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Mapping of HR Ratings de México, S.A. de C.V. credit assessments under the Standardised Approach

1. Executive summary

1. This report describes the exercise carried out by the Joint Committee to determine the ‘mapping’¹ of the credit assessments of HR Ratings de México, S.A. de C.V. (HR Ratings).
2. The methodology applied to produce the mapping remains as 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) of CRR.
3. The mapping neither constitutes the one which the European Securities and Markets Authority (ESMA) shall report on in accordance with Article 21(4b) of Regulation (EC) No 1060/2009 (‘the CRA Regulation’) 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 HR Ratings with those of other ECAIs. This mapping should however be interpreted as the correspondence of the rating categories of HR Ratings 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 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 ECAIs which present limited quantitative information to enter

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

² In this regard please see https://www.esma.europa.eu/sites/default/files/library/esma_2015-1473_report_on_the_possibility_of_establishing_one_or_more_mapping.pdf.

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 have been specified in Annex III of the revised draft ITS on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of the CRR. Figure 1 below shows the result for the main rating scale of HR Ratings.

Figure 1: Mapping of HR Ratings' global long-term rating scale

Credit Assessment	Credit Quality Step
HR AAA(G)	1
HR AA(G)	
HR A(G)	2
HR BBB(G)	3
HR BB(G)	4
HR B(G)	5
HR C(G)	6
HR D(G)	

2. Introduction

6. This report describes the mapping exercise carried out by the Joint Committee to determine the ‘mapping’ of the credit assessments of HR Ratings.
7. HR Ratings is a credit rating agency that has been certified with ESMA on 7 November 2014 and therefore meets the conditions to be an eligible ECAI within the CRR³.
8. The methodology applied to produce the mapping remains as the one specified in the Implementing Regulation, which employs a combination of the provisions laid down in Article 136(2) of the CRR including quantitative and qualitative factors. The quantitative information reflects the statistics on the rating activity and the performance of ECAIs established by ESMA in its Central Repository of credit rating data (CEREP)^{4, 5}. The qualitative information was collected bilaterally from HR Ratings.
9. The following sections describe the rationale underlying the mapping exercise carried out by the JC to determine the mappings. With respect to the quantitative requirements used to perform the mapping, in case of ECAIs for which limited quantitative information is available the mapping has been performed following Article 6 of the Implementing Regulation. Section 3 describes the relevant ratings scales of HR Ratings for the purpose of the mapping. Section 4 contains the methodology applied to derive the mapping of HR Ratings’ global long-term rating scale, whereas Sections 5 refers to the mapping of the global short-term rating scale. The mapping tables are shown in Appendix 4 of this document.

3. HR Ratings credit ratings and rating scales

10. HR Ratings produces a variety of 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)⁶:

- **Long-term issuer rating:** it is a forward-looking opinion about an obligor’s overall creditworthiness. This opinion focuses on the obligor’s capacity and willingness to meet its financial commitments as they come due. It does not apply to any specific financial obligation, as it does not take into account the nature of and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation.

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

⁴ <http://cerep.esma.europa.eu/cerep-web/> These statistics are computed from individual rating information provided by registered or certified Credit Rating Agencies (CRAs) to ESMA, as required as per Article 11(2) of Regulation (EU) No 1060/2009 (CRA Regulation).

⁵ The last reporting period for which data are available in CEREP is the second semester of 2015.

⁶ 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.

- **Short-term issuer rating:** the definition is in line with the long-term issuer rating but referring to obligations with an original maturity of thirteen months or less.
- **Long-term obligation ratings:** it is are defined as long-term ratings assigned to long-term financial obligations with an original maturity of one year or more and reflect both on the likelihood of a default on contractually promised payments and the expected financial loss suffered in the event of default.
- **Short-term obligation rating:** the definition is in line with the long-term obligation rating but referring to obligations with an original maturity of thirteen months or less.

11. HR Ratings assigns these credit ratings to two 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:

- **Global long term rating scale.** A description of this rating scale is provided in Figure 3 of Appendix 1.
- **Global short term rating scale.** A description of this rating scale is provided in in Figure 4 of Appendix 1.

