Amended Mapping of ARC Ratings S.A. credit assessments under the Standardised Approach

1. Executive summary

1. This report describes the mapping exercise carried out by the Joint Committee of the European Supervisory Authorities (ESAs) to determine the 'mapping'[1] of the credit assessments of ARC Ratings S.A. (ARC), with respect to the version published in June 2021.

2. The methodology applied to produce the mapping remains as specified in Commission Implementing Regulation (EU) 2016/1799 of 7 October 2016 (the Implementing Regulation)[2] laying down implementing technical standards with regard to the mapping of credit assessments of external credit assessment institutions for credit risk in accordance with Articles 136(1) and 136(3) of Regulation (EU) No 575/2013 of the European Parliament and of the Council (Capital Requirements Regulation – CRR). This Implementing Regulation employs a combination of the provisions laid down in Article 136(2) of the CRR.

3. The information base used to produce this mapping report reflects additional quantitative and qualitative information collected after the production of the mapping report published in June 2021. In addition, ARC replaced its claims paying ability ratings and rating scale with the Insurance Financial Strength Rating Criteria (IFSR) and IFSR scale.

4. 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 entity[3] nor should be understood as a comparison of the rating methodologies of ARC with those of other ECAIs. This mapping should however be interpreted as the correspondence of the rating categories of ARC 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.

[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] OJ L 275, 12.10.2016, p. 3-18

[3] In this regard please consider ESMA's Report on the possibility of establishing one or more mapping.

5. 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 is relaxed. This allows ECAIs which present limited quantitative information to enter the market and increases competition.

6. The resulting mapping tables have been specified in Annex III of the Consultation Paper on the revised draft ITS on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013. Figure 1 below shows the result for the ARC main ratings scale, the Medium and long-term issuers rating scale.

Figure 1: Mapping of ARC's Medium and long-term issuer 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

7. This report describes the mapping exercise carried out by the Joint Committee (JC) to determine the 'mapping' of the credit assessments of ARC Ratings S.A. (ARC), with respect to the version published in June 2021.

8. ARC is a credit rating agency that has been registered with ESMA on 26 August 2011 and therefore meets the conditions to be an eligible credit assessment institution (ECAI).[4] At that time of registration, the rating agency was known as Companhia Portuguesa de Rating, S.A. (CPR), and was legally converted into ARC on October 7, 2013.

9. 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.

10. The information base used to produce this mapping report reflects additional quantitative information collected after the submission of the draft Implementing Technical Standards by the JC to the European Commission. Regarding qualitative developments, the qualitative factors remain unchanged, while ARC replaced its claims paying ability ratings and rating scale with the IFSR and IFSR scale.

11. The quantitative information is drawn from data available in the ESMA's central repository (CEREP[5]) and RADAR[6] based on the credit rating information submitted by the ECAIs as part of their reporting obligations.

12. 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 ARC for the purpose of the mapping. Section 4 contains the methodology applied to derive the mapping of ARC's main rating scale, whereas Sections 5 and 6 refer to the mapping of its remaining relevant ratings scales. The mapping table is shown in Appendix 4 of this document and have been specified in Annex III of the Consultation Paper on the revised draft ITS on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013.

[4] It is to be noted that the mapping does not contain any assessment of the registration process of ARC carried out by ESMA.

[5] https://cerep.esma.europa.eu/cerep-web/

[6] Commission Delegated Regulation (EU) 2015/2 RADAR RTS.

3. ARC credit ratings and rating scales

ARC produces a variety of credit ratings. Column 2 of

13. 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)[7]:

- **Medium and Long-term issuer rating,** which is assigned by assessing the creditworthiness over a five-year horizon. If principal and interest payments would appear to be especially onerous during one year of this period, the related default risk in that year will define the assigned overall rating. In general it expresses ARC's opinion concerning the ability and willingness of an entity to honour, on a full and timely basis, the financial commitments (capital and interest) subject to that rating.

- **Short-term issuer rating,** which is typically strongly linked to the medium and long-term issuer rating. This linkage may be broken under certain circumstances, at the discretion of a Rating Panel.

- **Medium and Long-term issue rating,** which incorporates for example the rank and the collateralisation of a particular issue and, consequently, may either receive a higher or lower rating than that of the entity's own issuer credit rating.

- **Insurance Financial Strength Rating Criteria,** which is a rating assigned specifically to insurance companies. It measures the ability of the insurance company to fulfil its insurance claims and policyholders' obligations in the medium-long term.

- **Short-term issue rating,** which is typically strongly linked to the medium and long-term issue rating. This linkage may be broken under certain circumstances, at the discretion of a Rating Panel.

ARC assigns these credit ratings to different rating scales as illustrated in column 3 of

~~14.~~ Figure 2 in Appendix 1. Therefore, a specific mapping has been prepared for the following rating scales:

- **Medium and long-term issuer rating scale.** The specification of this rating scale is described in Figure 3 of Appendix 1.

