher volumes of transactions that fall in the scope of the CVA risk charge are eligible to use the simplified treatment and other institutions with comparatively smaller volumes of transactions that fall in the scope of the CVA risk charge are not eligible. This could happen as a result of the different amounts of centrally cleared derivatives held by those institutions, which would enter the calculation in the comparison against the thresholds, and which would play a role in determining whether or not the thresholds are exceeded, despite not being in scope of the CVA risk framework.

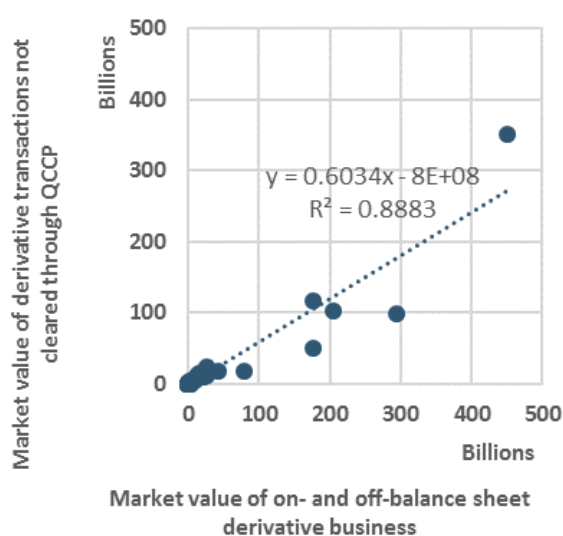
96. That is, assume for example a situation in which the absolute threshold is set at EUR 100 million of the market value of the on- and off-balance sheet derivative business, and suppose bank A holds EUR 80 million of derivatives that fall in the scope of the CVA risk charge and EUR 10 million of centrally cleared derivatives, while bank B holds EUR 20 million of derivatives that fall in the scope of the CVA risk charge and EUR 150 million of centrally cleared derivatives. In this situation, bank B would exceed the EUR 100 million threshold and not qualify for the simplified treatment, as its derivative business amounts to EUR 170 million, while bank A would not exceed the threshold, as its derivative business amounts to EUR 90 million, despite bank B holding a smaller amount of transactions falling in the scope of the CVA risk charge than bank A.

97. In this regard, it is recognised that a threshold definition based on the scope of transactions of the CVA risk charge would be more 'precise' in capturing the 'CVA derivative business' than a threshold based on the 'CCR derivative business', as set out in Article 273a of the CRR2. Nevertheless, Figure 6 shows that, for the sample of banks considered, there is a high correlation between the market value of the on- and off-balance sheet derivative business held by an

institution and the market value of its derivatives in scope of the CVA risk charge. In addition, Table 3 shows that the number of eligible banks for the simplified treatment under a threshold based on the market value of derivatives in scope of the CVA risk charge, albeit higher, is at comparable levels with the results in Table 2.

98. While the sample available to the EBA is limited, and these results should therefore be treated with caution, this analysis appears to suggest that employing thresholds based on Article 273a of the CRR2 could provide outcomes similar to those that would result if the threshold were based on the derivatives in scope of the CVA risk charge.

Figure 6. Scatter plot of market value of derivative transactions not cleared through a QCCP set against market value of on- and off-balance sheet derivative business, all banks.



Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 96 banks.

Table 3. Market value of derivatives not cleared through a QCCP (absolute and relative threshold): share of banks eligible to use the simplified treatment for CVA risk.

Threshold (EUR million; % of total assets)	1%	5%	10%	15%
5	14%	15%	15%	15%
10	18%	19%	19%	19%
50	31%	33%	33%	33%
100	34%	36%	36%	36%
200	40%	44%	44%	44%
300	42%	46%	46%	46%
500	44%	49%	49%	51%
700	47%	54%	54%	55%
1000	48%	56%	56%	57%
1500	49%	63%	63%	64%
2000	51%	67%	67%	68%

Sources: EBA 2018-Q2 QIS data and EBA calculations.

Note: Based on a sample of 97 banks.

#### 1.4.2 Analysis of the use of the alternative treatment under Article 385 of the CRR

99. Article 385 of the CRR specifies that, as an alternative to using the standardised method for CVA risk under Article 384 of the CRR, for instruments included in the scope of the CVA risk charge, and subject to the prior consent of the competent authority, institutions using the OEM as laid down in Article 275 of the CRR, may apply a multiplication factor of 10 to the resulting risk-weighted exposure amounts for CCR for those exposures instead of calculating own funds requirements for CVA risk.

100. The CfA requires to estimate the number of institutions applying the treatment laid out in Article 385 of the CRR. According to the data provided by institutions that participated in the data collection, only one of them indicated that it calculates own funds requirement for CVA risk by applying the treatment laid out in Article 385 of the CRR. In addition, the EBA has carried out a survey among Member States and observed that only a very limited number of institutions make use of Article 385 in the EU (i.e. three institutions)<sup>42</sup>.

101. The institution in the sample, using the threshold set by the BCBS, would be eligible to use the simplified treatment at a very low threshold. In addition, if the alternative thresholds based on Article 273a of the CRR2 were used, this institution would be eligible to use the simplified treatment under the thresholds for using the simplified SA-CCR under the CRR2.

#### 1.4.3 Considerations and policy recommendations on the proportionality treatment for CVA risk

102. The EBA recognises that the introduction of the simplified treatment for CVA risk should address calls for proportionality for the purposes of calculating capital requirements for CVA risk, and, where relevant, shares initiatives aimed at implementing proportionality treatments which have been introduced, or could be introduced going forward, also in other policy areas.

103. In this regard, in relation to the simplified approach for CVA risk under Article 385 of the CRR, in its report on CVA, the EBA noted that there is no strong rationale for allowing an alternative approach for such a limited number of banks that use this approach in the EU, while the SM set out under Article 384 of the CRR is sufficiently simple to be applied by all banks.

104. In terms of complexity, the simplified treatment for CVA risk introduced in the Basel standards is as complex as the approach under Article 385 of the CRR, while the BA-CVA is considered to have a complexity similar to that of the current SM for CVA risk. In addition, on the basis of the above analysis, the (revised) simplified treatment if applied using the Basel materiality threshold is expected to be eligible for the vast majority of EU institutions. At the same time, such approach would yield capital charges that do not reflect CVA risk in a risk-sensitive way, and that

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<sup>42</sup> Please note that CY, BG, CZ, HU, LV, MT, RO, SK did not respond to the survey.

could be lower than capital charges calculated under the BA-CVA, or under the current framework (and certainly much lower than the capital charges computed under Article 385 of the CRR).

105. On the contrary, capital charges calculated under the simplified treatment should be more conservative than those under the BA-CVA, to ensure that appropriate incentives are provided to institutions to better calculate, capture and manage their CVA risks.

106. On the basis of these considerations and consistent with its position in its report on CVA, the EBA has reservations with regard to the introduction of the simplified treatment for CVA risk in the EU as envisaged in the Basel standards. Nevertheless, with the aim of addressing the CfA requests, while taking into account the calls for proportionality, the EBA provides its suggestion on how to set the threshold(s) for eligibility for the use of the simplified treatment, in the event that this were finally introduced in the EU.

107. The EBA, in its analysis of the definition of the threshold for the simplified treatment, has considered several possible definitions for the threshold(s). First, it is noted that the CRR2, for market risk and CCR, employs definitions for 'trading book business' (Articles 94 and 325a of the CRR2) and 'CCR derivative business' (Article 273a of the CRR2), based on the scope of transactions that are respectively in the scope of the market risk framework and the CCR framework, respectively. By analogy, the CVA risk framework could employ thresholds that are consistent with the scope of the 'CVA derivative business' (e.g. non-centrally cleared derivatives). Furthermore, considering that the CRR2 thresholds for market risk and CCR are based on the market value of positions, the threshold employed for CVA risk should possibly also be based on the market value of (derivative) positions to ensure consistency among the thresholds in the CRR.

108. Taking this into account, a natural candidate for the threshold could have been a threshold based on the market value of non-centrally cleared derivatives held by an institution. The Basel threshold, while referring to this same scope of transactions, is based on notional amounts rather than market values and would therefore fail to ensure consistency among the CRR2 thresholds mentioned above. At the same time, a threshold definition in line with Article 273a(3) of the CRR2, while it may not perfectly capture the 'CVA derivative business' as noted above, would allow to introduce a consistent proportionality treatment for the purposes of both CCR and CVA risk within the CRR, as only those institutions that are eligible for a simplified approach for CCR would be allowed the use of the simplified treatment for CVA risk.

109. This would particularly preserve the same configuration currently present under the CRR, whereby only those institutions that use the simplified approach for CCR (currently the OEM) may be eligible for the simplified treatment for CVA risk (currently the treatment laid down in Article 385 of the CRR). Consequently, by building on the proportionality framework for CCR already envisaged in the CRR2, as well as exploiting the consistency in treatment between CCR and CVA risk that would provide its usage, the EBA recommends that, if the simplified treatment for CVA risk envisaged in the Basel III post-crisis reforms were included in the CRR, the thresholds

for its usage should be based on the market value of the on- and off-balance sheet derivative business as defined in Article 273a(3) of CRR2, while the level for the thresholds should be set to be consistent with that established for the use of the simplified SA-CCR, as specified in Article 273a(1) of the CRR2. That is, under this proposal an institution may be eligible to use the simplified treatment for CVA risk if the market value of its on- and off-balance sheet derivative business is equal to or less than both (1) 10% of the institution's total assets, and (2) EUR 300 million.

110. At the same time the EBA supports that — if the Basel simplified treatment for CVA risk were introduced in the CRR — the treatment under Article 385 of the CRR should be removed and replaced with the simplified treatment. In this regard, with the thresholds defined as suggested in the previous paragraph, the institution in the sample inspected that is currently using the simplified approach under Article 385 of the CRR would continue employing a simplified treatment in the new framework, which is desirable and further warrants setting the thresholds at those levels. With such thresholds, a handful of other institutions in the EU also found to currently apply Article 385 of the CRR could possibly preserve their eligibility for the use of the simplified treatment.

111. It is recognised that thresholds for CVA risk based on the market value of the CCR derivative business, in line with Article 273a(3) of the CRR2 — and associated with levels in line with Article 273a(1) or (2) of the CRR2 — could have some downsides, as noted above; however, this would provide several desirable benefits:

- First, the removal of the possibility to apply the simplified treatment where the CVA risk resulting from the bank's derivative positions materially contributes to the bank's overall risk constitutes a discretion open in the framework, and therefore is Basel compliant. In this regard, the absolute and relative thresholds would be implicitly used also for such determination, which is also used to determine the materiality of CCR for the institution to establish whether a simplified approach for CCR may be employed. Should such thresholds be employed, there should also not be the need for any further supervisory discretion to require the use of the BA-CVA when the institution's derivative business falls below the two thresholds, similar with what occurs for the purposes of the CCR framework, as the materiality of CCR and CVA risk would have been already assessed in that computation.
- Second, as noted above, it is considered to ensure a more consistent proportionality treatment for the purposes of both CCR and CVA risk under the CRR for institutions in the EU. With the thresholds set as suggested, only those institutions eligible to use the (more) simplified approaches for CCR — i.e. the simplified SA-CCR and (revised) OEM — would be allowed to employ the simplified treatment for CVA risk. This would also preserve the current equivalent configuration under the CRR, whereby institutions that are allowed to use the (most) simplified approach for CCR (i.e. the OEM) are granted the possibility of using a simplified approach for CVA risk.



- Third, it would allow to limit the use of the simplified treatment for CVA risk to a lesser number of institutions, compared to using the very high Basel threshold of EUR 100 billion for the aggregate notional amount of non-centrally cleared derivatives, which is desirable to ensure a better hierarchy of approaches for CVA risk.
- Fourth, it would ensure that a lower number of firms calculate capital requirements for CVA risk with an approach that is not sufficiently risk sensitive and that may also provide wrong incentives to firms to not properly capture and manage their CVA risk where the capital requirements stemming from such approach result lower than those calculated under the BA-CVA.

112. With regard to the last point in the above paragraph, it is particularly noteworthy that under the current CRR a minimal number of institutions (apparently less than five) currently use the simplified approach under Article 385 of the CRR, whereas firms normally use the SM for CVA risk under Article 384 of the CRR, which is much more risk sensitive than the Basel simplified treatment. The reduction in the risk sensitivity of the CVA risk framework in this context (but also in the context of the removal of the IMA-CVA) is something that the EBA highly regrets — particularly considering that this is motivated by a policy objective, i.e. proportionality or simplicity, which does not necessarily take into account prudential objectives — and the introduction of a somewhat more stringent threshold could allow for a lower number of firms switching to a method that does not properly capture CVA risk.

113. With regard to the calibration of the simplified treatment, in this advice the EBA refrains from providing suggestions on such aspect at this stage, also considering the ongoing revisions to the CVA risk standards at international level. The quantitative analyses presented above seem however to suggest that the calibration of the simplified approach is not sufficiently conservative, yet this may also need to be confirmed by further QIS.

114. Finally, the EBA notes that the considerations and suggestions put forward in this section were made on the basis of a limited sample and unaudited data — which should therefore be treated with caution — at the time of developing this advice. In addition, the ongoing revisions to the CVA risk framework at international level need to be considered to assess the final capital impact of the CVA risk standards, including the simplified treatment. Consequently the capital impact of the revisions to the CVA standards should be further monitored to assess their ultimate impact, which may also lead the EBA to change its thinking going forward as relevant. In this regard, it is also noted that to monitor the impact of the revised CVA framework the COREP templates on CVA risk would need to be updated to reflect the revised approaches for calculating capital requirements for CVA risk.

### Recommendation CVA 3: Proportionality treatment for CVA risk

By building on the proportionality framework for CCR already envisaged in the CRR2 as well as exploiting the consistency in the treatment of CCR and CVA risk that would provide its usage, the EBA recommends that, if the simplified treatment for CVA risk envisaged in the Basel III post-crisis reforms were included in the CRR, the thresholds for its usage should be based on the market value of the on- and off-balance sheet derivative business, as defined in Article 273a(3) of the CRR2, while the level for the thresholds should be set so that it is consistent with that established for the use of the simplified SA-CCR, as specified in Article 273a(1) of the CRR2.

In addition, consistent with policy recommendation 13 put forward by the EBA in its report on CVA, and in light of the very low number of institutions that currently apply Article 385 of the CRR and the availability of the simplified treatment under the revised CVA framework, the EBA suggests removing the treatment under Article 385 of the CRR and replacing it with the simplified treatment.

## 1.5 Definition of regulatory CVA

115. Section 4.6 required the EBA to assess the adequacy of the new principle-based definition of CVA under the SA-CVA. In particular, the CfA required the EBA to estimate, for institutions that intend to use the SA-CVA, to what extent those institutions already comply with the requirements for the definition of regulatory CVA, or if this is not the case, what could be the main issues that prevent them from complying with them. Furthermore, the EBA should consider whether some degree of flexibility or particular specifications should be provided when translating those requirements into EU law to ensure the sound and harmonised application of those principles in the EU.
116. In the Basel standards, CVA risk is defined as the risk of losses arising from changing CVA values in response to changes in counterparty credit spreads and market risk factors that drive prices of derivative transactions and SFTs. In addition, as noted above, CVA reflects the adjustment of default risk-free prices of derivatives and SFTs due to the potential default of the counterparty.
117. When the current Basel CVA framework was developed, due to a lack of consensus in firms' accounting practices, the BCBS developed prescriptive assumptions for the calculation of the CVA charge. Under the SM, the CVA capital requirement depends on a regulatory formula that approximates the CVA risk in a simple manner, whereas under the AM the calculation of (unilateral) CVA has been prescribed with a single formula to measure CVA risks consistently across banks.
118. These prescriptive assumptions, particularly for the AM, led to criticism of the definition of CVA for prudential purposes (i.e. regulatory CVA) vis-à-vis how CVA is measured internally by institutions. In particular, the differences in the definitions for CVA were claimed to result in CVA risk metrics calculated for regulatory purposes to be inconsistent with the CVA risk metrics calculated internally by institutions. Taking into account the alignment in practices related to accounting CVA, the BCBS allowed firms, under the SA-CVA of the revised CVA framework, to

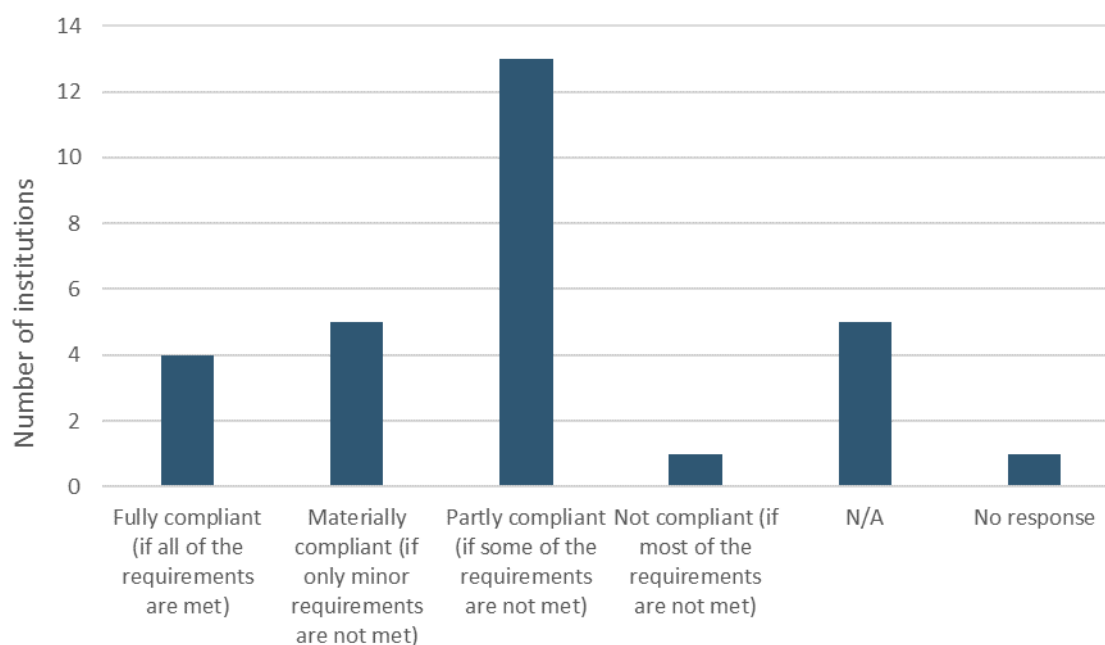
calculate regulatory CVA using their accounting (or front office) CVA, subject however to some conditions aimed to represent best (and prudential<sup>43</sup>) practices for CVA calculations.

119. Accordingly, in contrast with the current framework, the definition of regulatory CVA is based on a set of principles, rather than on a regulatory formula. However, regulatory CVA still differs from accounting CVA: (1) regulatory CVA disregards the effect of a bank's own default risk — i.e. DVA, and (2) several constraints reflecting best practices in accounting CVA are imposed on calculations of regulatory CVA. These constraints (or principles/requirements) for the calculation of regulatory CVA are set out in paragraphs 29 to 35 of the revised CVA standards within the Basel III post-crisis reforms (alternatively, they are set out in paragraphs 50.31 to 50.36 of the CVA standards in the Basel Consolidated Framework).

### Compliance and issues related to the requirements for the calculation of regulatory CVA

120. Taking into account the feedback provided by the institutions that submitted the qualitative questionnaire for the purposes of the CfA, Figure 7 shows the extent to which institutions that intend to apply the SA-CVA comply with the requirements for the calculation of regulatory CVA set out in the revised CVA standards. It can be seen that, among the institutions that intend to apply the SA-CVA, a slight majority stated to be partly compliant with the requirements for the calculation of regulatory CVA. Several institutions stated to be either fully or materially compliant with the requirements. One institution argued that it was not compliant with most of the requirements.

Figure 7. The extent to which institutions that intend to apply the SA-CVA comply with the requirements related to the calculation of the regulatory CVA set out in paragraphs 29 to 35 of the revised CVA standards.



