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EBA FINAL draft Regulatory Technical Standards

for determining proxy spread and limited smaller portfolios for credit valuation adjustment under Article 383(7) of Regulation (EU) No 575/2013 (the Capital Requirements Regulation – CRR)

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1. Executive Summary

On 20 December 2013, the EBA published regulatory technical standards (RTS) on credit valuation adjustment (CVA) risk for the determination of a proxy spread and the specification of a limited number of smaller portfolios under Article 383(7) of Regulation (EU) No 575/2013 (the Capital Requirements Regulation – CRR).

In the CVA report published on 25 February 2015, the EBA reassessed the relevance of the RTS provisions, in particular based on a CVA data collection exercise involving 32 banks from 11 jurisdictions. The CVA report found that there were persistent difficulties in determining appropriate proxy spreads and LGD_{MKT} for a large number of counterparties.

Policy recommendations 7 and 8 of the CVA report concluded that the RTS should be amended to address the difficulties associated with the determination of proxy spreads for large numbers of counterparties for which spreads may never be observed on markets, as well as issues linked with LGD_{MKT} .

Therefore, the present amending RTS propose amendments to Delegated Regulation (EU) No 526/2014 that aim to address those issues by further specifying cases where alternative approaches can be used for the purposes of identifying an appropriate proxy spread and LGD_{MKT} .

The proposed amendments are expected to lead to a more adequate calculation of own funds requirements for CVA risk, thus partially remedying the misalignment of the prudential CVA risk framework and the internal management of CVA risk.

2. Background and rationale

On 20 December 2013, the EBA published the RTS on CVA risk for the determination of a proxy spread and the specification of a limited number of smaller portfolios under Article 383(7) of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR)¹. The final RTS were published in the *Official Journal of the European Union* on 20 May 2014².

Article 456(2) of the CRR mandates the EBA to monitor the own funds requirements for CVA risk and submit a report to the European Commission, assessing in particular the calculation of capital requirements of CVA risk. The EBA published its report on CVA on 25 February 2015³.

Policy recommendations 7 and 8 of this CVA report recommend addressing difficulties associated with the determination of proxy spreads for large numbers of counterparties for which spreads may never be observed on markets, as well as issues linked with LGD_{MKT}.

CVA report

As demonstrated in the CVA report, the proxy spread methodology applies to the vast majority of counterparties subject to the advanced method: it generally concerns more than 75% of counterparties (Figure 28, p. 69). This is an intrinsic feature of the prudential CVA risk charge, stemming from the accounting CVA, which relies on a majority of proxies for the computation of own funds requirements.

Delegated Regulation (EU) No 526/2014 provides for a general approach to determining a proxy spread by considering the broad categories of rating, industry and region. It already allows some flexibility to enable the most appropriate proxy spread to be determined. However, despite efforts to increase the liquidity of the Credit Default Swap (CDS) market, including standardisation of CDS contracts, the liquidity and depth of the CDS market, which are prerequisites for the proper functioning of both accounting and regulatory CVA frameworks, remain a concern.

In this context, the CVA report recommends allowing additional flexibility to further alleviate difficulties associated with the determination of proxy spreads for large numbers of counterparties, as well as issues linked with LGD_{MKT}.

¹ <http://www.eba.europa.eu/documents/10180/535344/EBA-RTS-2013-17+%28Final+draft+RTS+on+CVA%29.pdf/f9c9da5d-0ef6-4ffd-8abb-c94775690121>

² http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:JOL_2014_148_R_0005

³ <http://www.eba.europa.eu/-/the-eba-advises-the-european-commission-on-credit-valuation-adjustment-cva-risk>

Policy recommendation 7 – Proxy spread

- ‘The current proxy spread methodology relies on credit spread data from peers of the counterparty for which a proxy spread has to be generated (considering the attributes of rating, region and industry). Acknowledging some limits of such methodology, the EBA recommends allowing institutions to use alternative approaches based on a more fundamental analysis of credit risk to proxy the spread of those counterparties for which no time series of credit spreads are available, nor for any of their peers, due to their very nature.
- The EBA recommends that institutions justify and document all the instances where proxy spreads are based on an alternative approach other than using the three attributes of rating, region and industry. The use of alternative approaches shall also be justified by the use of similar approaches to proxy the spreads of the same counterparty for accounting CVA purposes. The EBA should monitor the range of practices in this area and could issue guidelines on such practices.
- In addition, the EBA recommends extending the possibility of use of single name proxy spreads to the case of a parent and a subsidiary, which share at least either the same industry or the same region.’