12.The mapping of the Global long term rating scale is explained in Section 4 and it has been derived in accordance with the quantitative and factors specified in the Implementing Regulation.

13.The mapping of the Global Short Term Rating Scale is explained in Section 5 and it has been indirectly derived from the mapping of the Global long term rating scale and the internal relationship established by HR Ratings between the two rating scales, as specified in Article 13 of the Implementing Regulation. This internal relationship is shown in Figure 5 of Appendix 1.

4. Mapping of HR Ratings' global long term rating scale

14.The mapping of the global long term rating scale has consisted of two differentiated stages, where quantitative and qualitative factors were considered.

15.In the first stage, the quantitative factors referred to in Article 1 of the Implementing Regulation 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 Implementing Regulation, as a sufficient number of credit ratings is not available.

16.In a second stage, the qualitative factors proposed in Article 7 of the Implementing Regulation have been considered to challenge initial mapping produced in the previous stage.

4.1. Initial mapping based on the quantitative factors

4.1.1. Calculation of the long-run default rates

17. CEREP did not reflect information regarding the credit ratings issued by HR Ratings. Therefore the allocation of Credit Quality Steps (CQS) has been made in accordance with Article 6 of the Implementing Regulation, as shown in Figure 8 of Appendix 3.

18. For the rating category HR D(G), no calculation of default rates has been made since it already reflects a 'default' situation.

4.2.2. Mapping proposal based on the long run default rate

19. As illustrated in Figure 8 in Appendix 3, the assignment of the rating categories to CQS was initially made in accordance with Article 6 of the Implementing Regulation. Therefore, the numbers of defaulted and non-defaulted rated items have been used together with the prior expectation of the equivalent rating category of the international rating scale.

- **HR AAA(G)/ HR AA(G)/ HR A(G)/ HR BBB(G)/ HR BB(G)/ HR B(G):** 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 HR AAA(G)/ HR AA(G), HR A(G), HR BBB(G), HR BB(G), HR B(G) rating categories in the international rating scale (CQS 1, CQS 2, CQS 3, CQS 4 and CQS 5 respectively) can be assigned.
- **HR CCC(G)/ HR CC(G)/ HR C(G):** 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.

20. The calculation of the number of items assigned the same rating category weights withdrawn ratings by 50% as indicated in Article 4(3) of the Implementing Regulation.

21. The definition of default has been taken into account for the calculation of the quantitative factors, following Article 8 of the Implementing Regulation.

4.2 Final mapping after review of the qualitative factors

22. The qualitative factors specified in Article 7 of the Implementing Regulation 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 behavior⁷, as it is especially the case for all relevant HR Ratings' rating categories.

⁷ The default behavior of a rating category is considered to be properly tested if the quantitative factors for that rating category could be calculated under Articles 3 – 5 of the Implementing Regulation.

23. The definition of default applied by HR Ratings 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 events (a), (b), (c) and (d) of the benchmark definition of default specified in Article 4(4) of the Implementing Regulation. Therefore no change is proposed to the mapping based on this factor.
- The distribution of defaults by event type provided by HR Ratings denote a strict default definition, albeit based on limited data.

No change is proposed to the mapping based on this factor.

24. The mapping proposal resulting from the quantitative factors complies with the qualitative criteria on the **meaning and relative position** of a rating category, as specified in Article 10 of the Implementing Regulation.

25. The time horizon reflected by the rating categories refers to a 3 to 5 year horizon. However, the stability cannot be assessed given the lack of data. No adjustment is proposed based on this factor.

26. Finally, it should be highlighted the use of the long-run default 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 rating categories under Article 6 of the Implementing Regulation.

27. Regarding the estimate provided by HR Ratings of the long-term default rate associated with all items assigned the same rating category, according to Article 12 of the Implementing Regulation, it should be taken into account for the purpose of the mapping as long as it has been adequately justified. However, due to the limited quantitative data used to derive the estimate, this factor has not been further used to adjust the mapping.