- **Medium and long-term issue rating scale.** The specification of this rating scale is described in Figure 4 of Appendix 1.

- **Short-term issuer rating scale.** The specification of this rating scale is described in Figure 5 of Appendix 1.

[7] 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 issue rating scale.** The specification of this rating scale is described in Figure 6 of Appendix 1.

- **Insurance Financial Strength Rating Criteria scale.** The specification of this rating scale is described in Figure 7 of Appendix 1.

15. The mapping of the Medium- and long-term issuers 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 Implementing Regulation.

16. The mapping of the Short-term issuer rating scale is explained in Section 5 and it has been indirectly derived from the mapping of the Medium- and long-term issuer rating scale and the internal relationship established by ARC between these two scales, as specified in Article 13 of the Implementing Regulation. This internal relationship is shown in Figure 8 of Appendix 1.

17. The indirect mapping approach described in the previous paragraph has also been applied in the case of Medium- and long-term and short-term issues rating scales, as well as the IFSR scale (please see Section 6). In these cases, however, the relationship with the Medium- and long-term issuer ratings scale (or Short-term issuer rating scale) has been assessed, for the purpose of the mapping, by the JC based on the comparison of the meaning and relative position of the rating categories.

4. Mapping of ARC's Medium and long-term issuer rating scale

18. The mapping of the Medium- and long-term issuer rating scale has consisted of two differentiated stages where the quantitative and qualitative factors as well as the benchmarks specified in Article 136(2) CRR have been taken into account.

19. 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.

20. 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, especially in those ratings categories where less default data has been available.

4.1. Initial mapping based on the quantitative factors

4.1.1. Calculation of the short-run and long-run default rates

21. The number of credit ratings for all rating categories of the ARC Medium- and long-term issuer rating scale, shown Figure 9 and Figure 10 in Appendix 3, cannot be considered to be sufficient for the calculation of the short and long run default rates specified in the Articles 3 – 5 of the ITS. Although ARC has historical data covering over 30 years (mostly non-financial medium-size

Portuguese corporates), on average it only rated seven customers per year. Moreover, most of these ratings were not maintained for the longer time periods and were withdrawn relatively quickly. As a result, the rating numbers in each rating category are below the required minimum. Therefore, the calculation of the long run default rate has been made in accordance with Article 6 of the ITS, as shown in Figure 11 of Appendix 3.

22. 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.

23. For D rating category, no calculation of default rates has been made since it already reflects a 'default' situation.

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

25. The default definition applied by ARC, described in Appendix 2, has been used for the calculation of default rates.

4.1.2. Mapping proposal based on the long run default rate

26. As illustrated in the second column of Figure 12 in Appendix 4, the assignment of the rating categories to credit quality steps has been initially made in accordance with Article 6 of the ITS. 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. The result is shown in Figure 11 of Appendix 3.

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

- **CCC/CC/C:** since the CQS associated with the equivalent rating categories 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

27. 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 behavior,[8] as is the case for all rating categories of the ARC's Medium- and long-term issuers rating scale.

[8] 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.

28. The qualitative factors remain unchanged. No amendments are proposed based on qualitative considerations.

5. Mapping of ARC's Short-Term issuer rating scale

ARC also produces short-term ratings and assigns them to the Short-term issuer rating scale (see

29. Figure 5 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 ARC between these two rating scales (described in Figure 8 of Appendix 1) has been used to derive the mapping of the Short-term issuer rating scale. This should ensure the consistency of the mappings proposed for ARC.

30. More specifically, as each Short-term issuer rating can be associated with a range of Medium- and long-term issuer ratings, the CQS assigned to the Short-term issuer rating category has been determined based on the most frequent CQS assigned to the related Medium- and long-term issuer rating categories. In case of draw, the most conservative CQS has been considered. If the most frequent step is identified as CQS 5 or CQS 6, CQS 4 is allocated, as the risk weights assigned to CQS 4 to 6 are all equal to 150% according to Article 131 CRR.

31. The result is shown in Figure 13 of Appendix 4.

- **A-1+.** This rating category indicates that an obligor shows very strong capacity to meet its financial commitment. It is internally mapped to long-term categories AAA to AA-, which are mapped to CQS 1. Therefore, CQS 1 is the proposed mapping.

- **A-1.** This rating category indicates that an obligor shows strong capacity to meet its financial commitment. It is internally mapped to long-term categories AA- to A-, which are mapped to CQS 1 and CQS 2. Therefore, CQS 2 is the proposed mapping.

- **A-2.** This rating category indicates that an obligor shows satisfactory capacity to meet its financial commitment. Although pertaining to the strong debt-paying capacity level, the obligor may be somewhat more susceptible to certain adverse effects from changes in the expected economic conditions. It is internally mapped to the long-term category A- to BBB, which are mapped to CQS 2 and CQS 3. Therefore, CQS 3 is the proposed mapping.