<sup>43</sup> E.g. in relation to the non-recognition of the DVA component.

*Source: Qualitative questionnaire sent to institutions for the purposes of the CFA.*

121. With regard to the requirements for calculating the regulatory CVA that were considered most difficult to comply with, and the main issues preventing institutions from complying with them, the feedback provided by institutions could be broadly categorised as follows:

- **Scope of regulatory CVA.** Some institutions noted that accounting CVA is calculated on a different scope of transactions on potentially different platforms, which creates some challenges in the implementation of the requirements. For example, some institutions commented that they are not calculating CVA for margined counterparties and some SFTs.

Several institutions also expressed concern with regard to the requirement for carving out from the SA-CVA calculations netting sets to be treated under the BA-CVA. In this regard, the possibility to perform the carve out at transaction level rather than at netting set level (and thus allowing netting sets to be split into synthetic netting sets), was strongly advocated, as for some products it would not be possible to include them in the exposure model and calculate sensitivities, with the effect of forcing the full netting set to be treated under the BA-CVA.

- **Proxy data.** Two institutions found the requirements for estimating market-implied PDs challenging. In particular, one institution commented that its current CDS proxy tool does not meet the requirements; the other noted that for small and mid-caps, it may be hard to find a liquid proxy spread, and even for liquid names there could be illiquid tenor points that may cause instabilities in CVA calculations, and therefore it advocated the use of historical PDs. One institution was also concerned about the requirement for exposure models relying on proxy market data to demonstrate empirically on an ongoing basis that the proxies provide a conservative representation of the underlying risk under adverse market conditions.
- **WWR.** Two institutions noted that accounting for WWR and ‘fat tails’ could potentially turn out to be problematic. It was commented that WWR is difficult to be modelled, and it was advocated for it to be rather captured under Pillar II capital requirements.
- **Collateral modelling.** One institution commented that its accounting model for collateral will need to be updated as it has simplifications, and some institutions commented that it is difficult to model the netting uncertainty. In this regard, it was also noted that there are no uniform practices and that the treatment could lead to diversity in modelling across institutions, therefore it was advocated for a more conservative recognition of legal opinions.
- **Sensitivities calculations and generation of exposure paths.** Some institutions noted challenges in calculating all the required sensitivities for the envisaged granularity of risk factors, which could differ from that used for accounting purposes. Some institutions also

noted challenges in the development of the risk-neutral calculation engine to generate paths of exposures.

- **Exclusion of DVA.** One institution noted concern about the requirement for regulatory CVA to assume the bank to be default-free, while advocating an alignment with XVA<sup>44</sup> calculations under which the DVA component is taken into account.
- **MPoR and LGD.** Two institutions expressed concern about the MPoR set out in the standards, advocating either its reduction or more flexibility. One institution also advocated more flexibility on the LGD to be employed in the regulatory CVA calculation.

122. While not specifically related to the principles for the calculation of regulatory CVA, industry participants have also advocated further granularity with respect to the risk weights for CSR. Under the proposal, it was requested to both increase the number of buckets (i.e. by adding new buckets) and the granularity related to the credit quality within buckets (i.e. by segmenting per each credit quality step instead of only in two<sup>45</sup> categories). This proposal would allow to increase the risk sensitivity of the SA-CVA, which is strongly advocated by some industry participants.

123. For the purposes of the CfA the EBA also investigated whether or not institutions consider the available market data sufficient to apply the SA-CVA. As can be seen in Figure 8, the large majority of institutions that intend to apply the SA-CVA in the sample inspected consider the available market data sufficient to employ the SA-CVA. Institutions that considered the available market data not sufficient indicated challenges to gather such data for long dated exposures, and noted that for small and regional counterparties there may not be appropriate proxy spreads from which to derive PDs.

### Considerations on regulatory CVA under the SA-CVA

124. The EBA supports the BCBS revisions related to the definition of regulatory CVA, which partly take into account the recommendation<sup>46</sup> made by the EBA in its report on CVA that advanced institutions should be allowed, subject to conditions, to use their internal CVA pricing models (without reference to the regulatory formula) for the purposes of computing the own funds requirement for CVA risk. In this regard, despite the IMA-CVA was removed against the EBA's recommendation, as far as the revised treatment of regulatory CVA is concerned, this should contribute to ensure a better alignment between the own funds requirements for CVA risk and the CVA risk internally measured by banks.

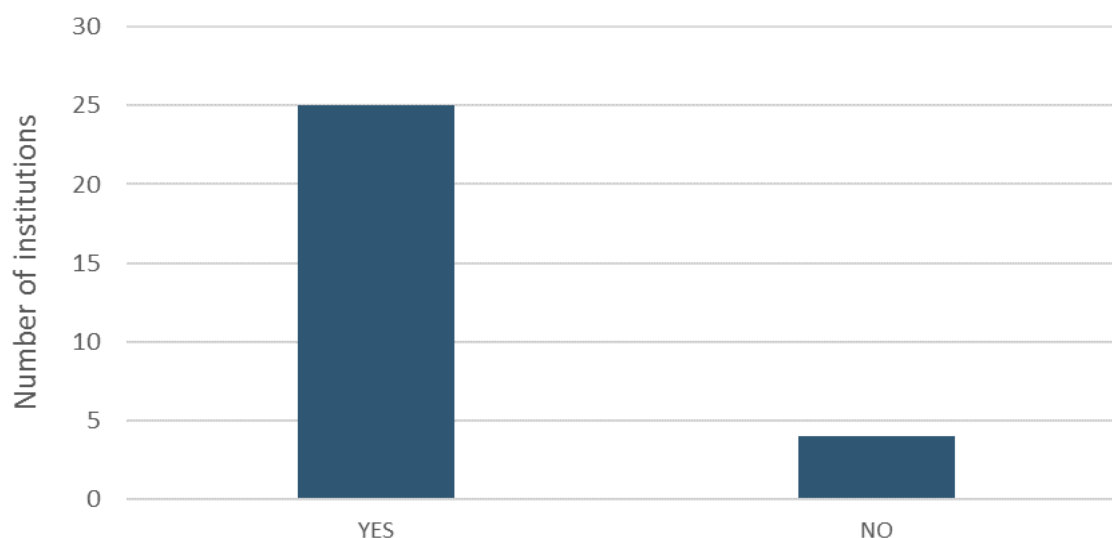
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<sup>44</sup> XVA is a generic term referring collectively to a number of different valuation adjustments.

<sup>45</sup> Each bucket for delta CSR is split in two categories in the revised CVA risk standards for the purposes of determining the risk weight to be applied: (1) investment grade names; and (2) high-yield and not-rated names.

<sup>46</sup> Please particularly refer to policy recommendation 15 of the report on CVA.

Figure 8. Institutions considering the available market data for calculating regulatory CVA sufficient to apply SA-CVA (out of those institutions intending to apply the SA-CVA).



**Source:** Qualitative questionnaire sent to institutions for the purposes of the Cfa.

125. Taking into account the above feedback, the EBA acknowledges that there may be some challenges for firms to comply with the requirements for regulatory CVA set out in the revised CVA standards. The EBA, however, also notes that the large majority of firms intending to apply the SA-CVA already indicated that they partially or materially comply with the requirements, and that the time available until the implementation of the revised framework should further allow them to put in place the necessary systems and measures to comply with the requirements at the time when the reforms should apply.

126. The EBA also notes that the current framework in relation to regulatory CVA was reviewed to address the criticism on its prescriptiveness. In the revised framework firms will be allowed to calculate their regulatory CVA on the basis of their accounting models, which should address some of their concerns and further align regulatory capital for CVA with actual CVA risks. However, to ensure that CVA is calculated in a sound manner for prudential purposes, it is important to provide for some conditions that will ensure such a result. This should also have the positive effect of ensuring a level playing field in requirements related to the application of the SA-CVA.

127. Furthermore, it is noted that when the BCBS consulted on the revisions to the CVA framework, it considered two options for the calculation of regulatory CVA where banks could use either (1) their exposure models used for calculating accounting CVA, or (2) exposure models used under the IMM for CCR. In the final standards, firms are finally allowed to use their accounting CVA models, where added flexibility has thus been granted to firms in the calculation of their regulatory CVA, which has also been long advocated by the industry. However, the EBA also

notes that the added flexibility has not been welcomed in all cases, such as in relation to the modelling of the netting uncertainty, where a more prescriptive approach was preferred by some industry participants.

128. With regard to the issue related to the carve-out of netting sets from the SA-CVA which was mentioned by several firms, the EBA notes that the BCBS addressed it with a Technical Amendment to the CVA standards, as part of the Basel Consolidated Framework<sup>15</sup>. In particular paragraph 50.8 of the revised CVA standards<sup>16</sup> specifies that ‘when applying the carve-out, a legal netting set may also be split into two synthetic netting sets, one containing the carved-out transactions subject to the BA-CVA and the other subject to the SA-CVA, subject to one or both of the following conditions:

- (1) the split is consistent with the treatment of the legal netting set used by the bank for calculating accounting CVA (eg where certain transactions are not processed by the front office/accounting exposure model); or
- (2) supervisory approval to use the SA-CVA is limited and does not cover all transactions within a legal netting set.’

129. Similarly, with regard to the MPoR, it is noted that the BCBS included in the Basel Consolidated Framework a Technical Amendment to clarify that, for SFTs, the supervisory floor for the MPoR is equal to 4+N business days, where N is the re-margining period specified in the margin agreement, in line with the MPoR used for calculating RWAs for CCR of SFTs. Furthermore, the same MPoR has been proposed to be employed for the purposes of client-cleared transactions, as specified in CRE54.12 (i.e. for clearing members’ exposures to their clients) in the BCBS consultative document on targeted revisions to the CVA standards under consultation at the time this advice was published.

130. With regard to the issues raised by institutions on proxy data for estimating implied PDs, the EBA notes that the revised CVA standards are mindful of the limited data available for this purpose, and allow to ultimately use a more fundamental analysis of credit risk to proxy the spread of an illiquid counterparty. The EBA notes that such approach was particularly recommended by the EBA in its report on CVA<sup>47</sup> and was also included in its RTS on CVA<sup>48</sup> proxy spread under Article 383(7) of the CRR.

131. With regard to the issues raised on the scope of transactions in scope of the CVA risk framework and the exclusion of the DVA component, the EBA notes that this pertains to the high-level design for the CVA risk capital charge, which has prudential objectives. Likewise, with respect to the other operational challenges, such as in relation to the generation of exposure paths and the calculation of the sensitivities, while the EBA acknowledges this, it also notes that

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<sup>47</sup> Please refer in particular to policy recommendations 7.

<sup>48</sup> Please refer in particular to the EBA amending RTS on proxy spread available at: [https://eba.europa.eu/sites/default/documents/files/documents/10180/1886768/d25ffdbc-b987-4996-ba57-b4844958e639/Amending%20RTS%20to%20RTS%20on%20proxy%20spread%20\(EBA-RTS-2017-07\).pdf](https://eba.europa.eu/sites/default/documents/files/documents/10180/1886768/d25ffdbc-b987-4996-ba57-b4844958e639/Amending%20RTS%20to%20RTS%20on%20proxy%20spread%20(EBA-RTS-2017-07).pdf)



the SA-CVA has been designed as an adaption of the FRTB-SA, where a reduced granularity was introduced to also address some of these difficulties.

132. With regard to the requests for reducing or introducing more flexibility for the MPoR and the LGD to be used in the calculation of the regulatory CVA, the EBA notes that any divergence in the treatment of these components in the EU implementation of the standards could result in a deviation from the Basel standards that the EU aims to timely adopt, and, furthermore, the impacts on any such revisions should be monitored to assess their effect on the overall calibration of the CVA risk capital charge. Consequently, any revisions to these components, if indeed appropriate concern, should be considered at international level to ensure a harmonised implementation of the requirements for these elements across jurisdictions.

133. This principle of international alignment should also apply in the case of the advocated increased granularity with respect to the risk weights for CSR under the SA-CVA. Although further granularity could increase the risk sensitivity of the SA-CVA, which in the absence of the IMA-CVA may be desirable, it is also noted that amendments in this regard would (1) require the definition of new risk weights, (2) imply a misalignment from the FRTB standards with which the CVA standards aim to align instead<sup>49</sup>, and (3) imply a potential material impact on the overall calibration of the CVA framework, which should consequently be duly assessed.

134. To conclude, on the basis of the analysis above and consistent with policy recommendation 15 put forward by the EBA in its report on CVA, the EBA supports that, subject to conditions, advanced institutions should be allowed to use their own models (without reference to the regulatory formula) to calculate regulatory CVA, as envisaged under the SA-CVA. Furthermore, the EBA notes that targeted adjustments have been (or have been proposed to be) introduced to the Basel standards on CVA risk, which should also address some of the industry's concerns related to the definition of regulatory CVA. While issues on this aspect, including the above, may need to be further considered for the purposes of a smooth implementation of the revised CVA risk framework, if indeed appropriate concerns, alignment with international requirements is considered desirable to ensure a harmonised implementation of capital rules for CVA risk. Therefore, EU alignment with international standards remains the main principle, which should also apply when considering future revisions to the CVA standards in the EU.

## 1.6 CVA own funds requirements on SFTs

135. Section 4.7 of the CfA requires the EBA to assess the revised treatment for SFTs in the revised CVA framework, and whether or not this would raise any particular issues for institutions, in which case the EBA is invited to recommend possible ways to address them.

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<sup>49</sup> Although it is acknowledged that the counterparty CSR class is already subject to a specific, distinct treatment under the CVA framework, contrary to the reference CSR class, which is treated consistently under the FRTB and the CVA standards. It follows that increasing the granularity of the risk weights of the counterparty CSR class under the CVA framework would not materially alter the current situation but only reaffirm the specific and distinctive nature of CVA risk in this regard, compared with the treatment under the FRTB.



136. The Basel revised capital framework for CVA risk finalised in December 2017 requires all derivative transactions not centrally cleared to be in scope of the CVA risk capital charge. In addition to derivatives, the framework requires that SFTs that are fair valued by a bank for accounting purposes should also be in the scope of the CVA risk capital charge.

137. This represents a change from the current CVA risk framework, in which there is no compulsory requirement to include SFTs in the scope of the CVA risk capital charge. In particular, the CRR (similarly to the current Basel framework) requires, under Article 382(2), the inclusion of SFTs in the CVA risk capital calculations only if the relevant competent authority determines that the institution's CVA risk exposures arising from those transactions are material.

138. The ongoing revisions to the CVA risk standards at international level propose a modification to the treatment of SFTs set out in the December 2017 post-crisis reforms standards. In particular, it is proposed to introduce a discretion, whereby SFTs with immaterial CVA risk may be excluded from the scope of the CVA risk charge.

139. As noted in the response to the CfA in the area of SFTs<sup>50</sup>, the CRR does not provide a definition for SFTs — despite in some instances referring to this term — which are instead typically referred to in the text as 'repurchase transactions, securities or commodities lending or borrowing transactions, and margin lending transactions'. Accordingly, there are three major categories of SFTs transactions:

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

140. SFTs are a form of secured lending, where the borrower receives cash or securities in exchange for collateral. If the borrower (collateral giver) defaults during the lifetime of the SFT, the lender (collateral taker) can keep or sell the collateral to recover the resulting loss. In this context, being collateralised transactions, SFTs typically do not expose counterparties to material CCR and, in turn, CVA risk. Nevertheless, in those cases in which risk factors affecting the CVA experience large movements, this could generate P&L volatility and thus CVA risk.

### Impact of the inclusion of fair-valued SFTs in the scope of the CVA risk capital charge

141. The SFT market is a significant market and its operation is essential to the financing and trading of financial instruments. With regard to banks, taking into account the results from the QIS, made for the purposes of the CfA and published by the EBA on 5 August 2019<sup>51</sup>, the bulk of the SFTs held by institutions relate to repo and reverse repos, followed by securities lending and borrowing transactions, while positions in margin lending transactions are few. Furthermore,

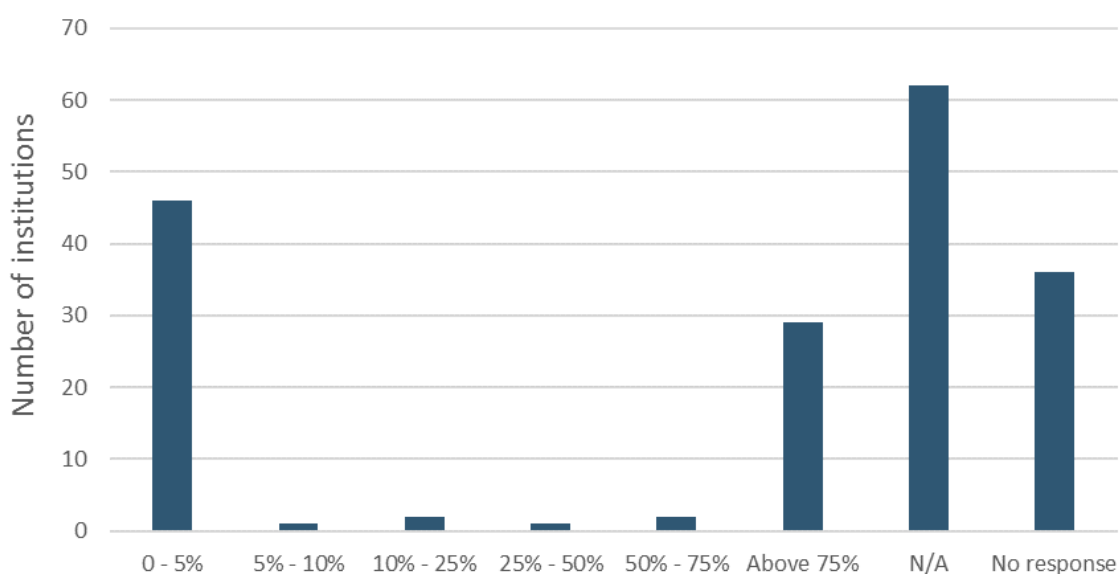
<sup>50</sup> <https://eba.europa.eu/documents/10180/2886865/Policy+Advice+on+Basel+III+reforms+-+SFTs.pdf>

<sup>51</sup> <https://eba.europa.eu/documents/10180/2886865/Basel+III+reforms+-+Impact+study+and+key+reccomendations.pdf>

according to the results of the QIS, only repo and reverse repos have a significant proportion of trades that are executed through CCPs, whereas the majority of SFTs held by banks in the sample is not centrally cleared.

142. Nevertheless, it should be noted that, out of all SFTs held by banks, only those that are fair valued for accounting purposes are included in the scope of the CVA risk capital charge under the revised CVA framework. In this regard, Figure 9 outlines the distribution of banks depending on their estimate of their number of SFTs that are fair valued for accounting purposes as a percentage of the total number of SFTs, taking into account the feedback provided by institutions in the qualitative questionnaire for the purposes of the CfA. It can be seen that, while for 46 institutions the majority of SFTs are not fair valued, for 29 institutions above 75% of their respective SFTs are fair valued, while several institutions did not provide a feedback.

Figure 9. Distribution of institutions depending on their estimate for their number of SFTs that are fair valued for accounting purposes as a percentage of their respective total number of SFTs.

