

EBA Consultation Paper

On

**Draft Regulatory Technical Standards
for credit valuation adjustment risk on
the determination of a proxy spread
and the specification of a limited number of smaller
portfolios
(EBA/CP/2012/09)**

Dated July 2012

**Response of the International Swaps and Derivatives Association, Inc.
(ISDA), and
the Association for Financial Markets in Europe (AFME).**

14 September 2012

A. Introduction

ISDA and AFME (“the industry”) welcome the opportunity to comment on the above Consultation Paper (“the Paper”) issued by the EBA. The industry highlights below a number of overarching issues regarding the consultation, followed by answers to individual questions raised.

Overall Points: The industry believes the proposals are unnecessarily prescriptive and do not, in actuality, reflect the diverse range of industry practices regarding CVA that are currently successfully in use at firms. As a result, many firms would need to create new processes with the sole function of dealing with regulatory CVA, which would come at a significant increase in cost and resource and which would be sub-optimal in terms of risk alignment.

The industry’s preferred option is for a set of minimum standards that support the existing VaR practices, existing accounting CVA practices, with a stronger support for prudent risk mitigation. The Industry believes that the EBA should set out minimum standards around the implementation, governance, validation and degree of challenge to which models should be subject, while allowing for flexibility in choosing the methodology to meet these standards.

More Flexibility Required: For the largest global firms, the number of counterparties with proxy spreads is between 50% and 90% of the CVA portfolio of names (by number, not by exposure or 'risk'). The industry notes that the EBA intends to recognise proxy spreads that are constructed in a way that is similar to some existing VaR practices. The industry however considers that the minimum prescribed granularity for rating, industry and region would not necessarily be appropriate for CVA proxy spread specification as it would give the wrong level of granularity and would not necessarily lead to statistically meaningful results. The industry favours a more flexible framework, which allows firms to use the methodology of their choice, e.g. a "cross-section" methodology¹, or other currently used methodologies, in addition to the "intersection" methodology prescribed in the EBA draft Regulatory Technical Standards (RTS).

Changes to Thresholds Proposed: Regarding the proposed thresholds of 15% for the number and 10% for the size of smaller portfolios, the industry thinks the proposal to define quantitative limits based on the number of smaller portfolios is not appropriate. We outline in our response that the metric should rather be a function of exposure and tenor, which are more relevant to the risk profile than the number of portfolios. It is frequent among large dealers to observe aggregated exposures where 80% to 90% of the portfolios make 10% to 20% of the exposure.

¹ See Appendix 2 for details on the “cross-section” methodology

B. Responses to Discussion Paper Questions

Q1. A. Please specify if the VaR proxy methodology always takes into account rating, region and industry when determining the proxy spread for the VaR model?

B. Will the minimum prescribed granularity for rating, industry and region in Article 5, if made applicable to Article 4.1, impact institutions' current methodologies for proxy spread modeling of counterparties in the trading book?

C. If yes, please specify and assess the overall effect on an institution.

By way of introduction and clarification, the industry notes that the EBA Consultation Paper (EBA/CP/2012/09) refers, variously, to "determination of a proxy spread" and "specification of how a proxy spread should be determined".

The industry interprets both of these phrases, for the purposes of CVA, to be concerned with the process used by firms to specify which proxy spread should be used as an input to calculate CVA risk sensitivities, as set out in the Basel III formula.² Therefore, for clarity, this is the meaning intended for all references to "CVA proxy spread specification" in this written response. Note, in particular, that "CVA proxy spread specification" does not refer to any other use of spreads within the CVA VaR methodology.

A. The industry emphasizes that firms adopt a wide range of VaR proxy methodologies (i.e. use of proxy spreads in VaR, as opposed to CVA proxy spread specification), which often include subsets of the following categories: rating, country, region, sector, tenor. The VaR proxy methodologies do not always include ratings or regions.

