





**COMMISSION IMPLEMENTING REGULATION (EU) 2016/1799**  
**of 7 October 2016**

**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**

(Text with EEA relevance)

TITLE I

**QUANTITATIVE FACTORS, QUALITATIVE FACTORS AND BENCHMARK**

CHAPTER 1

*Quantitative factors*

*Article 1*

**Quantitative factors of the mapping of a rating category**

The quantitative factors referred to in point (a) of Article 136(2) of Regulation (EU) No 575/2013 shall be the short run and long run default rates associated with items assigned the same rating category, as set out in Articles 2 to 6.

*Article 2*

**Items used for the calculation of the quantitative factors**

The calculation of the default rates referred to in Article 1 for each rating category shall be performed based solely on items assigned the same rating category by the external credit assessment institution (ECAI) for which the mapping is being performed, where the items meet all of the following requirements:

- (a) they belong to the ‘corporate ratings’ referred to in point (a) of Article 3 of Delegated Regulation (EU) 2015/2, and they are assigned on an issuer basis;
- (b) they are assigned either of the following:
  - (i) a solicited credit rating;
  - (ii) an unsolicited credit rating that meets the requirements of Article 138 of Regulation (EU) No 575/2013.



## Section 1

### **Calculation of the quantitative factors of a rating category where a sufficient number of credit ratings is available**

#### *Article 3*

##### **Determination of whether a sufficient number of credit ratings is available**

1. For the purpose of the short run default rate calculation, the number of items assigned the same rating category by the ECAI for which the mapping is being performed shall be deemed sufficiently numerous, where the items meet all of the following requirements:

- (a) they are sufficient with respect to the perceived risk profile of the rating category, considering as an indicator, the number of items representing the inverse of the long run default rate benchmark of the rating category, as referred to in point (a) of Article 14;
- (b) they are representative of the most recent pool of items assigned the same rating category.

2. For the purpose of the long run default rate calculation, the number of items assigned the same rating category by the ECAI for which the mapping is being performed shall be deemed sufficiently numerous where at minimum the most recent 10 short run default rates as referred to in paragraph 1 are available.

#### *Article 4*

##### **Short run default rates of a rating category where a sufficient number of credit ratings is available**

1. Where a sufficient number of credit ratings is available according to Article 3(1), the short run default rates referred to in Article 1 shall be calculated in the manner described in paragraphs 2 to 5.

2. The short run default rates of a rating category shall be calculated over a 3-year time horizon as a ratio where:

- (a) the denominator represents the number of items assigned the same rating category present at the beginning of the time horizon;
- (b) the numerator represents the number of items referred to in point (a) that have defaulted prior to the end of the time horizon.

3. Items withdrawn prior to the end of the time horizon and not defaulted shall only contribute to the denominator of the short run default rates referred to in point (a) of paragraph 2 with a weight equal to 50 %. Any item for which there is evidence that it has been withdrawn prior to the occurrence of a default shall be considered to be a defaulted item.

4. Items shall be considered to be defaulted items to be included in the numerator specified in point (b) of paragraph 2 where any of the following types of event has occurred:

**▼B**

- (a) a bankruptcy filing or legal receivership that will likely cause a miss or delay in future contractually required debt service payments;
- (b) a missed or delayed disbursement of a contractually required interest or principal payment, unless payments are made within a contractually allowed grace period;
- (c) a distressed exchange if the offer implies the investor will receive less value than the promise of the original securities;
- (d) the rated entity is under a significant form of regulatory supervision owing to its financial condition.

5. The short run default rates shall be calculated for each available pool of items assigned the same rating category on semi-annual periods, which are based on 1 January and 1 July of each year.

*Article 5***Long run default rate of a rating category where a sufficient number of credit ratings is available**

1. Where a sufficient number of credit ratings is available in accordance with Article 3, the long run default rate referred to in Article 1 shall be calculated according to paragraphs 2 to 4.

