BCBS consultation - Credit Valuation Adjustment risk: targeted final revisions

February 2020

Industry Response
25 February, 2020

Ms Carolyn Rogers  
Secretary General  
Basel Committee on Banking Supervision  
Bank for International Settlements  
CH-4002 Basel  
Switzerland

Dear Ms. Rogers,

**BCBS Consultative Document on targeted revisions to Credit Valuation Adjustment risk**

The International Swaps and Derivatives Association, the Global Financial Markets Association and the Institute of International Finance, and their members (together, the “Associations”) appreciate the Basel Committee on Banking Supervision ("BCBS") consultation to reconsider the 2017 Credit Valuation Adjustment ("CVA") risk framework. We fully support the objectives and the proposed revisions in the BCBS consultative document: Credit Valuation Adjustment risk: targeted final revisions – d488 (the “consultation”)¹. Moreover, the Associations welcome the opportunity to provide feedback on the targeted revisions and address questions on scope and calibration in the consultation. We would like to thank the BCBS for their continued efforts in promoting global standards and for their continued engagement with the Associations, in order to understand the various implications of the CVA risk framework on the derivatives markets.

Targeted revisions such as the adjustment of the CVA multiplier (“mCVA”), changes to risk weights, the aggregation formula, and the reconsideration of the scope of application to exclude immaterial security finance transactions (“SFT”) are significant improvements over the 2017 CVA risk framework². Further to that we also support the introduction of a scalar for the appropriate calibration of BA-CVA. That said, we believe that further revisions are needed to address design and calibration issues that arise from copying the revised market risk framework across to the CVA risk framework. We believe that the misalignment between sound risk management practices and regulatory capital needs to be addressed to achieve a better balance between BCBS objectives of balancing risk sensitivity, simplicity, and consistency. The changes we suggest in this

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¹ Credit Valuation Adjustment risk: targeted final revisions November 2019, available at https://www.bis.org/bcbs/publ/d488.pdf
response are targeted at ensuring that the CVA risk framework better represents the underlying economic risks and is calibrated to reflect those. Additionally, our proposed recommendations are intended to incentivize prudent hedging of CVA risk, which is a primary objective of the new framework.

To substantiate our response, the Associations conducted a Quantitative Impact Study (“QIS”) with input from 25 global banks with large trading book activities. The QIS results indicate that the overall impact on CVA risk capital requirements due to the proposed method changes is +58% compared to the existing full-scope under d189 for the CVA Capital requirement. Assuming a 100% SA-CVA portfolio the maximum benefit of reducing the mCVA multiplier is capped at a 20% reduction in the CVA capital charge, which in practice would only be achieved if a scalar was introduced to reduce the bank’s total portfolio under BA-CVA by a similar amount, given that a proportion of the bank’s total portfolio will likely be on BA-CVA. Based on the QIS results and the options put forward in the consultation, we strongly support setting the multiplier at one as a necessary adjustment to partially address the calibration issues identified by BCBS in the consultation. This also takes into account the fact that there is no advanced approach available for the calculation of the CVA capital requirements. In our view, there is no justification for a multiplier to be applied in the SA-CVA framework.

Based on the QIS results the removal of the mCVA multiplier and other recommendations in the Basel consultation will lower the expected increase for CVA. However, even with the improvements in the consultative document there will still be a substantial increase in CVA capital. The results of our QIS show a reduction of 4% compared to BCBS d424 as a result of changes in the consultation, excluding the proposal to remove the multiplier. Without consideration of the key recommendations described in more detail in our response, the CVA framework would have harmful implications on capital markets and end users that use derivatives for hedging purposes.

CVA risk represents a significant driver in risk-weighted assets (“RWAs”) for derivatives and capital market activities. The Associations are concerned that the over-conservatism and lack of risk sensitivity of the proposed CVA framework could lead to a negative impact on liquidity in the derivatives market, hinder the development of capital markets, and not provide the right

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3 Of the global banks in the sample, sixteen are European and nine are US/Canadian.
5 See Appendix 2, Quantitative Impact Study Results, Comp_12a. This ratio is a comparison of 2017 SA-CVA framework vs current and hence includes a multiplier of 1.25
6 Capitalisation of the risk of CVA Losses (s90), Basel III: A global regulatory framework for more resilient banks and banking systems 2011, available at https://www.bis.org/publ/bcbs189.pdf
7 The impact analysis does not consider any regional applications of the CVA framework and therefore the overall impact of the revised CVA framework in this analysis will be underestimated.
8 For smaller banks or those with less sophisticated infrastructure the BA-CVA proportion of the portfolio could be significant.
9 See Appendix 2, Quantitative Impact Study Results, 4% is computed as a %'age difference between the ratio Comp12a [1.58] and Comp12b [1.52]
incentives for optimal hedging of CVA risk. This would then have potential cost implications for end users including pension funds, mutual funds, and commercial end users that use derivatives for hedging purposes. Any requirements that constrain the use of derivatives may affect the ability of end users to hedge their funding, currency, commercial and day-to-day risks, which would in turn weaken their balance sheets and make them less attractive from an investment perspective.

Given the potential impact of the proposed CVA framework, in addition to removal of the mCVA, we respectfully urge BCBS to consider and act upon the further revisions highlighted in our key recommendations to avoid any unintended consequences while still achieving the BCBS's regulatory objectives. These recommendations are summarized below:

- Improve the granularity of the counterparty credit spread (“CCS”) risk weights. At a minimum, recognize the differentiation in CVA risk profiles between financial counterparties.
- Improve the recognition of CVA Index hedges to better reflect their usage to hedge systematic credit spread risk as opposed to specific sectoral or counterparty risk, and incentivize prudent hedging within the industry.
- Revise the scope of application and modelling parameters to more closely align with industry practice to determine the accounting fair value recognized in banks’ financial accounts, and reduce operational burden.

Further details on the above recommendations can be found in the Key Recommendations section. In addition the Associations seek definitional clarifications with respect to the standard in relation to treatment of Guarantees, Expected Loss Given Default, and single name proxy hedges.

The changes we propose represent a reasonable balance of the regulatory objectives and we urge the BCBS to act upon those recommendations to ensure better alignment of capital and economic risk to enable banks to facilitate capital markets operations in the most efficient manner. Importantly, we believe that making the targeted changes outlined in this paper will not have a negative impact on the Basel III implementation timeframe.
As mentioned above, the Associations’ comments are offered with the purpose of continuing to contribute constructively to the development of risk appropriate capital rules. We would be very pleased to engage with the BCBS further in this important area and remain available at your request to provide any additional information.