B. The industry does not consider that VaR proxy methodologies are appropriate for the purposes of CVA proxy spread specification in all cases. The industry notes, in particular, that firms often use VaR proxy methodologies for purposes other than to calculate risk sensitivities. For example, the spreads generated by VaR proxy methodologies may be used as part of the firm's approved VaR calculation methodology (instead of merely to generate the risk sensitivities used within the firm's approved VaR calculation methodology). Therefore, the VaR proxy methodologies are not necessarily appropriate for the purpose of CVA proxy spread specification.

Further, the industry considers that the use of generic spreads by rating, region and industry are not appropriate for the purposes of CVA proxy spread specification. In particular, we believe that this could give the wrong level of granularity, since the industry believes that the sector categorization in the draft RTS may not be appropriate in all cases, dependent on a firm's own portfolio.

Also, it would be useful if the EBA could confirm that, as per Article 4.1, banks can indeed use their current, approved VAR methodology for CVA proxy spread specification purposes, in cases where the underlying positions "have been," "will be" or "already are" in the trading book as long as the methodology can cope with it. If so, could the EBA please also confirm that the EBA prescribed approach applies only in instances where the current VAR methodology cannot be used for CVA proxy specification purposes?

² Bank for International Settlements (2011). *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, Section IIA, paragraph 99, pp.31-32. Note that either a CVA sensitivity (p.31) or a Regulatory CS01 sensitivity (p.32) may be used. To calculate either sensitivity, the firm is required to specify a spread.

C. The industry believes that the proposed methodology is too prescriptive for the purposes of CVA proxy spread specification and would significantly impact institutions' current methodologies.

The current range of methodologies applied by the industry do not reduce to the one proposed by EBA. There are well-established practices across industry which could be applied for purposes of CVA proxy spread specification. Note that many existing practices have already been subject to regulators' supervision and approval, including some that do not rely on the granularity nor the aggregation methods prescribed by EBA in its technical standards proposal.

For the sake of illustration, Appendix 2 at the end of this document provides an example of an alternative CVA proxy spread specification which is fairly different, yet meaningful. For further illustration, another example of an alternative CVA proxy spread specification would be the use of single-name traded spreads, where a close association can be shown between the counterparty and the single-name traded proxy. (For example, the Republic of France traded CDS spread could be used as a proxy spread for the counterparty of France Telecom). This specification would be particularly accurate for cases where the counterparty is a quasi-Sovereign company.

Note that a requirement to use an extended VaR proxy methodology together with the prescribed granularity and aggregation method enclosed in the EBA proposal could force many banks to modify their VaR proxy methodologies, so that they are workable within the context of CVA proxy spread specification. This would be the case even though the VaR proxy methodologies have already received formal approval from regulators. Finally, the industry is reluctant to call into question validated VaR methodologies at a time where the Basel Committee has launched a fundamental review of the trading book rules.

Industry Proposal

The industry recommends allowing for more flexibility in the choice of the CVA proxy specification. We believe that the minimum regulatory requirements in terms of industry granularity should be: Corporates, Financials and Sovereigns.

Further, the industry considers that the methods used by firms for CVA proxy spread specification should be subject to appropriate governance and internal and external validation.

Q2. A. Will the proposed use of the extended VaR proxy methodology and/or the minimum prescribed granularity for rating, industry and region when determining a proxy spread for CVA risk impact institutions' current methodologies for proxy spread modeling?

B. If yes, please specify and assess the overall effect on an institution.

Where possible please provide relevant data to support your response.

A. The industry believes that the proposed use of the extended VaR proxy methodology and the minimum prescribed granularity for rating, industry and region are too prescriptive to be used for CVA proxy spread specification and would unnecessarily impact institutions' current methodologies for proxy spread modeling, forcing them to create new processes to satisfy the requirements. As with any new process, extra cost and resource will be required by firms.

Additionally, please see Appendix 1 for comments with regards to LGD_{MKT} and LGD_{NS} .

B. Relevant data will be provided by individual banks to their regulators.

Q3. Please provide information and data concerning the availability of CDS data relevant to the intersection of sub-categories (“rating”, “industry” and “region”) and the application of the aggregation rules specified in Article 5.8.

The industry feels that Article 5.8 of the draft RTS is too prescriptive with the aggregation methodology that should be used. Once again, Appendix 2 provides an example of an alternative aggregation methodology which is fairly different yet fully robust.