Policy recommendation 8 – LGD_{MKT}

- ‘The EBA recommends amending the Regulatory formula for the Advanced method in order to allow institutions to reflect the seniority of the netting set in LGD_{MKT}*.
- The EBA recommends that institutions justify and document all the instances when LGD_{MKT}* differs from LGD_{MKT} or when LGD_{MKT}* is based on an alternative approach where no CDS are available as proposed under policy recommendation 7.’

Amendments to the RTS on proxy spread

Use of alternative credit quality assessments

Following the current approach, after considering the rating, industry and region of the counterparty, institutions assign a proxy based on other counterparties’ available and appropriate credit spread data.

The CVA report acknowledges that, in some cases, the counterparty may have no peers at all with observed credit spread data, thus leading to a proxy spread that is assigned entirely based on the credit spread data of counterparties that may, in practice, have very different business activities.

The CVA report recommends allowing, in this case, for the possibility of applying an alternative analysis of the credit quality of the counterparty.

The language of the CVA report is reflected in the consultative document published by the Basel Committee⁴:

⁴ *Review of the credit valuation adjustment risk framework*, consultative document, July 2015, paragraphs 25-27: <https://www.bis.org/bcbs/publ/d325.htm>.

‘25. A bank should estimate the credit spread curves of illiquid counterparties from credit spreads observed in the markets of its liquid peers via an algorithm that discriminates on at least three variables: a measure of credit quality (eg rating), industry, and region.

26. 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 (ie setting the municipality credit spread equal to the sovereign credit spread plus a premium). A bank must justify every case of mapping to single names.

27. When no time series of credit spreads is observed in the markets of any of the counterparty’s peers due to its very nature (eg project finance, funds), a bank is allowed to use a more fundamental analysis of credit risk to proxy the spread of an illiquid counterparty. However, where historical PDs (‘probabilities of default’) are used as part of this assessment, the resulting spread cannot be based on historical PD only – it must relate to credit markets.’

The proposed amendment to Article 1(1a) allows institutions to use alternative credit quality assessments when the approach set out in Article 1(1) cannot be applied due to the unavailability of CDS spread data for any entities sharing with the counterparty specific combinations of rating, industry and region. The use of alternative credit quality assessments should be possible only when the alternative approach is also used for the purpose of computing the accounting CVA of the counterparty concerned and provided that it reflects credit spread markets.

Institutions’ practices in this respect will be monitored by the EBA, in particular in view of the future implementation of the revised CVA risk framework.

Use of the spread of the parent undertaking for the subsidiary

The spread of the parent company may in many cases be the most appropriate proxy spread for the subsidiary, in particular compared with a proxy spread obtained based on an average of credit spreads of counterparties that share fewer features with the subsidiary than the parent undertaking. Previous versions of the EBA RTS on proxy spread already included this possibility (in particular the second RTS Consultation Paper (CP)).

The proposed amendment to Article 1(2a) allows institutions, when considering the attributes of rating, industry and region of the counterparty, to assign as a proxy spread for a subsidiary the spread of the parent, when this is more appropriate, provided that the parent and the subsidiary have either the same industry or the same region attribute and that the ratings of the parent undertaking and the subsidiary, where they exist, are not discordant.

The consultative document published by the Basel Committee⁵ also allows for the possibility in certain cases of ‘mapping an illiquid counterparty to a single liquid reference name’.

⁵ *Ibid.*

Whereas Article 2(1) of the RTS recognises that an institution should generally use a value for LGD_{MKT} that is consistent with the fixed LGD commonly used by market participants to determine implied PDs from observed credit spreads (market convention of 60% for senior unsecured debt), a new Article 2(2) allows that, where an institution is able to demonstrate that the seniority of its transactions with a counterparty differs from the seniority of senior unsecured bonds (i.e. that reflected in the market convention), the institution can reflect this difference in seniority in the first LGD_{MKT} term of the formula provided for in Article 383(1), third subparagraph.

The proposed amendment acknowledges the fact that the first LGD_{MKT} term in the regulatory formula reflects the recovery term of the general CVA definition, whereas the other LGD_{MKT} parameters appearing in the denominators of the exponential terms correspond to the standard market recovery used to infer PDs.

The language of Article 2(2), which is based on a Basel FAQ⁶, is also reflected in the consultative document on the revised Basel framework⁷:

‘The market-implied 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 it can be demonstrated that the seniority of the derivative exposure differs from the seniority of senior unsecured bonds.’

