JOINT COMMITTEE OF THE EUROPEAN SUPERVISORY AUTHORITIES

Amended Draft Mapping of Banque de France's 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 Banque de France (BdF), with respect to the version published in November 2015.

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 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 and BdF has introduced a new credit rating scale.

4. The mapping should not be understood as a comparison of the rating methodologies of BdF with those of other ECAIs. This mapping should however be interpreted as the correspondence of the rating categories of BdF 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.

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 should be relaxed. This allows ECAIs which present limited quantitative information to enter the market and increases competition. Updates to the mapping should be made wherever

[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).

this becomes necessary to reflect additional quantitative information collected after the entry into force of the revised draft ITS.

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 rating scales of BdF.

Figure 1: Mapping of BdF Global long-term issuer credit ratings scale

Credit assessment	Credit quality step
3++	1
3+	2
3	2
4+	3
4	4
5+	4
5	5
6	5
7	6
8	6
9 (Default)	6
P (Failure)	6

Figure 2: Mapping of BdF Global NEC long-term issuer credit rating scale

Credit assessment	Credit quality step
1+	1
1	2
1-	2
2+	3
2	3
2-	3
3+	4
3	4
3-	4
4+	4
4	4
4-	4
5+	4
5	5
5-	5
6+	5
6	5
6-	5
7	6
8	6
P	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 Banque de France (BdF), with respect to the version published in November 2015.

8. BdF is a credit rating agency that is not registered with ESMA due to its National Central Bank status. However, it meets the conditions to be an eligible credit assessment institution (ECAI) as per article Article 4(1) subparagraph 98 of the CRR.

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. Since BdF does not report its rating information to ESMA Central Repository (CEREP[2]), all necessary information has been directly requested to BdF. In particular, quantitative and qualitative information has been used to obtain an overview of the main characteristics of this ECAI and to calculate the default rates of its credit assessments.

10. The following sections describe the rationale underlying the mapping exercise carried out by the Joint Committee (JC). Section 3 describes the relevant ratings scales of BdF for the purpose of the mapping. Section 4 contains the methodology applied to derive the mapping of BdF's rating scales. The mapping tables are shown in Appendix 4 of this document and have been specified in Annex III of the Consultation Paper on the ITS on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of the CRR.

[2] CEREP is the central repository owned by ESMA to which all registered/certified CRAs have to report their credit assessments. http://cerep.esma.europa.eu/cerep-web/.

3. BdF credit ratings and rating scales

11. BdF produces one type of credit ratings, the **Long-term issuer rating**, which may be used by institutions for the calculation of risk weights under the Standardised Approach (SA)[3] , as shown in column 2 of Figure 2 in Appendix 1.

12. BdF assigns these credit ratings to the **Global long-term issuer credit ratings scale** or the **Global NEC long-term issuer credit rating scale** as illustrated in column 3 of Figure 2 in Appendix 1. Therefore, a specific mapping has been prepared for these rating scales. The specification of the rating scales are described in Figures 4 and 5 of Appendix 1.

4. Mapping of BdF's credit ratings scales

13. The mapping of the credit ratings scales 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.

14. The Implementing Regulation on Mapping adopted by the Commission in October 2016 provided a correspondence between the credit assessments of BdF and the Credit Quality Steps set out in the Standardised Approach chapter of the Capital Requirements Regulation. This mapping allows the determination of capital requirements under the SA, for those exposure classes where the CRR establishes a relationship between Credit Quality Steps and risk weights.

15. Regarding the qualitative factors underpinning the mapping, BdF has not reported any change concerning:

a. Rating scale (including removal of existing scales, amendments of existing scales including the meaning of rating categories, or introduction of new scales),

b. Entrance in the solicited/unsolicited business for some of their existing rating types,

c. Introduction of new types of ratings clarifying which solicitation status they have (e.g. corporate, unsolicited),

d. Introduction of new credit ratings (e.g. bank deposit ratings),

e. Material changes in the methodology (e.g. regarding base assumptions or underlying models) that would motivate a significant shift in the default rate behaviour of your rating categories. Please include changes in the definition of default and in the time horizon of the credit assessment.

[3] 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.

16. Banque de France has completed a questionnaire to assess the qualitative factors underpinning the mapping.

17. As per article 13 of the Implementing Regulation, the internal mapping of a rating category established by the ECAI is used as a relevant indication of the level of risk of the rating category to be mapped.

Figure 3: Internal correspondence between rating scales

NEC rating scale	Existing scale
1+	3++
1	3+
1-	3
2+	4+
2	4+
2-	4+
3+	4
3	4
3-	4
4+	4
4	5+
4-	5+
5+	5+
5	5
5-	5
6+	5
6	6
6-	6
7	7
8	8 / 9
P	P

Source: BdF.