Regarding the availability of CDS data relevant to the intersection of sub-categories (“rating,” “industry” and “region”) and the application of the aggregation rules specified in Article 5.8, the industry believes that no more than approximately 1000 names are likely to trade with some liquidity. Assuming an even global distribution and choosing 8 ratings, 3 regions, and 3 industries, leads to approximately an average of 10 names making up an 'index'. The industry notes and supports the fact that the EBA recognise the issue with statistics drawn from small data sets and are unlikely to recommend a minimum number of indices to tackle this problem. We reiterate our concerns regarding a too prescriptive methodology and favour more flexibility in the proposed proxy methodology.

For the sake of illustration, the table in Appendix 3 provides an estimate of available liquid CDS per sub-category “industry”, “rating” and “region” (source: Nomura based on Markit Data). A CDS is deemed liquid when it has at least 5 contributors.

Q4. Please provide any information as to the difference in own funds requirements for the portfolio of counterparties following the application of Article 5.8 and Article 5.9 and the policy options described in the explanatory box.

The industry believes that Article 5.8 and the interpretation described in the explanatory box are overly prescriptive, and force institutions to use a proxy methodology that may be sub-optimal. The industry would instead recommend allowing for more flexibility in the choice of a proxy methodology: firms should be able to use approved alternative proxy methodologies.

For example, the "cross-section" methodology described in Appendix 2 is still based on rating, region and industry sector, but avoids many of the problems associated with the "intersection" methodology prescribed in the EBA draft RTS. We therefore request that the EBA considers rewording Article 5.8 to allow for more flexibility in the choice of methodology.

That being said, should the EBA keep the prescribed methodology enclosed in its proposal, we would strongly recommend the possibility of aggregating by both sector and region before resorting to the standardised charge methodology. It would be consistent with the standardised charge methodology where the only differentiation factor across counterparties is the rating.

Finally, aggregating in only one dimension is more likely to generate situations where a bucket switches over time, from situations where it contains CDS contribution, to situations where it contains no CDS contribution and vice-versa. This is typically the case for a bucket containing only one CDS contributor which is unequally contributed over time: any exposure to this contributor would alternatively enter the scope of the advanced method (when the CDS is deemed liquid) and the scope of the standard method (when the CDS does not meet the liquidity criteria). It would ultimately create undesirable volatility in the capital charge and ultimately in establishing the principle of the allocation of subportfolios to the standardised or advanced charge depending on market data availability, something that is contrary to the spirit of the recognition of internal models in capital regulation.

Q5. Do the proposed thresholds of 15% for the number and 10% for the size of smaller portfolios, together with the definitions, provide an incentive for institutions to limit their portfolio exposures not covered by the Internal Model Method (IMM)?

The Industry agrees that the proposed thresholds will prove to be an incentive to move towards an IMM-based approach. However, given the different drivers of this and that approval is outside of a firm's control, the industry is concerned whether this is a worthwhile consideration.

The industry also would like to point out that the three existing options for size of portfolio are not necessarily risk-sensitive. Additionally, the current exposure option has no forward-looking element. The other two methods are not risk-sensitive and involve duplicative processing outside of risk or regulatory capital assessments, which introduces additional overhead and operational risk. The Industry would also welcome clarity on how the standardised CVA charge will act as a consistent approach, as the inputs can be IMM based if the relevant approvals apply.

The industry believes that the proposed thresholds seem arbitrary and are too low. For the share of a portfolio falling under the standardised approach, firms already feel they are penalised by the high CEM charge and CVA risk hedging is difficult. We would favour higher threshold levels and the use of more risk-sensitive metrics (such as exposure and tenor) when determining threshold levels.

Q6. Will 15% and/or 10% cause any impact for your institution? If there will be an impact, please specify and assess the overall effect on the institution.