- **A-3.** This rating category indicates that an obligor shows an adequate endogenous capacity to meet its financial commitments, although adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet these commitments. It is internally mapped to long-term categories BBB to BBB-, which are mapped to CQS 3. Therefore, CQS 3 is the proposed mapping.

- **B.** This rating category indicates that an obligor faces major on-going uncertainties the timely and full payment of its financial commitments and is vulnerable to a changing environment. This rating category is internally mapped to long-term categories BB+ to B-,

which are mapped to CQS 4 and CQS 5. Since the risk weights assigned to CQS 4 to CQS 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 that an obligor is more likely than not to under-perform and thus remains very dependent upon favourable business, financial and economic conditions to fully meet its financial commitments. It is internally mapped to long-term categories CCC+ to CC, which are mapped to CQS 6. Since the risk weights assigned to CQS 4 to CQS 6 are all equal to 150% according to Article 131 CRR, the mapping proposed for the C rating category is CQS 4.

- **D.** A short-term obligation rated 'D' is in payment default, consistent with the meaning and relative position representative of CQS 6. In addition, it is internally mapped to long-term category D, which is mapped to CQS 6. Since the risk weights assigned to CQS 4 to CQS 6 are equal to 150% according to Article 131 CRR, the mapping proposed for the D/SD rating category is CQS 4.

6. Mapping of other ARC's credit rating scales

32. As mentioned in Section 3, ARC produces three additional credit ratings that are assigned to different credit rating scales – Medium- and long term and Short-term issues rating scales and the IFSR scale.

33. Based on the methodology described in the previous section, the mapping of each rating scale has been derived from the relationship established by the JC with the relevant Medium- and long-term or Short-term issuer rating scales. More specifically, as each rating can be associated with one or a range of Medium- and long-term (or Short-term) rating categories, its CQS has been determined based on the most frequent CQS assigned to the related rating categories. In case of draw, the most conservative CQS has been considered.

34. The results are shown in Figures 14, 15 and 16 of Appendix 4:

- **Medium- and long-term issues rating scale** (see Figure 4 in Appendix 1). The rating categories can be considered comparable to those of the Medium- and long-term issuer ratings scale. Therefore, the mapping of each rating category has been derived by the JC from its meaning and relative position and the mapping of the corresponding categories of the Medium- and long-term issuer rating scale. The result of the mapping of this scale is shown in Figure 14 of Appendix 4.

- **Short-term issues rating scale** (see Figure 6 of Appendix 1). The rating categories can be considered comparable to those of the Short-term issuer rating scale. Therefore, the mapping of each rating category has been derived by the JC from its meaning and relative position and the internal mapping to the Short-term issuer rating scale. The result of the mapping of this scale is shown in Figure 15 of Appendix 4.

- **Insurance Financial Strength Rating Criteria scale** (see Figure 7 Appendix 1). The rating categories can be considered comparable to those of the Medium- and long-term issuer ratings scale. Therefore, the mapping of each rating category has been derived by the JC from its meaning and relative position and the mapping of the corresponding categories of the Medium- and long-term issuer rating scale. The result of the mapping of this scale is shown in Figure 16 of Appendix 4.

Appendix 1: Credit ratings and rating scales

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

SA exposure classes	Name of credit rating	Credit rating scale
Long-term ratings		
Central governments / Central banks	Medium and long-term issuer rating	Medium and long-term issuer rating scale
	Medium and long-term issue rating	Medium and long-term issue rating scale
Regional governments or local authorities	Medium and long-term issuer rating	Medium and long-term issuer rating scale
	Medium and long-term issue rating	Medium and long-term issue rating scale
Public sector entities	Medium and long-term issuer rating	Medium and long-term issuer rating scale
	Medium and long-term issue rating	Medium and long-term issue rating scale
Institutions	Medium and long-term issuer rating	Medium and long-term issuer rating scale
	Medium and long-term issue rating	Medium and long-term issue rating scale
Corporates	Medium and long-term issuer rating	Medium and long-term issuer rating scale
	Medium and long-term issue rating	Medium and long-term issue rating scale
	Insurance Financial Strength Rating Criteria	Insurance Financial Strength Rating Criteria scale

SA exposure classes	Name of credit rating	Credit rating scale
Short-term ratings		
Institutions	Short-term issuer rating	Short-term issuer rating scale
	Short-term issue rating	Short-term issue rating scale
Corporates	Short-term issuer rating	Short-term issuer rating scale
	Short-term issue rating	Short-term issue rating scale