18. Given that no quantitative information available is yet available, the internal relationship between the exisiting rating scale and the NEC rating scale has been used as the main element to derive the mapping of the NEC rating scale.

19. More specifically, as each rating category of the new credit rating scale can be associated with a range of rating categories in the old rating scale, the CQS assigned has been determined based on the most frequently CQS assigned to the related rating categories of the existing scale. In case of draw, the most conservative CQS has been considered.

Figure 4: Preliminary mapping of NEC rating scale based on the internal relationship

Credit assessment	Corresponding rating category existing scale	CQS range of corresponding rating category
1+	3++	CQS 1
1	3+	CQS 2
1-	3	CQS 2
2+	4+	CQS 3
2	4+	CQS 3
2-	4+	CQS 3
3+	4	CQS 4
3	4	CQS 4
3-	4	CQS 4
4+	4	CQS 4
4	5+	CQS 4
4-	5+	CQS 4
5+	5+	CQS 4
5	5	CQS 5
5-	5	CQS 5
6+	5	CQS 5
6	6	CQS 5
6-	6	CQS 5
7	7	CQS 6
8	8 / 9	CQS 6
P	P	CQS 6

20. Further, the mapping has been challenged using additional qualitative information. Article 12 of the Implementing Regulation specifies that ECAIs should provide **an estimate of the long-run default rate** associated with all items assigned the same rating category. To overcome the lack of data, BdF has performed the following analysis to provide the estimation:

    a. Step 1: estimation of the impact of the qualitative analysis on the quantitative statistical rating based on observed historical data on period 2007 - 2016. Such calculations have been carried out with the methodology in force during that period. This estimation measures the ability of analysts to discriminate less risky / riskier companies for a given statistical rating.

    b. Step 2: calculation of the default rate associated with the statistical rating under the new methodology. Then integration of the qualitative effect measured in step 1, to the default rate associated with the statistical part of the new methodology.

Figure 5: Estimated long-run default rate, by credit rating category

Credit assessment	Estimated long-run default rate
1+	0.0%
1	0.0%
1-	0.0%
2+	0.1%
2	0.1%
2-	0.2%
3+	0.3%
3	0.4%
3-	0.5%
4+	1.1%
4	2.2%
4-	3.3%
5+	3.3%
5	7.3%
5-	7.0%
6+	8.0%
6	10.5%
6-	30.6%
7	31.3%
8	47.5%

21. The comparison of the estimated long-run default rate with the long-run benchmarks established in article 14 of the Implementing Regulation, please see figure 7 in the Annex, would yield a more favourable allocation of credit quality steps for a number of rating categories, with respect to the analysis resulting from the internal mapping between the new and the old rating scale. However, the estimate of the log-run default rate should be taken with caution given the lack of data backing the performance of the scale and therefore it is not recommended to upgrade the mapping based on this factor. The performance of the new rating scale will be monitored against the actual data collected over time. This will allow to adjust the mapping if needed, would the rating information warrant to do so.

22. Regarding the **definition of default,** Banque de France meets all the benchmark default events specified in Article 8 of the Regulation. A breakdown of actual defaults registered by Banque de France shows that bankruptcies represent around half of the total default events, proving through the data that Banque de France applies a strict definition of default. Therefore no adjustment is proposed based on this factor.

23. Regarding the **time horizon** reflected by the rating category, BdF rating methodology focuses on a three-year horizon, consistent with article 4(2).

24. Based on the above considerations, the proposed mapping for the new rating scale of Banque de France is shown in Figure 9.

Appendix 1: Credit ratings and rating scales

Figure 6: BdF relevant credit ratings and rating scales

SA exposure classes	Name of credit rating	Credit rating scale
Long-term ratings		
Corporates	Long-term issuer rating	Global long-term issuer credit ratings scale
Corporates	Long-term issuer rating	Global NEC long-term issuer credit ratings scale