Yours sincerely,

[Signatures]

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1. CVA Multiplier

As requested in the consultation, we would like to provide feedback regarding the need for an adjustment to the value of the existing multiplier mCVA which is currently set to 1.25. We understand that the BCBS has decided to review the multiplier because both regulatory and industry estimates show that CVA capital requirements are disproportionate relative to the underlying economic risk or the associated counterparty default risk.

The original justification for the multiplier was to “compensate for a higher level of model risk in calculation of CVA sensitivities in comparison to sensitivities of market value of trading book instruments”¹⁰. The Associations believe that the calculation of CVA sensitivities is not a significantly more complex process than the sensitivity calculation of trading book instruments. We are not aware of any quantitative analysis that would indicate there should be a 25% increase in model risk for computation of CVA risk sensitivities.

Furthermore, the design of the SA-CVA approach simplifies the estimation of CVA risk and applies some very conservative assumptions. Fixed supervisory parameters are used for risk weights and the correlations between risk buckets and risk classes. Also, there is limited offsetting or diversification benefit that may be achieved through the design of the risk buckets, risk classes and aggregation function.

Removing the multiplier would be a simple approach to re-calibrate the framework but it would not address the calibration and design issues that have resulted from simply copying the FRTB-SBA¹¹ Market Risk approach to CVA without addressing the differences between the different risk types.

The impact of reducing mCVA to one, whilst significant, does not resolve a number of design and calibration issues which divorce the regulatory CVA framework from economic risk; the decrease from reducing mCVA alone, therefore, does not provide sufficient relief in capital, as the framework continues to overestimate the capital requirements for CVA risk.

In conclusion, the Associations believe that the mCVA multiplier should be set to one. Supervisory authorities would still have the discretion to use the multiplier for CVA risk as needed if a high degree of model risk in a banks’ CVA models is identified.

2. Key Recommendations

Further to the changes proposed in the consultation, and in response to the request for comment on calibration, the Associations would like to present some key recommendations which would ensure a framework that is more risk sensitive and in line with the underlying economic risk.

We start by presenting recommendations relating to granularity of risk weights.

a. Improve Granularity of Risk Weights for Counterparty Credit Spread

In response to the BCBS’s request for comments on re-calibration of the CVA framework, the Associations recommend that further consideration is given to how the counterparty credit spread component is designed and calibrated. The rule has eight sector buckets and two credit quality steps as illustrated in table 7 of MAR 50. 65\(^{12}\), and copied below.

<table>
<thead>
<tr>
<th>Bucket</th>
<th>1a</th>
<th>1b</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>IG</td>
<td>0.50%</td>
<td>1.00%</td>
<td>5.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>2.00%</td>
<td>1.50%</td>
<td>5.00%</td>
<td>1.50%</td>
</tr>
<tr>
<td>Highly Speculative</td>
<td>2.00%</td>
<td>4.00%</td>
<td>12.00%</td>
<td>7.00%</td>
<td>8.50%</td>
<td>5.50%</td>
<td>5.00%</td>
<td>12.00%</td>
<td>5.00%</td>
</tr>
</tbody>
</table>

The risk weights in the table above are used in the FRTB-SBA approach for trading book instruments and represent the BCBS’s view of reference credit spread risk for liquid traded financial instruments such as bonds and credit default swaps (“CDS”). The bucket structure and risk weights have been copied across to the CVA risk framework where they are applied both in the reference credit spread risk component, which is the same as in FRTB-SBA, and the counterparty credit spread risk component, which is only applicable in the CVA risk framework and does not exist in the FRTB-SBA approach. We believe that it is appropriate for the reference credit spread risk to be the same in both frameworks given that the population of traded instruments will be the same. However, we believe it is not correct to apply the same risk weights to the counterparty credit spread risk component because the underlying population of counterparties will be significantly different. Many of the counterparties that banks trade with do not issue debt instruments and therefore would not be captured in the analysis the BCBS has performed to determine reference credit spread risk. A notable example would be pension funds.

which do not issue debt but have a very low risk profile and where there is no noteworthy historical experience of defaults.

We believe amendments to the granularity of the counterparty credit spread component are critical to ensure that the calibration of the CVA risk framework reflects the underlying economic CVA risk. This is primarily because the counterparty credit spread component is the dominant risk factor of the CVA capital requirement.

In the revised CVA risk framework, all financial entities must be included in the same sector group regardless of the type of financial entity. However, this sector bucket is very broad, capturing a diverse set of counterparties including highly regulated institutions with multiple financial business lines (commercial and investment banks, insurance companies), unregulated and highly leveraged institutions (hedge funds, private equity), and institutions with narrowly defined missions based on earning appropriate returns for investor stakeholders (pension funds, mutual funds, asset management accounts).

For example, the Associations believe that a 5% risk weight, which is appropriate for a hedge fund, is unrealistically high for a pension fund with a strict investment policy, very high quality assets and minimal leverage. A similar argument can be made for asset managers more broadly, including investment companies/funds with investment guidelines or regulations that prohibit material leverage.

There is no actively traded CDS for pension funds or mutual funds, therefore the CVA risk on such counterparties is more likely to be marked to a proxy credit spread which represents the underlying holdings of the fund. For example, the CVA risk on a fund which only invests in government securities would have a CVA risk profile that is closer to the risk weight of Sovereigns [0.5% / 1.5%]. A fund which invests in the whole equity market for investment grade (“IG”) securities would have a CVA risk profile that is closer to the average risk weight across all sector buckets [2.8%] or the IG risk weight used for the index sector bucket [1.5%].

In order to apply a risk weight that is a more appropriate representation of the underlying CVA risk, we propose that the risk weight for pension funds and mutual funds is revised to 2.5% for investment grade and 6.0% for high yield (“HY”) respectively.

Similarly, we believe that the risk weight for regulated financial institutions including banks, broker dealers and insurance companies that are subject to minimum solvency requirements should be lower than the current 5.0% for IG and 12.0% for HY. It should be pointed out that capital requirements across regulated financial institutions have substantially increased since the financial crisis of 2008-9 reducing the likelihood of default and the volatility of credit spreads for regulated financials when compared to the period during the financial crisis.

