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Mapping of Kroll Bond Rating Agency credit assessments under the Standardised Approach

1. Executive summary

1. This report describes the mapping exercise carried out by the Joint Committee to determine the ‘mapping’¹ of the credit assessments of Kroll Bond Rating Agency and Kroll Bond Rating Agency Europe Limited (KBRA).
2. The methodology applied to produce the mapping is the one specified in the Commission’s Implementing Regulation (EU) 2016/1799 (‘the Implementing Regulation’) laying down Implementing Technical Standards (ITS) with regard to the mapping of credit assessments of External Credit Assessment Institutions (ECAIs) for credit risk in accordance with Articles 136(1) and (3) of the Regulation (EU) No 575/2013 of the European Parliament and the Council (‘the CRR’). This Implementing Regulation employs a combination of the provisions laid down in Article 136(2) CRR.
3. The mapping neither constitutes the one which ESMA shall report on in accordance with Article 21(4b) of Regulation (EC) No 1060/2009 (Credit Rating Agencies Regulation - CRA) with the objective of allowing investors to easily compare all credit ratings that exist with regard to a specific rated entity² nor should be understood as a comparison of the rating methodologies of KBRA with those of other ECAIs. This mapping should however be interpreted as the correspondence of the rating categories of KBRA with a regulatory scale which has been defined for prudential purposes. This implies that an appropriate degree of prudence may have been applied wherever not sufficient evidence has been found with regard to the degree of risk underlying the credit assessments.
4. As described in Recital 12 of the Implementing Regulation, it is necessary to avoid causing undue material disadvantage on those ECAIs which, due to their more recent entrance in the

¹ According to Article 136(1), the ‘mapping’ is the correspondence between the credit assessments of and ECAI and the credit quality steps set out in Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR).

² In this regard please consider http://www.esma.europa.eu/system/files/esma__2015-1473_report_on_the_possibility_of_establishing_one_or_more_mapping....pdf.

market, present limited quantitative information, with the view to balancing prudential with market concerns. Therefore, the relevance of quantitative factors for deriving the mapping should be relaxed. This allows ECAs which present limited quantitative information to enter the market and increases competition. Updates to the mapping should be made wherever this becomes necessary to reflect additional quantitative information collected after the entry into force of the revised draft ITS.

5. The resulting mapping tables are specified in Annex III of the Implementing Regulation. Figure 1 below shows the result for the main rating scale of KBRA, the KBRA Long-term credit rating scale.

Figure 1: Mapping of KBRA's Long-term credit rating scale

Credit assessment	Credit quality step
AAA	1
AA	1
A	2
BBB	3
BB	4
B	5
CCC	6
CC	6
C	6
D	6

2. Introduction

6. This report describes the mapping exercise carried out by the Joint Committee (JC) to determine the ‘mapping’ of the credit assessments of Kroll Bond Rating Agency and Kroll Bond Rating Agency Europe Limited (KBRA).
7. Kroll Bond Rating Agency was certified with ESMA on 20 March 2013, while Kroll Bond Rating Agency Europe Limited registered with ESMA on 13 November 2017. Both therefore meet the conditions to be eligible credit assessment institutions (ECAI)³. The scope and methodology for credit assessments used by Kroll Bond Rating Agency Europe Limited is the same as in the case of Kroll Bond Rating Agency. They assign ratings mainly to structured finance products; however they also assigns ratings to corporates, as well as municipal bonds.
8. The methodology applied to produce the mapping is the one specified in the Commission’s Implementing Regulation (EU) 2016/1799 (‘the Implementing Regulation’) laying down Implementing Technical Standards (ITS) with regard to the mapping of credit assessments of External Credit Assessment Institutions (ECAIs) for credit risk in accordance with Articles 136(1) and (3) of the Regulation (EU) No 575/2013 of the European Parliament and the Council (‘the CRR’). This Implementing Regulation employs a combination of the provisions laid down in Article 136(2) CRR.
9. The following sections describe the rationale underlying the mapping exercise carried out by the Joint Committee (JC) to determine the mappings. Section 3 describes the relevant ratings scales of KBRA for the purpose of the mapping. Section 4 contains the methodology applied to derive the mapping of KBRA main ratings scale whereas Sections 5 refers to the mapping of its remaining relevant rating scale. The mapping tables are shown in Appendix 4 of this document and have been specified in Annex III of the Implementing Technical Standards on the mapping of ECAIs’ credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013.

³ It is important to note that the mapping does not contain any assessment of the registration process of KBRA carried out by ESMA.