Figure 3: Medium- and long-term issuer rating scale

Credit assessment	Meaning of the credit assessment
AAA	An obligor rated “AAA” has the highest possible Issuer’s Credit Rating assigned by ARC Ratings. It has not only the ability to show an extremely strong capacity to meet its financial commitments but also benefits from a full set of circumstances that actually turn the possibility of credit default into a strictly remote event.
AA	An obligor rated “AA” also has very strong capacity to meet its financial commitments. It differs from the highest rated obligors by only a very small degree.
A	An obligor rated “A” has a quite strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions when compared to obligors in highest-rated categories.
BBB	An obligor rated “BBB” exhibits an adequate capacity to meet its financial commitments. However, adverse economic conditions or suddenly changing circumstances are more likely to lead to a weakened capacity to the obligor to meet its financial commitments.
BB	An obligor rated “BB” exhibits a fair capacity to meet its financial obligations. However, it faces major on-going uncertainties or exposure to adverse business, financial or economic conditions, which could lead to an unforeseen deterioration of the obligor’s capacity to meet its financial commitments.
B	An obligor rated “B” is more vulnerable than the obligors rated “BB”, in the sense that its capacity to meet its financial commitments may, under adverse business, financial or economic conditions very likely impair such capacity or even the willingness to service its debts.

Credit assessment	Meaning of the credit assessment
CCC	An obligor rated “CCC” is currently very vulnerable, and is thus strictly dependent upon favourable business, financial and economic conditions to meet its financial commitments.
CC	An obligor rated “CC” is highly vulnerable to not being able to meet future obligations, although not showing payment delays at present.
C	Default would appear to be imminent. A debt restructuring procedure may be under way either by creditors’ own initiative or through a judicial ordinance.
D	A “D” rating is assigned when the obligor is currently in default.

Source: ARC

The ratings from “AA” to “CCC” may be modified by the addition of “+” or “-” to show their relative standing within their own rating categories.

Figure 4: Medium- and long-term issues rating scale

Credit assessment	Meaning of the credit assessment
AAA	An obligation rated “AAA” has the highest possible rating assigned by ARC Ratings. The obligor’s future cash flow capacity to meet its financial commitments on the obligation is gauged as extremely strong. A timely and full payment of principal and interest thereof is only remotely subject to adverse influence of an outside force or future event.
AA	An obligation rated “AA” differs from the highest rated obligations only in a very small degree. The obligor’s capacity to meet its financial commitments on the obligation remains very strong.
A	An obligation rated “A” is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions when compared to obligations in highest categories. However, the obligor’s capacity to meet its financial commitments on the obligation remains quite strong.
BBB	An obligation rated “BBB” always exhibits an adequate set of protection parameters. However, adverse economic conditions or suddenly changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments on the obligation.
BB	An obligation rated “BB” exhibits a fair set of financial protection parameters. However, the obligor may face a future deterioration of its payment capacity due to adverse business, financial or economic conditions, which could lead to an unforeseen deterioration of the chances of a timely and full debt servicing.
B	An obligation rated “B” is more vulnerable than obligations rated “BB”, in the sense that its obligor, while currently showing a limited capacity to meet its financial commitments on the obligation, may under adversely changing business, financial or economic conditions very likely impair such capacity or even the willingness to service its debt.

Credit assessment	Meaning of the credit assessment
CCC	An obligation rated “CCC” is currently very vulnerable, and is thus strictly dependent upon favourable business, financial, and economic conditions facing the obligor to meet its financial commitment. Upon the event of adverse business, financial or economic conditions, the obligor will most likely not have the capacity to meet its financial commitments on the obligation.
CC	An obligation rated “CC” is highly vulnerable to payment delays and/or partial default although not showing payment delays at present, due to its own endogenous limitations, notwithstanding the outside conditions facing the obligor.
C	An obligation rated “C” faces an imminent default. The “C” rating may be used to cover a situation where a bankruptcy petition has been filed or similar action taken, but payments on this obligation have not yet been discontinued.
D	An obligation rated “D” is currently under payments default.

Source: ARC

The ratings from “AA” to “CCC” may be modified by the addition of “+” or “-” to show their relative standing within their own rating categories.

Figure 5: Short-term issuer rating scale

Credit assessment	Meaning of the credit assessment
A-1+	An obligor rated "A-1+" shows a very strong capacity to meet its financial commitments. It is rated in the highest category by ARC Ratings
A-1	An obligor rated "A-1" shows a strong capacity to meet its financial commitments.
A-2	An obligor rated "A-2", although pertaining to the strong debt-paying capacity level, may be somewhat more susceptible to certain adverse effects from changes in the expected economic conditions. However, the obligor's capacity to meet its financial commitments is considered to remain very satisfactory.
A-3	An obligor rated "A-3" exhibits adequate endogenous capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments. Outside conditions thus become a relevant issue here.
B	An obligor rated "B" is regarded as having significant vulnerabilities to a changing environment. Notwithstanding the obligor's current capacity to meet its financial commitments, the timely and full payment thereof faces major on-going uncertainties.
C	An obligor rated "C" is currently more likely than not to under-perform and thus remains very dependent upon favourable business, financial and economic conditions to fully meet its financial commitments.
D	An obligor rated "D" has failed or is about to fail to pay one or more of its financial commitments (rated or unrated) when it/they came due.