Differentiating the risk weights between regulated and unregulated financials would be more representative of the underlying CVA risk. Furthermore, it would be more consistent with other areas of the Basel framework, e.g. the treatment of the regulated and unregulated financials in
the standardized approach for default risk\textsuperscript{13}, where lower risk weights are applied to prudentially regulated banks compared to other financials that are treated as corporates, with higher risk weights.

It is challenging to provide market data on the credit spreads of unregulated financials given the population includes a diverse set of counterparties and in many cases there is not a liquid credit market for the counterparties’ debt. However, there is sufficient data on the historical default rates for different counterparties which clearly shows that banks and insurance companies have significantly lower default rates than non-bank financials (“NBFIs”)\textsuperscript{14} or non-financials\textsuperscript{15}. The chart\textsuperscript{16} below shows the weighted average global default rates for banks, NBFIs, insurance companies and non-financials for the period 1981-2018. Historically, banks and insurance companies show a weighted average annual default rate of 0.48% and 0.30% respectively. Meanwhile, the weighted average for non-bank financials is more than double the default rate of regulated banks and insurance companies at 1.22%.

It is also important to note that the global default rate for non-financials is significantly higher than banks, insurance companies or Non-bank financial institutions. This is the opposite of the relationship that BCBS have introduced in the CVA risk framework where financial institutions are subject to higher risk weights than any of the other non-financial sectors. While we recognize that the default rate does not directly apply to mark-to-market losses measured in CVA risk, it is a good indicator of the underlying economic risk.

\textsuperscript{13} Calculation of RWA for Credit Risk IRB approach, available at https://www.bis.org/basel_framework/chapter/CRE/31.htm?inforce=20191215
\textsuperscript{14} Non-Bank Financial Institutions (NBI) includes all Financial Institutions that have issued publicly rated debt instruments but are not Banks or Insurance companies
\textsuperscript{15} “Nonfinancials”, as defined by S&P, includes all nonfinancial corporates
We propose that the risk weights for regulated financials are aligned with the highest of the other industry sectors, namely the 3% for IG and 8.5% for HY, which is applied to the consumer goods and services, transportation and storage sector. This is still higher than the risk weights that would apply to the technology, telecommunications sector and the health care & utilities sector.

Also, the Associations believe that the 5% risk weight is also unrealistically high for counterparties representing covered bonds i.e. counterparties transacting derivatives whose purpose is to hedge the market risk of covered bonds and which are pari passu with corresponding covered bonds debt. Currently such counterparts\textsuperscript{17} are classified as financials, whilst disregarding the specific features enhancing their CVA risk profile and making it closer to that of investment grade sovereigns [RW = 0.5%].

Lowering the risk weights for counterparties representing covered bonds, would then be more representative of the underlying CVA risk and would also be more consistent of with other areas of the Basel framework where covered bonds specific risk is acknowledged through dedicated and lower risk weights (e.g. in the standardized approach for default risk, or in FRTB market risk framework - where covered bonds are also granted a dedicated bucket).

In order to apply a risk weight that is a more appropriate representation of the underlying CVA risk, we propose that the risk weight for a counterparty representing covered bonds is aligned with risk weights for covered bonds within the FRTB framework, and set to 2.5% and 1.5% for covered bonds that are rated AA- or higher.

\textsuperscript{17} As structures for issuing covered bonds vary depending on jurisdictions, such counterparts can either be directly the issuing financial institutions (under a specific legal agreement) or ad hoc vehicles; however analog credit enhancement features apply in all cases.
Finally, we also note that there are only two risk weights to reflect credit quality. The Associations believe that the lack of granularity of credit quality means that the Basel CVA risk weights do not adequately reflect the key drivers of CVA risk, credit spread level and volatility and the empirical evidence of the clear relationship between the rating of a counterparty and the credit spread level and volatility. We have outlined appropriate targeted solutions to incorporate granular credit quality steps within the bucketing of CCS risk weights in the Appendix 3 of this response.

**Recommendation**: In summary, we would propose the following revisions to sector bucketing and risk weights for financial counterparties as outlined in the tables below:

**MAR 50.63**

<table>
<thead>
<tr>
<th>Bucket number</th>
<th>Sector</th>
</tr>
</thead>
</table>
| 1             | a) Sovereigns including central banks, multilateral development banks  
                b) Local government, government-backed non-financials, education and public administration |
| 2             | a) Regulated Financial Institutions  
                b) Pension funds and Mutual Funds  
                c) Covered Bonds  
                d) Other Financial Institutions |
| 3             | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying |
| 4             | Consumer goods and services, transportation and storage, administrative and support service activities |
| 5             | Technology, telecommunications |
| 6             | Health care, utilities, professional and technical activities |
| 7             | Other sector |
| 8             | Qualified Indices |
b. Index Hedge Recognition

The Associations are supportive of BCBS’s proposal to introduce an additional bucket for indices in the counterparty credit spread, equity and credit reference risk classes. We are also supportive of amending the aggregation formula, which under the 2017 version of the rules could lead to higher capital requirements where banks have entered into hedges to reduce their CVA risk. However, we believe further amendments are required to the counterparty credit spread index bucket and aggregation to ensure that index hedges of CVA exposure are appropriately recognized in the CVA framework.

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For covered bonds that are rated AA- or higher, the applicable risk weight may at the discretion of the bank be 1.5%. 

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<table>
<thead>
<tr>
<th>Bucket</th>
<th>1 a)</th>
<th>1 b)</th>
<th>2 a)</th>
<th>2 b)</th>
<th>2 c)</th>
<th>2 d)</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>IG names</td>
<td>0.5%</td>
<td>1.0%</td>
<td>3.0%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>5.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>2.0%</td>
<td>1.5%</td>
<td>5.0%</td>
<td>1.5%</td>
</tr>
<tr>
<td>HY and NR names</td>
<td>2.0%</td>
<td>4.0%</td>
<td>8.5%</td>
<td>6.0%</td>
<td>2.5%</td>
<td>12.0%</td>
<td>7.0%</td>
<td>8.5%</td>
<td>5.5%</td>
<td>5.0%</td>
<td>12.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>
The approach taken in the consultative document is to copy across the index bucket and aggregation from the revised market risk standards. This may be appropriate for reference credit spread and equity indices but it is not appropriate for counterparty credit spread risk. In particular, we believe that this does not account for how banks use CDS indices to hedge their systematic credit spread risk of CVA.