3. KBRA credit ratings and rating scales

10. KBRA produces two credit ratings. Column 2 of Figure 2 in Appendix 1 shows the relevant credit ratings that may be used by institutions for the calculation of risk weights under the Standardised Approach (SA)⁴:

- **Long-term issue / issuer rating** – assigned to issuers and their obligations, KBRA's long-term credit ratings are intended to reflect both the probability of default and severity of loss in the event of default, with greater emphasis on probability of default at higher rating categories. For obligations, the determination of expected loss severity is, among other things, a function of the seniority of the claim. Generally speaking, issuer-level ratings assume a loss severity consistent with a senior unsecured claim.
- **Short-term issue / issuer rating** – short-term ratings indicate an ability to meet obligations that typically have maturities of thirteen months or less when issued by corporate entities, financial institutions, and in connection with structured finance transactions. When applied to municipal obligations, KBRA's short-term ratings typically indicate an ability to meet obligations of three years or less. Short-term ratings may be assigned to both issuers and to specific obligations. As compared to long-term ratings, greater emphasis is placed on an obligor's liquidity profile and access to funding.

11. KBRA assigns these credit ratings to different rating scales as illustrated in column 3 of Figure 2 in Appendix 1. Therefore, a specific mapping has been prepared for the following rating scales:

- **KBRA Long-term credit rating scale.** The specification of this rating scale is described in Figure 3 of Appendix 1.
- **KBRA Short-term credit rating scale.** The specification of this rating scale is described in Figure 4 of Appendix 1.

12. The mapping of the Long-term credit rating scale is explained in Section 4 and it has been derived in accordance with the quantitative factors, qualitative factors and benchmarks specified in the ITS.

13. The mapping of the Short-term credit rating scale is explained in Section 5 and it has been indirectly derived from the mapping of the Long-term credit ratings scale and the relationship between these two scales, assessed by the Joint Committee based on the comparison of the meaning and relative position of the rating categories in both rating scales. This relationship is shown in Figure 5 of Appendix 1.

⁴ As explained in recital 4 ITS, Article 4(1) CRA allows the use of the credit assessments for the determination of the risk-weighted exposure amounts as specified in Article 113(1) CRR as long as they meet the definition of credit rating in Article 3(1)(a) CRA.

4. Mapping of KBRA's Long-term credit rating scale

14. The mapping of the Long-term credit rating scale has consisted of two differentiated stages where the quantitative and qualitative factors were considered. In addition, the benchmarks specified in Article 136(2) CRR have been taken into account.
15. In the first stage, the quantitative factors referred to in Article 1 of the ITS have been taken into account to differentiate between the levels of risk of each rating category. The *long run default rate* of a rating category has been calculated in accordance with Article 6 of the ITS, as the number of credit ratings cannot be considered to be sufficient.
16. In a second stage, the qualitative factors proposed in Article 7 of the ITS have been considered to challenge the result of the previous stage.

4.1. Initial mapping based on the quantitative factors

4.1.1. Calculation of the long-run default rates

17. The available ratings and default data cannot be considered sufficient for the calculation of the 3 year default rates specified in the Articles 3 – 5 of the ITS. Therefore, the allocation of the CQS has been made in accordance with Article 6 of the ITS, as shown in Figure 6 of Appendix 3. In these cases, the long run default rate benchmark associated with the equivalent category in the international rating scale is a key qualitative factor that has been used for the mapping proposal.
18. For D rating category, no calculation of default rate has been made since it already reflects a 'default' situation.

4.1.2. Mapping proposal based on the long run default rate

19. As illustrated in the second column of Figure 7 in Appendix 4, the assignment of the rating categories to credit quality steps has been initially made in accordance with Article 6 ITS. Therefore, the numbers of defaulted and non-defaulted rated items have been used together with the equivalent rating category of the international rating scale.
- **AAA/AA/BB/B:** the number of rated items in these categories is below the minimum required number of observed items so that the credit quality step associated with the AAA/AA, BB and B rating categories in the international rating scale (CQS 1, CQS 4 and CQS 5 respectively) cannot be assigned. Therefore, the proposed credit quality step for these rating categories is CQS 2, CQS 5 and CQS 6 respectively.
 - **A/BBB:** the number of rated items in each of these categories is equal or larger than the respective minimum required number of observed items given the number of defaulted items in the rating category. Thus the credit quality steps associated with the A and BBB

rating categories in the international rating scale (CQS 2 and CQS 3 respectively) can be assigned.

- **CCC-C:** since the CQS associated with the equivalent rating category of the international rating scale is 6, the proposed mapping for these rating categories is also CQS 6.

4.2. Final mapping after review of the qualitative factors

20. The qualitative factors specified in Article 7 of the ITS have been used to challenge the mapping proposed by the default rate calculation. Qualitative factors acquire more importance in the rating categories where quantitative evidence is not sufficient to test the default behavior⁵, as it is the case for all KBRA's rating categories.