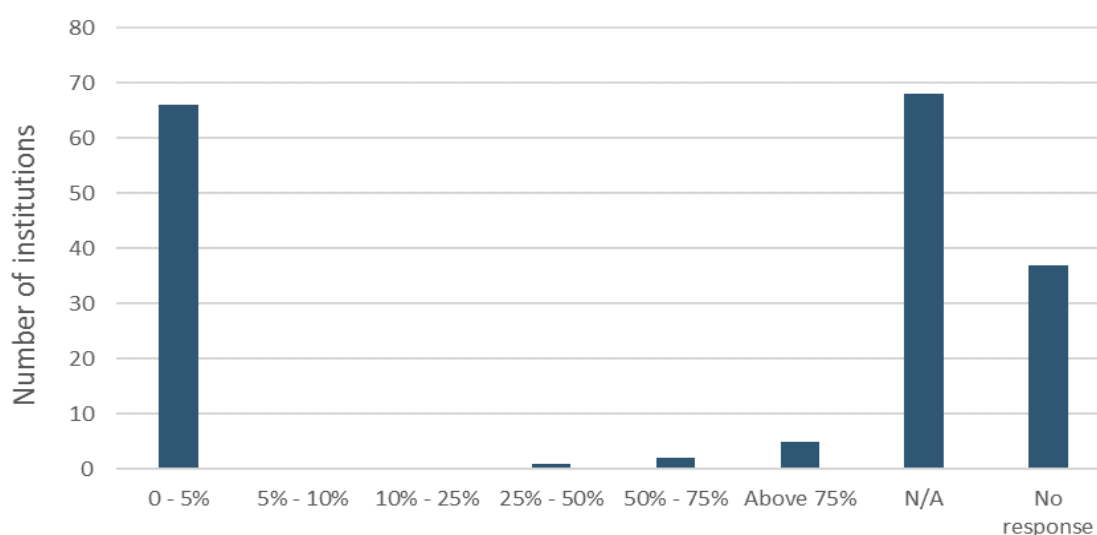


**Source:** Qualitative questionnaire sent to institutions for the purposes of the CfA.

143. Figure 10 instead displays the distribution of institutions depending on their number of SFTs that are fair valued for accounting purposes and for which accounting CVA is calculated as a percentage of the total number of SFTs. It can be seen that, for 66 institutions, the accounting CVA is calculated for only up to 5% of their SFTs, whereas for five institutions more than 75% attract accounting CVA, while again several institutions did not provide feedback. It can also be derived that for 24 institutions, despite more than 75% of their SFTs are fair valued, they do not register accounting CVA on many of those trades. This should normally be due to the strong collateralisation of those transactions, which in the absence of stressed scenarios would not generate P&L volatility due to CVA.

144. With regard to the impact of the inclusion of SFTs in scope of the CVA risk capital charge, according to the results from the QIS report, this results in around a 5% increase in CVA RWAs across all banks. In addition, current CVA RWAs for SFTs, when capitalised, account for around 5 to 10% of total CVA RWAs. Consequently SFTs, particularly due to their collateralised nature, do not materially contribute to CVA risk own funds requirements, which was already noted by the EBA.

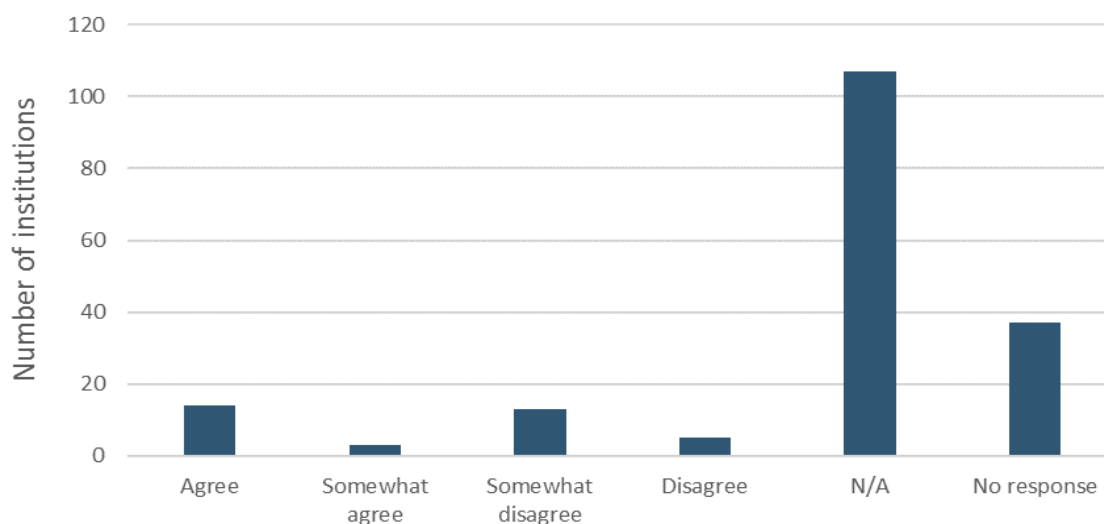
Figure 10. Distribution of institutions depending on their number of SFTs that are fair valued for accounting purposes and for which accounting CVA is calculated as a percentage of their respective total number of SFTs.



**Source:** Qualitative questionnaire sent to institutions for the purposes of the CfA.

145. For the purposes of the CfA, institutions were also asked whether or not the inclusion of fair valued SFTs in the scope of transactions subject to the CVA risk capital charge is challenging to implement. Figure 11 summarises the feedback received in this regard: while the majority of institutions did not provide feedback, 17 indicated that they agree (or somewhat agree) that it is challenging to include SFTs in the scope of the CVA charge, while 18 institutions disagreed (or somewhat disagreed).

Figure 11. The inclusion of SFTs measured at fair value for accounting purposes in the scope of transactions subject to the CVA risk capital charge is challenging to implement.



*Source: Qualitative questionnaire sent to institutions for the purposes of the CFA.*

#### Issues raised by institutions on the inclusion of SFTs in the scope of the CVA risk capital charge

146. Those institutions that indicated that they consider the inclusion of fair-valued SFTs in the scope of the CVA risk capital charge challenging noted concerns that can be generally categorised as:

- System/infrastructure challenges.** It was noted that currently (some) institutions do not have models and IT infrastructures to represent SFTs within their risk system, which will also require the back-feeding of the accounting classification to identify the trades in scope of the CVA charge. Consequently, it was noted concern on the operational burden and investments associated with the setup of these new systems, which will require additional computation capabilities as well as resources dedicated to the calculation of the own funds requirements for CVA risk of SFTs.
- Materiality of CVA risk for SFTs vis-à-vis the effort to implement the systems.** Some institutions in relation to the point above had concerns that the significant efforts required to implement the systems and processes to calculate CVA capital requirements on SFTs would result in minimal benefits and very little changes in capital. This is because SFTs, being collateralised transactions and in many cases with short maturities, do not expose banks to material CVA risk. It was also commented that risks on SFTs are already largely captured by the leverage ratio, although it is also noted that such not risk-based measure would not address CVA risks as such.
- Calculation of CVA risk own funds requirements for trades not captured in accounting CVA.** Some institutions commented that due to the near-zero economic CVA for SFTs, these

are not captured in accounting CVA, whereas they would now be required to be included in the scope for regulatory purposes. It was therefore commented that systems for calculating CVA capital requirements on SFTs would need to be introduced, despite they are not in place for calculating accounting CVA.

- **Treatment of collateral and modelling issues.** One institution asked for guidance on how to reflect collateral received in SFTs for the purposes of the calculation of the CVA risk capital charge, and another noted that the dynamics of the collateral value, taking into account the netting agreements, is difficult to model. It were also noted challenges for the purposes of building a risk neutral model for securities diffusion and the calculation of sensitivities, although one bank commented that the counterparty credit spread sensitivities are not burdensome to implement. It was also noted that, in several cases, there are no market values for the positions, and it is therefore difficult to imply market parameters from these non-liquid transactions.

147. Institutions, however, recognised that in some cases SFTs could expose institutions to CVA risk, particularly in the case of long-term transactions, when the underlying is complex or illiquid, or where the counterparty has a low credit rating. Furthermore, transactions that are distressed, bespoke or otherwise structured, or where there is WWR, could also be exposed to non-negligible CVA risk.

148. However, on the basis of the above issues, some institutions advocated a risk-based approach to the inclusion of SFTs in the scope of the CVA risk charge. For example, the following was proposed:

- i) Include only SFTs that expose banks to material CVA risk, for example by including only the trades noted above, or by leveraging on guidance to identify such trades (in this context, the guidance provided by the UK's Prudential Regulation Authority<sup>52</sup> was mentioned), or by employing a duration-based threshold for inclusion.
- ii) Include SFTs in the scope of the CVA risk charge but limit the calculations under the SA-CVA to exclusively the counterparty credit spread component of CVA.
- iii) Include, in the prudential scope, only SFTs that are in scope of accounting CVA, e.g. those that attract an accounting CVA.

### Considerations on the inclusion of SFTs in the scope of the CVA risk capital charge

149. In its report on CVA, the EBA noted divergences across institutions and competent authorities, and potential unintended consequences, with regard to the current treatment of SFTs for the purposes of the CVA risk charge. With a view to ensuring a harmonised treatment for these transactions, that would also ensure comparability and a level playing field, the EBA

<sup>52</sup> <https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2016/ss1213-update.pdf?la=en&hash=7E8F5203D1BDD5160E36EC35909493F043BD37F5>

recommended (in policy recommendation 2 of that report) harmonising the treatment of SFTs in the EU upon completion of the review of the CVA framework and the FRTB in Basel.

150. The revised Basel framework for CVA risk published in December 2017 introduces a harmonised treatment for SFTs, in which only SFTs that are fair valued for accounting purposes are requested to be included in the scope of the CVA risk charge. Under this treatment, the competent authority is no longer required to determine whether or not the CVA risk arising from SFTs is material with a consequent need to include them in the scope of the CVA charge. On the contrary, a common treatment will apply across institutions, thus ensuring a level playing field and comparability of the requirements.
151. Furthermore, under the revised framework, only fair-valued SFTs — which are the bulk of those potentially generating P&L volatility due to CVA<sup>53</sup> — will be included in the scope of the CVA risk charge, thus targeting those SFTs that expose banks to CVA risk.
152. With regard to the inclusion of the fair-valued SFTs that are not associated with accounting CVA, the EBA notes that FAQ 1 on the revised CVA framework issued by the BCBS as part of the consultative document on the Basel Consolidated Framework (please refer to MAR50) clarifies that ‘SFTs which are fair-valued for accounting purposes and for which a bank records zero for CVA reserves for accounting purposes are included in the scope of covered transactions’. In particular, where for example the SFTs were heavily collateralised and thus subject to negligible CVA which would not be accounted for, the EBA notes that this could also be happening to derivatives, but these are not waived from CVA risk capital charges in such circumstances.
153. The EBA acknowledges that there may be operational challenges in implementing systems for the calculation of CVA capital requirements for SFTs and that the amount of CVA risk generated by SFTs may not be material. Nevertheless, consistent with policy recommendation 2 put forward by the EBA in its report on CVA, the EBA also notes that, in principle, the CVA risk stemming from SFTs to which banks are exposed should be prudentially captured, and the revised CVA framework published in December 2017 ensures this for those SFTs that may mainly expose institutions to CVA risk. Economically, CVA risk of SFTs would be equivalent to CVA risk on derivative transactions.
154. The ongoing revisions to the CVA risk standards at international level, which propose exempting SFTs with immaterial CVA risk, introduce a treatment with similarities to the one under the current CVA risk framework, i.e. a discretion for the purpose of capitalising CVA risk for SFTs. Such a discretion runs against the objective of harmonising the treatment of SFTs for the purposes of the CVA risk framework, which the EBA recommended and which the December 2017 CVA risk standards aim to achieve. In fact, it undermines the level playing field in the scope of transactions subject to CVA risk charge and leads to non-comparability in the treatment applied across institutions.

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<sup>53</sup> SFTs not held at fair value under a change in accounting treatment which would require them to be reported at fair value could attract an accounting CVA and thus expose banks to CVA risk, particularly in the event of a significant deterioration in the creditworthiness of the counterparty to the SFT.

155. In the EU, for example, the discretion for competent authorities to request the inclusion of SFTs has led to an unlevel playing field, whereby in some countries SFTs are included in the scope of the CVA risk charge and in others they are not. At the same time, challenges emerge when assessing the materiality of CVA risk stemming from SFTs for the purposes of determining whether or not SFTs need to be included in scope, as this would particularly require calculations to be made and that banks may not be able to easily perform.
156. The proposed revised treatment for SFTs for the purposes of the scope of the CVA risk charge included in the BCBS consultative document on targeted revisions to the CVA risk framework, would, however, meet the suggestion noted above from some industry participants to include only SFTs that expose banks to material CVA risk, although this has some downsides. The alternative proposals on how to include SFTs in the scope of the CVA risk charge, as suggested above by institutions, also have downsides, in addition to being non-compliant with the treatment currently considered under the revised Basel standards. For example, the possibility of calculating, under the SA-CVA, sensitivities only to the counterparty credit spread component would be a deviation from Basel, leading to CVA risks that could arise from the exposure component of CVA not being captured, whose capture by the revised framework is precisely a key improvement (including the recognition of market risk hedges).
157. Consistently with policy recommendation 2 put forward by the EBA in its report on CVA, the EBA supports the inclusion of fair-valued SFTs in the scope of the own funds requirements for CVA risk as set out in the Basel III post-crisis reforms standards published in December 2017, as this would harmonise the treatment of SFTs for the purposes of CVA risk. The EBA, however, also recognises that the efforts and operational challenges of implementing the revised CVA framework for SFTs may not be commensurate with the CVA risks stemming from SFTs to be captured for prudential purposes.
158. At the same time, the EBA is concerned to introduce a discretion to exclude (or include) SFTs in scope of the CVA risk charge based on the materiality of the CVA risk stemming from the SFTs held by a particular institution, as this would involve operational challenges when assessing the materiality, and would undermine the level playing field in – and run against harmonising the treatment related to – the scope of transactions subject to the CVA risk charge. In this regard, removing SFTs altogether from the scope of the CVA risk framework (with no discretion to include them in its scope) would provide greater harmonisation than the introduction of the discretion to include or exclude SFTs in the scope of the CVA risk charge, and could thus represent a better alternative than the re-inclusion in the standards of such discretion, particularly considering the materiality of CVA risk stemming from SFTs and the operational challenges to calculate capital requirements against that risk. These aspects should be considered in the finalisation of the CVA risk framework at international level and in the specification of the treatment to ultimately be applied in the EU.

## 1.7 CVA hedges under the revised CVA framework

159. Section 4.8 of the CfA requires the EBA to assess, at least qualitatively, the appropriateness of the recognition of credit indices as eligible CVA hedges under the revised CVA framework, in particular whether this treatment could create a disincentive for institutions to use those instruments to hedge their CVA risk, in which case the EBA is invited to recommend possible ways to address them.

160. As noted in the background section, the current framework for CVA risk only covers the credit risk component of CVA, but not the exposure component of CVA. As a consequence, the current framework also does not recognise the hedges that banks put in place to hedge the variability of the exposure component of CVA.

161. In particular, under the current CVA framework, the only eligible CVA hedges are single-name CDS, single-name contingent CDS, other equivalent hedging instruments referencing the counterparty directly and index CDS, which allow the hedging of the counterparty CSR component of CVA. Other credit instruments — such as CDS referencing correlated counterparties, tranching and n-th-to-default credit derivatives — have been excluded from the scope of eligible hedges due to the difficulty to model appropriately their risk within VaR models for specific interest risk and, consequently, the potential benefit offered to firms to include them as risk mitigants.

162. Conversely, the revised CVA framework under the SA-CVA takes into account also the exposure component of CVA risk, along with its associated CVA hedges. In particular, hedges of both the counterparty credit spread and exposure component of CVA risk can be eligible under the SA-CVA. This is intended to capture all CVA risk and to better recognise CVA hedges that banks put in place to hedge their accounting CVA which would otherwise not be recognised for regulatory purposes, which is considered an important improvement with respect to the current framework.

163. In the BA-CVA, CVA risk is approximated as a simple function of the EAD calculated for the purposes of CCR own funds requirements. This should provide the advantage of not adding complexity to the calculation of capital charges for CVA risk while at the same time using an indicator of exposure that is closely linked to the exposure profile of CVA. In this case, because sensitivities of the EAD to market risk factors are not required, the BA-CVA recognises only hedges to the counterparty CSR component of CVA, similar to the hedges considered eligible under the current framework.

164. Finally, where an institution's aggregate notional amount of non-centrally cleared derivatives is below the materiality threshold of EUR 100 billion and the simplified treatment for CVA risk is used, no CVA hedges can be recognised.

165. The following section outline the feedback received from institutions that participated in the qualitative questionnaire for the purposes of the CfA with regard to the treatment of CVA



hedges under the revised CVA framework. The feedback received by the EBA from interested industry participants is also considered. Although the CfA requests, for the purposes of this section, to focus selectively on the treatment of index hedges, a broader overview of the views provided and the potential issues raised regarding the treatment of CVA hedges will be provided. This has been done both for transparency and to inform the legislators for the purposes of the transposition of the revised Basel CVA risk framework in EU regulation.

166. Finally the ongoing targeted revisions to the CVA risk standards at international level proposed, inter alia, adjustments to the formulae for calculating capital requirements under the SA-CVA, to better align with the market risk framework. These revisions should particularly improve the recognition of CVA index hedges under the SA-CVA, and consequently address some of the issues raised by stakeholders on the treatment of CVA index hedges. In the following sections, as relevant, reference will be made to such ongoing revisions, which have interlinkages with the feedback received on the treatment of CVA index hedges, and which were particularly considered taking into account such feedback.

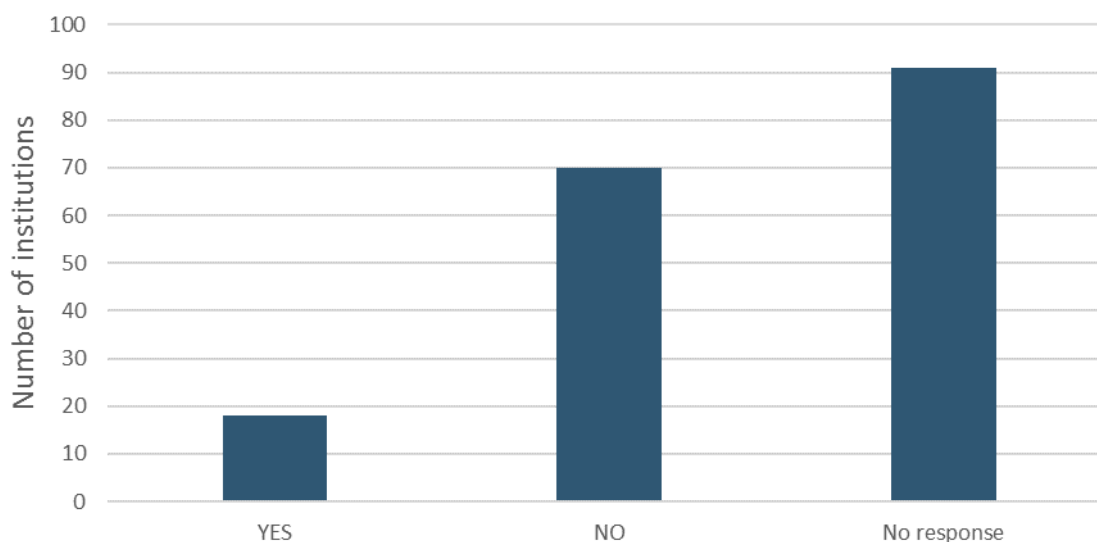
#### **Issues raised by institutions on the treatment of CVA hedges under the revised CVA risk framework**

167. In the responses to the qualitative questionnaire submitted by institutions for the purposes of the CfA, banks generally commented that the revised framework for CVA hedges seems reasonable overall and also strongly welcomed the inclusion of market risk hedges in CVA calculations under the SA-CVA, as this aligns with how CVA is managed by banks and with actual P&L figures due to CVA. However, general feedback could be grouped as follows:

- Some banks commented that in their actual position of CVA exposure, they recognise small impacts/benefits when considering CVA hedges.
- Several banks commented that they do not hold CVA hedges or do not hedge their CVA risk.
- A minority of banks (particularly those intending to use the SA-CVA) claimed that, in the revised framework, proxy hedges and index hedges are poorly recognised, and the revised treatment could discourage them from using those instruments to hedge CVA risk.
- Some banks commented that they did not have views or see issues, with regard to the revised framework for CVA hedges.

168. In particular, when institutions were asked whether or not they expect the revised CVA framework for CVA hedges to generate a disincentive to use these instruments for hedging CVA risk, they provided the feedback outlined in Figure 12: it can be seen that many institutions did not consider that the revised framework would generate disincentives to use CVA hedges, while for around 20 institutions the revised framework could discourage them from dealing in CVA hedges. Many institutions, however, did not provide feedback, in particular several institutions may not hedge their CVA risk.