⁶ ‘In cases where a netting set of derivatives has a different seniority than those derivative instruments that trade in the market from which LGD_{MKT} is inferred, a bank may adjust LGD_{MKT} to reflect this difference in seniority.’

⁷ *Review of the credit valuation adjustment risk framework*, consultative document, July 2015, paragraph 13: <https://www.bis.org/bcbs/publ/d325.htm>.

3. EBA FINAL draft regulatory technical standards for determining proxy spread and limited smaller portfolios for credit valuation adjustment under Article 383(7) of Regulation (EU) No 575/2013



Brussels, XXX
[...] (2015) XXX draft

COMMISSION DELEGATED REGULATION (EU) No .../..

of XXX

amending Delegated Regulation (EU) No 526/2014 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for determining proxy spread and limited smaller portfolios for CVA risk

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) No 575/2013 of 26 June 2013 of the European Parliament and of the Council on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012⁸, and in particular the third subparagraph of Article 383(7) thereof,

Whereas:

- (1) Commission Delegated Regulation (EU) No 526/2014 sets the criteria for determining a proxy spread and for identifying LGD_{MKT} for credit valuation adjustment (CVA) risk referred to in Article 383(1) of Regulation (EU) No 575/2013. In the course of the application of that Regulation it has been observed that difficulties persist in determining appropriate proxy spreads and LGD_{MKT} for a large number of counterparties for which spreads may never be observed in the markets. Further, certain issues have been observed that require improved consistency with how proxy spreads are determined for accounting purposes. These issues were also raised in an Opinion on CVA⁹, which the European Banking Authority (EBA) delivered jointly with its report referred to in Article 456(2) of Regulation (EU) No 575/2013. Therefore, rules for determining a proxy spread and identifying LGD_{MKT} for CVA risk should be revised to further alleviate the abovementioned difficulties associated with the determination of proxy spreads.
- (2) More particularly, there are groups of entities sharing specific attributes for which no sufficient observable time series of credit spreads are available. This may include funds, such as pension funds, collective investment funds or alternative investment funds, but also infrastructure project entities. In those cases, applying Article 1(1) of Commission Delegated Regulation (EU) No 526/2014, which requires the consideration of all three attributes of rating, industry and region of the counterparty in accordance with the minimum granularity specified in points (b), (c) and (d) of Article 1(1), would result in the assignment of those counterparties to incoherent proxy spreads, whereas alternative credit quality assessments could deliver more appropriate proxy spreads. Therefore, it should be possible to allow institutions to use such alternative credit quality assessments for the purposes of assigning proxy spreads to those counterparties.
- (3) Furthermore, when considering the attributes of rating, industry and region, where a proxy spread is to be determined for a subsidiary of a parent undertaking for which a credit spread is available, that credit spread may be the most appropriate proxy spread for the subsidiary, in particular compared with a proxy spread obtained based on credit spreads of counterparties that share fewer features with the subsidiary than the parent undertaking. Therefore, where a parent and a subsidiary are sufficiently homogenous having regard to the criteria of rating, industry and region, it should be possible to allow institutions to estimate a proxy spread on the basis of the credit spread of the parent undertaking.
- (4) Whereas an institution should use for the LGD_{MKT} that appears at the denominators of the formulae referred to in Article 383(2) a value for LGD_{MKT} that is consistent with the fixed LGD commonly used by market participants to determine implied PDs from observed credit spreads, it should be possible, where an institution is able to demonstrate that the seniority of its transactions with a counterparty differs from the seniority of senior unsecured bonds reflected in the market convention, to allow that institution to reflect this difference in seniority by adjusting the value of the first occurrence of LGD_{MKT} that appears in the formula provided for in Article 383(1), third subparagraph.

⁸ OJ L 176, 27.6.2013, p. 1.

⁹ EBA/Op/2015/02.



- (5) Article 383(1) of Regulation (EU) No 575/2013 sets out the conditions for estimating a proxy spread that is appropriate for counterparties for which a credit default swap spread is not available. Where an institution is not able to determine an appropriate proxy spread based on the provisions set out in this Regulation, the institution is required to compute own funds requirements for CVA risk for that counterparty in accordance with Article 383(6) of that Regulation.
- (6) This Regulation is based on the draft regulatory technical standards submitted by the European Supervisory Authority (European Banking Authority) (EBA) to the Commission.
- (7) EBA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits, and requested the opinion of the Banking Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1093/2010¹⁰.
- (8) Delegated Regulation (EU) No 526/2014 should therefore be amended accordingly,

HAS ADOPTED THIS REGULATION:

Article 1

Amendments to Delegated Regulation (EU) No 526/2014

Delegated Regulation (EU) No 526/2014 is amended as follows:

1. In Article 1, paragraph 1, point (a) is replaced by the following:

‘(a) the proxy spread has been determined by considering all of the attributes of rating, industry and region of the counterparty as specified in points (b), (c) and (d) based on a qualitative and quantitative analysis duly documented;’

2. In Article 1 paragraph 1, point (b) is replaced by the following:

‘(b) the attribute of rating has been determined by considering the credit quality of the counterparty based on the use of a predetermined hierarchy of sources of internal and external ratings established by the institution, where ratings shall be mapped to credit quality steps, as referred to in Article 384(2) of Regulation (EU) No 575/2013. In cases where multiple external ratings are available their mapping to credit quality steps shall follow the approach for multiple credit assessments set out in Article 138 of that Regulation;’

3. In Article 1, a new paragraph 1a is added:

‘1a. In the process of considering the attributes of rating, industry and region of the counterparty in accordance with paragraph 1, the proxy spread for a given counterparty may, by way of derogation from paragraph 1, be estimated based on an analysis of credit risk other than the one referred to in paragraph 1 where all the following conditions are met:

¹⁰ Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC (OJ L 331, 15.12.2020, p. 12).



- (a) the condition in point (e) of paragraph 1 is not fulfilled due to the unavailability of credit default swap spreads or spreads of other liquid traded credit risk instruments satisfying the data quality criteria referred to in paragraph 3 for entities that share with the counterparty both of the following:
 - (i) the attribute of rating based on the categories referred to in point (b) of paragraph 1;
 - (ii) the attributes of industry and region based on more granular categories than the ones referred to in points (c) and (d) of paragraph 1;
- (b) the analysis of credit risk used by the institution to estimate the proxy spread of the counterparty is also used to estimate the proxy spread of that counterparty for the calculation of the credit valuation adjustment included in the measurement of the fair value of derivative instruments;
- (c) the proxy spread resulting from the analysis of credit risk does not rely solely on the use of historical probabilities of default, but always reflects current conditions of credit spread markets;
- (d) the analysis of credit risk of the counterparty referred to in this paragraph and compliance with the conditions set out in points (a) to (c) are reasoned and duly documented.'

4. In Article 1, paragraph 2 is replaced by the following:

'2. In the process of considering the attributes of rating, industry and region of the counterparty in accordance with paragraph 1, the estimation of the proxy spread for a regional government or local authority may be based on the credit spread of the relevant sovereign issuer where either of the following conditions are met:

- (a) the regional government or local authority and the sovereign have the same ratings;
- (b) there is no rating for the regional government or local authority.'

5. In Article 1, a new paragraph 2a is inserted:

'2a. In the process of considering the attributes of rating, industry and region of the counterparty in accordance with paragraph 1, the estimation of the proxy spread for a subsidiary may be based on the credit spread of the parent undertaking, where at least one of the attributes of industry or region of the subsidiary is equivalent to that of the parent undertaking on the basis of the minimum categories defined in paragraph 1 and either of the following conditions are met:

- (a) the subsidiary and the parent undertaking have the same ratings;
- (b) there is no rating for the subsidiary.'

6. In Article 2, a new paragraph 2 is added:

'2. Where the seniority of the transactions with the counterparty differs from the seniority of senior unsecured bonds that is implied by the value of LGD_{MKT} referred to in paragraph 1, institutions may reflect this difference in seniority by adjusting the value of the first occurrence of LGD_{MKT} that appears in the formula provided for in Article 383(1) third subparagraph.'

Article 2

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the Commission
The President

[For the Commission
On behalf of the President

[Position]

4. Accompanying documents

4.1 Draft cost-benefit analysis/impact assessment

Article 383(7) of the CRR requires the EBA to develop RTS to specify how a proxy spread is to be determined by the institutions' approved internal model for the specific risk of debt instruments for the purposes of identifying parameters s_i and LGD_{MKT} as referred to in Article 383(1) under the formula to calculate the own funds requirements for CVA risk for each counterparty. Accordingly, the EBA published its technical standards (EBA/RTS/2013/17) on 20 December 2013. Commission Delegated Regulation (EU) No 526/2014 of 12 March 2014 was published in the *Official Journal of the European Union* on 20 May 2014. The present draft RTS intend to amend Delegated Regulation (EU) No 526/2014 in line with the findings of the EBA report on CVA published on 25 February 2015.