2. The long run default rate shall be calculated as the weighted average of at least the most recent 20 short run default rates calculated according to Article 4(1). If the available short run default rates span a longer period and they are relevant, the short run default rates for that longer period shall be used. Where less than 20 short run default rates calculated according to Article 4(1) are available the remaining short run default rates shall be estimated to span the 20 short run default rates.

3. For the purpose of producing the weighted average referred to in paragraph 2, the short run default rates calculated according to Article 4 shall include the most recent recessionary period. This recessionary period shall span a semester or more of the negative growth rates of the Gross Domestic Products in the main geographical areas of reference of the rated items.

4. For the purpose of producing the weighted average referred to in paragraph 2, the following shall apply:

- (a) the short run default rates calculated according to Article 4(1) shall be weighted based on the number of items specified in point (a) of Article 4(2);
- (b) the estimated short run default rates shall be weighted based on estimates of the number of items assigned the same rating category present at the beginning of the time horizon.

The weights shall ensure an adequate representation of recessionary and non-recessionary years in a full economic cycle.

**▼B**

## Section 2

**Calculation of the quantitative factors of a rating category where a sufficient number of credit ratings is not available***Article 6***Items used and long run default rate of a rating category where a sufficient number of credit ratings is not available**

Where a sufficient number of credit ratings as referred to in Article 3 is not available, the calculation of the long run default rate specified in Article 1 shall be performed according to both the following:

- (a) it shall be based on the estimate provided by the ECAI of the long run default rate associated with all items assigned the same rating category, pursuant to point (a) of Article 136(2) of Regulation (EU) No 575/2013;
- (b) the estimate referred to in point (a) shall be complemented with the number of defaulted and non-defaulted items assigned the rating category by the ECAI for which the mapping is being performed.

## CHAPTER 2

***Qualitative factors****Article 7***Qualitative factors of the mapping of a rating category**

The qualitative factors referred to in point (b) of Article 136(2) of Regulation (EU) No 575/2013 shall be:

- (a) the definition of default considered by the ECAI, as referred to in Article 8;
- (b) the time horizon of a rating category considered by the ECAI, as referred to in Article 9;
- (c) the meaning of a rating category and its relative position within the rating scale established by the ECAI, as referred to in Article 10;
- (d) the creditworthiness of the items assigned the same rating category, as referred to in Article 11;
- (e) the estimate provided by the ECAI of the long run default rate associated with all items assigned the same rating category, pursuant to point (a) of Article 136(2) of Regulation (EU) No 575/2013, as set out in Article 12;
- (f) the relationship established by the ECAI ('internal mapping'), where available, between, on the one hand, the rating category which is being mapped, and, on the other hand, other rating categories produced by the same ECAI, where a mapping for the latter categories has already been set out according to this Regulation, as referred to in Article 13;

**▼B**

- (g) any other relevant information that can describe the degree of risk expressed by a rating category.

*Article 8***Definition of default used by the ECAI**

The type of events considered by the ECAI for the purposes of establishing whether an item is in default situation shall be compared to those specified in Article 4(4) by using all available information. Where the comparison indicates that not all such types of default events have been considered by the ECAI, the quantitative factors referred to in Article 1 shall be adjusted accordingly.

*Article 9***Time horizon of a rating category**

The time horizon considered by the ECAI for assigning a rating category shall provide a relevant indication of whether the level of risk of that rating category is sustainable over the time horizon specified in Article 4(2).

*Article 10***Meaning and relative position of a rating category**

1. The meaning of a rating category established by the ECAI shall be set according to the characteristics of the capacity of financial commitments as reflected in the items assigned such rating category being honoured, and more in particular by its degree of sensitivity to the economic environment and its degree of proximity to the default situation.
2. The meaning of a rating category shall be compared to the one established for each credit quality step, as set out in Article 15.
3. The meaning of a rating category shall be considered in combination with its relative position within the rating scale established by the ECAI.