Source: ARC

Figure 6: Short-term issue rating scale

Credit assessment	Meaning of the credit assessment
A-1+	A short-term obligation rated "A-1+" is rated in the highest category by ARC Ratings. The obligor's capacity and willingness to meet its financial commitments is very strong.
A-1	A short-term obligation rated "A-1" shows that the obligor's capacity and willingness to meet its financial commitments is strong.
A-2	A short-term obligation rated "A-2", although pertaining to the strong debt-paying capacity level, may be somewhat susceptible to certain adverse effects from changes in the expected economic conditions. However, the obligor's capacity to meet its financial commitments on such obligation is considered to remain very satisfactory.
A-3	A short-term obligation rated "A-3" exhibits adequate endogenous 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 commitments on the obligation. Outside conditions thus become a relevant issue here.
B	A short-term obligation rated "B" is regarded as having significant vulnerabilities to a changing environment. Notwithstanding the obligor's current capacity to meet its financial commitments, the timely and full payment thereof faces major on-going uncertainties.
C	A short-term obligation rated "C" is currently more likely than not to under-perform and thus remains very dependent upon favourable business, financial, and economic conditions for the obligor to fully meet its financial commitments on the obligation.
D	A short-term obligation rated "D" is or is likely to enter into default at maturity.

Source: ARC

Figure 7: Insurance Financial Strength Rating Criteria scale

Credit assessment	Meaning of the credit assessment
AAA	Denotes the highest rated insurance companies, with excellent indicators in all the factors that compose the IFSR. It represents companies with solid financial profiles and successful business models supported by an excellent risk management framework. An excellent capital base to support organic growth and to face expected and any unexpected underwriting risks is also available. Companies are typically located in stable economic environments with highly efficient and predictable regulatory frameworks.
AA	Denotes very strong insurance companies, with a combination of excellent and sound indicators within the factors that compose the IFSR. It represents insurance companies with solid financial profiles and recognised business models supported by a very strong underwriting risk framework. A very strong capital base to support organic growth and to face expected and unexpected underwriting risks is available. Companies in this category are typically located in stable economic environments with highly efficient and predictable legal and regulatory frameworks.
A	Denotes strong insurance companies with a mixed combination of good indicators within the factors that compose the IFSR. It represents companies with stable financial profiles and recognized business models supported by good underwriting risk frameworks. A strong capital base to support organic growth is available with a comfortable base to face expected and unexpected underwriting risk. Companies are typically located in stable economic environments with efficient and fairly predictable legal and regulatory frameworks.
BBB	Denotes satisfactory insurance companies with a combination of satisfactory performance indicators within the factors that compose the IFSR. It represents companies with adequate financial profiles and stable business models (sometimes also niche players) supported by an adequate, but still requiring improvement, management of underwriting risk. An adequate capital base to support organic growth is available; strengthening of capital ratios and reserves is expected. Companies are typically located in economic environments with some level of stability, however some deficiencies in the level of development of the legal and regulatory environment exist.
BB	Denotes moderate insurance companies with a combination of moderate indicators within the factors that compose the IFSR. It represents companies with moderate financial profiles and a business model that faces tough competition. Also, they have underwriting risk models that require improvement. The capital base to support organic growth and to face expected and unexpected underwriting risks is limited and should