Figure 12. Institutions expecting the revised CVA framework for CVA hedges to generate a disincentive to use these instruments for hedging CVA risk.



**Source:** Qualitative questionnaire sent to institutions for the purposes of the CfA.

169. In terms of issues related to the overall design of the treatment of CVA hedges, some banks noted that DVA is not considered in the CVA risk framework, alongside other valuation adjustments (such as FVA), while in several cases banks are hedging the XVA position as a whole and not exclusively the CVA position, which could lead to differences in how CVA risk is actually managed vis-à-vis the regulatory capital charge. In this regard, it is noted that DVA is de-recognised from banks' capital for prudential purposes, while FVA is not considered within the Basel framework; therefore, such issues, if any, would relate to the overall scope of the Basel capital framework.

#### Issues on CVA hedges related to BA-CVA

170. With regard to the BA-CVA, it was commented that the supervisory parameter beta ( $\beta$ ), which is set to be equal to 0.25, reduces the hedging benefits compared with the current standardised approach and that it could be less restrictive. It was also noted that, under the BA-CVA, market risk hedges are not recognised, and therefore they will be subject to both CVA capital requirements and market risk capital requirements. Nevertheless, some banks also commented that the BA-CVA is quite similar to the current standardised method, and therefore it does not add significant difficulties to the calculation process.

#### Issues on CVA hedges related to the SA-CVA

171. With regard to the SA-CVA, some institutions commented that proxy hedges and index hedges are poorly recognised and that the capital requirement for CVA risk could even increase with the introduction of such hedges (compared with a situation in which no hedges are applied at all — i.e. the unhedged portfolio). However, it was also commented that the treatment of single-

name hedges referencing the same legal entity allows to reduce effectively the capital requirement for CVA risk.

172. Indeed, the SA-CVA recognises almost full hedge recognition when hedging instruments refer to the same risk factor as the CVA exposure. The hedge recognition is only slightly reduced by the hedging disallowance parameter  $R$  (set at 0.01), which prevents the possibility of perfectly hedging the CVA risk. For the counterparty CSR class, a risk factor is defined as shifts of credit spreads of individual entities at specified tenors (0.5 years, 1 year, 3 years, 5 years and 10 years).
173. If a hedging instrument is an index, according to the standards published in December 2017, its sensitivities to all risk factors on which the value of the index depends must be calculated. The index sensitivity to risk factor  $k$  must be calculated by applying the shift of risk factor  $k$  to all index constituents that depend on this risk factor and recalculating the index. That is, index hedges are effectively decomposed into their constituents, which are in turn allocated to buckets.
174. Respondents claimed that such decomposition of credit indices is inconsistent with the economic purpose of index hedges, which is to mitigate the systemic component of CSR, while the bucketing required by the rules published in December 2017 is consistent with an approach hedging the idiosyncratic component of CSR. In particular, where one of the index constituents falls in buckets that do not correspond to the buckets associated with the CVA exposures to be hedged, it does not allow to hedge such risks but on the contrary it could increase the capital requirement, as it is treated as a risk position itself.
175. Institutions claimed that such treatment is not consistent with how CVA risk is managed for risk management purposes and discourages the hedging of CVA risk. Similarly, for proxy hedges, institutions commented that once the proxy hedge falls in a bucket different from the bucket corresponding to the original exposure, the hedge is not risk reducing, and it could even lead to an increase in capital requirements. Likewise, it was noted that, even if proxy hedges were to fall under the same bucket as that of the original exposure but are not mapped to the same entity, there may be no hedging benefits.
176. Considering the above, institutions commented that these issues are detrimental to the sound hedging and risk management of CVA risk, particularly considering that index hedges and proxy hedges are the sole instruments available to hedge illiquid names, and that the revised CVA framework does not adequately recognise their hedging benefits but, on the contrary, could lead to higher capital requirements than those in the unhedged case. It was also noted that this issue is very relevant to EU institutions, also considering that the corporate CDS market is less developed in the EU than in the US.
177. It was also noted that the issues raised above are further exacerbated by the application of the hedging disallowance parameter  $R$  (although it was also acknowledged that such parameter is overall reasonable for direct hedges), and one institution noted its concern with regard to the requirement for an eligible hedge of CSR to be assigned in its entirety either to the counterparty

credit spread or to the reference CSR type, on the basis that those risks may in some cases be jointly managed by the CVA desk. Finally, one institution was concerned that tranching credit derivatives may not be eligible hedges and with the rules for the treatment of hedges under paragraph 9 of the Basel revised CVA standards.

### Potential solutions and considerations on CVA hedges under the revised CVA standards

178. With regard to potential solutions and alternatives to address the issues identified above with regard to the treatment of CVA hedges, taking into account the feedback provided by institutions as well as industry participants, the following could be mentioned:

- Introduce, under the SA-CVA of index bucket(s), similarly with what was performed under the revised market risk standards (i.e. the FRTB) published in January 2019.
- Consider adjustments (e.g. increases) to the correlation parameters under the SA-CVA.
- With regard to proxy hedges, consider a partial netting of risk-weighted counterparty credit spread sensitivities with the related proxy hedges (with the level of netting allowance depending on the quality of the proxy hedge). In this regard it was also proposed to allow the mapping of illiquid counterparty sensitivities to the liquid proxy entities.
- One institution suggested increasing the granularity of the correlation parameters to be based on three systematic factors (region/industry/rating).
- Some industry representatives also advocated increasing the granularity of the buckets for counterparty CSR. For example, it was proposed to include an additional 'sub-bucket' for government-backed financials under bucket 1 to increase the hedge effectiveness of sovereign CDS used to hedge the respective government-backed financials, and it was also proposed to segment bucket 2 in sub-buckets referring to different types of financials. These proposals to increase the granularity of the risk weights for counterparty CSR have already been introduced and discussed above in this document.
- The creation of a bucket dedicated to covered bonds, similar to their treatment under revised market standards, was also suggested. It was particularly noted that, while difficult to hedge, covered bonds may deserve a risk weight that is closer to the one for sovereigns than the one for financials.

179. With regard to these proposed alternatives for addressing the issues identified, the EBA notes that they are not mutually exclusive, and some proposals could also be combined. In addition, there may be solutions other than the ones mentioned above. Moreover, there are pros and cons for each of the proposals, and some of them could require the calibration of new supervisory parameters, which may not be a trivial exercise. At the same time, it may be difficult to assess the overall impact of potential solutions (unless impact assessments are carried out), and the issues raised above are relevant to institutions in various jurisdictions. Therefore, at this stage, the EBA refrains from recommending specific adjustments for addressing the issues

identified on the CVA hedges, while it considers that these issues should be first dealt with at international level.

180. In this regard, the EBA notes that the BCBS consultative document on targeted revisions to the CVA risk framework proposes:

- to revise the cross-bucket aggregation formula under the SA-CVA, which will allow cross-bucket offsetting and thus improve the recognition of the CVA hedges (whereas in the December 2017 CVA risk standards cross-bucket offsetting was not permitted), and
- to introduce index buckets for CSR and equity risk, which will enable institutions, under certain conditions, to calculate capital requirements using credit and equity indices directly instead of looking through to the underlying constituents, and thus avoid the issues raised above on the decomposition requirement for credit indices.

At the same time, these revisions better align the CVA risk framework with the market risk framework (i.e. the FRTB), thus fostering consistency between the two frameworks, which was an objective of the reforms and which also led to other ongoing proposed revisions to the CVA risk standards.

181. The EBA also notes also that, regardless of the final solution to the issues identified on CVA hedges to be considered at international level, market practices could also evolve and adapt in response to the revised rules to endogenously address the issues. For example, with regard to the issue related to the decomposition of credit indices, new credit indices specialised per bucket could potentially be developed, which could solve some of the issues raised. It is, however, still unclear if any such developments triggered by regulatory requirements would eventually be desirable.

182. To conclude, taking particularly into account the feedback received noted above, the EBA acknowledges the issues with regard to the treatment of CVA hedges under the SA-CVA and is of the view that they should be considered and possibly addressed before the final implementation of the revised CVA framework in the EU. At the same time, the EBA considers that, being those issues not related to a single jurisdiction's implementation of the Basel standards, they should be addressed at international level to ensure a harmonised implementation of the rules on CVA and a level playing field in treatment across jurisdictions. In this regard, the EBA notes that the BCBS consultative document on targeted revisions to the CVA risk framework makes proposals to address issues on the treatment of CVA hedges, which therefore represents the opportunity to further consider and solve the issues on this matter.

## 1.8 Other policy issues

### Adjustment to Article 273(6) of the CRR in relation to the treatment of incurred CVA

183. With regard to the treatment of incurred CVA under Article 273(6) of the CRR for the purposes of calculating exposure values for CCR, the EBA has noted that there is an imprecision in the wording of this requirement, in that the part below marked in red should be deleted from the provision (as the sum referred should in fact be made across all netting sets with the counterparty):

*For a given counterparty, the exposure value ~~for a given netting set~~ of OTC derivative instruments listed in Annex II calculated in accordance with this Chapter shall be the greater of zero and the difference between the sum of exposure values across all netting sets with the counterparty and the sum of CVA for that counterparty being recognised by the institution as an incurred write-down. The credit valuation adjustments shall be calculated without taking into account any offsetting debit value adjustment attributed to the own credit risk of the firm that has been already excluded from own funds under Article 33(1)(c).*

### Removal of the offset of AVAs from the credit risk framework

184. This issue does not strictly relate to CVA but rather to the mention of AVAs in the context of the credit risk framework under Articles 111 and 159 of the CRR.

185. Under the SA, Article 111 specifies that the exposure value of an asset item shall be its accounting value remaining after specific credit risk adjustments in accordance with Article 110, AVAs in accordance with Articles 34 and 105, amounts deducted in accordance with point (m) Article 36(1) and other own funds reductions related to the asset item have been applied. Under the IRB approach, Article 159 allows institutions to subtract the expected loss amounts calculated in accordance with Article 158(5), (6) and (10) from the general and specific credit risk adjustments and AVAs in accordance with Articles 34 and 110 and other own funds reductions related to these exposures except for the deductions made in accordance with point (m) Article 36(1).

186. Several Q&As<sup>54</sup> requested clarification on how AVAs should be treated for the purposes of the offset under Article 159 of the CRR. In addition, the EBA had some reported cases of exaggerated offsets under Article 159 of the CRR by some banks in the EU, although the AVAs employed for such offset would not have been eligible for such purpose: AVAs relating directly to the market risk and the trading book business of those banks were used to reduce credit risk RWAs.

187. In particular, Q&A 2017\_3426 clarified that ‘the AVAs to be included are limited to unearned credit spreads AVAs (Q&A 1835) and AVAs associated to credit risk exposures that are an element of unearned credit spreads in the sense of Article 12(2) of 2016/101. In particular, AVAs

<sup>54</sup> Please refer to Q&As 2014\_933, 2014\_950, 2015\_1835, 2017\_3426.

The EBA Single Rulebook Q&A where those Q&As can be found is available at <https://eba.europa.eu/single-rule-book-qa>

computed under Article 9 of Regulation (EU) No 2016/101, linked to market price uncertainty, are not in the scope of Article 159 CRR’.

188. In practice, this Q&A should limit the possible offset to:

- AVAs on CVA for derivatives i.e. AVAs capturing the uncertainty of the computation of the accounting CVA for derivatives; please note that the accounting CVA is already deducted from the exposure value under Article 273(6) (mentioned above) and that only the AVA potentially taken on that accounting CVA is eligible for the offset with the expected loss under Article 159 or the deduction from the exposure value under Article 111 (this applies only to banks under the core approach, and it seems that AVAs on CVA are commonly not computed by those banks);
- unearned credit spread AVAs for non-derivatives, fair-valued instruments included in the banking book (same idea as above, but applied to bonds for example i.e. AVA capturing the uncertainty of the credit spreads used for the valuation of those bonds).

189. Therefore, Q&A 2017\_3426 should limit the scope of AVAs eligible for the offset to a rather marginal amount in practice. As mentioned above, it is also noted that only AVAs calculated under the core approach could be considered, as AVAs calculated under the simplified approach would not satisfy the above requirement, thus effectively limiting the application of the provision to institutions using the core approach. At the same time, the wording in Article 159 of the CRR raised doubts as to which AVAs should be eligible, and could be often misinterpreted by banks in the absence of the application of the Q&As, which could consequently lead to inappropriate and potentially imprudent behaviours by institutions.

190. As Q&A 2017\_3426 should also apply under Article 111(1) for the purposes of the SA, the AVAs used in that context are also expected to be limited to a limited subset of AVAs, while on the contrary reducing the exposure value with non-eligible AVAs for that purpose would not be appropriate.

191. This raises the question of whether it would not be clearer — considering that AVAs are computed for fair-valued positions, which are mostly booked in the trading book and not subject to the credit risk framework — to simply remove any mention of AVA in both Article 111 and Article 159 of the CRR, which would avoid these issues and foster simplicity as well as comparability in the application of the provision.

192. In this context, the EBA considers that the inclusion of AVAs in the context of Articles 111(1) and 159 of the CRR creates an additional complexity in the framework (other than the related application and interpretative issues) for an expectedly limited impact, which would be avoided if any mention to AVAs in those articles were removed. The EBA therefore suggests to change the treatment of AVAs in Article 111(1) and 159 of the CRR as follows:

Article 111(1): *The exposure value of an asset item shall be its accounting value remaining after specific credit risk adjustments in accordance with Article 110, ~~additional value~~*

~~adjustments in accordance with Articles 34 and 105~~, amounts deducted in accordance with point (m) Article 36(1) and other own funds reductions related to the asset item have been applied. [...]

Article 159: Institutions shall subtract the expected loss amounts calculated in accordance with Article 158(5), (6) and (10) from the general and specific credit risk adjustments in accordance with Article 110, ~~additional value adjustments in accordance with Articles 34 and 105~~ and other own funds reductions related to those exposures except for the deductions made in accordance with point (m) Article 36(1). Discounts on balance sheet exposures purchased when in default in accordance with Article 166(1) shall be treated in the same manner as specific credit risk adjustments. Specific credit risk adjustments on exposures in default shall not be used to cover expected loss amounts on other exposures. Expected loss amounts for securitised exposures and general and specific credit risk adjustments related to those exposures shall not be included in that calculation.



## 2. Policy advice on market risk

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### 2.1 Background

193. The BCBS published the revised minimum capital requirements for market risk standards (i.e. the FRTB) on 14 January 2016<sup>4</sup>, which represent a key component of the BCBS's overall efforts to reform global regulatory standards in response to the global financial crisis. In April 2016, the European Commission submitted a CfA<sup>55</sup> on the implementation of the FRTB in the EU, to which the EBA responded<sup>56</sup> on 3 November 2016, by providing its advice on how to introduce the revised market risk framework in EU regulation.

194. Taking into account the advice of the EBA, the European Commission then issued, on 23 November 2016, a legislative proposal on amendments to the CRD IV legislative package<sup>57</sup>, which included revisions to the CRR (via the so-called CRR2 proposal<sup>58</sup>) to transpose the FRTB reform in EU legislation.

195. In December 2017, when publishing the Basel III post-crisis reforms, the BCBS communicated<sup>59</sup> that the implementation date of the Basel revised market risk framework had been extended to 1 January 2022, which will align its start date with that of the revisions included in the Basel III post-crisis reforms standards. At the same time, this deferral will allow banks additional time to develop the systems infrastructure needed to apply the framework and the BCBS to address certain specific issues related to the market risk framework.

196. For this purpose, the BCBS issued, in March 2018, a consultative document<sup>60</sup> on revisions to the market risk framework. Taking into account the feedback received from the consultation, the BCBS finalised the final minimum capital requirements for market risk standards on 14 January 2019, which brought targeted revisions<sup>61</sup> to the FRTB standards, previously published in January 2016, to address certain identified issues in the market risk reform and envisaged the application of a recalibrated Basel II SA for institutions with smaller trading books.

197. The CRR2 legislative process, which occurred alongside the FRTB revisions at international level, considered such ongoing revisions and reflected them when finalising Regulation

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<sup>55</sup> <https://eba.europa.eu/documents/10180/1466081/%28EBA-2016-E-662%29%20Ares%282016%291819771+-CfA+CRR+Own+Fund+Requirement.pdf/053ffda4-a295-4fb0-ad76-a05264ef4fe1>

<sup>56</sup> [https://eba.europa.eu/sites/default/documents/files/documents/10180/1648752/5ef848d1-7d52-4a80-abdf-f013e294759c/Report%20on%20SA%20CCR%20and%20FRTB%20implementation%20\(EBA-Op-2016-19\).pdf](https://eba.europa.eu/sites/default/documents/files/documents/10180/1648752/5ef848d1-7d52-4a80-abdf-f013e294759c/Report%20on%20SA%20CCR%20and%20FRTB%20implementation%20(EBA-Op-2016-19).pdf)

<sup>57</sup> The CRD IV legislative package consists of Regulation (EU) No 575/2013 and Directive 2013/36/EU.

<sup>58</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:0850:FIN>

<sup>59</sup> <https://www.bis.org/press/p171207.htm>

<sup>60</sup> <https://www.bis.org/bcbs/publ/d436.pdf>

<sup>61</sup> The amendments brought to the 2016 FRTB standards are outlined in the BCBS explanatory note on the minimum capital requirements for market risk, available at [https://www.bis.org/bcbs/publ/d457\\_note.pdf](https://www.bis.org/bcbs/publ/d457_note.pdf)

(EU) 2019/876 (i.e. CRR2), which was published in the Official Journal on 7 June 2019. CRR2 entrusts the EBA with numerous mandates for technical standards in the area of market risk and also empowers the European Commission to adopt a Delegated Act under Article 461a of the CRR2, which will comprehensively allow remaining key parts of the revised market risk framework to be implemented.

198. In this regard, the Commission launched a consultation<sup>62</sup> on the Delegated Act under Article 461a of the CRR2 from 21 October 2019 to 11 November 2019. Furthermore, on 11 October 2019, the Commission launched a second consultation<sup>63</sup>, which will run until 3 January 2020, on the implementation of the Basel III post-crisis reforms, which seeks further stakeholders' feedback, also in particular areas of CVA and market risk, some of which are also considered in this advice.

199. In terms of the application of the FRTB by institutions in the EU, CRR2 introduces a reporting requirement as a first step; however, this will apply only to those institutions whose trading book business is above the EUR 500 million threshold or 10% of total assets threshold in size. Institutions below these thresholds are exempt from the reporting requirement. The reporting requirement is expected to start 'no later than one year after the adoption' of the Delegated Act under Article 461a (which has deadline of 31 December 2019). It will consist — for all trading book positions and all non-trading book positions that are subject to FX or commodity risks — of reporting (Article 430b of the CRR2):

- 'from the date of application of the delegated act referred to in Article 461a', the results of the calculations based on using the alternative standardised approach set out in Chapter 1a of Title IV of Part 3;
- 'from the end of a three-year-period following the date of entry into force of the latest regulatory technical standards referred to in Article 325bd(7), 325be(3), 325bf(9), 325bg(4)' (i.e. FRTB Phase 1 RTS mandates), the results of the calculations based on using the alternative internal model approach set out in Chapter 1b of Title IV of Part 3.

200. As a second step, to turn the reporting requirement into a fully fledged capital requirement, the Commission should 'submit, where appropriate, a legislative proposal to the European Parliament and to the Council by 30 June 2020 on how the FRTB framework should be implemented in the Union to establish the own funds requirements for market risk' (Recital 41 and Article 519b of the CRR2).