In the market risk framework, the exposure in the index bucket would represent the firm’s market risk on index instruments and could be long or short. Meanwhile in the CVA risk framework the exposure in the index bucket should only be net short and would represent the bank’s macro hedges to mitigate systematic risk across the full portfolio of counterparties in the CVA portfolio. For many small and mid-cap companies who use derivatives to hedge their financial risks, there will be no direct hedges available to hedge the counterparty credit spread risk. In such cases, banks use index hedges to “macro-hedge” the portfolio. These hedges will typically be chosen to hedge the portfolio as a whole, and not individual counterparties or sectors. In light of this difference between CVA risk and market risk, we believe that there needs to be a different approach to aggregating the risk between the index bucket and the other buckets.

In the consultative document, BCBS states that “revision of the aggregation formula will improve the recognition of CVA index hedges in the SA-CVA.”\(^\text{19}\) The proposed changes to article 50.53\(^\text{20}\) do improve the aggregation of counterparty credit spread sector buckets compared to the previous formula. The introduction of an additional parameter (the signed \(S_b\)), combined with the newly introduced bucket 8 of article 50.63\(^\text{21}\), allows for a partial recognition of index hedges in principle. However, in practice we see negligible improvement in the hedge efficiency with the proposed changes. In addition, the hedge relief is contingent on how the CVA risk exposure is distributed across the sectoral buckets in the individual banks’ portfolio. The optimal hedge relief is only attained when index hedges are sized to the index-portfolio correlation implied from the SA-CVA method.

The chart below shows the implied index-portfolio correlation as a function of the bucket concentration. While the implied index-portfolio correlation and corresponding optimal hedge relief could reach a theoretical 85% and 47% respectively, we see evidence that suggests the effective relief based on actual banks’ portfolios is below that of the current CVA risk

\(^{19}\) Page 4, Credit Valuation Adjustment risk: targeted final revisions November 2019, available at https://www.bis.org/bcbs/publ/d488.pdf
\(^{21}\) MAR 50.63. Credit Valuation Adjustment risk: targeted final revisions November 2019, available at https://www.bis.org/bcbs/publ/d488.pdf
framework. The realized hedge benefit is much lower due to the concentration of risk in the financial sector bucket. Therefore, the proposed changes still do not go far enough to incentivize prudent hedging of CVA risk, which is a primary objective of the new framework.

We propose a revised two-step aggregation approach which results in index hedge recognition independent of the distribution of risk across the bank’s portfolio and how it is mapped to SA-CVA buckets. This aggregation approach serves three objectives: firstly, it continues to be aligned to the revised market risk framework. Secondly, it addresses the undesirable dependency of index hedge relief on the sector bucketing structure. Finally, it incentivizes prudent risk management, and improves index hedge recognition to levels comparable to the current standards.

The proposed approach entails imposing a single correlation between the bank’s overall portfolio with known sectors, i.e. buckets 1 to 6, and the ‘Qualified Indices’ bucket (bucket 8). Consistent with the assumptions of the d488 standard, the variance of the ‘Other sector’ (bucket 7) is simply added to the variance of the portfolio with known sectors net of qualified index hedges.

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22 An increase of the d488 45% cross-bucket correlation parameter between index and sector buckets within the constraints to guarantee a positive value under the square root of the aggregation formula in section 50.53, or equivalently to guarantee a positive semidefinite correlation matrix, would not address the level of relief sufficiently and its dependency on the typical bucket distribution of actual CVA portfolios.

23 This is to reflect the assumed 0% correlation between the ‘Other sector’ bucket and any other bucket.
In the first step, the counterparty credit delta capital charge is calculated for the portfolio with known sectors. Note that the summation index ranges from 1 to 6, i.e. it excludes the ‘Qualified Indices’ and the ‘Other sector’ buckets.

\[
K_P = \sqrt{\sum_{b=1}^{6} K_b^2 + \sum_{b=1}^{6} \sum_{b \neq c} \gamma_{bc} S_b S_c}
\]

In the second step, the capital charge of the known sector portfolio is aggregated with the ‘Qualified Indices’ and the ‘Other sector’ bucket.

\[
K = m_{CV}A \sqrt{K_P^2 + K_8^2 - 2\gamma_{8P} K_P S_8 + K_7^2}
\]

The correlation parameter \( \gamma_{8P} \) in the second step captures the correlation between the index and the overall portfolio, and more adequately reflects the function of CDS index hedges in mitigating the systematic credit spread risk of a diversified CVA portfolio. An appropriate measure of the correlation between the index and the rest of the portfolio would be the value applied between two different indices within the index bucket, which is 80%. This correlation value is also used in the revised market risk standards to measure the correlation of one index with another index.

The following chart compares the optimal relief and implied portfolio-index correlation of the d488 standards and the two-step aggregation side by side.
It is important to highlight that this proposal would only impact index hedge recognition. The capital requirements for a portfolio without any index hedges would be unchanged.

**Recommendation:**

1) Revise the counterparty credit spread aggregation to use a two step approach for aggregating the Index Bucket within the Counterparty Credit Spread Risk Class
2) Set the offset parameter (correlation $\gamma_{BP}$) to 80% in line with the intra-bucket correlation for two indices.

**c. Scope & Margin Period of Risk (MPoR) Alignment with Accounting CVA & Reduce Operational Burden**

One of the main drivers for revising the original Basel 3 CVA framework was to better align it with how the industry recognizes counterparty credit risk related mark-to-market losses for its derivative portfolio. The Associations fully support this objective in order to minimize the potential double count with the existing counterparty credit risk default charge as the following paragraph from the consultation illustrates:
“One element of the Basel III standards relates to the credit valuation adjustment (CVA) risk framework. ... This potential source of loss due to changes in counterparty credit spreads and other market risk factors is known as CVA risk. It is complementary to the risk of a counterparty defaulting, which is known as counterparty credit risk (CCR).”

As this paragraph shows, the CVA capital charge is intended to only capitalize potential mark-to-market losses prior to any counterparty’s default given that CCR already fully captures losses arising from an actual default of the counterparty. While the Associations appreciate the efforts made by the BCBS to enhance alignment, in particular the decision to base the SA-CVA sensitivities on the front office / accounting CVA exposure model as per paragraph 50.33, we remain concerned that the CVA capital charge remains disconnected from the actual risk arising from changes in CVA amounts on the balance sheet. This remains a major source of RWA inflation that has no relationship to actual risks the bank faces.

i. **Scope**

We set out below recommendations in areas where we believe that a more proportionate approach can be taken to align the existing CVA risk framework to accounting practices and reduce operational burden.