21. The **definition of default** applied by KBRA and used for the calculation of the quantitative factors has been analysed:

- The types of default events considered are described in Appendix 2 and are consistent with letters (a), (b), (c) and (d) of the definition of default under certain conditions of the benchmark definition specified in Article 4(4) of the ITS, which means it is comparable to the benchmark default definition, and it includes all the default types required according to the ITS.
- As KBRA does not have any default recorded, there is no information on the share of bankruptcy-related default events.

As none of the KBRA rating categories has any reported defaults, no change is proposed to the mapping based on this factor.

22. Regarding **the meaning and relative position of the credit assessments**, they are aligned with the mapping proposal resulting from the quantitative factors.. In the case of the D rating category, its meaning is consistent with the one of CQS 6 stated in Annex II ITS.

23. Regarding the **time horizon** reflected by the rating category, KBRA's rating methodology focuses on the long-term. The stability of the rated items however cannot be confirmed due to lack of data over a 3-year time horizon.

Finally, it should be highlighted the use of the long run default rate benchmark associated with the equivalent category in the international rating scale as the **estimate of the long run default rate** for the calculation of the quantitative factor of all rating categories under Article 6 of the ITS.

⁵ The default behavior of a rating category is considered to be properly tested if the quantitative factors for that rating category are calculated under Articles 3 – 5 ITS.

5. Mapping of KBRA's Short-Term credit rating scale

24. KBRA also produces short-term issue/issuer credit ratings and assigns them to the Short-term credit ratings scale (see Figure 4 in Appendix 1). Given that the default information referred to these rating categories cannot be comparable with the 3-year time horizon that characterizes the benchmarks established in the ITS, the internal relationship established by KBRA between these two rating scales (described in Figure 5 of Appendix 1) has been used to derive the mapping of the Short-term credit rating scale. This should ensure the consistency of the mappings proposed for KBRA.

25. More specifically, as each short-term issue/issuer rating can be associated with a range of long-term issue/issuer ratings, the CQS assigned to the short-term credit rating category has been determined based on the most frequently CQS assigned to the related long-term credit rating categories. In case of draw, the most conservative CQS has been considered.

26. The result is shown in Figure 8 of Appendix 4:

- **K1+.** This rating category is a special subcategory of K1 which indicates very strong ability to meet short-term obligations. It is mapped to credit rating AAA and AA, which are predominantly mapped to CQS 1. Therefore, CQS 1 is the proposed mapping.
- **K1.** This rating category indicates a very strong ability to meet short-term obligations. It is mapped to credit rating A, which is mapped to CQS 2. Therefore, CQS 2 is the proposed mapping.
- **K2.** This rating category indicates strong ability to meet short-term obligations. It is mapped to long-term credit rating A and BBB, which are mapped to CQS 2 and 3. Therefore, CQS 3 is the proposed mapping.
- **K3.** This rating category indicates adequate ability to meet short-term obligations. It is mapped to the long-term credit rating BBB, which is mapped to CQS 3. Therefore, CQS 3 is the proposed mapping.
- **B.** This rating category indicates questionable ability to meet short-term obligations. It is mapped to the long-term credit rating BB and B, which are mapped to CQS 4 and CQS 5. Since the risk weights assigned to CQS 4 to 6 are all equal to 150% according to Article 131 CRR, the mapping proposed for the B rating category is CQS 4.
- **C.** This rating category indicates little ability to meet short-term obligations. It is mapped to the long-term credit rating CCC/CC/C, which are mapped to CQS 6. Since the risk weights assigned to CQS 4 to 6 are all equal to 150% according to Article 131 CRR, the mapping proposed for the C rating category is CQS 4.
- **D.** This rating category indicates that the rated entity is in default on short-term obligations. It is mapped to the long-term credit rating D, which are mapped to CQS 6.

Since the risk weights assigned to CQS 4 to 6 are all equal to 150% according to Article 131 CRR, the mapping proposed for the D rating category is CQS 4.