Article 10(1) of the EBA Regulation (Regulation (EU) No 1093/2010 of the European Parliament and of the Council) provides that when any regulatory technical standards developed by the EBA are submitted to the Commission for adoption, they should be accompanied by an analysis of 'the potential related costs and benefits'. This analysis should provide an overview of the findings regarding the problem to be dealt with, the solutions proposed and the potential impact of these options.

A. Problem identification

According to Article 1(1)(a) of Delegated Regulation (EU) No 526/2014, a proxy spread has to be assigned based on the consideration of all three attributes of rating, industry and region of the counterparty in accordance with the minimum granularity specified in points (b), (c) and (d) of Article 1(1). Therefore, the current regulatory framework does not account for cases where a proxy spread established on this basis may not provide, for some types of counterparties, the most appropriate credit quality analysis for CVA risk purposes. In other words, institutions may have counterparties that have no peers with observed credit spread data, thus leading to a proxy spread that is assigned entirely based on the credit spread data of counterparties that may, in practice, have very different business activities.

In addition, recital 4 and Article 1(2) of Delegated Regulation (EU) No 526/2014 allow for single-name proxying where a link, such as between a regional government or local authority and the sovereign, exists. However, single-name proxying may also be more appropriate in other cases, for example when assigning a proxy spread to a subsidiary of a parent company for which spreads are observed in the markets.



Similarly, Article 2 of Delegated Regulation (EU) No 526/2014 recognises that an institution should use a value for LGD_{MKT} that is consistent with the fixed LGDs commonly used by market participants to determine implied PDs. However, the current regulatory framework does not address cases where the seniority of transactions with a counterparty may differ from the market convention (i.e. 60% for senior unsecured debt), thus requiring adjustment of the value of the first occurrence of LGD_{MKT} in the regulatory formula.

As a result, especially where those adjustments are performed for accounting CVA purposes, the methodology may not accurately reflect the CVA risk associated with these counterparties and hence under- or over-estimate corresponding own funds requirements.

B. Policy objectives

The main objective of the draft RTS is first to allow institutions using the advanced method for CVA risk to adjust their internal calculations to accommodate cases where the current regulatory framework may potentially lead to less accurate calculations of CVA risk, i.e. in relation to the identification of the parameters s_i and LGD_{MKT} , and second to ensure a more appropriate calculation of own funds requirements for CVA risk.

The amendment to the current regulatory framework is expected to give institutions more flexibility to adjust their CVA risk calculations given specific circumstances and therefore avoid potential under- or over-estimation of the associated own funds requirements.

C. Baseline scenario

The baseline section aims to demonstrate the magnitude of problem addressed by the present draft RTS. Data in COREP (as of December 2015¹¹) show that approximately 37% of the CVA-related total exposure values are based on the advanced method. In the EU, there are approximately 20 institutions in 10 Member States (as identified in COREP templates) using the advanced method for the calculation of own funds requirements for CVA risk.

The aggregate total assets and risk-weighted assets of these institutions are approximately EUR 15 823 billion and EUR 5 779 billion, respectively. These figures correspond to 50% and 45% of the total EU/COREP sample¹². The aggregate own funds requirements for these 20 institutions corresponding to CVA risk is just over EUR 7 billion (or 30% of the total own funds requirements associated with CVA risk).

¹¹ Due to data unavailability, September 2015 figures have been used for two institutions.

¹² The COREP database includes 178 institutions that submitted complete data for the CVA template, and the FINREP database for the total assets figures has 146 institutions. Therefore, the assets share of institutions using the advanced method is over-estimated.



In addition, country-level analysis shows that, given the number of institutions using the advanced method, the current draft regulation is expected to have the greatest impact on the relevant institutions in the UK. Seven institutions in the UK are using the advanced method for CVA risk. This is followed by France with three institutions, and Germany and Italy, where two banks in each jurisdiction fall under the remit of the draft standards. Other Member States (Austria, Belgium, Denmark, Finland, the Netherlands and Sweden) have one institution that may be affected by the draft technical standards.

In this sample, 17 institutions report counterparties for which a proxy is used to determine the parameter s_i ¹³. Of the total of 67 075 counterparties using the advanced method, on average in 77% of cases (or 51 606 counterparties) a proxy spread is applied. Therefore, the insufficient specification of how a proxy spread should be assigned may lead to divergent practices across the EU, as well as to inappropriate estimates for the calculation of own funds requirements for CVA risk.