5. Mapping of HR Ratings Global Short Term Rating Scale

28. HR Ratings also produces short-term credit ratings and assigns them to the Global Short Term Rating Scale (see description in Figure 4, Appendix 1). Given that the default information referring to these rating categories cannot be comparable with the 3-year time horizon that characterizes the benchmarks established in the Implementing Regulation, the internal relationship established by HR Ratings between these two rating scales (described in Figure 5 of Appendix 1) has been used to derive the mapping of the Global Short Term Rating Scale. This should ensure the consistency of the mappings proposed for HR Ratings.

29. More specifically, as each short-term rating can be associated with a range of long-term ratings, the CQS assigned to each short-term rating category has been determined based on the most frequent CQS assigned to the related long-term rating categories. In case of draw,

the most conservative CQS has been considered. According to article 140(1) CRR, short-term credit assessments may only be used for short-term asset and off-balance sheet items constituting exposures to institutions and corporates. Following article 131 CRR, exposures to institutions and corporates with a short-term assignment are assigned a 150% risk weight if they are allocated to CQS 4, 5 or 6. Therefore if the most frequent step associated to the short-term scale is identified with CQS 5 or 6, then the allocation is made to CQS 4.

30. The result is shown in Figure 22 of Appendix 4:

- **HR-1+(G):** this rating category refers to debt instruments or issuers with features showing relative superiority in terms for timely payment of debt obligations in the short term and maintains the lowest credit risk. Therefore, CQS 1 is the proposed mapping.
- **HR1(G):** this rating category refers to debt instruments or issuers exhibiting high capacity for timely payment of debt obligations in the short term and maintains the lowest credit risk. It is internally mapped to the long-term category HR AA(G), which is mapped to CQS 1. Therefore, CQS 1 is the proposed mapping.
- **HR2(G):** this rating category refers to debt instruments or issuers exhibiting an acceptable capacity for timely payment of debt obligations in the short term and maintains a higher credit risk compared with higher credit rating debt instruments. In this case, following the internal mapping provided by the ECAI, the allocation falls under CQS 2.
- **HR3(G):** this rating category exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation. It is internally mapped to the long-term category HR BBB(G), which is mapped to CQS 3. Therefore, CQS 3 is the proposed mapping.
- **HR4(G):** this rating category is regarded as having significant speculative characteristics. The obligor currently has the capacity to meet its financial commitment on the obligation; however, it faces major ongoing uncertainties which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation. It is internally mapped to the long-term categories HR BB(G) and HR B(G), which are respectively mapped to CQS 4 and CQS5. However, as the risk weights assigned to CQS 4 to 6 are all equal to 150% according to Article 131 CRR, the mapping proposed for the HR4(G) category is CQS 4, that is also better in line with the meaning of this category.
- **HR5(G):** is currently vulnerable to non-payment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation.. It is internally mapped to the long-term categories HR C(G), 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 HR5(G) rating category is CQS 4.
- **HR D(G):** This rating category is in payment default. Therefore it is consistent with CQS 6. In addition, it is internally mapped to long-term category HR D(G), which is 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 HR D(G) rating category is CQS 4.

Appendix 1: Credit ratings and rating scales

Figure 2: Relevant credit ratings and rating scales

SA exposure classes	Name of credit rating	Rating scale
Long-term ratings		
Central governments/ Central banks	Long-term issuer rating	Global long term rating scale
	Long-term obligation rating	Global long term rating scale
Regional and local governments and PSEs	Long-term issuer rating	Global long term rating scale
	Long-term obligation rating	Global long term rating scale
Institutions	Long-term issuer rating	Global long term rating scale
	Long-term obligation rating	Global long term rating scale
Corporates	Long-term issuer rating	Global long term rating scale
	Long-term obligation rating	Global long term rating scale
Short-term ratings		
Institutions	Short-term issuer rating	Global Short Term Rating scale
	Short-term obligation rating	Global Short Term Rating scale
Corporates	Short-term issuer rating	Global Short Term Rating scale
	Short-term obligation rating	Global Short Term Rating scale