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<sup>62</sup> The Commission consultation on the Delegated Act under Article 461a of the CRR2 is available at [https://ec.europa.eu/info/consultations/finance-2019-market-risk-alternative\\_en](https://ec.europa.eu/info/consultations/finance-2019-market-risk-alternative_en)

<sup>63</sup> The first Commission's consultation on the implementation of the Basel III post-crisis reforms took place from 16 March 2018 to 12 April 2018 in advance of the submission of the CfA to the EBA on the implementation of those reforms and is available at [https://ec.europa.eu/info/consultations/finance-2018-basel-3-finalisation\\_en](https://ec.europa.eu/info/consultations/finance-2018-basel-3-finalisation_en)

The second Commission's consultation on the implementation of the Basel III post-crisis reforms is available at [https://ec.europa.eu/info/law/better-regulation/initiatives/finance-2019-basel-3/public-consultation\\_en](https://ec.europa.eu/info/law/better-regulation/initiatives/finance-2019-basel-3/public-consultation_en)

201. To support the timely implementation of the FRTB in the EU, the EBA published, on 18 December 2017, a discussion paper<sup>64</sup> on the revised market risk and counterparty credit risk frameworks. The discussion paper put forward — without pre-empting the outcome of the CRR2 legislative procedure — initial proposals and preliminary views on how to address eight mandates included in the CRR2 proposal (two on SA-CCR and six on the FRTB) and requested stakeholder’s views on additional implementation issues that they may have identified. In addition, the discussion paper outlined a possible roadmap and prioritisation for the development of the regulatory deliverables on SA-CCR and FRTB included in the Commission’s CRR2 proposal, while noting that priorities may change as a result of the CRR2 legislative process.
202. Following the publication of the CRR2, the EBA published, on 27 June 2019, for consultation 11 draft RTS<sup>65</sup> under Article 325bd(7), 325be(3), 325bf(9) and 325bg(4) of the CRR2 — referring, respectively, to RTS under the IMA on (1) liquidity horizons<sup>66</sup>, (2) criteria for risk factor modellability<sup>67</sup>, and (3) backtesting and P&L attribution requirements<sup>68</sup> — which considered feedback provided by stakeholders to the discussion paper published in December 2017.
203. When issuing the 11 draft RTS for consultation, the EBA also published its roadmap for the development of the mandates on the SA-CCR and the FRTB. The roadmap reflects a prioritisation in the EBA’s work that broadly follows the deadlines included in the CRR2 (and thus updates the roadmap initially proposed as part of the discussion paper published in December 2017), and introduces a sequence in four phases, starting with the implementation of the essential parts of the framework and ending with regulatory products that require, for their development, feedback from the early implementation stages of the framework. Furthermore, on 27 June 2019, the EBA also launched a data collection on NMRFs, for the purpose of further developing the RTS under Article 325bk(3) of the CRR2, for which preliminary proposals were put forward in the discussion paper.
204. In the area of market risk, the EBA also issued, on 16 October 2019, a consultation paper<sup>69</sup> on draft guidelines on the application of the structural FX provisions. This paper was developed by

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<sup>64</sup> <https://eba.europa.eu/regulation-and-policy/market-risk/discussion-paper-on-eu-implementation-of-mkr-and-ccr-revised-standards>

<sup>65</sup> <https://eba.europa.eu/regulation-and-policy/market-risk/draft-technical-standards-on-the-ima-under-the-frtb>

<sup>66</sup> <https://eba.europa.eu/sites/default/documents/files/documents/10180/2844463/bc83b641-eee1-47a6-914c-55c9f41060e1/CP%20on%20draft%20RTS%20on%20liquidity%20horizons%20for%20the%20IMA%20under%20CRR2.pdf>

<sup>67</sup> <https://eba.europa.eu/sites/default/documents/files/documents/10180/2844513/d5bacb95-131f-468c-9b5f-bff98003d10c/Consultation%20Paper%20on%20draft%20RTS%20on%20criteria%20for%20assessing%20risk%20factors%20modellability%20under%20the%20IMA.pdf>

<sup>68</sup> <https://eba.europa.eu/sites/default/documents/files/documents/10180/2844493/bcb8a4bd-102a-4190-bfd9-3498f5b03e24/CP%20on%20draft%20RTS%20on%20back-testing%20and%20PLA%20attribution%20requirements%20under%20CRR2.pdf>

<sup>69</sup> Please refer to <https://eba.europa.eu/eba-launches-consultation-on-guidelines-on-the-application-of-the-structural-fx-provision>

taking into account, inter alia, the feedback received from an earlier discussion paper<sup>70</sup> on structural FX issued by the EBA in June 2017 and was aimed at setting a regulatory framework on structural FX, to address the diversity observed in its application across the EU. References will be made, where relevant, to the EBA consultation paper on draft guidelines on structural FX considering the interlinkages with particular issues considered in this advice.

205. The EBA will continue to seek to deliver in accordance with its roadmap and contribute to a smooth implementation of the revised market risk framework in the EU. In this context, this response to the CfA<sup>1</sup> on the Basel III post-crisis reforms represents a further contribution for this purpose and is also considered to address the Phase 1 mandate of the roadmap under Article 519b(1) of the CRR2<sup>71</sup>.

## 2.2 Scope of this report on market risk

206. Section 7 of the CfA requires the EBA, in general:

- to estimate the capital impact of introducing the final FRTB standards, as finalised in January 2019;
- to provide a qualitative assessment of the FRTB standards, as finalised in 2019, in comparison with the FRTB standards published in 2016;
- to assess the FRTB calibration for covered bonds issued in the EU;
- to estimate the impact of the recalibration of the Basel II SA to market risk.

207. The remaining sections of this advice are structured as follows, to address the respective CfA requests:

- Section 2.3 will provide qualitative considerations on the FRTB finalised in 2019 in comparison with the FRTB standards published in 2016.
- Section 2.4 will provide considerations on the calibration of the FRTB for covered bonds issued in the EU.
- Section 2.5 will provide considerations on the introduction of the recalibrated Basel II SA as a simplified SA to market risk.
- Section 2.6 will suggest targeted adjustments to the CRR/CRR2 to address specific issues identified by the EBA.

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<https://eba.europa.eu/documents/10180/1888124/Discussion+Paper+on+the+treatment+of+structural+FX+%28EBA-DP-2017-01%29.pdf/6341f4a0-7968-437f-a8f6-6053435b7d40>

<sup>71</sup> That is, with this document, the EBA considers addressing both (1) the CfA on the Basel III post-crisis reforms in the area of CVA and market risk and (2) the mandate under Article 519b(1) of the CRR2.

208. These sections will include in particular qualitative feedback on these aspects, provided by the 106 institutions that completed a qualitative questionnaire on market risk, which was sent to them for completion by the EBA for the purposes of the CfA. The questionnaire on market risk was sent to institutions on 6 May 2019, with a completion deadline of 14 June 2019. Results from the QIS carried out for the purposes of the CfA — which are displayed in the QIS report published alongside this document — have also been considered where relevant.

209. Regarding the QIS, it is noted that the data that the EBA gathered for the purposes of the CfA on market risk were acquired through data collection during the first half of 2019 and based on data with reference date as of December 2018. Therefore, the reference date of the data used for the QIS on market risk is different from that used for the QIS on CVA risk (and also on other reforms in other policy areas assessed in the CfA), which was based on June 2018 data. In this regard the separate, later data collection for the QIS on market risk was performed to assess the impact of the FRTB standards published in January 2019 by the BCBS, whose revisions were not yet available at the time the QIS on CVA risk was carried out.

## 2.3 Qualitative assessment related to the 2019 FRTB revisions

210. The CfA requests that the EBA provide a qualitative assessment of the FRTB standards finalised in 2019, in comparison with the FRTB standards agreed in 2016.

211. The BCBS revised the FRTB standards published in January 2016 to address certain specific issues related to the market risk framework, some of which the EBA noted as part of its response to the CfA on the SA-CCR and FRTB, published in November 2016. To this end, the BCBS published, in March 2018, a consultative document<sup>60</sup> on revisions to the FRTB, in which proposals for adjustments to target aspects of the FRTB were put forward. The feedback on the consultation, provided by stakeholders, was then taken into account by the BCBS to finalise the FRTB published in January 2019.

212. The adjustments made to the FRTB as part of this process span different elements of the market risk framework. Changes have been introduced in the FRTB-SA, in the FRTB-IMA and in relation to the scope of transactions subject to market risk capital requirements, and, furthermore, the BCBS has introduced a simplified SA — for firms that satisfy particular conditions — in the market risk framework to account for proportionality.

213. With regard to the simplified SA, the BCBS consulted on a simplified SA in June 2017<sup>72</sup>, based on an ‘reduced sensitivity-based method’ (R-SbM). The R-SbM was a simplified version of the FRTB-SA. The document also sought views on whether or not retaining the Basel II SA (i.e. the current SA), subject to a recalibration, would have been a better alternative. Following such consultation, in its March 2018 consultation on revisions to the FRTB, the BCBS communicated that it was of the view that a recalibrated Basel II SA would be better suited to facilitate the adoption of the standards by banks, for which a simplified approach is intended. Consequently,

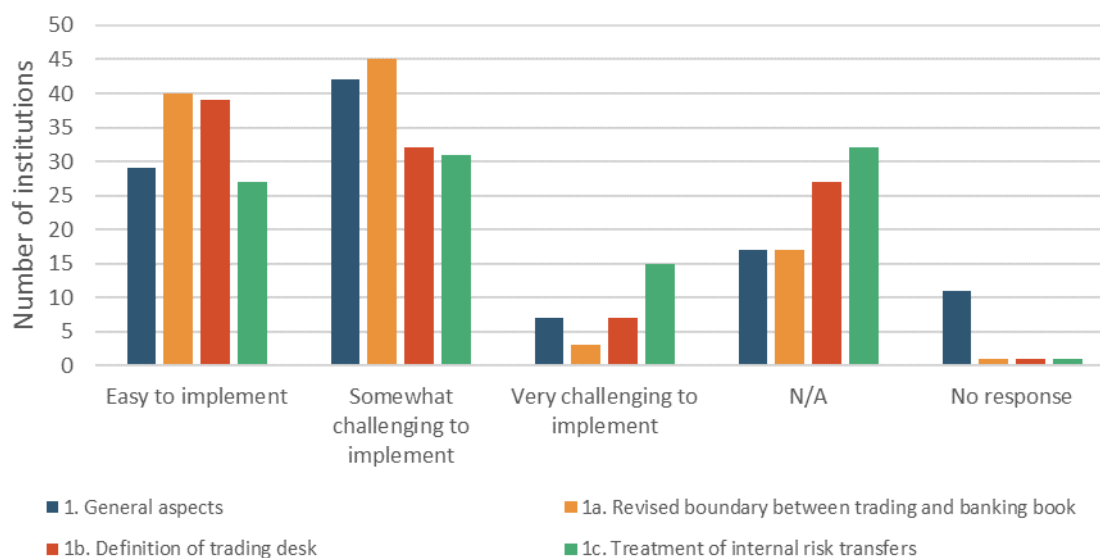
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<sup>72</sup> <https://www.bis.org/bcbs/publ/d408.pdf>

in that consultation, the BCBS consulted on a recalibrated Basel II SA, which was then finally included in the 2019 FRTB standards.

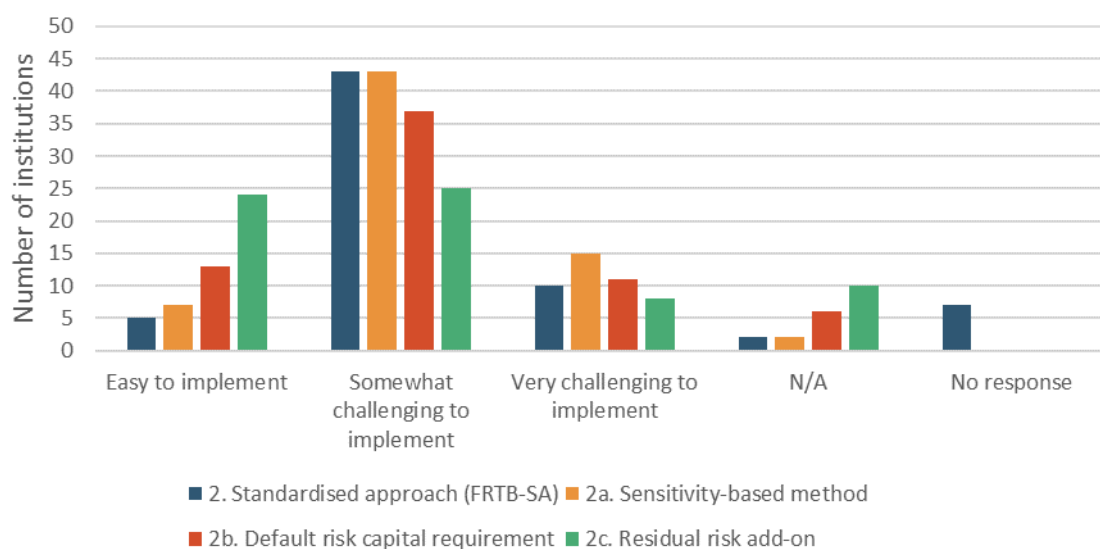
214. The EBA welcomes the introduction of a recalibrated Basel II SA as the simplified SA approach in the market risk framework. Indeed, the EBA recommended, as part of its 2016 response to the CfA on SA-CCR and FRTB, retaining the Basel II SA as a simplified approach in the market risk framework, subject, however, to an (upwards) recalibration. Consistent with the EBA's recommendation, European co-legislators kept, in the CRR2, the Basel II SA for institutions that have an on- and off-balance-sheet business that is subject to market risk that is equal to or less than (1) 10% of the institution's total assets or (2) EUR 500 million (see Article 325a of the CRR2). However, the Basel II SA in the CRR has not yet been recalibrated.
215. With regard to the changes introduced by and in the FRTB since the BCBS started its review of the market risk framework, when issuing the 2019 FRTB standards, the BCBS also published an explanatory note<sup>61</sup> on the minimum capital requirements for market risk, in which such changes are summarised. The EBA refers therefore to that document with regard to the changes introduced in the FRTB, including those introduced by the 2019 standards.
216. The general feedback provided by institutions in the qualitative questionnaire for the purposes of the CfA with regard to the revisions brought about by the 2019 FRTB standards — in comparison with the FRTB standards published in 2016 — was very positive. Many institutions appreciated the clarifications and enhancements brought about by the 2019 standards — it was commented that these constitute a very positive development and respond to many of the shortcomings previously identified on the market risk framework.
217. Institutions with smaller trading books also particularly welcomed the introduction of the Basel II SA in the FRTB framework, which was previously not included, as this would allow them to keep their current approach, albeit subject to a recalibration.
218. As part of the qualitative questionnaire, institutions were also asked about how challenging they expect the implementation of the 2019 FRTB standards to be. The following figures provide the qualitative feedback given by institutions in this regard in relation to the implementation of (1) the general aspects of the FRTB, (2) the FRTB-SA and (3) the FRTB-IMA, and also the particular aspects of their respective elements.
219. As can be seen from Figure 13, institutions considered the general aspects of the FRTB easy to implement or somewhat challenging to implement. It was, however, commented that the revised boundary and the revised framework for internal risk transfers could be challenging to implement and may lead to organisational changes within banks, which will require changes and coordination with all internal parties involved, including rethinking asset liability management processes.

Figure 13. How challenging institutions expect the implementation of the final FRTB standards to be in relation to general aspects, including (a) the revised boundary between trading and banking books, (b) the definition of trading desk, and (c) the treatment of internal risk transfers.



Source: Qualitative questionnaire sent to institutions for the purposes of the CfA.

Figure 14. How challenging institutions expect the implementation of the final FRTB standards to be in relation to the FRTB-SA, including (a) the sensitivity-based method, (b) the default risk capital requirement, and (c) the residual risk add-on. The sample includes institutions intending to use the FRTB-SA and the FRTB-IMA.

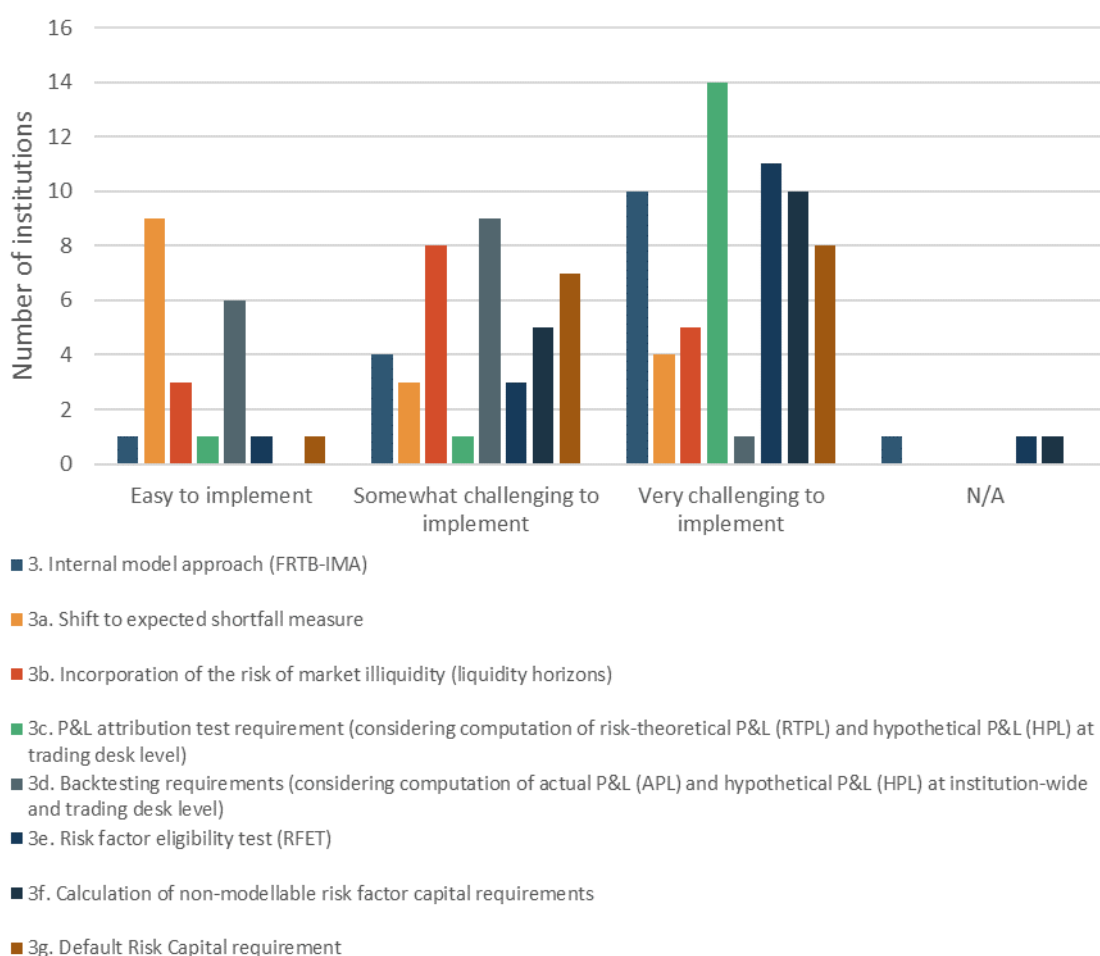


Source: Qualitative questionnaire sent to institutions for the purposes of the CfA.



220. With regard to the FRTB-SA, Figure 14 shows that institutions mostly consider it somewhat challenging to implement. Among its elements, the sensitivity-based method appears to be the most difficult element to implement. In this regard, some institutions noted the challenges in implementing such a method, including as a result of the calculation of the sensitivities, the calculations for curvature risk and the aggregation logic, which includes mappings to buckets. With regard to the DRC, the challenge of including equity positions, which were not included in the IRC, was noted. Some challenges were also noted in the implementation of the RRAO and regarding the requirements related to the CTP.

Figure 15. How challenging institutions expect the implementation of the final FRTB standards to be in relation to the FRTB-IMA, including (a) the shift towards an ES measure, (b) the incorporation of the risk of market illiquidity (liquidity horizons), (c) the P&L attribution test requirement (considering computation of risk-theoretical P&L and hypothetical P&L at trading desk level), (d) the backtesting requirements (considering computation of actual P&L and hypothetical P&L at institution-wide and trading desk level), (e) the RFET, (f) the calculation of NMRF capital requirements, and (g) the DRC requirement. The sample includes institutions intending to use the FRTB-IMA.