1. **Client Cleared Transactions (“CCTs”) and Securities Financing Transactions (“SFTs”)**

While the Associations acknowledge the clarification in paragraph 50.32(9) that specifies that banks can use a minimum MPrO of five business days for CCTs and SFTs, we continue to believe that both CCTs and SFTs should be removed from the scope of CVA. This is primarily because the bank can only incur losses when there is an actual default of the counterparty; this risk is fully captured through Counterparty Credit Risk (“CCR”).

CCTs are not accounted for on the bank’s balance sheet as the bank does not assume principal risk in this transaction. The bank instead acts as a clearing member in an agency capacity to facilitate the clearing of trades for the client. The only scenario in which a bank incurs a loss from client clearing activity would be if the client defaults, this risk is captured through the separate CCR charge. As such, it is unclear what risk the CVA charge is intended to capitalize and as such

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unnecessarily penalizes client clearing. This is contrary to the G20 goal to incentivize clearing as part of the post-crisis derivatives reform\(^{26}\).

In contrast to CCTs, SFTs are transacted on a principal basis and therefore recorded on the balance sheet. The market data used by banks to mark SFTs do not generally reflect the counterparty credit risk of the counterparty due to significant overcollateralization. Rather, the valuation of an SFT is primarily driven by the market data of the underlying collateral which reflects the associated supply and demand factors of the underlying collateral. Hence, a bank would not record any mark-to-market CVA losses from a deterioration of the counterparty prior to any default and therefore a CVA volatility capital requirement is not warranted. On that basis, we recommend excluding SFTs from the CVA capital charge. We would like to highlight that the possibility of a bank incurring a credit risk loss on the SFT is dependent on the value of the collateral. This is separately capitalised for through the application of collateral haircuts which are conservatively calibrated to cover the minimum margin period of risk.

Excluding SFTs would also be a more proportionate approach given the immateriality of the risk posed. As no CVA is accounted for on the balance sheet for CCTs and SFTs, banks would either have to develop CVA exposure models or these exposures would have to default to the more punitive BA-CVA calculation. Given the absence of any risk of mark-to-market losses, this outcome does not seem to be sensible.

2. Regulatory Initial Margin ("IM")

Regulatory IM rules for non-cleared swaps (BCBS-317\(^{27}\)) were introduced to protect the non-defaulting party from losses occurring during the MPoR needed to close out the swap position with the defaulting party. The margin rules require IM amounts to meet a 99% confidence level of exposure coverage over a 10 business day MPoR. The proposed CVA standards set out requirements for regulatory CVA exposure models for OTC contacts to capture an MPoR of 9+N days. For perfect CSAs with zero thresholds and daily margin calls, the supervisory MPoR matches the 10 business day MPoR of the regulatory IM calibration. Also, strict procedures of model performance, mechanisms for compensating shortfalls, and clear escalation protocols guarantee that regulatory IM will continue to cover the standard MPoR throughout the lifetime of portfolio with performing counterparties.


\(^{27}\) Margin Requirements for non-centrally cleared derivatives Mar 2015, available https://www.bis.org/bcbs/publ/d317.pdf
ii. Margin Period of Risk

The Associations welcome the BCBS’s proposal to set the MPoR floor at 4+n for some client cleared transactions. However, we strongly believe that the MPoR floor should be revisited for all transactions for SA-CVA. The current MPoR floor is based on outdated information about risk management and accounting practices. The market structure has changed substantially over the last ten years due to greater monitoring and active reduction of interbank risk exposure following the large financial institution defaults that took place during the financial crisis.

The consultation proposes that the MPoR is set equal to a minimum of 9+N business days irrespective of master agreement documentation, jurisdiction legal differences, or type of counterparty. This approach does not reflect the legal terms negotiated between parties that dictate and reduce the MPoR. For example, the implementation of BCBS-317 has reduced grace periods and imposed ‘same-day’ settlement for margin transfers. In contrast, the conventional regulatory MPoR has not changed to reflect these market developments.

Furthermore, public company directors are under strict legal obligations to cease trading (call-default) when a firm is no longer a going concern, do not continue trading when they are unable to make scheduled payments. Once the default is called, banks are able to produce a termination notice and terminate trades within a very short period of time, ranging from hours to one day. This is supported by the market’s experience of dealing with defaulted counterparties.

Recommendation:

Consistent with the overall aim to align the CVA framework more closely with industry practices for accounting purposes, the Associations recommend:

- Removing any CCTs and SFTs from the scope of CVA capital charge.
- Allowing institutions to optionally exempt contracts subject to regulatory IM requirements from the scope of CVA Risk.28

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28 Transactions outside the scope of regulatory Initial Margin, and cashflows within a transaction not wholly covered by regulatory Initial Margin, e.g. the exchange of principal of cross-currency swaps, should continue to contribute to the scope of CVA Risk.
Finally, since banks hedge their exposures based on economic CVA risk rather than regulatory CVA the impact of hedges is reduced in the CVA charge compared to how hedges would mitigate actual CVA losses.

Regulatory CVA risk sensitivities are in most cases materially larger than the equivalent Accounting CVA risk sensitivities which hedges are sized against. The introduction of a conservatively calibrated parameter as part of the estimation of risk sensitivities has no precedent in the capitalisation of potential mark-to-market losses. This is in conflict with the objective of the new framework to reduce the gap between Accounting and Regulatory CVA.

**Associations recommendation:**

The Associations encourage the BCBS to allow banks to reflect key legal terms within the calibration of MPoR. We acknowledge that further time may be needed to perform a comprehensive analysis to capture more granular data to calibrate MPoRs such as jurisdictional legal differences and counterparty types. In the meantime, a change to the base MPoR floor from 9+N days to a value more aligned to accounting market practices such as 4+N days seems reasonable.

### 3. BA-CVA

The Associations understand that regulators may want BA-CVA to yield on average higher capital requirements than SA-CVA as the latter reflects CVA risks more comprehensively. In particular, this relates to market risk factors that are not modelled in BA-CVA as well as BA-CVA’s overall more simplistic aggregation logic. In order to strike an overall balance between the need for a more conservative calibration for BA-CVA to account for missing risk factors but to also preserve BA-CVA as an effective backstop to SA-CVA, the Associations believe that BA-CVA’s capital charge should not be more than 1.5 times SA-CVA.