Appendix 1: Credit ratings and rating scales

Figure 2: KBRA's relevant credit ratings and rating scales

SA exposure classes	Name of credit rating	Credit rating scale
Long-term ratings		
Institutions	Long-term credit rating	Global long-term rating scale
Corporates	Long-term credit rating	Global long-term rating scale
Short-term ratings		
Institutions	Short-term credit rating	Global short-term rating scale
Corporates	Short-term credit rating	Global short-term rating scale

Source: KBRA

Figure 3: KBRA Long Term Credit Rating Scale

Credit assessment	Meaning of the credit assessment
AAA	Determined to have almost no risk of loss due to credit-related events. Assigned only to the very highest quality obligors and obligations able to survive extremely challenging economic events.
AA	Determined to have minimal risk of loss due to credit-related events. Such obligors and obligations are deemed very high quality.
A	Determined to be of high quality with a small risk of loss due to credit-related events. Issuers and obligations in this category are expected to weather difficult times with low credit losses.
BBB	Determined to be of medium quality with some risk of loss due to credit-related events. Such issuers and obligations may experience credit losses during stress environments.
BB	Determined to be of low quality with moderate risk of loss due to credit-related events. Such issuers and obligations have fundamental weaknesses that create moderate credit risk.
B	Determined to be of very low quality with high risk of loss due to credit-related events. These issuers and obligations contain many fundamental shortcomings that create significant credit risk.
CCC	Determined to be at substantial risk of loss due to credit-related events, or currently in default with high recovery expectations.
CC	Determined to be near default or in default with average recovery expectations.
C	Determined to be near default or in default with low recovery expectations.
D	In default.

Source: KBRA

Figure 4: KBRA Short Term Credit Rating Scale

Credit assessment	Meaning of the credit assessment
K1	Very strong ability to meet short-term obligations.
K2	Strong ability to meet short-term obligations.
K3	Adequate ability to meet short-term obligations.
B	Questionable ability to meet short-term obligations.
C	Little ability to meet short-term obligations.
D	In default on short-term obligations.

Source: KBRA

Figure 5: Internal relationship between KBRA's long-term and short-term rating scales

Long-term credit ratings scale	Short-term credit ratings scale
AAA	K1+
AA+	
AA	
AA-	
A+	K1
A	
A-	K2
BBB+	
BBB	K3
BBB-	
BB+	B
BB	
BB-	
B+	
B	
B-	
CCC+	C
CCC	
CCC-	
CC	
C	
D	D

Source: KBRA

Appendix 2: Definition of default

KBRA defines default as occurring if:

- There is a missed interest or principal payment on a rated obligation which is unlikely to be recovered.
- The rated entity files for protection from creditors, is placed into receivership or is closed by regulators such that a missed payment is likely to result.
- The rated entity seeks and completes a distressed exchange, where existing rated obligations are replaced by new obligations with a diminished economic value.

Source: KBRA

Appendix 3: Default rates of each rating category

Figure 6: Mapping proposal for rating categories with a non-sufficient number of credit ratings

	AAA/AA	A	BBB	BB	B	CCC-C
CQS of equivalent international rating category	CQS 1	CQS 2	CQS 3	CQS 4	CQS5	CQS 6
N. observed defaulted items	0	0	0	0	0	0
Minimum N. rated items	0	0	0	0	0	n.a.
Observed N. rated items	0	0	0	0	0	0
Mapping proposal	CQS 1	CQS 2	CQS 3	CQS 4	CQS 5	CQS 6

Source: Joint Committee calculations based on KBRA data

Appendix 4: Mappings of each rating scale

Figure 7: Mapping of KBRA's Long-term credit rating scale

Credit assessment	Initial mapping <i>based on LR DR</i> (CQS)	Review <i>based on SR</i> <i>DR</i> (CQS)	Final review <i>based</i> <i>on qualitative</i> <i>factors</i> (CQS)	Main reason for the mapping
AAA	1	n.a.	1	The quantitative factors are representative of the final CQS.
AA	1	n.a.	1	
A	2	n.a.	2	The quantitative factors are representative of the final CQS.
BBB	3	n.a.	3	The quantitative factors are representative of the final CQS.
BB	4	n.a.	4	The quantitative factors are representative of the final CQS.
B	5	n.a.	5	The quantitative factors are representative of the final CQS.
CCC	6	n.a.	6	The meaning and relative position of the rating category is representative of the final CQS.
CC	6	n.a.	6	The meaning and relative position of the rating category is representative of the final CQS.
C	6	n.a.	6	The meaning and relative position of the rating category is representative of the final CQS.
D	6	n.a.	6	The meaning and relative position of the rating category is representative of the final CQS.

Figure 8: Mapping of KBRA's Short-term credit rating scale

Credit assessment	Corresponding Long-term credit rating scale assessment	Range of CQS of corresponding Long-term credit rating scale	Final review based on qualitative factors (CQS)	Main reason for the mapping
K1+	AAA / AA	1	1	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category.
K1	A	2	2	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category.
K2	A / BBB	2 – 3	3	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category. As there was a draw, the more conservative CQS was chosen.
K3	BBB	3	3	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category.
B	BB / B	4 - 5	4	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.
C	CCC / CC / C	6	4	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.
D	D	6	4	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.



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