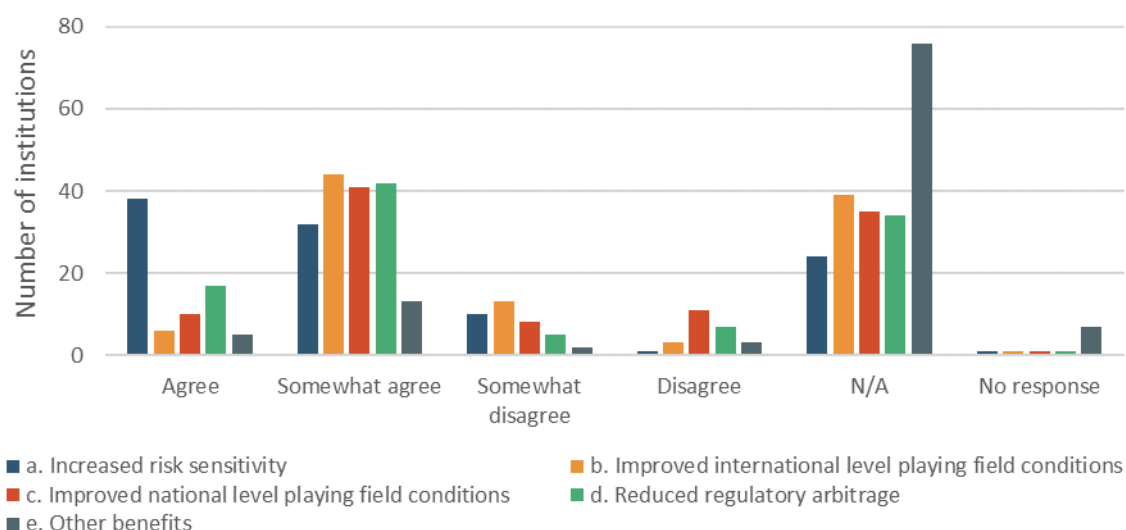
**Source:** Qualitative questionnaire sent to institutions for the purposes of the CfA.



221. As to the FRTB-IMA, Figure 15 indicates that institutions consider it mostly somewhat or very challenging to implement. Within its elements, the requirements on P&L attribution, the RFET and the related calculation of capital charges for NMRFs are considered more challenging to implement. In comparison, the backtesting requirements and the shift towards the ES risk measure are considered much easier to implement. Institutions intending to apply the FRTB-IMA note that they also face challenges in implementing the varying liquidity horizons and the model requirements under the DRC.

222. Institutions were also asked to indicate the extent to which they expect the following benefits from the implementation of the final FRTB standards: increased risk sensitivity, improved conditions for an international level playing field and a national level playing field, reduced regulatory arbitrage and other benefits. Figure 16 outlines the feedback provided by institutions.

Figure 16. How institutions indicated the extent to which they expect the following benefits from the implementation of the final FRTB standards: (a) increased risk sensitivity, (b) improved conditions for an international level playing field, (c) improved conditions for a national level playing field, (d) reduced regulatory arbitrage, and (e) other benefits.



**Source:** Qualitative questionnaire sent to institutions for the purposes of the CfA.

223. As can be seen, several institutions noted the increased risk sensitivity introduced by the FRTB, particularly with regard to FRTB-SA in comparison with the current SA. Some institutions, however, commented that, for firms that will discontinue using the IMA under the FRTB, the FRTB-SA that will be used may not be as risk sensitive as the IMA under the current framework. In this regard, some institutions were concerned that the FRTB reform will lead to a lower number of firms using the IMA. It can be observed that institutions also generally somewhat agreed with the other benefits brought about by the FRTB. It was, however, noted that the FRTB may not improve the level playing field conditions if national discretions are left and also if jurisdictions implement the reform under different timelines.

224. When asked to provide their qualitative assessment of the 2019 FRTB standards with respect to those published in 2016, as noted above, institutions were generally very positive and acknowledged all the improvements brought about by the revised standards. Some institutions, however, commented on implementation issues, which they consider still relevant to the smooth implementation of the revised market risk framework. Among these, the following could be mentioned:

- Some firms had concerns with regard to the treatment of equity investments in funds, as provided in the 2019 FRTB standards. Revising their trading book treatment was advocated, and it was noted that the non-look-through capitalisation of equity investments in funds is extremely punitive and may force banks not to deal in these instruments. Nevertheless, the relaxation of the conditions to keep equity investments in funds in the trading book was welcomed.
- It was commented that the CTP capitalisation approach has been left unchanged in the 2019 revisions, despite its — according to commentators — conservativeness and its lack of risk sensitivity.
- Some institutions, while welcoming the risk weight reductions performed for GIRR and FX, noted concern that the risk weights for CSR and equities were not reviewed, and in particular those for equities were considered too high. Some banks also commented that they were concerned about the capital impact of the 2019 FRTB standards.
- Some firms, while welcoming the changes to the aggregation formula for NRMFs, noted that the capital charge for NRMFs still amounts to a significant portion of the IMA capital charge and could therefore have undesired consequences.
- Some institutions noted that the 2016 FRTB did not yet envisage the output floor requirement, whereas this was implicitly reflected as part of the 2019 reforms, as it was included in the Basel III post-crisis reforms published in 2017. In this regard, some institutions were concerned that the output floor was a binding requirement that may not provide capital incentives to apply the IMA. In addition, it was also noted that this would be particularly relevant to those firms with large credit portfolios.

225. The above is a non-exhaustive list of the issues noted by institutions in the qualitative questionnaire; some of these issues are also related to the EBA RTS, or to the Commission Delegated Act, which will need to be developed under the CRR2. Overall, however, institutions mainly highlighted the improvements brought about by the FRTB. Clearly, the smooth implementation of the FRTB represents a sizeable challenge for regulators, supervisors and the industry to ensure that market risks of institutions are captured in a risk-sensitive yet prudent manner, thus achieving the objectives of the FRTB reform.

## 2.4 Treatment for covered bonds under the FRTB

226. In the 2019, the FRTB standards that the BCBS agreed on reduced risk weights for covered bonds instead of maintaining the 4% risk weight previously included in the standards. Table 4 of MAR21 specifies that the risk weight for bucket 8 (covered bonds) should be 2.5% (previously 4%). In addition, a footnote clarifies that ‘for covered bonds that are rated AA- or higher, the applicable risk weight may at the discretion of the bank be 1.5%.’ However, the Basel standards are silent with respect to the treatment of unrated covered bonds. In addition, bucket 8 is considered an ‘investment grade’ bucket in Table 3 of MAR21.

227. The treatment of covered bonds, in particular EU covered bonds, was notably discussed as part of the CRR2 legislative process and led to the assignment of a risk weight of 1% for covered bonds, issued by credit institutions established in Member States, as set out in Table 4 of Article 325ah of the CRR2. The Delegated Act that the European Commission is requested to adopt under Article 461a of the CRR2 should further clarify, based on the final 2019 FRTB standards, the treatment applicable in the EU to covered bonds rated with a credit quality step 1 to 3. In this regard, the consultative document<sup>62</sup> on the Delegated Act issued by the Commission proposes for these covered bonds:

- Where such covered bonds are issued by credit institutions established in Member States, they attract a 1% risk weight.
- Where such covered bonds are issued by credit institutions established in third countries, they attract a risk weight of:
  - 1.5% if rated with a credit quality step 1.
  - 2.5% if rated with a credit quality step 2 or 3.

228. These provisions would essentially transpose the international standards within the EU while maintaining preferential treatment for covered bonds issued in the EU, reflecting the high level of regulatory requirements for covered bonds issued in the EU.

229. Similarly, the Delegated Act should also specify the risk weights for covered bonds applicable in the context of the CTP under Article 325ak of the CRR2, including a distinction between covered bonds issued by credit institutions established in Member States and covered bonds issued by credit institutions established in third countries. In this regard, the consultative document on the Delegated Act issued by the Commission proposes that covered bonds rated with a credit quality step 1 to 3 attract a 3% risk weight if they are issued by credit institutions established in Member States and a 6% risk weight if they are issued by credit institutions established in third countries.

230. The EBA welcomes the clarification of the treatment of investment grade covered bonds. However, the EBA would like to highlight that:

- The treatment of unrated covered bonds remains to be clarified.

- In the absence of any further amendment to the CRR2 or the Delegated Act, it appears that covered bonds rated with credit quality step 4 to 6 (i.e. high-yield covered bonds), regardless of whether they are issued by EU credit institutions or not, would be subject to a 12% risk weight under bucket 13 'Financial sector entities'; depending on the materiality of covered bonds being downgraded from investment grade to high yield, this could potentially create an important cliff effect.

231. The EBA requested volumes of covered bonds per credit quality step and unrated covered bonds to assess the magnitude of unrated covered bonds, as well as high-yield covered bonds, among banks participating in the QIS, carried out for the purposes of the CfA. The results of this analysis are included in the QIS report.

232. With respect to unrated covered bonds in particular, volumes were requested with reference to the credit quality of the corresponding issuing bank. While the amount of unrated covered bonds held by institutions in the sample inspected was not negligible, most of these covered bonds were found to be issued by institutions whose issuer rating is assigned a credit quality step 1 to 3.

233. To avoid applying a punitive risk weight to unrated covered bonds issued by institutions rated with a credit quality step 1 to 3, and since the rating of the covered bond is always higher than the rating of the issuing bank, the EBA proposes that unrated covered bonds should attract the risk weight corresponding to the credit quality of the issuing bank, i.e. the rating of the issuing bank is used as a proxy for the missing covered bond rating when the covered bond is risk-weighted for the purposes of the FRTB-SA. This is consistent with the approach applied under the credit risk framework, and it is always a conservative approach. This is particularly important for well-rated banks, which do not necessarily need to have their covered bonds issuances rated, as the rating of the covered bond is higher than the rating of the bank.

234. With respect to high-yield covered bonds, in theory these bonds are expected to be very limited in volume, as they would have to be issued by a bank with a very low rating in the high-yield category. The results shown in the QIS report in fact confirm that the amount of high-yield covered bonds held by institutions in the sample, or the amount of unrated covered bonds whose issuing bank has an issuer rating associated to credit quality step 4 to 6, is negligible.

#### **Feedback from institutions on the revisions to the risk weight for covered bonds under the FRTB**

235. In the qualitative questionnaire sent to institutions for the purposes of the CfA, institutions were asked to provide their views on whether or not the calibration of the FRTB is suitable for covered bonds issued in the EU.

236. In this regard, most institutions welcomed the revised risk weights for CSR of covered bonds included in the January 2019 FRTB standards. It was particularly observed that new lower risk weight better reflects the inherently lower credit risk exposure of the covered bonds asset class. It was also commented that the treatment is consistent with the treatment of these instruments under the credit risk framework and is also aligned with market volatilities for covered bonds.

237. A minority of institutions, however, advocated for further reductions in the risk weights included in the FRTB, aiming for a risk weight closer to the one for sovereign exposures or, alternatively, lower than that associated with some other bucket whose asset class is considered more risky than covered bonds. Some reservations were also expressed with regard to the 25% LGD for covered bonds under Article 325w(3)(c) of the CRR2, which could be too high and with regard to the 0.03% PD floor in the IMA DRC.

238. Some institutions also welcomed the approach proposed by the Council and the Parliament in the CRR2, i.e. 1% risk weight for high-quality covered bonds issued in the EU, being retained, as they believed this reflected historical credit spread moves on those bonds well. In this regard, it was also commented that, going forward, EU covered bonds will be subject to even higher standards and harmonisation under the covered bond framework (part of the capital markets union initiative), and this should enhance the safety and quality of EU covered bonds, thereby further justifying a CSR risk weight of 100 bps for high-quality covered bonds issued in the EU. Finally, it was also commented that, in the CRR2, it is not clear which risk weight should apply to covered bonds issued outside the EU (e.g. bucket 10 in Table 4 of Article 325ah of the CRR2 is missing).

239. Institutions also had different interpretations of the applicability of the risk weight(s) for bucket 8 of Table 4 of MAR21 for high-yield covered bonds. For example, while one institution expected them to also apply to high-yield covered bonds, another also commented that, based on the covered bonds held in its portfolio, it would suggest setting the risk weight for covered bonds rated A+ or lower at a higher level, such as within the 5 to 10% range. Such a proposal could generally be consistent with the application of a 12% risk weight for high-yield covered bonds, which seems applicable to those (high-yield) covered bonds mapped to bucket 11 of Table 4 of MAR21 or alternatively bucket 13 of Table 4 of Article 325ah of the CRR2.

240. To conclude, on the basis of the above considerations and the feedback from institutions, the revisions brought about by the 2019 FRTB revisions on covered bonds seem welcome and seem to better reflect the underlying risk of the covered bonds asset class. A request to reflect the EU specific framework for covered bonds, particularly the 1% risk weight for high-quality covered bonds issued in the EU and envisaged under the CRR2, has also been suggested. Likewise, clarification on the risk weight applicable to high-yield covered bonds or unrated covered bonds is also relevant. In this context, the EBA recommends clarifying the treatment of covered bonds and, on the basis of the above analysis and considerations, recommends clarifying that unrated covered bonds should attract the risk weight corresponding to the credit quality of the issuing credit institution.

#### **Recommendation MR 1: Treatment of unrated covered bonds**

The EBA recommends clarifying that unrated covered bonds should, for the purposes of the FRTB-SA, be considered rated using — as a proxy — the credit quality of the issuing institution and should therefore attract the risk weight corresponding to such credit quality.

## 2.5 Use of the recalibrated Basel II SA as a simplified SA in the EU

241. As noted above, the 2019 FRTB standards introduce a simplified SA to market risk for firms that satisfy particular conditions, with a view to accounting for proportionality.

242. The BCBS consulted<sup>72</sup> on a simplified SA in June 2017. The R-SbM was a simplified version of the FRTB-SA. The document also sought views on whether or not retaining the Basel II SA, subject to a recalibration, would have been a better alternative. Following such consultation, in its March 2018 consultative document<sup>60</sup> on revisions to the FRTB, the BCBS communicated that it was of the view that a recalibrated Basel II SA would be better suited to facilitating the adoption of the standards by the banks, for which a simplified approach is intended. Consequently, in that consultation, the BCBS consulted on a recalibrated Basel II SA, which was then finally included in the 2019 FRTB standards.

243. The EBA welcomes the introduction of a recalibrated Basel II SA as the simplified SA approach in the market risk framework. Indeed, the EBA recommended, as part of its 2016 response to the CfA on the implementation of the SA-CCR and FRTB in the EU<sup>56</sup>, retaining the current simplified approach (i.e. the Basel II SA) as a simplified approach in the market risk framework, subject, however, to an (upwards) recalibration. In particular, the EBA noted that the current simplified approach, contrary to the (current) IMA, which was subject to additional corrective measures as part of the Basel 2.5 revisions (notably the introduction of the stressed VaR and IRC capital charges), did not undergo the same improvements. Its calibration has remained unchanged since its introduction in 1996.

244. The Basel II SA has been recalibrated by the BCBS, thanks to the application of multipliers (i.e. scaling factors) — which are reported in Table 4 — to the capital requirements arising from each of the four risk classes of the SA to market risk (i.e. interest rate risk, equity risk, FX risk and commodity risk).

Table 4. Scaling factors for the recalibrated Basel II SA

Risk class of the Basel II SA	Multiplier (scaling factor)
Interest rate risk	1.30
Equity risk	3.50
FX risk	1.20
Commodity risk	1.90

245. In its recommendations on the implementation of the FRTB, as put forward in the 2016 response to the CfA on the implementation of the SA-CCR and FRTB in the EU, the EBA recommended that the recalibrated Basel II SA could be kept, subject to appropriate recalibration, for institutions with a trading book business (defined in line with Article 94(2) of

the CRR) that falls between EUR 50 million and a second threshold yet to be defined. Institutions below the EUR 50 million threshold could have instead qualified for the derogation for small trading book business, similar to what is currently envisaged under Article 94 of the CRR.

246. Consistent with the EBA recommendation, the co-legislators included a EUR 50 million threshold in the CRR2 for the purposes of the derogation for the small trading book business under Article 94 of the CRR2, while institutions not qualifying for such derogation but whose on- and off-balance-sheet business, which is subject to market risk, is equal to or less than (1) 10% of the institution's total assets or (2) EUR 500 million, in accordance with Article 325a of the CRR2, will be exempted from the reporting requirement set out in Article 430b of the CRR2.

247. In this regard, it is noted that, under CRR2, the current SA and IMA in the CRR will continue to be kept by EU institutions to calculate own funds requirements for market risk, while some of those institutions will also need to report capital requirements for market risk under the FRTB. The legislative proposal to be issued by the Commission under Article 519b(2) is intended, at some point, to turn the FRTB reporting requirement into a fully fledged capital requirement. In this context, the exemption under Article 325a(1) of the CRR2 from reporting capital requirements calculated under the FRTB for institutions whose positions subject to market risk do not exceed the thresholds established in this paragraph is seen, going forward, as exempting these institutions from calculating capital requirements under the FRTB, once this is applicable for capital purposes in the EU.

248. The EBA supports such an approach to determine the institutions eligible for the Basel II SA in the revised market risk framework in the EU, which is in line with the recommendation it put forward in its response to the 2016 CfA on the implementation of the SA-CCR and FRTB in the EU. Nevertheless, the EBA notes that the CRR2 has not yet included a recalibration to the Basel II SA, which was recommended by the EBA and has now been included in the Basel standards. In this regard, the EBA invites the co-legislators to recalibrate the Basel II SA in the CRR.

249. For the purposes of this section, the EBA also notes that, in the qualitative questionnaire, many institutions welcomed the introduction of the simplified SA envisaged in the 2019 FRTB standards as a simplified SA in the revised market risk framework. It was particularly observed that this will allow firms with a trading book of limited magnitude to employ a simpler approach than the FRTB-SA and thus avoid efforts to implement such an approach. Furthermore, the simplified SA will be the same SA that institutions currently use and will therefore allow them to leverage on the same infrastructure they currently employ, which is considered very desirable. Consequently, there also appears to be support from the industry on the proportionality framework for the purposes of market risk capital requirements.

250. Finally, the EBA does not express an opinion in this advice on the recalibration of the Basel II SA, as performed by the BCBS. As requested by the CfA, the EBA assessed in this advice the impact of the recalibration of the Basel II SA included in the 2019 FRTB standards, which is outlined in the QIS report. In this regard, while a further QIS may be needed to ensure the intended calibration of the simplified SA is achieved, the EBA is ready to further inspect, where



relevant, its impact going forward so that it meets the intended objectives, including a sufficient level of conservatism to incentivise the use of the more risk-sensitive FRTB-SA.

### Recommendation MR 2: Use of the recalibrated Basel II SA as a simplified approach

Consistent with its response to the CfA on the implementation of the SA-CCR and FRTB in the EU published in November 2016, the EBA supports the use of the recalibrated SA as a simplified standardised approach for institutions that do not exceed the thresholds referred to in Article 325a(1) of the CRR2.

## 2.6 Other policy issues on market risk

251. This section outlines any policy issues identified that are related to the market risk standards, as implemented in the CRR/CRR2, together with proposal policy recommendations where applicable. The list of issues outlined in this section is meant to be non-exhaustive.

252. For the purpose of this section, the EBA refers to the CRR for indicating Regulation (EU) No 575/2013, prior to any amendments made via Regulation (EU) 2019/876. In contrast, the EBA refers to CRR2 for indicating Regulation (EU) 2019/876 amending Regulation (EU) 575/2013. As a result, articles associated with the CRR2 are those implementing the FRTB standards in the EU.

### 1. Computation of size of business subject to market risk

253. In accordance with Article 94 and Article 325a of the CRR2, institutions are required to calculate the size of their on- and off-balance-sheet trading book business and the size of their on- and off-balance-sheet business that is subject to market risk.

254. The provision relating to the exclusion in Article 94(3)(a) point (i) of the CRR2 is, however, not fully clear. In particular, it is unclear how a position in the trading book also attracting FX risk (e.g. a US bond) should be treated for the purpose of Article 94 of the CRR2, in comparison with Article 325a of the CRR2.