Furthermore, the gap in calibrations between BA-CVA and SA-CVA could become even more pronounced with some of the contemplated changes to SA-CVA which would not directly impact BA-CVA. In particular, the recalibration of the mCVA multiplier or improvements in the hedge recognition. Given that we understand that the BCBS wants to preserve broad alignment in credit spread risk weight across SA-CVA and BA-CVA, the Associations support the introduction of a scalar for BA-CVA as the most effective way to ensure a coherently calibrated CVA framework.
In addition, the Associations believe that to the extent possible BA-CVA should be aligned with SA-CVA. In that respect, we support the proposal to change the risk weight HY sovereigns from 3% to 2%.

**Associations recommendation:**

The Associations support the introduction of a scalar for BA-CVA to ensure that it does not lead to a capital charge that is more than 1.5 times SA-CVA. In addition, the Associations support alignment between BA-CVA and SA-CVA to the extent possible.

4. Clarifications

The Associations also recommend definitional clarifications with respect to the standard in relation to treatment of Guarantees, Expected Loss Given Default, and single name proxy hedges.

**a. Expected Loss Given Default (ELGD)**

The standard (under MAR 50.32 (4)) requires that the ELGD is implied from the CDS market unless the bank can demonstrate that the seniority of the derivative exposure differs from the seniority of senior unsecured bonds. The option to use an alternative recovery as specified is too narrow e.g. in case of no traded bonds. The Associations recommend allowing for more flexibility to estimate the appropriate ELGD.

**Recommended Clarification:** Amend the MAR 50.32 (4) text to state:

1. “The market-consensus ELGD value used for regulatory CVA calculation must be the same as the one used to calculate the risk-neutral PD from credit spreads. Unless the bank can demonstrate that the seniority of the derivative exposure differs from the seniority of senior unsecured bonds or the ELGD of the derivative exposure cannot appropriately be...

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inferred from that of senior unsecured bonds. Collateral provided by the counterparty does not change the seniority of the derivative exposure”.

b. Treatment of Guarantees

Section MAR 50.32\textsuperscript{30} of the Basel rule outlines how banks must map counterparties to credit spreads in order to determine the term structure of market implied probability of default (“PD”). The Associations believe it would be appropriate to clarify in this section how to treat counterparty exposures guaranteed by another counterparty. In this case, the relevant credit spread for the calculation of CVA risk should be the credit spread of the guarantor and not the credit spread of the original counterparty.

Allowing banks to map exposures to the guarantor would be consistent with other areas of the Basel capital accord including MAR 22.19 (2)\textsuperscript{31} of the market risk rules, CRE 22.70\textsuperscript{32} of the standardized approach to credit risk and LEX 30.7\textsuperscript{33} of the Large Exposure framework. It would also be consistent with the exposure treatment for risk management and accounting CVA practices. An example of where this treatment should be applied is an exposure to a government-backed financial which is currently allocated to the financial sector bucket (bucket 2). Where the entity has a guarantee from the Sovereign, the accounting and risk management practice would be to treat the exposure as being to the Sovereign. The same approach should be taken in the CVA capital framework. This would more accurately align with the underlying CVA risk.

The rules may already allow for this interpretation by applying the supervisory discretion in MAR 50.32 (3)(b)\textsuperscript{34}, where banks are allowed to use proxy credit spreads to estimate the credit exposure to certain counterparties. The rule states that a bank must justify to its supervisor each case of mapping an illiquid counterparty to a single liquid reference name. We believe that relying on supervisory discretion could lead to inconsistent treatment of guarantees.

**Recommended Clarification:** Explicitly clarify the calculation of CVA risk should be based on the credit spread of the guarantor. We propose inserting the following language into MAR 50.32 (3):

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\textsuperscript{30}MAR 50.32. Credit Valuation Adjustment risk: targeted final revisions November 2019, available at https://www.bis.org/bcbs/publ/d488.pdf
\textsuperscript{31} MAR 22.19 (2). Credit Valuation Adjustment risk: targeted final revisions November 2019, available at https://www.bis.org/bcbs/publ/d488.pdf
\textsuperscript{32} Calculation of RWA for credit risk December 2019, available at https://www.bis.org/basel_framework/standard/CRE.htm?type=all
\textsuperscript{33} Large exposures December 2019, available at https://www.bis.org/basel_framework/standard/LEX.htm?type=all
\textsuperscript{34} MAR 50.32 (3) (b). Credit Valuation Adjustment risk: targeted final revisions November 2019, available at https://www.bis.org/bcbs/publ/d488.pdf
a. In the case of a counterparty exposure that has been guaranteed by another counterparty, the exposure may be mapped to the guarantor.

This clear definition would lead to a more consistent application of the rules between banks across different jurisdictions.

c. Single Name Proxy Hedges

In the consultation paper, single name proxy hedges may be used to hedge the risk of counterparty credit spread risk. Such hedges would typically be applied where there is no direct single name hedge available and where there a high correlation between the proxy hedge and the underlying counterparty credit spread risk.

The rules also allow a bank to map the risk of an illiquid counterparty to a single liquid reference name - subject to agreeing the mapping with the bank’s supervisor. Where the single liquid reference name represents an appropriate proxy for mapping the risk, it will also represent an appropriate single name proxy hedge for the underlying exposure. A typical example cited in the rules is where a bank would map a municipality to its home country’s sovereign credit spread. In this example the liquid sovereign CDS would be a suitable single name proxy hedge for the municipality exposure.

We propose that for cases where the supervisor has agreed to the bank’s proposed mapping the rules should be clarified to specify the correlation that should be applied between the illiquid counterparty and the single name proxy hedge. Since the correlation will be high we recommend clarifying that the distinct but legally related correlation in MAR 50.65 (4) may be applied.