Source: BdF

Figure 7: Global long-term issuer credit ratings scale

Rating category	Meaning of the credit assessment
3++	The company displays excellent earning power and excellent solvency. The ability of the company to meet its financial commitments is considered excellent. The financial situation is particularly satisfactory. Furthermore, the company has an excellent ability to withstand unfavourable changes in its environment or the occurrence of particular events.
3+	A credit rating of 3+ is assigned when one or more of the financial conditions required for awarding a credit rating of 3++ are not met, although without warranting the assignment of credit rating 3. The ability of the company to meet its financial commitments is, however, considered very good. The financial situation is very satisfactory, although the company's ability to withstand unfavourable changes in its environment or the occurrence of particular events, whilst being very high, may not reach that required for assignment of credit rating 3++.
3	The company has in principle satisfactory earning power and solvency. The ability of the company to meet its financial commitments is considered good. The financial situation may also be particularly satisfactory or very satisfactory but the company's ability to withstand unfavourable changes in its environment or the occurrence of particular events, whilst being high, may not reach that required for assignment of credit rating 3++ or 3+. On an exceptional basis, in situations where earning power is only just satisfactory and is compensated for by excellent solvency, a credit rating of 3+ rather than 3 may be assigned.
4+	The financial situation, assessed on the basis of recent accounting records, does not display the robust characteristics that would allow the assignment of a more favourable rating. The company's ability to meet its financial commitments is deemed to be quite good but the company's financial situation displays moderate elements of uncertainty or fragility. No potential risks are anticipated in the company's liquidity.
4	Factors of uncertainty or fragility are more pronounced than for a rating of 4+, without there apparently being any financial imbalances, and notably when weaknesses relating to earning power, financial autonomy, liquidity or solvency are observed. The company's ability to meet its financial commitments is still deemed to be acceptable, taking account in particular of these more pronounced elements of uncertainty or fragility.

5+	Financial imbalances remain limited, notably in situations where: self-financing capacity is positive ; and when the company does not display very insufficient earning power at the same time as a very high level of debt. The ability of the company to meet its financial commitments is deemed to be fairly poor.
5	Financial imbalances observed are more pronounced, nonetheless without being considered "serious". The financial situation displays pronounced imbalances relating, for example, to earning power or the financial structure, in particular when: self-financing capacity is negative; or, together with this, earning power is insufficient or negative and the financial debt rate is very high. The ability of the company to meet its financial commitments is considered poor.
6	Very poor ability to meet its financial commitments. The company's financial position displays serious financial imbalances (e.g. earning power has been strongly negative over three consecutive financial years; self-financing capacity has been strongly negative, given the level of business, for three consecutive financial years; financial charges have accounted for a very high percentage of EBITDA for three financial years; equity is negative or drastically reduced by losses (especially if it has dropped to less than half of the equity capital); liquidity risk is very high). In the case of limited companies, if equity is less than half of the equity capital throughout the 36 months after the date of the annual general meeting or the date of the balance sheet on which losses were first observed, or if equity is negative, in principle this results in a rating of 6. However, the network unit may prefer to assign a credit rating of 5+ when shareholders or partners have decided to continue the business, taking the following into consideration: (i) if the financial structure remains adequate, even though half of the equity capital has been lost (for example, the overall risk coverage rate and financial debt rate are at satisfactory levels); (ii) the partners' equity contribution, in the form of partners' current accounts, is sufficient to raise shareholders' capital to more than half of the equity capital (the financial situation also not displaying other factors of imbalance likely to warrant a credit rating of 5 or 6). Furthermore, after a period of 36 months following the date of the annual general meeting or the date of the balance sheet on which the loss of more than half the capital was first observed, in the event that the company did not have a credit rating of 5+ in one of the above situations, a credit rating of 5 replaces the rating of 6, on condition nevertheless that the financial situation does not display any imbalances that are considered serious (credit rating 5+ is maintained if the company satisfies all conditions associated with this credit rating of 5+).

7	Credit rating 7 is automatically assigned to non-significant companies for which at least one payment incident arising from a unit amount equal to or more than €1,524 on the grounds of "inability to pay" (apart from reason 31) is stated during the previous 6 months. BdF does not investigate a company's accounting records on the sole grounds that declarations of payment incidents have been recorded in its name, if this company's turnover before tax is below the threshold used for collecting the aforementioned records. In the case of companies rated without an analysis of accounting records, credit rating 7 necessarily replaces credit ratings 0, 4, 5+, 5, 6. Credit rating 7 is assigned to a company on condition that the number of payment incidents stated does not result in a credit rating of 8 or 9 and that it is not the subject of a judicial procedure that warrants a credit rating of P. Credit rating 7 may also be assigned to significant companies for which at least one payment incident arising from a unit amount equal to or more than €1,524 on the grounds of "inability to pay" (apart from reason 31) is stated during the previous 6 months and when the total outstanding for this same reason is less than the thresholds for assigning ratings 8 and 9. Credit rating 7 "with balance sheet" is not automatic: its assignment is subject to an analyst's decision. However, an in-depth analysis of a company's situation should only be conducted selectively. It will in particular need to be carried out when the active credit rating is favourable (from 3++ to 4+) or when the outstanding amount appears to be low in comparison with the size of the company (turnover rating A to D). The existence of a Basel default is an aggravating factor in the assignment of rating 7 to a major company.
8	In the absence of a court ruling resulting in a P rating, credit rating 8 is assigned to companies whose payments are irregular. The company's ability to meet its financial commitments is considered to be at risk taking account of stated payment incidents.
9	(Default) In the absence of a court ruling resulting in a P rating, credit rating 9 is assigned to companies whose payments are very irregular. The company's ability to meet its financial commitments is compromised and stated payment incidents indicate a cash burden.
P	Failure