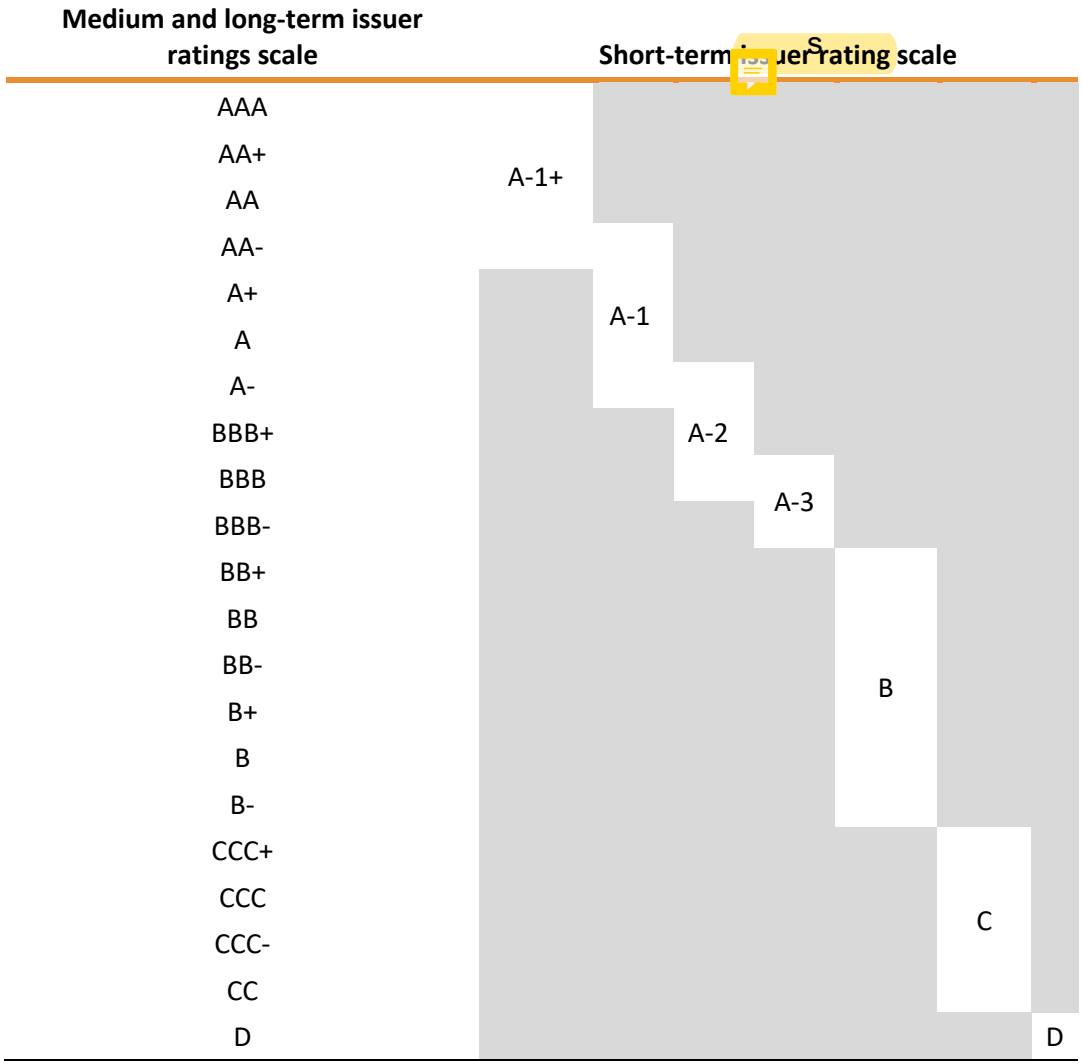
Credit assessment	Meaning of the credit assessment
	be strengthened to provide more stability. Companies are typically located in economic environments with deficiencies in the level of development of legal and regulatory frameworks.
B	Denotes weak insurance companies with a combination of weak performance indicators within the factors that compose the IFSR. It represents companies with weak financial profiles and limited business models that face tough competition and with basic risk management frameworks that require material improvement. The capital base does not support organic growth and does not provide financial stability to face unexpected underwriting risks. Companies are typically located in economic environments with evident deficiencies in the level of development of legal and regulatory aspects and with unpredictable behaviour patterns.
CCC	Denotes very weak insurance companies, with a combination of poor and very weak indicators within the factors that compose the IFSR. It represents companies with very weak financial profiles, limited business models that face tough competition and with extremely deficient underwriting risk management. The capital base and reserves are weak and should be increased. Companies are typically located in economic environments with evident deficiencies in the level of development of legal and regulatory aspects, and also with extremely unpredictable regulatory behaviour driven by individual objectives.
CC	
C	
D	Denotes defaulted insurance companies, with very weak indicators within the factors that compose the IFSR. Companies would typically be under regulatory intervention or negotiating a creditors' agreement.

Source: ARC

~~Note: Except for the 'AAA' and 'CC/C' ratings, each IFSR can be modified by adding a plus or a minus, indicating a stronger (+) or weaker (-) rating within each category.~~

The ratings from "AA" to "CCC" may be modified by the addition of "+" or "-" to show their relative standing within their own rating categories.

Figure 8: Internal relationship between ARC's Medium- and long-term and Short-term issuer rating scales



Source: ARC

Appendix 2: Definition of default

ARC's definition of default includes a more objective component ("lack of full and timely payment of capital or interest") and a more subjective one ("occurrence of any event that explicitly indicates that the future full and timely payment of those commitments will not occur (e.g. in case of insolvency)").