Recommended Clarification: Amending the d488 MAR50.32 (3) (b) text to state:

In certain cases, mapping an illiquid counterparty to a single liquid reference name can be allowed. A typical example would be mapping a municipality to its home country (i.e. setting the municipality credit spread equal to the sovereign credit spread plus a premium). In cases where the bank also uses the liquid reference name to hedge the CVA exposure, the bank may apply the distinct, but legally related correlation in MAR 50.65 (4). A bank must justify to its supervisor each case of mapping an illiquid counterparty to a single liquid reference name.
Appendix 1: Mapping Associations Response to CP Article

The table below provides a summary view of the CP response to individual Articles in the consultation paper. The response takes the form of either an agreement of the proposed changes or a where relevant a reference to the specific section in the document that contains the more detailed feedback received from the Associations.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Article in the Consultation</th>
<th>Response Section</th>
<th>Key Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covered Transactions/Immaterial Exemptions (SFTs)</td>
<td>50.5</td>
<td>2.b. Scope</td>
<td>The Associations recommend that all SFT and CCT trades are exempt from CVA capital charge and to allow institutions to optionally exempt contracts subject to regulatory IM requirements from the scope of CVA Risk. Fixed physically settled FX transactions associated with the exchange of principal of cross-currency swaps, and other instruments or contracts excluded from the scope of regulatory Initial Margin requirements, e.g. physically settled FX forwards or contracts entered before the date of applicability of regulatory Initial Margin requirements, should continue to contribute to the scope of CVA Risk.</td>
</tr>
<tr>
<td>Calibration of the BA-CVA</td>
<td>50.14</td>
<td>2.d. BA-CVA</td>
<td>The Associations support the introduction of a scalar for BA-CVA to ensure that it does not lead to a capital charge that is more than 1.5 x SA-CVA. In addition, the industry supports alignment between BA-CVA and SA-CVA to the extent possible.</td>
</tr>
<tr>
<td>BA-CVA Supervisory Risk Weights</td>
<td>50.16</td>
<td>2.d. BA-CVA</td>
<td>Associations agree with the proposal.</td>
</tr>
<tr>
<td>Regulatory CVA calculations (SFTs/CCTs) / MPoR</td>
<td>50.32 (9)</td>
<td>2.c.ii. MPOR</td>
<td>Associations recommend an MPOR floor of 4+N across all transactions for greater alignment to accounting CVA.</td>
</tr>
<tr>
<td>Regulatory CVA calculations ELGD</td>
<td>50.32 (4)</td>
<td>4.a ELGD</td>
<td>The Associations seek definitional clarification of the text to allow for use of ELGD used for accounting where the bank can demonstrate that the seniority of the derivative exposure differs from the seniority of senior unsecured bonds or the ELGD of the derivative exposure cannot appropriately be inferred from that of senior unsecured bonds</td>
</tr>
<tr>
<td>Regulatory CVA calculations</td>
<td>50.32 (3)</td>
<td>4.b Treatment of Guarantees</td>
<td>The Associations seek definitional clarification of the text to ensure that in the case of a counterparty exposure that has been guaranteed by another counterparty, the exposure may be mapped to the guarantor</td>
</tr>
</tbody>
</table>
The Associations seek definitional clarification of the text to ensure that in cases where the bank also uses the liquid reference name to hedge the CVA exposure, the bank may apply the distinct, but legally related correlation in MAR 50.65 (4).

| Multiplier | 50.41 | 1. CVA Multiplier | The mCVA multiplier should be set to one. |
| Counterparty Credit Spread | 50.50 | 2.a Additional Credit Granularity Steps & Associated Risk Weights | The Associations propose additional granularity in risk weight buckets to account for financial counterparty types and covered bonds. |
| Aggregation formula | 50.53 | 2.b Index Hedge Recognition | Associations propose a revised 2-step aggregation approach in addition to an 80% correlation parameter. |
| Risk weights for IR Delta, Inflation rates, and IR Vega | 50.56–50.58 | n/a | Associations agree with the proposal. |
| Risk weights FX delta & vega | 50.61–50.62 | n/a | Associations agree with the proposal. |
| Counterparty credit spread | 50.63–50.67 | 2.b. Index Hedge Recognition | Associations propose a revised 2-step aggregation approach in addition to an 80% correlation parameter. |
| Reference credit spread delta & vega | 50.68–50.69 | n/a | Associations agree with the proposal. |
| Buckets/Risk weights for equity risk | 50.70, 50.72–50.73 | n/a | Associations agree with the proposal. |
| Commodity vega risk weights | 50.77 | n/a | Associations agree with the proposal. |
Appendix 2: Quantitative Impact Study Results

<table>
<thead>
<tr>
<th>Index</th>
<th>Description of the Ratio</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comp_12a</td>
<td>Capital Requirement – Basel III Framework – Revised to Current Framework</td>
<td>1.58</td>
</tr>
<tr>
<td>Comp_12b</td>
<td>Capital Requirement – Revised d488 (other than mCVA) to Current Framework</td>
<td>1.52</td>
</tr>
</tbody>
</table>

Appendix 3: CCS Risk Weights incorporating Credit Quality

We believe the regulatory measurement of CVA risk would be improved by introducing more granular credit quality steps into the counterparty credit spread component. The revised framework calculates CVA risk factor sensitivities using the same shocks for all counterparties. Then for the counterparty credit spread component risk weights are applied to reflect the likelihood of credit spreads widening and the magnitude of spread widening. The BCBS has chosen to proxy the credit spread volatility by using sectoral buckets and only two classifications for credit quality: “Investment Grade” or “High Yield”. A more accurate estimate of CVA risk would be derived using observed credit spread volatility for each individual liquid name and a proxy for illiquid names that reflects credit quality, sector and region. If a simplified proxy is to be used for all names, both liquid and illiquid, then it should have sufficient granularity to adequately represent the risk.

The Associations believe that the lack of granularity of credit quality means that the Basel CVA risk weights do not adequately reflect the level and volatility of CDS spreads. These are key drivers of CVA risk and the inadequacies in differentiating the credit quality is a key driver behind the large increase in the CVA capital requirement that have been observed.

Typically, reference entities with higher CDS spread levels are more volatile than reference entities with lower CDS spread levels. The graphs below show CDS spread levels and spread volatility for AAA, single A and BBB names respectively. The average spreads and volatilities over the last ten years show that volatilities increase with spread in an approximately linear relationship. Materials submitted in support of this public response to the BCBS Market Risk Group show that there is clear differentiation of risk between these counterparties according to the rating.
This distinction is not reflected in the SA-CVA framework and as a result, names from the same sector would incur the same CVA capital charge for the same risk sensitivities. We believe there is insufficient justification for removing granularity of credit quality steps from the CVA framework. The framework does not adequately capture CVA risk because of this lack of granularity of risk weights which differentiate between spread levels and volatilities between an ‘AAA’ name and ‘BBB’ name.