Source: BdF

Figure 8: Global NEC long-term issuer credit rating scale

Rating category	Meaning of the credit assessment
1+	Excellent + +
1	Excellent +
1-	Excellent
2+	Very satisfactory + +
2	Very satisfactory +
2-	Very satisfactory
3+	Strong + +
3	Strong +
3-	Strong
4+	Good +
4	Good
4-	Intermediary +
5+	Intermediary –
5	Fragile
5-	Quite Weak
6+	Weak
6	Very Weak
6-	Faces major uncertainties
7	Currently vulnerable
8	Currently highly vulnerable
P	Bankruptcy

Source: BdF

Appendix 2: Definition of default

BdF adopts two concepts corresponding to a more or less comprehensive definition of default:

– a company is said to be in "**failure**" if legal proceedings (reorganisation procedure or judicial winding up) have been initiated against it, whereby the company receives a P rating. Even when this rating is replaced by a more favourable rating, for example following a business continuation plan, the company nonetheless remains in the "failure" category for statistical calculations;

– a company is said to be in "**default**" if legal proceedings have been initiated against it or if the company receives a rating of 9 during the period of observation following trade bill payment incidents declared by one or several credit institutions. The period considered for the assigning of this rating is the past six months. Thus, after the allocation of a rating of 9, if a company's payments become regular again, it can be upgraded from the "default" category and assigned a more favourable rating, following a comprehensive study by the analyst. The company's rating nonetheless remains within the "default" category for statistical calculations.

By definition, the default rate calculated for a given population is thus always greater than or equal to the probability of failure and the default rate for companies initially rated 9 is 100%.

The concept of business failure is used as a reference to measure the BdF's performance within the framework of the system of reporting to the European Central Bank (ECB) by national central banks that rate private credit. This objective opinion of risk is widely made available, almost immediately, as soon as the declaration is made.

The concept of default, which is more extensive, is based on information from the database of trade bill payment incidents (CIPE) managed by the BdF by virtue of regulation n° 86-08 of the Banking regulations committee, dated 27 February 1986. The CIPE receives and centralises declarations by credit institutions of trade bill payment incidents. Their gravity influences the rating level, from 7 (trade bill payment incidents arising from the company's inability to pay for the past 6 months) to 8 (on the basis of payment incidents reported over the past 6 months, the company's solvency is under threat), or 9 (on the basis of payment incidents reported over the past 6 months, the company's solvency is seriously compromised).

In comparison with business failure, default identified through payment incidents allows defaults to be detected earlier and more comprehensively. Indeed, the high delinquency rate of companies rated 9 that record major payment incidents and rarely experience a revival of fortune warrants the inclusion of this last credit rating in a default category consistent with the definition given by the Basel Committee.

The default considered here is limited to bills of exchange and is not measured with aggregate debt, although the significance of trade credit in the financing of companies makes it particularly appropriate to consider these payment incidents in the analysis of credit risk.

This concept of default also provides a good compromise between the requirements of predictive power and stability:

- a sufficiently predictable indicator because the default on trade bills often precedes the default on banking loans, which in turn precedes the default on bonds and the “legal” default established by the initiation of insolvency proceedings (because the latter two bring to light the company’s difficulties)

- a sufficiently “stable” indicator to be operational, as it is not associated with an excessively rapid or high rate of return to “healthy” categories .

Source: BdF

Appendix 3: Mappings of each rating scale

Figure 9: Mapping of BdF Global NEC long-term issuer credit rating scale

Credit assessment	Corresponding rating category existing scale	CQS range of corresponding rating category	Final review *based on qualitative factors*	Main reason for the mapping
1+	3++	CQS 1	**CQS 1**	The final CQS has been determined based on the most frequent step associated with the corresponding credit rating category of the existing credit rating scale.
1	3+	CQS 2	**CQS 2**	
1-	3	CQS 2	**CQS 2**	
2+	4+	CQS 3	**CQS 3**	
2	4+	CQS 3	**CQS 3**	
2-	4+	CQS 3	**CQS 3**	
3+	4	CQS 4	**CQS 4**	
3	4	CQS 4	**CQS 4**	
3-	4	CQS 4	**CQS 4**	
4+	4	CQS 4	**CQS 4**	
4	5+	CQS 4	**CQS 4**	
4-	5+	CQS 4	**CQS 4**	
5+	5+	CQS 4	**CQS 4**	

5	5	CQS 5	**CQS 5**
5-	5	CQS 5	**CQS 5**
6+	5	CQS 5	**CQS 5**
6	6	CQS 5	**CQS 5**
6-	6	CQS 5	**CQS 5**
7	7	CQS 6	**CQS 6**
8	8 / 9	CQS 6	**CQS 6**
P	P	CQS 6	**CQS 6**