*Article 11***Creditworthiness of items assigned the same rating category**

1. The creditworthiness of items assigned the same rating category shall be determined by considering at least their size and the degree of sector and geographical diversification of their business activity.
2. Different measures of creditworthiness assigned to items of the same rating category may be used, to the extent appropriate, to complement the information provided by the quantitative factors referred to in Article 1 where they are reliable and relevant for the mapping.

**▼B***Article 12***Estimate provided by the ECAI of the long run default rate associated with all items assigned the same rating category**

The estimate provided by the ECAI of the long run default rate associated with all items assigned the same rating category shall be taken into account for the purpose of the mapping as long as it has been adequately justified.

*Article 13***Internal mapping of a rating category established by the ECAI**

The corresponding credit quality step of other rating categories produced by the same ECAI for which an internal mapping exists according to point (f) of Article 7 shall be used as a relevant indication of the level of risk of the rating category which is being mapped.

*CHAPTER 3****Benchmark and related references****Article 14***Benchmark**

The benchmark referred to in point (c) of Article 136(2) of Regulation (EU) No 575/2013, shall be distinguished in:

- (a) a long-run default rate benchmark for each credit quality step as set out in Table 1 of Annex I;
- (b) a short-run default rate benchmark for each credit quality step as set out in Table 2 of Annex I.

*Article 15***Reference meaning of the rating category per credit quality step**

The reference meaning of a rating category that corresponds to each credit quality step is set out in Annex II.

## TITLE II

**MAPPING TABLES***Article 16***Mapping tables**

The correspondence of the rating categories of each ECAI with the credit quality steps set out in Section 2 of Chapter 2 of Title II of Part Three of Regulation (EU) No 575/2013 is that set out in Annex III.

**▼B**

TITLE III  
**FINAL PROVISION**

*Article 17*

**Entry into force**

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

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





## ANNEX I

## Benchmarks for the purposes of Article 14

Table 1

**Long-run benchmark  
(3-year time horizon)**

Credit Quality Step	Long run benchmark		
	Mid value	Lower bound	Upper bound
1	0,10 %	0,00 %	0,16 %
2	0,25 %	0,17 %	0,54 %
3	1,00 %	0,55 %	2,39 %
4	7,50 %	2,40 %	10,99 %
5	20,00 %	11,00 %	26,49 %
6	34,00 %	26,50 %	100,00 %

Table 2

**Short run benchmarks  
(3-year time horizon)**

Credit Quality Step	Short run benchmarks	
	Monitoring level	Trigger level
1	0,80 %	1,20 %
2	1,00 %	1,30 %
3	2,40 %	3,00 %
4	11,00 %	12,40 %
5	28,60 %	35,00 %
6	not applicable	not applicable



## ANNEX II

**Reference meaning of the rating category per credit quality step for the purposes of Article 15**

Credit Quality Step	Meaning of the rating category
1	The rated entity has extremely/very strong capacity to meet its financial commitments and is subject to minimal/very low credit risk.
2	The rated entity has strong capacity to meet its financial commitments and is subject to low credit risk but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than rated entities in CQS 1.
3	The rated entity has adequate capacity to meet its financial commitments and is subject to moderate credit risk.  However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the rated entity to meet its financial commitments.
4	The rated entity has the capacity to meet its financial commitments but is subject to substantial credit risk.  It faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions, which could lead to the rated entity's inadequate capacity to meet its financial commitments.
5	The rated entity has the capacity to meet its financial commitments but is subject to high credit risk.  Adverse business, financial, or economic conditions will likely impair the rated entity's capacity or willingness to meet its financial commitments.
6	The rated entity is currently vulnerable or highly vulnerable and is subject to very high credit risk, including in or very near to default.  It is dependent upon favourable business, financial, and economic conditions to meet its financial commitments.