It’s important to highlight that the revised CVA framework is a step backwards in the granularity of credit quality relative to the capitalization framework specified in d189 that is in place today. There are six credit quality steps in the Basel 3 CVA standardized approach, which the Basel 3 revisions have compressed into just two. The removal of credit risk weight granularity is a clear and obvious reason for why CVA capital requirements are increasing.

The current standardized approach uses the Standard & Poor’s rating grades notation to determine the credit quality. This is also consistent with the notation used in the risk weights for the existing Basel 3 standardized approach for counterparty default risk. However, this does not imply that external credit ratings must be used in the standardized approach today or in the revised CVA framework. In the current standardized approach, banks may map the internal credit rating of the counterparty to one of the external credit rating grades to determine the risk weight. And for jurisdictions that do not use credit ratings, a scale using an internal probability of default measured in percent can be used (e.g. as per United States).

There are several ways that the granularity of credit quality steps could be increased. These include:

1) use observed spread levels and volatility to scale Basel’s sectoral risk weights  
2) retain the credit quality steps in the current Basel standardized framework and use them to scale Basel’s sectoral risk weights  
3) add two additional buckets, “super-investment grade” and “highly-speculative grade”

The changes in numbers 1 & 2 could be introduced as a modification to the text of the rules and would not necessarily require a change to the FRTB risk weights or bucketing structure. The proposed changes apply to the counterparty credit spread component only. It is important to remember that the counterparty credit spread component of the framework is specific to the CVA framework. The counterparty credit spread component is not included in FRTB-market risk. Therefore, a change could be made in the CVA framework to improve the rules without requiring a similar change in the FRTB market risk framework. Both frameworks include credit reference spread risk – for this, we would propose that the risk weights remain unchanged.

35 Capitalisation of the risk of CVA Losses (s90), Basel III: A global regulatory framework for more resilient banks and banking systems 2011, available at https://www.bis.org/publ/bcbs189.pdf.
36 Code of Federal Regulations 12 Chapter II, Part 217, table 3 to 217.132
We have tested the impact of option 3, which is the simplest of the solutions, using a set of illustrative risk weights that are shown below.

<table>
<thead>
<tr>
<th>Bucket</th>
<th>1a</th>
<th>1b</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super IG</td>
<td>0.25%</td>
<td>0.50%</td>
<td>2.50%</td>
<td>1.50%</td>
<td>1.50%</td>
<td>1.00%</td>
<td>0.75%</td>
<td>2.50%</td>
<td>0.75%</td>
</tr>
<tr>
<td>IG</td>
<td>0.50%</td>
<td>1.00%</td>
<td>5.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>2.00%</td>
<td>1.50%</td>
<td>5.00%</td>
<td>1.50%</td>
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<tr>
<td>Speculative / NR</td>
<td>1.50%</td>
<td>2.00%</td>
<td>7.00%</td>
<td>3.50%</td>
<td>6.00%</td>
<td>3.50%</td>
<td>3.00%</td>
<td>7.00%</td>
<td>5%</td>
</tr>
<tr>
<td>Highly Speculative</td>
<td>2.00%</td>
<td>4.00%</td>
<td>12.00%</td>
<td>7.00%</td>
<td>8.50%</td>
<td>5.50%</td>
<td>5.00%</td>
<td>12.00%</td>
<td>8%</td>
</tr>
</tbody>
</table>

In the table above, the credit quality steps are defined as follows:
- Super IG: AAA, AA
- IG: A, BBB
- Speculative: BB, B
- Highly Speculative: CCC and lower
- NR: Not rated
## Appendix 4: Dedicated bucket for covered bonds

In the section below, impacts of the introduction of such an index are highlighted in purple.

### MAR 50.63

#### Buckets for counterparty credit spread delta risk

<table>
<thead>
<tr>
<th>Bucket number</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a) Sovereigns including central banks, multilateral development banks</td>
</tr>
<tr>
<td></td>
<td>b) Local government, government-backed non-financials, education and public administration</td>
</tr>
<tr>
<td>2</td>
<td>a) Regulated financial institutions, including government-backed financial institutions</td>
</tr>
<tr>
<td></td>
<td>b) Pension funds and mutual funds</td>
</tr>
<tr>
<td></td>
<td>c) All other financial institutions</td>
</tr>
<tr>
<td>3</td>
<td>Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying</td>
</tr>
<tr>
<td>4</td>
<td>Consumer goods and services, transportation and storage, administrative and support service activities</td>
</tr>
<tr>
<td>5</td>
<td>Technology, telecommunications</td>
</tr>
<tr>
<td>6</td>
<td>Health care, utilities, professional and technical activities</td>
</tr>
<tr>
<td>7</td>
<td>Other sector</td>
</tr>
<tr>
<td>8</td>
<td>Qualified indices</td>
</tr>
<tr>
<td>9</td>
<td>Covered bonds</td>
</tr>
</tbody>
</table>

### MAR 50.64

#### Cross-bucket correlations for counterparty credit spread delta risk

<table>
<thead>
<tr>
<th>Bucket</th>
<th>1</th>
<th>2</th>
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<td>0%</td>
<td>45%</td>
<td>10%</td>
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<td>45%</td>
<td>20%</td>
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<td>0%</td>
<td>45%</td>
<td>5%</td>
</tr>
<tr>
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<td>100%</td>
<td>5%</td>
<td>0%</td>
<td>45%</td>
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<tr>
<td>6</td>
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<td>5%</td>
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<tr>
<td>7</td>
<td></td>
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<td></td>
<td></td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
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<td>8</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
<td>45%</td>
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<tr>
<td>9</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Bucket</td>
<td>1 a)</td>
<td>1 b)</td>
<td>2 a)</td>
<td>2 b)</td>
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<td>3.0%</td>
<td>2.5%</td>
<td>5.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>2.0%</td>
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<td>HY and NR names</td>
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<td>12.0%</td>
<td>7.0%</td>
<td>8.5%</td>
<td>5.5%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

37 For covered bonds that are rated AA- or higher, the applicable risk weight may at the discretion of the bank be 1.5%.
Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVA</td>
<td>Credit Valuation Adjustment</td>
</tr>
<tr>
<td>BA-CVA</td>
<td>Basic Approach to calculation of capital requirements for CVA</td>
</tr>
<tr>
<td>CCP</td>
<td>Central Clearing Counterparty</td>
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