The following types of events are included in the ARC default definition:

- Bankruptcy and other similar legal proceedings
- Failure to observe the payment obligation
- Distressed exchange
- Regulatory supervision

Source: ARC

Appendix 3: Default rates of each rating category

Figure 9: Number of weighted items[9]

	AAA	AA	A	BBB	BB	B	CCC-C
01 Jan 1989		1.0	0.5				
01 Jul 1989		2.0	0.5				
01 Jan 1990		3.0	1.0				
01 Jul 1990		3.5	1.0				
01 Jan 1991	0.5	2.5	1.5				
01 Jul 1991	0.5	1.5	4.5	0.5	0.5		
01 Jan 1992		2.0	4.0	0.5	0.5		
01 Jul 1992	0.5	2.0	3.0				
01 Jan 1993	0.5	1.5	3.5	1.0	1.0		
01 Jul 1993		1.5	2.0	1.0	1.0		
01 Jan 1994		1.0	2.5	0.5			
01 Jul 1994		1.5	2.5	0.5			
01 Jan 1995		1.0	3.5	0.5			
01 Jul 1995		0.5	4.0	0.5			
01 Jan 1996			2.0				
01 Jul 1996			2.5				
01 Jan 1997			4.0				
01 Jul 1997	1.0	0.5	2.5				
01 Jan 1998	1.0	1.5	1.0				
01 Jul 1998		2.5	1.5				
01 Jan 1999		2.5	1.0				
01 Jul 1999		2.0	1.0				
01 Jan 2000		1.5	1.5				
01 Jul 2000		1.5	1.5				
01 Jan 2001		1.0	1.5				
01 Jul 2001		1.0	0.5	0.5			
01 Jan 2002		0.5	0.5	0.5			
01 Jul 2002		2.0	0.5	0.5			
01 Jan 2003		2.0	0.5	0.5			
01 Jul 2003		1.5	0.5	0.5			
01 Jan 2004		2.0		0.5			
01 Jul 2004		1.5	0.5	0.5			
01 Jan 2005		1.5	0.5				
01 Jul 2005		1.0	0.5	0.5			
01 Jan 2006		1.0	1.0	0.5			
01 Jul 2006		1.0	1.0	0.5			
01 Jan 2007		1.0	0.5	0.5			
01 Jul 2007			1.0				
01 Jan 2008	0.5		1.0	0.5			

[9] Withdrawn ratings have been weighted by 50% in accordance with Article 4(3) of the ITS.

01 Jul 2008	0.5	1.5	1.0	0.5			
01 Jan 2009		1.5	1.0	0.5			
01 Jul 2009		0.5	1.0				
01 Jan 2010		1.5	1.5	1.0			
01 Jul 2010		1.5	1.0	1.5			
01 Jan 2011			1.5	1.0			
01 Jul 2011			0.5	1.5			
01 Jan 2012			0.5	1.5			
01 Jul 2012				1.5			
01 Jan 2013			0.5	1.5			
01 Jul 2013			0.5	2.0			
01 Jan 2014			0.5	1.5			
01 Jul 2014			0.5	1.5			
01 Jan 2015			0.5	2.5	1.0		
01 Jul 2015				2.0	1.0		
01 Jan 2016				2.0	2.5		
01 Jul 2016				2.0	2.0		0.5
01 Jan 2017				2.5	2.0		
01 Jul 2017				3.5	2.0		
01 Jan 2018				3.5	2.0		
01 Jul 2018				3.5	2.0		
01 Jan 2019				2.0	1.5	0.5	
01 Jul 2019				2.0	1.5	1.0	
01 Jan 2020				3.0	1.0	1.0	
01 Jul 2020				1.5	1.5		
01 Jan 2021				1.0	2.0		

Source: Joint Committee calculations based on CEREP and RADAR data

Figure 10: Number of defaulted rated items

	AAA	AA	A	BBB	BB	B	CCC-C
01 Jan 1989		0	0				
01 Jul 1989		0	0				
01 Jan 1990		0	0				
01 Jul 1990		0	0				
01 Jan 1991	0	0	0				
01 Jul 1991	0	0	0	0	0		
01 Jan 1992		0	0	0	0		
01 Jul 1992	0	0	0				
01 Jan 1993	0	0	0	0	0		
01 Jul 1993		0	0	0	0		
01 Jan 1994		0	0	0			
01 Jul 1994		0	0	0			
01 Jan 1995		0	0	0			
01 Jul 1995		0	0	0			
01 Jan 1996			0				
01 Jul 1996			0				
01 Jan 1997			0				
01 Jul 1997	0	0	0				
01 Jan 1998	0	0	0				
01 Jul 1998		0	0				
01 Jan 1999		0	0				
01 Jul 1999		0	0				
01 Jan 2000		0	0				
01 Jul 2000		0	0				
01 Jan 2001		0	0				
01 Jul 2001		0	0	0			
01 Jan 2002		0	0	0			
01 Jul 2002		0	0	0			
01 Jan 2003		0	0	0			
01 Jul 2003		0	0	0			
01 Jan 2004		0		0			
01 Jul 2004		0	0	0			
01 Jan 2005		0	0				
01 Jul 2005		0	0	0			
01 Jan 2006		0	0	0			
01 Jul 2006		0	0	0			
01 Jan 2007		0	0	0			
01 Jul 2007			0				
01 Jan 2008	0		0	0			
01 Jul 2008	0	0	0	0			
01 Jan 2009		0	0	0			
01 Jul 2009		0	0				