## ANNEX III

## Mapping tables for the purposes of Article 16

Credit quality step	1	2	3	4	5	6
<i>AM Best Europe-Rating Services Ltd</i>						
Long-term issuer credit ratings scale	aaa, aa+, aa, aa-	a+, a, a-	bbb+, bbb, bbb-	bb+, bb, bb-	b+, b, b-	ccc+, ccc, ccc-, cc, c, rs
Long-term debt ratings scale	aaa, aa+, aa, aa-	a+, a, a-	bbb+, bbb, bbb-	bb+, bb, bb-	b+, b, b-	ccc+, ccc, ccc-, cc, c, d
Financial strength ratings scale	A++, A+	A, A-	B++, B+	B, B-	C++, C+	C, C-, D, E, F, S
Short-term ratings scale	AMB-1+	AMB-1-	AMB-2, AMB-3	AMB- 4		
<i>ARC Ratings S.A.</i>						
Medium- and long-term issuers rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Medium- and long-term issues rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Short-term issuers rating scale	A-1+	A-1	A-2, A-3	B, C, D		
Short-term issues rating scale	A-1+	A-1	A-2, A-3	B, C, D		
<i>ASSEKURATA Assekuranz Rating-Agentur GmbH</i>						
Long-term credit rating scale	AAA, AA	A	BBB	BB	B	CCC, CC/C, D
Short-term corporate rating scale	A++	A		B, C, D		
<i>Axesor SA</i>						
Global rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D, E
<i>Banque de France</i>						
Global long-term issuer credit ratings scale	3++	3+, 3	4+	4, 5+	5, 6	7, 8, 9, P

## ▼ M1

<i>BCRA – Credit Rating Agency AD</i>						
Bank long-term ratings scale	AAA, AA	A	BBB	BB	B	C, D
Insurance long-term ratings scale	iAAA, iAA	iA	iBBB	iBB	iB	iC, iD
Corporate long-term ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Municipality long-term ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Issue long-term ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Bank short-term ratings scale	A-1+	A-1	A-2, A-3	B, C, D		
Corporate short-term ratings scale	A-1+	A-1	A-2, A-3	B, C, D		
Municipality short-term ratings scale	A-1+	A-1	A-2, A-3	B, C, D		
Issue short-term rating scale	A-1+	A-1	A-2, A-3	B, C, D		
<i>Capital Intelligence Ltd</i>						
International long-term issuer rating scale	AAA, AA	A	BBB	BB	B	C, RS, SD, D
International long-term issue rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
International short-term issuer rating scale	A-1+	A-1	A-2, A-3	B, C, D		
International short-term issue rating scale	A-1+	A-1	A-2, A-3	B, C, D		
<i>Cerved Rating Agency S.p.A.</i>						
Corporate long-term rating scale	A1.1, A1.2, A1.3	A2.1, A2.2, A3.1	B1.1, B1.2	B2.1, B2.2	C1.1	C1.2, C2.1
<i>Creditreform Ratings AG</i>						
Long-term rating scale	AAA, AA	A	BBB	BB	B	C, D
<i>CRIF S.p.A.</i>						
Global long-term rating scale	AAA, AA	A	BBB	BB	B	CCC, D1, D2

## ▼ M1

<i>Dagong Europe Credit Rating</i>						
Long-term credit rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Short-term credit rating scale	A-1		A-2, A-3	B, C, D		
<i>DBRS Ratings Limited</i>						
Long-term obligations rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Commercial paper and short-term debt rating scale	R-1 H, R-1 M	R-1 L	R-2, R-3	R-4, R-5, D		
Claims paying ability rating scale	IC-1	IC-2	IC-3	IC-4	IC-5	D
<i>Egan-Jones Ratings Co.</i>						
Long-term credit rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Short-term credit rating scale	A-1+	A-1	A-2	A-3, B, C, D		
<i>Euler Hermes Rating GmbH</i>						
Global long-term rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, SD, D
<i>European Rating Agency, a.s.</i>						
Long-term rating scale		AAA, AA, A	BBB	BB	B	CCC, CC, C, D
Short-term rating scale		S1	S2	S3, S4, NS		
<i>EuroRating Sp.zo.o.</i>						
Global long-term rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
<i>Fitch Ratings</i>						
Long-term issuer credit ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, RD, D
Corporate finance obligations – long-term ratings scale	AAA AA	A	BBB	BB	B	CCC, CC, C
Long-term international IFS ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C
Short-term rating scale	F1+	F1	F2, F3	B, C, RD, D		