Source: HR Ratings

Figure 3: Global long term rating scale

Credit assessment	Meaning of the credit assessment
HR AAA(G)	The issuer or issue with this rating is considered to have the highest credit quality, offering high safety for timely payment of debt obligations. Maintains minimum credit risk on a global scale basis.
HR AA(G)	The issuer or issue with this rating is considered to have high credit quality and offers high safety for timely payment of debt obligations. Maintains a very low credit risk on a global scale basis, under adverse economic scenarios.
HR A(G)	The issuer or issue with this rating offers acceptable safety for timely payment of debt obligations. Maintains low credit risk on a global scale basis.
HR BBB(G)	The issuer or issue with this rating provides moderate safety for timely payment of debt obligations. Maintains moderate credit risk on a global scale, with weakness in the ability to pay adverse economic scenarios.
HR BB(G)	The issuer or issue with this rating provides inadequate safety for timely payment of debt obligations. Maintains high credit risk on a global scale basis.
HR B(G)	The issuer or issue with this rating provides low safety for timely payment of debt obligations and maintains a high credit risk on a global scale basis. The issue or issuer is susceptible to falling into default.
HR C(G)	The issuer or issue with this rating exhibits high probability of falling into default in debt obligation payments.
HR D(G)	The issuer or issue with this rating has the lowest credit rating on a global scale basis. The issue is already in, or is highly likely to fall into default in the short term.

Source: HR Ratings.

Figure 4: Global Short Term Rating Scale

Credit assessment	Meaning of the credit assessment
HR1(G)	The issuer or issue with this rating exhibits high capacity for timely payment of debt obligations in the short-term and maintains the lowest credit risk on a global scale basis. Within this category, debt instruments and/or issuers with features showing relative superiority in terms of credit characteristics may be rated as HR+1(G).
HR2(G)	The issuer or issue with this rating exhibits an acceptable capacity for timely payment for timely of debt obligations in the short-term and maintains a higher credit risk compared with higher credit rating debt instruments on a global scale basis.
HR3(G)	The issuer or issue with this rating exhibits a moderate capacity for timely payment of debt obligations in the short-term and maintains a higher credit risk compared with higher credit rating debt instruments on a global scale basis.
HR4(G)	The issuer or issue with this rating exhibits an insufficient capacity for timely payment of debt obligations in the short-term and maintains a very high credit risk on a global scale basis. These instruments are susceptible to fall into default.
HR5(G)	The issuer or issue is highly probable they will fall into default on the payment of debt obligations.
HR D(G)	The issuer or issue given this rating has the lowest credit rating on a global scale basis and they are already in default.

Source: HR Ratings.

Figure 5: Internal relationship between HR Ratings' Global Long-Term and Global Short-Term Rating Scales

Global Long-Term Rating Scale	Global Short-Term Rating Scale
HR AAA (G)	HR +1 (G)
HR AA+ (G)	
HR AA (G)	HR 1 (G)
HR AA- (G)	
HR A+ (G)	
HR A (G)	HR 2 (G)
HR A- (G)	
HR BBB+ (G)	
HR BBB (G)	HR 3 (G)
HR BBB- (G)	
HR BB+ (G)	
HR BB (G)	
HR BB- (G)	HR 4 (G)
HR B+ (G)	
HR B (G)	
HR B- (G)	
HR C+ (G)	
HR C (G)	HR 5 (G)
HR C- (G)	
HR D (G)	HR D (G)

Source: HR Ratings

Appendix 2: Definition of default

“The failure to comply with obligatory interest and principal payments, according to the originally agreed upon terms. In the context of the entity responsible for payment compliance, the determination of the credit rating depends on the degree of fulfillment with the totality of its payment obligations.”

Source: HR Ratings.