255. The EBA also notes that, for the purpose of the threshold calculation, the provision referring to the sum of the absolute value of long positions and the absolute value of short positions is misleading. It is interpreted as referring to items with 'negative' and 'positive' market value. Please note that this comment also applies to Article 273a ('size of derivative business'). Therefore, a clarification around this aspect as well is deemed beneficial.



### Recommendation MR 3: Size of trading book business and business subject to market risk

The EBA recommends clarifying how institutions should compute the size of their trading book business and their business subject to market risk in accordance with Article 94 and Article 325a, in particular:

- (1) the positions that institutions should exclude, in accordance with Article 94(3)(a);
- (2) what is meant by long and short positions in the context of these two articles as the current wording may lead to various interpretations.

## 2. Conditions for disregarding overshootings attributable to NMRFs

256. The CRR2 wording provides a criterion for disregarding an overshooting, which is less strict than the one proposed in the international standards:

- Basel FRTB:

*MAR32.6: In the event an outlier can be shown by the bank to relate to a non-modellable risk factor, and the capital requirement for that non-modellable risk factor exceeds the actual or hypothetical loss for that day, it may be disregarded for the purpose of the overall backtesting process if the supervisory authority is notified accordingly and does not object to this treatment. In these cases, a bank must document the history of the movement of the value of the relevant non-modellable risk factor and have supporting evidence that the non-modellable risk factor has caused the relevant loss<sup>73</sup>.*

- CRR2:

*Article 325bf(8): By way of derogation from paragraphs 2 and 5 of this Article, competent authorities may permit an institution not to count an overshooting where a one-day change in the value of its portfolio that exceeds the related value-at-risk number calculated by that institution's internal model is attributable to a non-modellable risk factor. To do so, the institution shall demonstrate to its competent authority that the stress scenario risk measure calculated in accordance with Article 325bk for that non-modellable risk factor is higher than*

<sup>73</sup> It should be noted that, around this aspect, the following BCBS FAQ was published along with the international standards: 'Please confirm if this treatment applies to desk-level backtesting exceptions as well. Also, please confirm if the stressed capital add-on (SES) should be compared with the full loss amount or just the excess amount, i.e. the difference between APL/HPL and VaR'.

If the backtesting exception at a desk-level test is being driven by an NMRF that receives an SES capital requirement that is in excess of the maximum of the APL loss or HPL loss for that day, it is permitted to be disregarded for the purposes of the desk-level backtesting. The bank must be able to calculate a NMRF capital requirement for the specific desk and not only the respective risk factor across all desks.

For example, if the P&L for a desk is EUR 1.5 million and the VaR is EUR 1 million, an NMRF capital requirement (at desk level) of EUR 0.8 million would not be sufficient to disregard an exception for the purpose of desk-level backtesting. The NMRF capital requirement attributed to the standalone desk level (without VaR) must be greater than the loss of EUR 1.5 million to disregard an exception for the purpose of desk-level backtesting.

*the positive difference between the change in the value of the institution's portfolio and the related value-at-risk number.*

257. The stress scenario risk measure for an NMRF is not comparable with a 1-day P&L and does not provide a representative measure for the actual capital charge for the NMRF because:

- The stress scenario risk measure for an NMRF is based on the liquidity horizon of the NMRF. Hence, it is a measure for the potential 20-day to 120-day P&L of this NMRF, whereas actual P&L and hypothetical P&L used in the backtesting are based on a 1-day horizon. It is worth mentioning that, for MRFs, a 1-day VaR is backtested to achieve comparability.
- The stress scenario risk measure is based on a stress period calibration, whereas actual P&L and hypothetical P&L stem from the current period. In this case also, it should be noted that, for MRFs, a VaR calibrated on the basis of the current period is backtested to achieve comparability.
- To determine the overall stress scenario risk measure, the charges per NMRF are aggregated, assuming diversification between NMRFs. Hence, the stress scenario risk measure per NMRF is higher than the actual capital charge for this NMRF.

258. Thus, a comparison of the stress scenario risk measure for an NMRF with the difference between P&L and VaR as envisaged in the CRR2 could lead to an unjustified disregard of overshootings.

259. As previously mentioned, requirements for disregarding an overshooting are stricter in the Basel FRTB text. In particular, taking into account the abovementioned points and without putting additional burden onto institutions by, for example, requiring the calculation of a 1-day stress scenario risk measure calibrated on the basis of the current period, the FRTB standards require the stress scenario risk measure for a NMRF to be greater than the full P&L, for the purpose of disregarding an overshooting.

260. It appears from Article 325bf(8) that the stress scenario risk measure that should be used for the purpose of disregarding an overshooting is the one computed at the top-of-the-house level, i.e. an institution should also use that value for the purpose of disregarding an overshooting at trading desk level. However, this would not be in line with the FAQ published along with the international standards (see footnote 73).

261. In this context, the EBA thinks that there is a necessity to clarify technical details to ensure a harmonised implementation of this requirement in the EU. For example, the following should be clarified:

- The portfolio on which the stress scenario risk measure should be calculated for the cases where disregarding or not an overshooting determines whether the positions in a trading desk are capitalised under the IMA or under the SA. In this case, indeed, it is not fully clear whether the stress scenario risk measure should be calculated on the portfolio including the trading desk that would be capitalised under the SA (if the overshooting is not disregarded) or under the IMA (if the overshooting is actually disregarded).

- The treatment of risk factors for which the stress scenario risk measure is computed at bucket level.

262. As a result, the EBA considers that it would be beneficial if it were to be mandated to define the conditions under which institutions may be allowed by the competent authorities to discard an overshooting. However, as a second best solution (i.e. in the event that the EBA does not receive the abovementioned mandate), the EBA would suggest amending Article 325bf(8) to either align EU legislation with the international standards or, as an alternative, provide the European Commission with possible ways forward that could be investigated to address the issues outlined in this sub-section:

- Option A: *By way of derogation from paragraphs 2 and 5 of this Article, competent authorities may permit an institution not to count an overshooting where a 1-day change in the value of its portfolio that exceeds the related value-at-risk number calculated by that institution's internal model is attributable to a non-modellable risk factor. To do so, the institution shall demonstrate to its competent authority that the stress scenario risk measure calculated in accordance with Article 325bk for that non-modellable risk factor is higher than the change in the value of the institution's portfolio.*
- Option B: *By way of derogation from paragraphs 2 and 5 of this Article, competent authorities may permit an institution not to count an overshooting on the top-of-the-house level where a 1-day change in the value of its portfolio that exceeds the related value-at-risk number calculated by that institution's internal model is attributable to a non-modellable risk factor. To do so, the institution shall demonstrate to its competent authority that the contribution of that [non-modellable risk factor/bucket] to the total stress scenario risk measure calculated in accordance with Article 325bk scaled by the square root of the liquidity horizon in days to reflect a liquidity horizon of 1 day and a calibration corresponding to the preceding 12 months for that non-modellable risk factor is higher than the positive difference between the [hypothetical or actual] change, respectively, in the value of the institution's portfolio and the related value-at-risk number.*

*The calibration to the preceding 12 months can be performed either by calculating the contribution to the total stress scenario risk measure using a calibration using the preceding 12 months, or by rescaling the contribution to the total stress scenario risk measure (which is based on a period of stress for each risk category) by the ratio of current over stress period*

*partial expected shortfall  $\frac{PES_t^{RC}}{PES_t^{RS}}$ , where:*

*$PES_t^{RS}$  = the partial expected shortfall measure that shall be calculated for all the positions in the portfolio in accordance with Article 325bc(2);*

*$PES_t^{RC}$  = the partial expected shortfall measure that shall be calculated for all the positions in the portfolio in accordance with Article 325bc(3).*

- Option C: *By way of derogation from paragraphs 2 and 5 of this Article, competent authorities may permit an institution not to count an overshooting where a 1-day change*

*in the value of its portfolio that exceeds the related value-at-risk number calculated by that institution's internal model is attributable to a non-modellable risk factor [or bucket]. To do so, the institution shall demonstrate to its competent authority that the incremental value-at-risk number, computed as a difference of the value-at-risk, where that non-modellable risk factors is included, and the value-at-risk number computed with modellable risk factors only in accordance with Article 325bf(1), is higher than the positive difference between the change in the value of the institution's portfolio and the related value-at-risk number.*

#### **Recommendation MR 4: Conditions for disregarding an overshooting due to an NMRF**

The EBA recommends providing the EBA with an RTS mandate for defining the conditions for disregarding an overshooting due to an NMRF.

### **3. Correlation estimation for ES calculation**

263. Another policy aspect that would benefit from a clarification is related to the determination of correlations among risk factors in the ES calculation. In particular, the EBA deems that both the Basel FRTB standards and CRR2 are unclear on this aspect:

- Basel FRTB:

*MAR33.10: Banks will have discretion to recognise empirical correlations within broad regulatory risk factor classes (interest rate risk, equity risk, foreign exchange risk, commodity risk and credit risk, including related options volatilities in each risk factor category). Empirical correlations across broad risk factor categories will be constrained by the supervisory aggregation scheme, as described in [MAR33.14] to [MAR33.15], and must be calculated and used in a manner consistent with the applicable liquidity horizons, clearly documented and able to be explained to supervisors on request.*

- CRR2:

*Article 325bh(2): Institutions may use empirical correlations within broad categories of risk factors and, for the purposes of calculating the unconstrained expected shortfall measure  $UES_T$  as referred to in Article 325bb(1), across broad categories of risk factors only where the institution's approach for measuring those correlations is sound, consistent with the applicable liquidity horizons, and implemented with integrity.*

264. The EBA deems what is meant by 'calculate a correlation consistent with the applicable liquidity horizons' unclear, in particular in the following cases:

- For a risk factor pair in which one risk factor has an LH of 10 days and the other risk factor has an LH of 60 days, it is unclear what the provision means. In particular, it is not clear

whether the correlation between both has to be calculated based on 10-day or 60-day returns.

- For a historical simulation models, correlations are not estimated explicitly but result from the joint historical movements of risk factors. Hence, since 10-day shocks are applied to risk factors in the ES calculation, this means that 10-day correlations are implicitly used in the ES. In this context, it is not clear when a historical simulation model is considered to fulfil the requirement of calculating correlations in a manner consistent with the applicable liquidity horizons.

265. Furthermore, it should be noted that the correlations are estimated based on a 1-year period (stress period or current period), and on just 1 year of data it is not statistically possible to derive meaningful correlation estimates for longer liquidity horizons.

#### Recommendation MR 5: Correlation among risk factors in the ES

The EBA recommends removing the requirement on correlations to be consistent with the applicable liquidity horizons and requiring the use of correlation estimates based on 10-day returns in the ES calculation, in accordance with the ES calculation formula in Article 325bc(1). The EBA thus recommends amending Article 325bh(2) as follows:

*Institutions may use empirical correlations within broad categories of risk factors and, for the purposes of calculating the unconstrained expected shortfall measure  $UES_T$  as referred to in Article 325bb(1), across broad categories of risk factors only where the institution's approach for measuring those correlations is sound, consistent with the base time horizon of 10 days in accordance with Article 325bc(1), and implemented with integrity.*

#### 4. Use test requirements

266. While the CRR and the CRR2 are rather vague on the requirements for banks to fulfil the use test, the FRTB standards set out specific requirements around this aspect:

- CRR:

Article 368(1)(a): *any internal model [...] shall be closely integrated into the daily risk-management process of the institution and serve as the basis for reporting risk exposures to senior management;*

- Basel FRTB:

MAR30.10: *Internal models used to determine market risk capital requirements are likely to differ from those used by a bank in its day-to-day internal risk management functions.*

*Nevertheless, the core design elements of both the market risk capital requirement model and the internal risk management model should be the same.*

*(1) Valuation models that are a feature of both models should be similar. These valuation models must be an integral part of the internal identification, measurement, management and internal reporting of price risks within the bank's trading desks.*

*(2) Internal risk management models should, at a minimum, be used to assess the risk of the positions that are subject to market risk capital requirements, although they may assess a broader set of positions.*

*(3) The construction of a trading desk risk management model must be based on the methodologies used in the bank's internal risk management model with regard to risk factor identification, parameter estimation and proxy concepts and deviate only if this is appropriate due to regulatory requirements. A bank's market risk capital requirement model and its internal risk management model should address an identical set of risk factors.*

- CRR2:

*Article 325bi(1)(a): any internal risk-measurement model [...] shall be closely integrated into the daily risk-management process of the institution and shall serve as the basis for reporting risk exposures to senior management;*

*Article 325bi(1)(f): any internal risk-measurement model, including pricing models, [...] shall not differ significantly from the models that the institution uses for its internal risk management;*

267. Accordingly, in this context the EBA proposes aligning the CRR2 provisions with those included in the Basel standards to add further clarity to the requirements included in Article 325bi(1).

#### **Recommendation MR 6: Use test requirements**

The EBA recommends providing further details on the degree of alignment required between the IMA and the internal risk management model, based on the requirements set out by the Basel FRTB standards. The EBA thus recommends amending Article 325bi(1)(f) as follows:

*Any internal risk measurement model, including pricing models, [...] shall not differ significantly from the models that the institution uses for its internal risk management. At a minimum the following requirements shall be fulfilled:*

- *Pricing models that are a feature of both internal risk measurement models and internal risk management models shall be similar. Those pricing models shall constitute an integral part*

*of the internal identification, measurement, management and internal reporting of price risks within the institution's trading desks.*

- *Internal risk management models shall, at a minimum, be used to assess the risk of the positions that are subject to market risk own funds requirements, although they may assess a broader set of positions.*
- *Any trading desk's risk management model shall be based on the methodologies used in the institution's internal risk management model with regard to risk factor identification, parameter estimation and proxy concepts and deviate only where this is appropriate due to regulatory requirements. An institution's internal risk measurement model and its internal risk management model shall address an identical set of risk factors.*

## 5. Establishment of a validation unit

268. Whereas the CRR and CRR2 require the validation of the IMA to be conducted by the market risk control unit, the Basel FRTB standards require banks to conduct its validation in a separate unit:

- CRR:

*Article 368(1)(b): the institution shall have a risk control unit that is independent from business trading units and reports directly to senior management. The unit shall be responsible for designing and implementing any internal model used for purposes of this Chapter. The unit shall conduct the initial and on-going validation of any internal model used for purposes of this Chapter, being responsible for the overall risk management system. [...]*

- Basel FRTB:

*MAR30.8: A distinct unit of the bank that is separate from the unit that designs and implements the internal models must conduct the initial and ongoing validation of all internal models used to determine market risk capital requirements. The model validation unit must validate all internal models used for purposes of the IMA on at least an annual basis.*

- CRR2:

*Article 325bi(1)(b): an institution shall have a risk control unit that is independent from business trading units and that reports directly to senior management; that unit shall be responsible for designing and implementing any internal risk-measurement model; that unit shall conduct the initial and on-going validation of any internal model used for the purposes of this Chapter and shall be responsible for the overall risk management system. [...]*



269. Accordingly, the EBA deems it beneficial to slightly amend Article 325bi(1)(b) to allow institutions to separate the unit in charge of conducting the validation of the internal models from the unit in charge of designing and implementing such internal models.

#### Recommendation MR 7: Establishment of a validation unit

The EBA recommends clarifying that the validation function may be organisationally separate from the risk control unit, as this would be the set-up with the clearest segregation of duties between model development and validation. The EBA thus recommends amending Article 325bi(1)(b) as follows:

*An institution shall have a risk control unit that is independent from business trading units and that reports directly to senior management; that unit shall be responsible for designing and implementing any internal risk-measurement model and shall be responsible for the overall risk management system; that unit shall produce and analyse daily reports on the output of any internal model used to calculate capital requirements for market risks, and on the appropriateness of measures to be taken in terms of trading limits; that unit or an organisationally separate validation unit shall conduct the initial and on-going validation of any internal model used for the purposes of this Chapter.*

## 6. Documentation requirements

270. Compared with the Basel FRTB standards, the current CRR and CRR2 lack a concrete requirement for internal models to be well documented:

- CRR:

*Article 368(1)(e): the institution shall have established procedures for monitoring and ensuring compliance with a documented set of internal policies and controls concerning the overall operation of its internal models;*

- Basel FRTB:

*MAR30.13: The bank must maintain a protocol for compliance with a documented set of internal manuals, policies, controls and procedures concerning the operation of the internal market risk management model. The bank's risk management model must be well documented. Such documentation may include a comprehensive risk management manual that describes the basic principles of the risk management model and that provides a detailed explanation of the empirical techniques used to measure market risk;*

- CRR2:



Article 325bi(1)(e): *the institution shall have in place a documented set of internal policies, procedures and controls for monitoring and ensuring compliance with the overall operation of its internal risk measurement models;*

271. Accordingly, it is deemed beneficial to add a specific requirement, requiring institutions to properly document their internal risk measurement models.

#### Recommendation MR 8: Documentation requirements

The EBA recommends adding a more specific requirement for internal models to be well documented in line with the Basel FRTB standards and thus suggests amending Article 325bi(1)(e) as follows:

*The institution shall have in place a documented set of internal policies, procedures and controls for monitoring and ensuring compliance with the overall operation of its internal risk-measurement models. The institution's internal risk measurement models shall be well documented.*

### 7. RTS mandate on PDs and LGDs in the default risk charge model

272. Institutions using the IMA to compute own funds requirements for market risk are required to compute an own funds requirement using an internal default risk model for their positions in traded debt and equity instruments included in trading desks covered by the IMA permission.

273. To simulate the default of issuers under the internal default risk model, institutions need to estimate the PDs of those issuers and the LGD of the corresponding issues, in accordance with the requirements set in paragraphs 5 and 6 of Article 325bp, respectively. In particular, institutions that have been granted permission to estimate PDs in accordance with Section 1 of Chapter 3 of Title II (Permission to use the IRB approach) are required to use the methodology set out therein to calculate PD and LGD estimates, while institutions that have not been granted that permission are required to develop an internal methodology or use external sources to calculate these estimates.

274. Article 325bp(12) mandates the EBA to 'develop draft regulatory technical standards to specify the requirements that an institution's internal methodology or external sources are to fulfil for estimating default probabilities and losses given default in accordance with point (e) of paragraph 5 and point (d) of paragraph 6.'

275. With respect to PDs, paragraph 5 of Article 325bp specifies that:

*5. To simulate the default of issuers in the internal default risk model, the institution's estimates of default probabilities shall meet the following requirements:*

[...]

*(d) an institution that has been granted permission to estimate default probabilities in accordance with Section 1 of Chapter 3 of Title II shall use the methodology set out therein to calculate default probabilities;*

*(e) an institution that has not been granted permission to estimate default probabilities in accordance with Section 1 of Chapter 3 of Title II shall develop an internal methodology or use external sources to estimate default probabilities; in both situations, the estimates of default probabilities shall be consistent with the requirements set out in this Article.*

276. With respect to LGDs, paragraph 6 of Article 325bp specifies that:

*6. To simulate the default of issuers in the internal default risk model, the institution's estimates of loss given default shall meet the following requirements:*

[...]

*(c) an institution that has been granted permission to estimate loss given default in accordance with Section 1 of Chapter 3 of Title II shall use the methodology set out therein to calculate loss given default estimates;*

*(d) an institution that has not been granted permission to estimate loss given default in accordance with Section 1 of Chapter 3 of Title II shall develop an internal methodology or use external sources to estimate loss given default; in both situations, the estimates of loss given default shall be consistent with the requirements set out in this Article.*

277. Article 325bp paragraphs 5(d) and 6(c) seem to imply that institutions that have received permission to use the IRB approach should use this approach for all their issuers and issues in the scope of the default risk charge. However, in practice, the IRB approach only covers a certain scope of obligors — for which PD estimates are available in the IRB approach — and a certain number of facilities — for which LGD estimates are available in the IRB approach.