▼ **M1**

Short-term IFS ratings scale	F1+	F1	F2, F3	B, C		
<i>GBB-Rating Gesellschaft für Bonitäts-beurteilung mbH</i>						
Global long-term rating scale	AAA, AA		A, BBB	BB	B	CCC, CC, C, D
<i>HR Ratings de México, S.A. de C.V.</i>						
Global long-term rating scale	HR AAA(G)/HR AA(G)	HR A(G)	HR BBB(G)	HR BB(G)	HR B(G)	HR C(G)/HR D(G)
Global short-term rating scale	HR+1(G)/HR1(G)	HR2(G)	HR3(G)	HR4(G), HR5(G), HR D(G)		
<i>ICAP Group S.A</i>						
Global long-term rating scale	AA, A		BB, B	C, D	E, F	G, H
<i>INC Rating Sp. z o.o.</i>						
Long-term issuer credit rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
<i>Japan Credit Rating Agency Ltd</i>						
Long-term issuer ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, LD, D
Long-term issue ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Short-term issuer ratings scale	J-1+	J-1	J-2	J-3, NJ, LD, D		
Short-term issue credit ratings scale	J-1+	J-1	J-2	J-3, NJ, D		
<i>Kroll Bond Rating Agency</i>						
Long-term credit rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Short-term credit rating scale	K1+	K1	K2, K3	B, C, D		

## ▼ M1

<i>modeFinance S.r.l.</i>						
Global long-term rating scale	A1,A2	A3	B1	B2	B3	C1, C2, C3, D
<i>Moody's Investors Service</i>						
Global long-term rating scale	Aaa, Aa	A	Baa	Ba	B	Caa, Ca, C
Bond fund rating scale	Aaa-bf, Aa-bf	A-bf	Baa-bf	Ba-bf	B-bf	Caa-bf, Ca-bf, C-bf
Global short-term rating scale	P-1	P-2	P-3	NP		
<i>Rating-Agentur Expert RA GmbH</i>						
International credit rating scale	AAA, AA	A	BBB	BB	B	CCC,CC, C, D, E
International reliability rating scale	AAA, AA	A	BBB	BB	B	CCC,CC, C, D, E
<i>Scope Ratings AG</i>						
Global long-term rating scale	AAA, AA	A	BBB	BB	B	CCC, CC,C, D
Global short-term rating scale	S-1+	S-1	S-2	S-3, S-4		
<i>Spread Research</i>						
International long-term rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
<i>Standard &amp; Poor's Ratings Services</i>						
Long-term issuer credit ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, R, SD/D
Long-term issue credit ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Insurer financial strength ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, SD/D, R
Fund credit quality ratings scale	AAAf, AAf	Af	BBBf	BBf	Bf	CCCf
Mid Market Evaluation ratings scale		MM1	MM2	MM3, MM4	MM5, MM6	MM7, MM8, MMD

▼ M1

Short-term issuer credit ratings scale                      A-1+                      A-1                      A-2, A-3                      B, C, R, SD/D

Short-term issue credit ratings scale                      A-1+                      A-1                      A-2, A-3                      B, C, D

---

*The Economist Intelligence Unit Ltd*

---

Sovereign rating band scale                      AAA, AA                      A                      BBB                      BB                      B                      CCC, CC, C, D

---