In addition to the points to question 5 above, we would like to mention the following elements:

- The industry thinks that the proposal to define quantitative limits based on the number of smaller portfolios is not the most appropriate. We would prefer that the metric should be a function of exposure and tenor, not the number of portfolios. Article 7.1 requires that the number of non-IMM netting set portfolios shall be less than 15% of the total netting set. However, most of banks' legal netting sets contain some non-IMM trades and we expect them to fail this test. The industry would welcome the boundary to be increased significantly and/or use the number of trades as opposed to portfolios if such a measure is to be used. This will, at least, recognize the coverage of IMM approval.
- In Article 2(1), the EBA defines regulatory netting set as homogeneous, i.e. containing only IMM or only non-IMM trades, which the Industry believes conflicts with the definition of legal netting set. The industry is concerned with the operational difficulties resulting from the requirement to divide legal netting sets containing both types of trades into two regulatory netting sets.
- The industry thinks that the dual thresholds of number of transactions and an exposure-based size is not fully consistent, but presumably will have to tie the two together in some way given the current state of the CRD IV text. As this is to determine whether the advanced CVA approach can be used, what is ideally required is a risk-sensitive approach that is consistently applied across all transactions and relates to the whole profile. As the suggestion is for a measure of IMM vs. non-IMM, the whole profile comparison may not be possible as there may be no readily available measure in house for non-IMM trades over the life of the portfolio.

Q7. Which of the three definitions of “size of portfolio” as defined in Article 2(4) would you use to determine the 10% size ratio? Please provide reasons for the selected definition and details of any alternative options you would propose.

Where possible please provide relevant data to support your response.

Article 7.2 focuses on the “size of portfolio” which the industry believes to be a more appropriate measure and in-line with the IMM-coverage measure used by most of banks. Option 1 seems the most sensible. Based on initial analysis, the industry would require the boundary to be set between 20% and 30% in option 1, and between 30% and 40% in option 2.

A re-use of existing measures, e.g. default risk capital charge comparison of CEM and IMM, would be much easier to implement and more relevant if the threshold is calibrated correctly.

Relevant data will be provided by individual banks to their regulators.

Q8. What would be the incremental costs and/or benefits were you to implement this proposal?

Where possible please provide relevant data to support your response.

The significant misalignment between the accounting CVA and the regulatory CVA frameworks, new Value at Risk (“VaR”) requirements and additional regulatory approval processes would force firms to create new operational units having the sole function of dealing with regulatory CVA. This would be sub-optimal and come at a significant cost to the industry.

Relevant data will be provided by individual banks to their regulators.

Appendix 1: Additional Comment on LGD

In Article 6 of the consultative paper, EBA states:

1. *The identification of LGD_{MKT} for the purposes of calculating the own funds requirements for CVA risk using a proxy spread shall be based on:*
 - a. *the market convention of LGD_{MKT} corresponding to single named credit default swaps;*
 - b. *the determination of the particular proxy spread in accordance with Articles 3 to 5.*

LGDs implied by CDS spreads (denoted LGD_{MKT} hereafter) should indeed be used to derive market probabilities of default in the advanced CVA formula i.e. LGDs used in the ratios $\frac{S_i \cdot t_i}{LGD_{MKT}}$ in the regulatory CVA formula, but do not make as much sense as a market recovery estimate (i.e. when used as a multiplier at the beginning of the regulatory CVA formula):

- CDS LGDs for counterparties far from default are essentially a market convention;
- CDS LGDs reflect losses on senior unsecured debt and are therefore not appropriate for secured exposures (which is typically the case in project finance where interest-rates and forex hedges benefit from the same security package as the structured loan).

As a result, the first LGD appearing as a multiplier at the beginning of the regulatory CVA formula (denoted LGD_{NS} hereafter) should not be systematically implied from CDS but should rather refer to the risk of each netting set.