Appendix 3: Default rates of each rating category

Figure 6: Number of rated items, with relevant weights⁸

Date	HR AAA(G)/ HR AA(G)	HR A(G)	HR BBB(G)	HR BB(G)	HR B(G)	HR C(G)	HR D(G)
01/07/2009	0.0	0.0	1.0	1.0	1.0	0.0	n.a.
01/01/2010	0.5	1.0	4.0	4.0	5.0	0.0	n.a.
01/07/2010	0.5	18.0	10.5	9.0	8.0	1.0	n.a.
01/01/2011	0.5	22.0	10.5	12.5	11.5	1.0	n.a.
01/07/2011	1.0	22.5	12.5	14.5	13.0	1.0	n.a.
01/01/2012	2.0	22.5	13.0	17.5	17.5	8.0	n.a.
01/07/2012	5.0	27.0	14.0	19.5	24.0	10.5	n.a.
01/01/2013	5.0	28.5	15.5	28.0	31.5	11.0	n.a.

Source: JC calculations based on CEREP data

⁸ Withdrawn ratings have been weighted by 50% as indicated in Article 4(3) of the ITS.

Figure 7: Number of defaulted rated items

Date	HR AAA(G)/ HR AA(G)	HR A(G)	HR BBB(G)	HR BB(G)	HR B(G)	HR C(G)	HR D(G)
01/07/2009	0	0	0	0	0	0	n.a.
01/01/2010	0	0	0	0	0	0	n.a.
01/07/2010	0	0	0	1	0	0	n.a.
01/01/2011	0	0	0	1	0	0	n.a.
01/07/2011	0	0	0	1	0	0	n.a.
01/01/2012	0	0	0	1	0	0	n.a.
01/07/2012	0	0	0	1	0	0	n.a.
01/01/2013	0	0	0	2	0	1	n.a.

Source: JC calculations based on CEREP data.

Figure 8: Mapping proposal for rating categories with a non-sufficient number of credit ratings

2009H2 – 2013H1	HR AAA(G)/HR AA(G)	HR A(G)	HR BBB(G)	HR BB(G)	HR B(G)	HR C(G)
CQS of equivalent international rating category	CQS 1	CQS 2	CQS 3	CQS 4	CQS 5	CQS 6
N. observed defaulted items	0	0	0	7	0	1
Minimum N. rated items	0	0	0	63	0	n.a.
Observed N. rated items	14.5	141.5	81	106	111.5	32.5

Source: JC calculations based on CEREP data.

Appendix 4: Mappings of each rating scale

Figure 9: Mapping of HR Ratings Global long-term rating scale

Credit assessment	Initial mapping based on LRDR (CQS)	Final review based on qualitative factors (CQS)	Main reason for the mapping
HR AAA(G)/ HR AA(G)	1	1	The quantitative factors are representative of the final CQS
HR A(G)	2	2	The quantitative factors are representative of the final CQS
HR BBB(G)	3	3	The quantitative factors are representative of the final CQS
HR BB(G)	4	4	The quantitative factors are representative of the final CQS
HR B(G)	5	5	The quantitative factors are representative of the final CQS
HR C(G)/ HR D(G)	6	6	The meaning and relative position of the rating category is representative of the final CQS

Figure 10: Mapping of HR Ratings Short-Term Rating Scale

Credit assessment	Corresponding global long-term rating scale	Range of CQS of corresponding to the global long term rating scale	Final review based on qualitative factors (CQS)	Main reason for the mapping
HR+1(G)	HR AAA(G)	1	1	The final CQS has been determined based on the most frequent step associated with the corresponding global long-term credit rating category.
HR1(G)	HR AA(G)	1	1	The final CQS has been determined based on the most frequent step associated with the corresponding global long-term credit rating category.
HR2(G)	HR A(G)	2	2	The final CQS has been determined based on the most frequent step associated with the corresponding global long-term credit rating category.
HR3(G)	HR BBB(G)	3	3	The final CQS has been determined based on the most frequent step associated with the corresponding global long-term credit rating category.
HR4(G)	HR BB(G), HR B(G)	4-5	4	The final CQS has been determined based on the most frequent step associated with the corresponding global long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.
HR5(G)	HR C(G)	6	4	The final CQS has been determined based on the most frequent step associated with the corresponding global long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.
HR D(G)	HR D(G)	6	4	The final CQS has been determined based on the most frequent step associated with the corresponding global long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.