278. Therefore, the EBA suggests clarifying in Article 325bp paragraphs 5(d), 5(e), 6(c) and 6(d) that institutions that have been granted permission under the IRB approach, for given obligors, to estimate PDs and, for given facilities, to estimate LGDs must use the methodology set out therein only for their trading book issuers and issues, for which PD estimates are available for corresponding obligors under their IRB approach and LGD estimates are available for corresponding facilities under their IRB approach. For their other trading book issuers and issues, those institutions must, similar to institutions that have not been granted IRB permission, develop an internal methodology or use external sources to estimate PDs and LGDs for the purpose of the internal default risk charge.

### Recommendation MR 9: RTS mandate on PDs and LGDs in the default risk charge model

The EBA suggests clarifying in Article 325bp paragraphs 5(d) and 6(c) that institutions that have been granted permission under the IRB approach, for given obligors, to estimate default probabilities and, for given facilities, to estimate loss given default should use the methodology set out therein only for their trading book issuers and issues, for which default probability estimates are available for the corresponding obligors under their IRB approach and loss given default estimates are available for the corresponding facilities under their IRB approach.

The EBA suggests clarifying in Article 325bp paragraphs 5(e) and 6(d) that, in addition to institutions that have not been granted IRB permission, institutions that have been granted permission under the IRB approach should develop an internal methodology or use external sources to estimate the default probabilities and loss given default for their trading book issuers or issues, for which no default probability or loss given default estimates are available under their IRB approach.

## 8. Constant position assumption in the default risk charge model

279. The FRTB standards and the CRR2 set out contradicting requirements with regard to the modelling of positions with a maturity of less than 1 year (or 60 days in the context of equity sub-portfolios) in the default risk charge model:

- Basel FRTB:

*MAR33.23: A bank must assume constant positions over the one-year horizon, or 60 days in the context of designated equity sub-portfolios<sup>74</sup>.*

*MAR33.28: The bank's model must capture any material mismatch between a position and its hedge. With respect to default risk within the one-year capital horizon, the model must account for the risk in the timing of defaults to capture the relative risk from the maturity mismatch of long and short positions of less than one-year maturity.*

- CRR2:

<sup>74</sup> On this aspect, the following FAQ was published along with the international standards:

[MAR33.23] states that a bank must have constant positions over the chosen liquidity horizon. However, [MAR33.28] states that a bank must capture material mismatches between the position and its hedge. Please explain how these two paragraphs are to be consistently applied to securities with a maturity of less than 1 year.

The concept of constant positions has changed in the market risk framework, because the capital horizon is now meant to always be synonymous with the new definition of liquidity horizon, and no new positions are added when positions expire during the capital horizon. For securities with a maturity under 1 year, a constant position can be maintained within the liquidity horizon, but, similar to under the Basel II.5 incremental risk charge, any maturity of a long or short position must be accounted for when the ability to maintain a constant position within the liquidity horizon cannot be contractually assured.

Article 325bn(1)(d): *The internal default risk model shall be based on a one-year constant position assumption.*

Article 325bo(3): *In their internal default risk model, institutions shall capture material risks between a hedging instrument and the hedged instrument that could occur during the interval between the maturity of a hedging instrument and the one-year time horizon [...].*

280. It should be noted that, the EBA Guidelines on IRC explained the notion of ‘constant position assumption’: ‘When assuming a one-year constant position, which implies not adopting liquidity horizons, institutions should consistently apply to all IRC positions an instantaneous shock over the one-year capital horizon (referred to as “one-year constant position assumption”).’

281. However, the requirement for capturing material mismatches between the maturity of a hedge and the maturity of the hedged instrument goes in the opposite direction. Consequently, the EBA sees the need to clarify the requirements on the modelling of positions with a maturity of less than 1 year.

#### **Recommendation MR 10: Constant position assumption in the default risk charge model**

The EBA recommends clarifying the requirements on the modelling of positions with a maturity of less than 1 year (or 60 days in the context of equity sub-portfolios) in the default risk charge model. The EBA proposes laying down the constant position assumption as a basic requirement (by keeping Article 325bn(1)(d) unchanged) but still requiring institutions to monitor that the uncaptured maturity mismatches between positions and their hedges do not lead to a material underestimation of risk by amending Article 325bo(3) as follows:

*Institutions shall ensure that, where maturity mismatches between a hedging instrument and the hedged instrument that could occur during the interval between the maturity of a hedging instrument and the 1-year time horizon are not captured in their internal default risk model, this does not lead to a material underestimation of risk [...].*

### **9. Reporting of backtesting and P&L attribution results**

282. The EBA proposes clarifying that supervisors should be provided on a quarterly basis with backtesting and P&L attribution results and relevant time series for all desks, for which the bank has been granted supervisory permission to use the IMA, regardless of whether or not the positions on these desks are actually capitalised with the IMA (e.g. a desk may have received the IMA permission, but its positions may not be capitalised under the IMA because of a ‘temporary failure’ of the P&L attribution or backtesting results).

283. This has proven to be a very useful supervisory tool in the past and would allow monitoring of the performance of the internal model when applied to the different desks within the IMA scope and the capital surcharges in the case of poorly performing desks or poor performance in backtesting at institution level. Furthermore, it would allow for timely supervisory reaction to (accumulation of) overshootings and threshold breaches in backtesting or P&L attribution.

#### **Recommendation MR 11: Reporting of backtesting and P&L attribution results**

The EBA recommends explicitly clarifying that competent authorities should be provided on a quarterly basis with backtesting and P&L attribution results and relevant time series for all desks for which the institution has been granted supervisory permission to use the IMA, regardless of whether or not the positions on these desks are actually capitalised with the IMA.

### **10. Use of data inputs in the risk measurement model**

284. Article 325bh(3) of the CRR2 mandates the EBA to issue guidelines on the use of data inputs in the risk measurement model referred to in Article 325bc, namely the ES.

285. The EBA notes that it has been mandated to issue draft RTS to assess the modellability of risk factors, as per Article 325be(3), and only guidelines with respect to the use of data inputs. In light of the interconnectedness of the two aspects addressed in the two mandates, the EBA deems it beneficial to be provided with a mandate to issue draft RTS on the use of data inputs in the risk measurement model. This should also aim to provide more legal certainty around such a fundamental aspect of the market risk framework.

286. In addition, the EBA considers that requirements could also be defined with respect to the data inputs to be used in the stress scenario risk measure for NMRFs. In particular, the EBA discussion paper on the revised market risk and counterparty credit risk frameworks requested feedback on possible requirements for data inputs to the NMRF stress scenario risk measure.

#### **Recommendation MR 12: Use of data inputs in the risk measurement model**

The EBA recommends amending the mandate to issue guidelines on the use of data inputs in the ES to a mandate to issue draft RTS on the use of data inputs in the risk measurement models referred to in Article 325bc (the ES) and Article 325bk (the NMRF stress scenario risk measure).

### **11. Treatment of CIUs**

287. Provisions related to the treatment of CIUs are expected to be included by the Delegated Act referred to in Article 461a of the CRR2 in Article 325j of the CRR2. As highlighted above, some

respondents to the qualitative questionnaire raised concerns with respect to the treatment of equity investments in funds provided in the 2019 FRTB standards, noting in particular that the non-look-through capitalisation of equity investments in funds is extremely punitive and may force banks not to deal in these instruments any more.

288. The EBA could not separately assess the impact of the revised treatment of CIUs at this stage and, therefore, is not in a position to estimate the expected increase in own funds requirements due to the revised standards. However, a speedy comparison of the current EU regulatory framework for CIUs booked in the trading book with the revised standards suggests that:

- Fewer CIUs will be allowed to be booked in the trading book in the future.
- For CIUs booked in the trading book, very few will be allowed into the IMA, while the standardised approach is becoming (except for look-through CIUs) much more conservative than the current CRR treatment, in particular the ‘single equity’ approach (application of a 70% risk weight) and the requirement to compute a default risk charge and a residual risk add-on, where relevant.

289. With respect to the ‘hypothetical portfolio’ approach, the FRTB (MAR21.36) clarifies that, for equity investment in funds that cannot be looked through, institutions have the option to consider the fund as a hypothetical portfolio in which the fund invests — to the maximum extent allowed under the fund’s mandate — in those assets attracting the highest capital requirements under the sensitivities-based method and then progressively in those other assets implying lower capital requirements. In addition, it is clarified that, if more than one risk weight can be applied to a given exposure under the sensitivities-based method, the maximum risk weight applicable must be used.

290. The EBA deems that the provisions in the FRTB standards are too generic to allow for a harmonised implementation in the EU. In particular, it might not be trivial for an institution to build a hypothetical portfolio following the guidance provided, as several elements would need to be taken into account where building such a portfolio, such as the presence of FX risk and the role played by the intra-bucket and inter-bucket correlations. Accordingly, to avoid the potential ambiguities that such a generic wording may lead to, the EBA deems that, in the event that the Delegated Act introduces the possibility of treating positions in funds as positions in a hypothetical portfolio, it could be beneficial to include, in the context of legislative amendments to the CRR, a mandate for the EBA to issue RTS for specifying how banks are supposed to build such a hypothetical portfolio.

#### **Recommendation MR 13: Treatment of CIUs**

The EBA recommends that, in the event that the Delegated Act referred to in Article 461a of the CRR2 introduces the possibility of treating positions in CIUs — where a look-through is not possible — as positions in a hypothetical portfolio, a mandate for the EBA to issue RTS for

specifying how banks are supposed to build such a hypothetical portfolio should be included in the context of legislative amendments to the CRR.

## 12. Exclusion of items deducted from capital from own funds requirements for FX risk

291. The FRTB clarifies that ‘no FX risk capital requirement need apply to positions related to items that are deducted from a bank’s capital when calculating its capital base’. However, such a provision has not been included in the CRR2.

292. Article 352(2) of the CRR implies that there might be positions that have been deducted from an institution’s capital that are included in the calculation of the net open position that the institution has in a foreign currency. As a result, such treatment could possibly lead to capitalise risks for positions that are even deducted from the institution’s capital.

293. Accordingly, the EBA suggests transposing, in the CRR, the international standards on the abovementioned aspect.

### **Recommendation MR 14: Exclusion of items deducted from capital from own funds requirements for FX risk**

The EBA recommends including in the context of legislative amendments to the CRR the specification that positions related to items that are deducted from an institution’s capital are not subject to a FX-risk capital requirement, in line with the FRTB standards.

## 13. Calculation of the own funds requirements for FX risk at consolidated level

294. Article 325b of the CRR2 outlines the conditions that an institution should meet to receive permission from the competent authority to calculate net positions and own funds requirements on a consolidated basis, by offsetting positions in one institution (or undertaking) with positions in another institution or undertaking.

295. Where an institution does not receive the permission referred to in Article 325b, the institution must calculate the own funds requirement for market risk at several sub-consolidated (or solo) levels, which are consequently added together for the purpose of obtaining the own funds requirements for market risk on a consolidated basis.

296. In light of the fact that the EBA received many Q&As on the calculation of the own funds requirements for FX risk at consolidated level, the EBA deems it beneficial to clarify that the calculation should be performed with respect to a unique currency (i.e. the reporting currency at consolidated level).

Example:

The parent bank P has a subsidiary S. The parent bank P reports in euros at solo level, while the subsidiary S reports in pounds sterling at solo level. Suppose the institution does not receive the permission in Article 325b to offset positions in P and S for the purpose of calculating the own funds requirement for market risk.

Where calculating the own funds requirement at consolidated level, the FX risk should be computed with respect to one currency (i.e. euros). Accordingly, since the institution has not received the permission referred to in Article 325b, it should first calculate the own funds requirements for market risk for P and S separately; where calculating those for S, the FX risk should be computed with respect to euros (meaning that positions in pounds sterling are attracting own funds requirements for FX risk), even if the reporting currency for S at solo level is pound sterling.

#### **Recommendation MR 15: Calculation of own funds requirements for FX risk at consolidated level**

The EBA recommends that the own funds requirements for FX risk at consolidated level, where the permission outlined in Article 325b has not been granted, should be calculated with respect to a unique currency, i.e. the reporting currency at consolidated level.

### **14. Structural FX provision**

297. The structural FX provision in Article 352(2) of the CRR is subject to various interpretations that have led to differences in its application, both in EU Member States and across banks.

298. The EBA published a discussion paper on 22 June 2017, in which it sought preliminary input from stakeholders on several aspects of the provision to better understand industry practices. The discussion paper provided an overview of the interlinkages with other provisions, especially with the accounting framework, and identified elements that played a significant role in the determination of the capital requirement.

299. Taking into account, inter alia, the feedback received from the discussion paper, the EBA issued a Consultation Paper on Guidelines on the application of the structural FX provisions on 16 October 2019. The guidelines are aimed at setting a regulatory framework on structural FX, to address the diversity observed in its application across the EU. To this end, the guidelines identify criteria to assist competent authorities in their assessment of the structural nature of an FX position and whether or not such a position has been deliberately taken to hedge the capital ratio.



300. It is important to note that, even if these guidelines refer to the provision included in Article 352(2) of the CRR, which refer to the current market risk framework, the guidelines have been developed by taking into account the structural FX treatment envisaged in the new FRTB standards published in January 2019, which have not been transposed into the CRR2.

301. Indeed, the FRTB standards envisage in MAR11.3 more specific conditions to be met regarding exempting positions from the own funds requirement for FX risk if such positions were deliberately taken by an institution to hedge the capital ratio.

302. The EBA recommends including in the context of legislative amendments to the CRR the possibility for institutions, subject to the approval of the competent authority, to remove, from the calculation of the net open position in the foreign currency, those positions that have been taken for the purposes of hedging the capital ratio. Such a possibility should be given both to institutions using the new standardised approach and to institutions using the new IMA.

303. In addition, the EBA deems it fundamental to harmonise practices among EU jurisdictions on the structural FX provision. Accordingly, it proposes including, along with the structural FX provision subject to approval by competent authorities, a mandate for the EBA to issue draft RTS aimed at specifying:

- (i) the capital ratio to be hedged for the purposes of structural FX;
- (ii) the criteria for a position in a currency different from the reporting currency to be considered as taken or maintained for the purpose of partially or totally hedging the capital ratio (point (1) of MAR11.3);
- (iii) the criteria for a position in a currency different from the reporting currency to be considered of a structural nature (point (2) of MAR11.3);
- (iv) how institutions shall calculate the maximum position that may be exempted, including the frequency of such a calculation (point (3) of MAR11.3);
- (v) the requirements to be met by an institution's risk management framework for managing structural FX positions (point (5) of MAR11.3, including points (4) and (6) of MAR11.3), including governance, documentation and ongoing monitoring requirements (point (7) of MAR11.3).

304. Finally, the EBA would consider it important to specify in the CRR text that institutions should notify competent authorities of material changes made to their risk management framework for managing structural FX positions so that competent authorities can perform their supervisory duties and, where relevant, consider supervisory actions, including a possible withdrawal of the structural FX waiver.

305. To enable competent authorities to perform their supervisory duties appropriately, the EBA would consider supplementing such RTS with relevant COREP reporting requirements.

### Recommendation MR 16: Structural FX

The EBA recommends including, also in the context of the new FRTB approaches, the structural FX provision, i.e. the possibility for institutions, subject to the approval of the competent authority, to remove, from the net open position in the foreign currency, those positions that have been taken for the purposes of partially or totally hedging the capital ratio.

For the purposes of harmonising practices among EU jurisdictions on the structural FX provision, the EBA recommends, in the context of legislative amendments to the CRR, including a mandate to issue draft regulatory standards aimed at specifying:

- (i) the capital ratio to be hedged for the purposes of structural FX;
- (ii) the criteria for a position in a currency different from the reporting currency to be considered as taken or maintained for the purposes of partially or totally hedging the capital ratio;
- (iii) the criteria for a position in a currency different from the reporting currency to be considered of a structural nature;
- (iv) how institutions shall calculate the maximum position that may be exempted, including the frequency of such a calculation;
- (v) the requirements to be met by an institution's risk management framework for managing structural FX positions, including governance, documentation and ongoing monitoring requirements.

## 15. P&L attribution requirements

306. Article 325az(2) states:

*After having verified institutions' compliance with the requirements set out in Articles 325bh, 325bi and 325bj, competent authorities shall grant permission to those institutions to calculate their own funds requirements for the portfolio of all positions assigned to trading desks by using their alternative internal models in accordance with Article 325ba, provided that all the following requirements are met:*

(a) [...]

(b) [...]

*(c) the trading desks have met the back-testing requirements referred to in Article 325bf(3) for the preceding year;*

*(d) the institution has reported to its competent authorities the results of the profit and loss attribution ('P&L attribution') requirement set out in Article 325bg;*

*[...]*

307. Accordingly, CRR2 does not require institutions to meet the P&L attribution requirements for the purposes of receiving the permission to calculate the own funds requirements for market risk with the IMA for reporting purposes.

308. The EBA sees the risk of legal uncertainty on this aspect. The inconsistency could be solved by making the P&L attribution requirement a requirement to be met in Article 325az.

309. In addition, for the purposes of fully reflecting the FRTB standards within EU legislation, the EBA suggests amending the mandate under Article 325bg to reflect the possibility of having desks for which the institution can still use the IMA while computing a capital surcharge due to misalignment registered in the P&L attribution tests (i.e. amber desks).

#### **Recommendation MR 17: P&L attribution requirements**

The EBA recommends setting the P&L attribution requirement as a requirement to be met for the use of the IMA.

In addition, the EBA recommends that a mandate is included in Article 325bg(4) as follows:

*4. The EBA shall develop draft regulatory technical standards to specify:*

*(a) the criteria necessary to ensure that the theoretical changes in the value of a trading desk's portfolio are sufficiently close to the hypothetical changes in the value of a trading desk's portfolio for the purposes of paragraph 2, taking into account international regulatory developments;*

*(b) the desks that are meeting the P&L attribution requirements for the purposes of Article 325az(1);*

*(c) the consequences for an institution with trading desks that meet the P&L attribution requirements in accordance with point (b) but where the theoretical changes in the value of a trading desk's portfolio still present misalignment with respect to the hypothetical changes in the value of a trading desk's portfolio on the basis of the criteria identified in point (a);*

*(d) the frequency at which the P&L attribution is to be performed by an institution;*

*(e) the technical elements to be included in the theoretical and hypothetical changes in the value of a trading desk's portfolio for the purposes of this article;*

*(f) the manner in which institutions that use the internal model are to aggregate the total own funds requirement for market risk for all their trading book positions and non-trading book positions that are subject to foreign exchange risk or commodity risk, taking into account point (b) and point (c).*

## 16. Qualitative add-on for multiplier

310. While the CRR and the Basel FRTB text provide supervisors with the possibility of increasing the multiplication factor  $m_c$  in the case of insufficiencies in the IMA, this possibility is not envisaged under CRR2:

- CRR:

*Article 366(2): Each of the multiplication factors ( $m_c$ ) and ( $m_s$ ) shall be the sum of at least 3 and an addend between 0 and 1 in accordance with Table 1.*

- Basel FRTB:

*MAR33.42: The multiplication factor  $m_c$  is fixed at 1.5 unless it is set at a higher level by the supervisory authority to reflect the addition of a qualitative add on and/or a backtesting add-on per the following considerations. [...]*

*(3) If the backtesting results are satisfactory and the bank meets all of the qualitative standards set out in [MAR30.5] to [MAR30.16], the plus factor could be zero. [...]*

- CRR2:

*Article 325bf(6): The multiplication factor ( $m_c$ ) shall be the sum of the value of 1.5 and an add-on between 0 and 0.5 in accordance with Table 3.*

311. An increase in the multiplication factor by a qualitative add-on is the most commonly used supervisory measure for current VaR models and constitutes an effective incentive for institutions to address in good time issues or deficiencies in models identified by supervisors. Thus, this possibility should be maintained for FRTB IMA models to allow distinction among models of different quality.

### Recommendation MR 18: Qualitative add-on for multiplier

The EBA recommends maintaining the possibility of increasing the multiplication factor in line with the FRTB and the current CRR, and thus proposes amending Article 325bf(6) as follows:

*The multiplication factor ( $m_c$ ) shall be the sum of the value of at least 1.5 and an add-on between 0 and 0.5 in accordance with Table 3 [...].*



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