We therefore strongly support regulatory CVA formula to distinguish between the 2 LGDs appearing in the CVA formula:

$$CVA = LGD_{NS} \cdot \sum_{i=1}^T \max \left\{ 0, \exp \left(-\frac{S_{i-1} \cdot t_{i-1}}{LGD_{MKT}} \right) - \exp \left(-\frac{S_i \cdot t_i}{LGD_{MKT}} \right) \right\} \cdot \frac{EE_{i-1} \cdot D_{i-1} + EE_i \cdot D_i}{2}.$$

Accordingly, the derived formulas for Regulatory CS01 would become:

- Where the model is based on credit spread sensitivities for specific tenors

$$RegulatoryCS01_i = 0.0001 \cdot \frac{LGD_{NS}}{LGD_{MKT}} \cdot t_i \cdot \exp \left(-\frac{S_i \cdot t_i}{LGD_{MKT}} \right) \cdot \frac{EE_{i-1} \cdot D_{i-1} - EE_{i+1} \cdot D_{i+1}}{2}$$

- Where the model uses credit spread sensitivities to parallel shifts in credit spreads,

$$RegulatoryCS01_i = 0.0001 \cdot \frac{LGD_{NS}}{LGD_{MKT}} \cdot \sum_{i=1}^T \left(t_i \cdot \exp \left(-\frac{S_i \cdot t_i}{LGD_{MKT}} \right) - t_{i-1} \cdot \exp \left(-\frac{S_{i-1} \cdot t_{i-1}}{LGD_{MKT}} \right) \right) \cdot \frac{EE_{i-1} \cdot D_{i-1} + EE_i \cdot D_i}{2}.$$

Appendix 2: Proposed “cross-section” methodology for proxy CDS spreads and recovery rates³

In the below, we provide an example of the cross-section methodology for proxy CDS spreads and recovery rates. This is just a brief description and further details can be provided by Nomura.

The Cross-Section Method

We set the proxy spread for a given obligor to be the product of five factors:

- 1) a global factor
- 2) a factor for the industry sector of the obligor
- 3) a factor for the region of the obligor
- 4) a factor for the rating of the obligor
- 5) a factor for the seniority of the obligor

In symbols, we can write the proxy spread of obligor i as:

$$S_i^{\text{proxy}} = M_{\text{glob}} M_{\text{sctr}(i)} M_{\text{rgn}(i)} M_{\text{rtg}(i)} M_{\text{snty}(i)}$$

Here $\text{sctr}(i)$, $\text{rgn}(i)$, $\text{rtg}(i)$ and $\text{snty}(i)$ denote respectively the sector, region, rating and seniority of obligor i . For example, for a senior unsecured claim on a European financial company rated BBB, we would have:

$$S_i^{\text{proxy}} = M_{\text{glob}} M_{\text{FIN}} M_{\text{EUR}} M_{\text{BBB}} M_{\text{SEN}}$$

Note therefore the key assumption of this methodology: that there is a single multiplicative factor for (e.g.) all European obligors, independent of the sector, rating and seniority of those obligors. Similarly, there is a single multiplicative factor for all Financial obligors, independent of the region, rating and seniority of those obligors – and so on.

This means that when we calibrate the proxy spread factors to liquid CDS spreads, we are using (for example) information from all BBB-rated obligors in calibrating M_{BBB} . Each factor is therefore represented by a reasonable number of obligors.

We can use exactly the same methodology for proxy LGDs, simply replacing spreads with recovery rates.

Calibration to Market Data

Markit provide a daily file ("CDS Composites by Convention V5") of liquid CDS spreads and recovery rates (compiled by dealer poll), together with the number of contributors (at the 5y point). The file also contains sectors, regions and ratings. This gives us a high-quality and independent data source for calibrating the proxy spread and LGD factors.

³ J. McEwen, C. Kyriakos, M. Jeannin (2012). “Cross-section methodology for proxy spreads and recovery rates”, Nomura Internal document

Calibration of the cross-sectional factors (M_{Global} , M_{FIN} , etc) to market data is straightforward, and proceeds as follows. If we number the factors from Global = 1 through the sectors, regions, ratings and seniorities, then we can write the model as:

$$y_i = \sum_{j=1}^n A_{ij} x_j$$

Here $y_i = \log(S_i^{proxy})$, $x_j = \log(M_j)$, and n is the number of factors (i.e. n is the total number of sectors, regions, ratings and seniorities, plus 1 for the global factor). A is a matrix of 1s and 0s, where A_{ij} is 1 if the sector, region, rating or seniority of obligor i is j , and 0 otherwise. Below are a few rows of an example matrix A :