D. Assessment of the options considered and the preferred option(s)

a. Status quo

In case of no further amendments to the current provisions, the identified problems, i.e. the lack of accuracy and/or potential over-estimation of own funds requirements for CVA risk, will prevail. This option is therefore not selected.

b. Alternative credit quality assessments and spread of the parent company for the subsidiary

The draft technical standards aim to allow institutions flexibility in determining appropriate proxy spreads where applicable. In order to do so, institutions may be able to rely on circumstances specific to the counterparties in question. This is expected to lead to a more adequate calculation of own funds requirements.

In particular, institutions may also decide to use the spread of the parent company when the parent company and the subsidiary have either the same industry or the same region attribute and the ratings of the parent undertaking and the subsidiary, where they exist, are not discordant. The spread of the parent company may in many cases be the most appropriate proxy spread for the subsidiary, in particular compared with a proxy spread obtained based on an average of credit spreads of counterparties that share fewer features with the subsidiary than the parent company.

Should the institutions decide to select alternative credit quality assessment criteria for proxy spread, they may need to identify such criteria and reassess the proxy spreads of a significant

¹³ As reported in COREP.

number of counterparties based on those criteria. This may entail a cost for institutions; however, the analysis team believes that this cost will be acceptable for institutions if the decision is eventually beneficial in terms of better alignment with the methodology used for accounting CVA and more accurate own funds requirements for CVA risk. The cost is expected to result from further data analysis and regular but fairly infrequent monitoring of the criteria.

Therefore, the present draft provisions amending the RTS under Article 383 of the CRR are overall not expected to generate substantial costs for the institutions, and the analysis team expects the benefits to exceed the costs of implementation.

c. Adjusting the value of the first occurrence of LGD_{MKT} versus adjusting the value of LGD_{MKT}

In terms of the specification of LGD_{MKT} to account for the difference between the seniority of the transactions with the counterparty and the seniority of senior unsecured bonds, the analysis team considered two options:

- i) institutions to adjust the value of the first occurrence of LGD_{MKT} under Article 383(1) of the CRR; and
- ii) institutions to adjust the value of LGD_{MKT} (as it appears in three instances) under Article 383(1) of the CRR.

The regulatory formula referred to in Article 383 is derived from the general definition of the unilateral CVA:

$$CVA = E^Q[1_{\{\tau_B < \tau_A, \tau_B \leq T\}} DF(t, \tau_B) \cdot LGD_{\tau_B} (NPV_{\tau_B})^+]$$

Where:

- risk neutral expectation – A is the bank, B is the counterparty;
- T is the longest maturity within the netting set of transactions with counterparty B;
- τ_A, τ_B are default times – assumption: only B defaults before T;
- $DF(t, \tau_B)$ is the risk-free discount factor;
- LGD_{τ_B} is the recovery at default date of counterparty B: $LGD = 1 - R$;
- NPV_{τ_B} is the value of the netting set of transactions at default date of counterparty B.

The regulatory formula, however, is based on key approximations, in particular:

- the assumption of a constant recovery rate;
- the independence of market and credit processes;

- the use of expected exposures (EE) computed using the internal model method instead of potentially different risk-neutral EE used for CVA pricing;
- the discretisation of the time integral to reflect points in time t_i at which the EE are computed;
- the use of credit spreads to proxy marginal default probabilities.

This leads to the following formula:

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

The first LGD_{MKT} term in the regulatory formula reflects the LGD_{τ_B} term of the general CVA definition, considered constant here, whereas the other LGD_{MKT} parameters that appear in the denominators of the exponential terms correspond to the standard market recovery used to infer PDs.

Rather than a discussion of the potential costs and benefits of the options, the discussion involves considering the analytical reasoning in support of and the legal implications of both options. While option (i) seems to be the logical option given the theoretical background, option (ii) may be easier to implement from a legal point of view.

The comments received during the consultation have, however, confirmed the EBA's view that option (ii) would not address the issue identified above in a satisfactory fashion, in addition to its being incorrect from a theoretical point of view. In contrast, option (i) is expected to at least partially remedy the over-estimation of the own funds requirements for CVA risk for some counterparties, without generating high implementation costs for the institutions. Therefore, overall, the benefits of adjusting the parameter LGD_{MKT} are expected to exceed the costs.

Finally, on 12 November 2015 the EBA consulted on Guidelines on the treatment of CVA risk under the supervisory review and evaluation process (SREP). In parallel with the public consultation, the EBA launched a data collection exercise based on 2015 data; 171 banks, representing 28 EU Member States and 1 EEA member country, participated in this exercise.

In particular, banks using the advanced method for CVA risk were requested to assess the impact of policy recommendations 7 (proxy spread) and 8 (LGD_{MKT}) of the CVA report, i.e. the *combined* impact of the policy recommendations.