01 Jan 2010	0	0	1	
01 Jul 2010	0	0	1	
01 Jan 2011		0	0	
01 Jul 2011		0	0	
01 Jan 2012		0	0	
01 Jul 2012			0	
01 Jan 2013		0	0	
01 Jul 2013		0	0	
01 Jan 2014		0	0	
01 Jul 2014		0	0	
01 Jan 2015		0	0	0
01 Jul 2015				
01 Jan 2016				
01 Jul 2016				
01 Jan 2017				
01 Jul 2017				
01 Jan 2018				
01 Jul 2018				
01 Jan 2019				
01 Jul 2019				
01 Jan 2020				
01 Jul 2020				
01 Jan 2021				

Source: Joint Committee calculations based on CEREP and RADAR data

Figure 11: Mapping proposal for rating categories with a non-sufficient number of credit ratings

Most recent data cohort	**AAA/AA**	**A**	**BBB**	**BB**	**B**
CQS of equivalent international rating category	CQS 1	CQS 2	CQS 3	CQS 4	CQS5
N. observed defaulted items	0	0	0	0	0
Minimum N. rated items	0	0	0	0	0
Observed N. rated items	0	1.5	24.5	14.5	0
Mapping proposal	**CQS 1**	**CQS 2**	**CQS 3**	**CQS 4**	**CQS 5**

Source: Joint Committee calculations based on CEREP and RADAR data

Appendix 4: Mappings of each rating scale

Figure 12: Mapping of ARC's Medium- and long-term issuer rating scale

Credit assessment	Initial mapping *based on LRDR* (CQS)	Review *based on SRDR* (CQS)	Final review *based on qualitative factors* (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 quantitative factors are representative of the final CQS.
CC	6	n.a.	**6**	
C	6	n.a.	**6**	
D	6	n.a.	**6**	The meaning and relative position of the rating category is representative of the final CQS.

Figure 13: Mapping of ARC's Short-term issuer rating scale

Credit assessment	Corresponding Medium- and long-term issuer rating scale assessment	Range of CQS of corresponding Medium- and long-term issuer scale	Final review *based on qualitative factors* (CQS)	Main reason for the mapping
A-1+	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.
A-1	AA-/A-	1 - 2	**2**	
A-2	A-/BBB	2 – 3	**3**	
A-3	BBB/BBB-	3	**3**	
B	BB+/B-	4 – 5	**4**	The final CQS has been determined based on the range of steps associated with the corresponding long-term credit rating category. The risk weights assigned to CQS 4 to CQS 6 are all 150%, therefore CQS 4.
C	C	6	**4**	
D	D	6	**4**	

Figure 14: Mapping of ARC's Medium- and long-term issues rating scale

Credit assessment	Corresponding Medium- and long-term issuer rating scale assessment	Range of CQS of corresponding Medium- and long-term issuer scale	Final review *based on qualitative factors* (CQS)	Main reason for the mapping
AAA	AAA	1	**1**	
AA	AA	1	**1**	
A	A	2	**2**	
BBB	BBB	3	**3**	
BB	BB	4	**4**	The final CQS has been determined based on the most frequent step associated with the corresponding Medium- and long-term issuer rating category.
B	B	5	**5**	
CCC	CCC	6	**6**	
CC	CC	6	**6**	
C	C	6	**6**	
D	D	6	**6**	

Figure 15: Mapping of ARC's Short-term issues rating scale

Credit assessment	Corresponding Short-term issuer rating scale assessment	Range of CQS of corresponding Short-term issuer rating scale	Final review *based on qualitative factors* (CQS)	Main reason for the mapping
A-1+	A-1+	1	**1**	
A-1	A-1	2	**2**	
A-2	A-2	3	**3**	
A-3	A-3	3	**3**	The final CQS has been determined based on the most frequent step associated with the corresponding Short-term issuer rating category.
B	B	4	**4**	
C	C	4	**4**	
D	D	4	**4**	

Figure 16: Mapping of ARC's Insurance Financial Strength Rating Criteria scale

Credit assessment	Corresponding Medium- and long-term issuer rating scale assessment	Range of CQS of corresponding Medium- and long-term issuer scale	Final review *based on qualitative factors* (CQS)	Main reason for the mapping
AAA	AAA	1	**1**	The final CQS has been determined based on the most frequent step associated with the corresponding Medium- and long-term issuer rating category.
AA	AA	1	**1**	
A	A	2	**2**	
BBB	BBB	3	**3**	
BB	BB	4	**4**	
B	B	5	**5**	
CCC	CCC	6	**6**	
CC	CC	6	**6**	
C	C	6	**6**	
D	D	6	**6**	