Markit Ticker	Markit Short Name	Seniority	Global	Financials	Consumer Goods	Consumer Services	Industrials	Government	Utilities	Basic Materials	Energy	Telecommunications	Technology	Healthcare	North America	Europe	Japan	Asia ex-Japan	Australasia	Africa & Middle East	Latin America	AAA	AA	A	BBB	BB	B	CCC	Senior	Sub
AEP	Amern Elec Pwr Co Inc	Senior	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
RABOBK	Rabobank Nederland	Sub	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1
SNE	Sony Corp	Senior	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0
SOAF	Rep South Africa	Senior	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	

We want to find the optimal x that makes the proxy spreads S^{proxy} as close as possible to the market spreads S^{mkt} . Here we define "as close as possible" to mean "minimising total squared difference in log spreads", so finding the optimal x simply consists of performing a linear regression. The table below shows example spread and recovery factors, calibrated to Markit data from 30 July 2012. We also show the number of distinct liquid obligors in each category.

	Spread Factor	Recovery Factor	Num Obligors
Global	193.8	34.2%	1700
Financials	1.689	0.988	483
Consumer Goods	0.831	1.022	208
Consumer Services	0.915	1.014	188
Industrials	0.914	1.012	164
Utilities	0.976	1.010	127
Government	1.342	0.889	118
Basic Materials	0.989	1.028	117
Energy	1.032	1.000	110
Telecommunications	0.816	1.001	75
Technology	1.115	1.004	57
Healthcare	0.701	1.040	53
North America	0.851	1.126	712
Europe	1.119	1.115	565
Japan	0.901	0.978	188
Asia ex-Japan	0.957	1.136	128

Australasia	1.140	1.127	44
Latin America	1.001	0.791	34
Africa & Middle East	1.068	0.805	29
AAA	0.240	1.119	16
AA	0.417	1.048	102
A	0.500	1.021	472
BBB	0.754	1.014	688
BB	1.645	0.997	251
B	2.971	0.949	130
CCC	5.432	0.870	41
Senior	1	1	1551
Sub	1.238	0.553	149

Appendix 3: Nomura's table with names with region/sector/rating data and a number of contributors greater than or equal to five

AAA	Raw Materials	Industrial Production	Non-Financial Services	Financial Services	Other Sectors	Total
Europe	0	0	0	0	9	15
North America	0	0	0	1	3	
Asia	0	0	0	1	0	
Rest of World	0	0	0	0	1	
AA	Raw Materials	Industrial Production	Non-Financial Services	Financial Services	Other Sectors	69
Europe	0	0	1	11	10	
North America	0	2	1	4	5	
Asia	0	0	12	5	8	
Rest of World	0	0	0	8	2	
A	Raw Materials	Industrial Production	Non-Financial Services	Financial Services	Other Sectors	333
Europe	7	9	26	69	21	
North America	7	15	19	24	38	
Asia	7	8	9	25	26	
Rest of World	3	0	6	9	5	
BBB	Raw Materials	Industrial Production	Non-Financial Services	Financial Services	Other Sectors	475
Europe	11	18	48	47	52	
North America	18	18	61	30	71	
Asia	10	11	11	13	27	
Rest of World	1	4	7	1	16	

BB	Raw Materials	Industrial Production	Non-Financial Services	Financial Services	Other Sectors	
Europe	6	8	15	24	13	151
North America	7	6	18	5	20	
Asia	1	7	4	2	6	
Rest of World	0	0	4	1	4	
B	Raw Materials	Industrial Production	Non-Financial Services	Financial Services	Other Sectors	
Europe	3	3	6	7	3	84
North America	0	3	28	3	19	
Asia	0	0	2	0	2	
Rest of World	0	0	0	0	5	
CCC/D	Raw Materials	Industrial Production	Non-Financial Services	Financial Services	Other Sectors	
Europe	0	1	0	3	0	21
North America	0	2	7	4	3	
Asia	0	0	0	0	0	
Rest of World	0	0	0	0	1	

Total of 1148 names with region/sector/rating data and a number of contributors greater than or equal to five. Data based on Markit file for 11/09/12.