The following table shows, for the 10 banks using the advanced method for CVA risk that provided data, the estimated impact of the implementation of policy recommendations 7 and 8 on proxy spread and LGD_{MKT} ¹⁴. For the median bank, the current CVA risk charge would be multiplied

¹⁴ See the EBA report on the 2015 CVA risk monitoring exercise for more information.



by 2.59 if recommendations 7 and 8 were implemented and by a higher factor of 2.69 in the alternative scenario.

	PR7 and PR8 implemented	PR7 and PR8 not implemented
Observations	10	10
Minimum	1.15	1.15
25th percentile	1.69	1.95
50th percentile	2.59	2.69
75th percentile	4.27	5.24
Maximum	18.78	18.78

It would seem that the implementation of policy recommendations 7 and 8 would not lead to a material impact, although it might generally lead to a slight decrease in the amount of CVA risk charge calculated.

4.2 Feedback on the public consultation

The EBA publicly consulted on the draft proposal contained in this paper.

The consultation period lasted for three months and ended on 6 July 2016. Two responses were received, which were published on the EBA website.

This paper presents a summary of the key points and other comments arising from the consultation, the analysis and discussion triggered by these comments and the actions taken to address them if deemed necessary.

In many cases, several industry bodies made similar comments or the same body repeated its comments in response to different questions. In such cases, the comments, and the EBA's analysis, are included in the section of this paper where the EBA considers them most appropriate.

Changes to the draft RTS have been incorporated as a result of the responses received during the public consultation.

Summary of key issues and the EBA's response

The respondents supported the proposed amendments to Article 1 and Article 2 of the RTS. The EBA has, therefore, maintained the proposed amendments; however, more specifically:

- the possibility of using alternative analyses of credit risk in Article 1(1a) is now included as a new, separate, approach, available where the approach set out in paragraph 1 does not lead to an appropriate proxy spread due to the unavailability of CDS spread data, subject to conditions and monitoring by the EBA;
- the possibility of assigning the spread of the parent to the subsidiary in Article 1(2a) is allowed only where the subsidiary and the parent undertaking have non-discordant ratings, i.e. the subsidiary and the parent have the same rating or there is no rating for the subsidiary;
- as for LGD_{MKT} , Option A is retained.

In addition, the EBA has seized the opportunity of this review to clarify that:

- the approach set out in Article 1(1) should consider all three attributes of rating, industry and region of the counterparty in accordance with the minimum granularity specified in points (b), (c) and (d); this should be based on a 'quantitative and qualitative analysis duly documented';
- the approaches in Article 1(1a), (2) and (2a) are optional: those approaches address specific cases where the approach set out in Article 1(1) could fail to deliver an appropriate proxy spread, but institutions are always free to use the approach under Article 1(1).



Summary of responses to the consultation and the EBA's analysis

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Responses to questions in Consultation Paper EBA/CP/2016/04			
Question 1. Do stakeholders agree with the amendment?	<p>Two respondents agree with the proposal to consider alternative approaches based on a more fundamental analysis of credit risk.</p> <p>One respondent proposes additionally considering bond spreads to determining/extract 'credit spread data' (for details, see question 7).</p>	<p>There is general support for introducing an alternative credit quality assessment.</p> <p>Therefore, the EBA has introduced in a new paragraph 1a of Article 1 of the RTS the possibility of using alternative analyses of credit risk for the determination of a proxy spread, subject to conditions and monitoring by the EBA.</p> <p>In order for the proposed amendment to reflect more precisely the recommendation made in the CVA report, the possibility of using alternative analyses of credit risk is, however, introduced:</p> <ul style="list-style-type: none"> - as a new, separate, approach in paragraph 1a – unlike the proposed amendment to Article 1(1)(b) in the Consultation Paper – available where the approach set out in paragraph 1 does not lead to an appropriate proxy spread due to the unavailability of CDS spread data; - subject to more specific provisions, in particular documentation requirements and the fact that the proxy spread should reflect credit spread markets even where historical PDs are used as part of the alternative credit quality assessment. <p>In addition, it should be recalled that the approach</p>	<p>A new paragraph 1a has been added to Article 1 of the RTS.</p>



Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		set out in Article 1(1) has to consider all three attributes of rating, industry and region of the counterparty in accordance with the minimum granularity specified in points (b), (c) and (d) of Article 1(1), which should be based on a 'quantitative and qualitative analysis duly documented', as is now more clearly specified.	
Question 2. Could stakeholders elaborate on the type of alternative credit quality assessments to be performed and on the precise cases or types of counterparties for which such alternative credit quality assessments would be absolutely necessary, in particular, where relevant, with reference to accounting CVA treatment?	One respondent proposes relating the alternative approach to the level of credit spread. This approach would be necessary to determine an adequate spread for funds/hedge funds.	Despite the lack of feedback received on this question, the EBA has introduced in a new paragraph 1a in Article 1 of the RTS the possibility of using alternative analyses of credit risk for the determination of proxy spread. However, as explained above, the conditions for the use of the approach set out in paragraph 1a have been further specified. In addition, the EBA will monitor the use by institutions of this approach.	A new paragraph 1a has been added to Article 1 of the RTS.
Question 3. Do stakeholders agree with the amendments? Do stakeholders consider that an additional condition is necessary on rating?	One respondent agrees with the proposal, as presented in the CP, to assign the spread of the parent to the subsidiary. No explicit feedback with regard to the second question about whether or not an additional condition on rating is necessary was received.	Following general support for implementing policy recommendation 7 of the CVA report (single-name proxy), the EBA maintains the proposed addition of paragraph 2a to Article 1. In the absence of substantial feedback on the additional condition on rating, the EBA has decided to allow the approach set out in paragraph 2a only where the subsidiary and the parent undertaking have non-discordant ratings, i.e. the subsidiary and the parent undertaking have the same rating or	Amendment to paragraph 2a of Article 1 of the RTS.



Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		there is no rating for the subsidiary.	
Question 4. Do stakeholders agree with the possibility provided for by the amendment of adjusting the value of the LGD _{MKT} term of the regulatory formula?	Two respondents agree that the possibility of adjusting LGD _{MKT} should be allowed.	There is general support for implementing policy recommendation 8 of the CVA report (LGD _{MKT}).	A new paragraph 2 has been added to Article 2.
Question 5. Could stakeholders elaborate on cases (types of counterparties, business activities) where this adjustment would have a particularly significant impact and on the rationale for performing the adjustment in such cases?	<p>One respondent proposes additionally considering securities in specific transactions (specialised lending, covered bonds) when determining LGD_{MKT}. The current treatment does not take this into account and hence is not considered risk adequate for those specific transactions.</p> <p>By construction, those transactions/counterparties tend to have lower ratings but higher recovery rates, because the securities are ring-fenced and pledged to specific counterparties, which could for example be swap providers. Derivatives that are part of those transactions are mostly conducted for hedging purposes. The recovery rate finally depends on the waterfall.</p>	No further amendment is proposed at this stage, which is in line with the current state of discussions at international level.	No change.
Question 6. What are stakeholders' views on proposed Options A and B?	One respondent favours Option A. In addition, the respondent demonstrates using an example that Option B is not always an equivalent alternative to Option A and proposes deleting Option B.	Considering the fundamental problems raised by Option B, also pointed out in the CP, the EBA has decided to amend Article 2 in accordance with Option A.	A new paragraph 2 has been added to Article 2.
Question 7. Do stakeholders consider that other	One respondent proposes expanding the current treatment. It should not be restricted to credit	Article 383 of the CRR explicitly requires the use of the CDS spread of the counterparty, where the	No change.



Comments	Summary of responses received	EBA analysis	Amendments to the proposals
amendments to the RTS would need to be performed as part of this revision? Please provide a rationale.	<p>spread data stemming from CDS. In addition, the scope should be extended to consider credit spread data stemming from bonds. The respondent proposes introducing a hierarchy consisting of:</p> <ol style="list-style-type: none"> 1. single-name CDS spread; 2. bond spread; 3. CDS sector proxy spread (derived from traded CDS spreads using attributes of rating, region and industry); 4. bond sector proxy spreads (derived from traded bond spreads using attributes of rating, region and industry); 5. an alternative approach based on a more fundamental analysis (which should be coupled with the use of relevant market-based measures). <p>In general, institutions should be able to quantify the liquidity of instruments and demonstrate that those instruments are sufficiently liquid.</p>	<p>spread is available, even where credit spread data stemming from bonds are available too.</p> <p>However, Article 1(1)(e) of the RTS already makes it clear that it is possible to consider bond spreads/bond sector spreads when determining a proxy spread, provided that these spread data correspond to the relevant combination of the categories of rating, region and industry:</p> <p>‘(e) the proxy spread reflects in a representative way available credit default swap spreads and spreads of other liquid traded credit risk instruments, corresponding to the relevant combination of applicable categories and satisfying the data quality criteria referred to in paragraph 3’.</p>	

