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# Mapping of Fitch Ratings Services' credit assessments under the Standardised Approach

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## 1. Executive summary

1. This report describes the mapping exercise carried out by the Joint Committee to determine the 'mapping'<sup>1</sup> of the credit assessments of Fitch Ratings (Fitch).
2. The methodology applied to produce the mapping is the one specified in the Implementing Technical Standards on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR). These ITS employ a combination of the provisions laid down in Article 136(2) of Regulation (EU) No 575/2013.
3. The mapping neither constitutes the one which ESMA shall report on in accordance with Article 21(4b) of Regulation (EC) No 1060/2009 (Credit Rating Agencies Regulation - CRA) with the objective of allowing investors to easily compare all credit ratings that exist with regard to a specific rated entity<sup>2</sup> nor should be understood as a comparison of the rating methodologies of Fitch with those of other ECAIs. This mapping should however be interpreted as the correspondence of the rating categories of Fitch 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. The resulting mapping tables have been specified in Annex III of the Implementing Technical Standards on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013. Figure 1 below shows the result for the main ratings scale of Fitch, the Long-term issuer credit rating scale.

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<sup>1</sup> 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).

<sup>2</sup> In this regard please consider [http://www.esma.europa.eu/system/files/esma\\_\\_2015-1473\\_report\\_on\\_the\\_possibility\\_of\\_establishing\\_one\\_or\\_more\\_mapping....pdf](http://www.esma.europa.eu/system/files/esma__2015-1473_report_on_the_possibility_of_establishing_one_or_more_mapping....pdf).

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

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

## 2. Introduction

5. This report describes the mapping exercise carried out by the Joint Committee (JC) to determine the ‘mapping’ of the credit assessments of Fitch Ratings (Fitch).
6. Fitch is a credit rating agency that has been registered with ESMA in 31 October 2011 and therefore meets the conditions to be an eligible credit assessment institution (ECAI)<sup>3</sup>. Fitch is an international credit rating agency that encompasses more than 30 separate ratings companies operating across more than 50 offices worldwide.
7. The methodology applied to produce the mapping is the one specified in the Implementing Technical Standards on the mapping of ECAIs’ credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR). These ITS employ a combination of the provisions laid down in Article 136(2) of Regulation (EU) No 575/2013. The information base used to produce the mapping is the same that has been employed when performing the first mapping proposal which was disclosed during the consultation period to these ITS. Two sources of information have been used. On the one hand, the quantitative and qualitative information available in ESMA Central Repository (CEREP<sup>4</sup>) has been used to obtain an overview of the main characteristics of this ECAI and to calculate the default rates of its credit assessments. On the other hand, specific information has also been directly requested to the ECAI for the purpose of the mapping, especially the list of relevant credit assessments and detailed information regarding the default definition.
8. The following sections describe the rationale underlying the mapping exercise carried out by the Joint Committee (JC) to determine the applicable mapping. Section 3 describes the relevant ratings scales of Fitch for the purpose of the mapping. Section 4 contains the methodology applied to derive the mapping of Fitch main ratings scale whereas Sections 5 and 6 refer to the mapping of its remaining relevant ratings scales. The mapping tables are shown in Appendix 4 of this document and have been specified in Annex III of the Implementing Technical Standards on the mapping of ECAIs’ credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013.

## 3. Fitch credit ratings and rating scales

9. Fitch 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)<sup>5</sup>:

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<sup>3</sup> It is important to note that the mapping does not contain any assessment of the registration process of Fitch carried out by ESMA.

<sup>44</sup> CEREP is the central repository owned by ESMA to which all registered/certified CRAs have to report their credit assessments. <http://cerrep.esma.europa.eu/cerep-web/>.

<sup>5</sup> As explained in recital 4 of the 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.

- **Long-term issuer default ratings (IDR)** - Rated entities in a number of sectors, including financial and non-financial corporations, sovereigns and insurance companies, are generally assigned Issuer Default Ratings (IDRs). IDRs opine on an entity's relative vulnerability to default on financial obligations. The "threshold" default risk addressed by the IDR is generally that of the financial obligations whose non-payment would best reflect the uncured failure of that entity. As such, IDRs also address relative vulnerability to bankruptcy, administrative receivership or similar concepts, although the agency recognizes that issuers may also make pre-emptive and therefore voluntary use of such mechanisms.
- **Long-term corporate finance obligation ratings** - Ratings of individual securities or financial obligations of a corporate issuer address relative vulnerability to default on an ordinal scale. In addition, for financial obligations in corporate finance, a measure of recovery given default on that liability is also included in the rating assessment. This notably applies to covered bonds ratings, which incorporate both an indication of the probability of default and of the recovery given a default of this debt instrument.
- **Insurer financial strength (IFS) ratings** - provides an assessment of the financial strength of an insurance organization. The IFS Rating is assigned to the insurance company's policyholder obligations, including assumed reinsurance obligations and contract holder obligations, such as guaranteed investment contracts. The IFS Rating reflects both the ability of the insurer to meet these obligations on a timely basis, and expected recoveries received by claimants in the event the insurer stops making payments or payments are interrupted, due to either the failure of the insurer or some form of regulatory intervention. In the context of the IFS Rating, the timeliness of payments is considered relative to both contract and/or policy terms but also recognizes the possibility of reasonable delays caused by circumstances common to the insurance industry, including claims reviews, fraud investigations and coverage disputes.
- **International fund credit ratings**, defined as a rating on a particular security or obligor, although the same scale is used as for the International long-term credit ratings. The ratings only measure the aggregate credit risk of a portfolio and do not measure the expectation of default risk for a fund itself as a fund generally cannot default. Fund Credit Ratings may be accompanied by Fund Volatility Ratings to distinguish them from Long-Term Credit Ratings. In the absence of a Volatility Rating, a 'V-NR' designation is used to provide full transparency and differentiation from obligor or security-level ratings. International Fund Credit Ratings do not address any risk other than credit risk.
- **Short-term issuer/obligation ratings**, based in all cases on the short-term vulnerability to default of the rated entity or security stream and relates to the capacity to meet financial obligations in accordance with the documentation governing the relevant obligation. Short-Term Ratings are assigned to obligations whose initial maturity is viewed as "short term" based on market convention. Typically, this means up to 13 months for corporate,

sovereign, and structured obligations, and up to 36 months for obligations in U.S. public finance markets.

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

- **Long-term issuer credit ratings scale.** The specification of this rating scale is described in Figure 3 of Appendix 1.
- **Corporate finance obligations long-term ratings scale.** The specification of this rating scale is described in Figure 4 of Appendix 1.
- **Long-term international IFS ratings scale.** The specification of this rating scale is described in Figure 5 of Appendix 1.
- **Short-term ratings scale.** The specification of this rating scale is described in Figure 6 of Appendix 1.
- **Short-term IFS ratings scale.** The specification of this rating scale is described in Figure 7 of Appendix 1.

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

12. The mapping of the Short-term ratings scale is explained in Section 5 and it has been indirectly derived from the mapping of the Long-term issuer credit ratings scale and the internal relationship established by Fitch between these two scales, as specified in Article 13 of the ITS. This internal relationship is shown in Figure 8 of Appendix 1.

13. The indirect mapping approach described in the previous paragraph has also been applied in the case of the other long-term and short-term rating scales, as explained in Section 6. In these cases, however, the relationship with the Long-term issuer credit ratings scale (or Short-term ratings 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 Fitch's Long-term issuer credit ratings scale

14. The mapping of the Long-term issuer credit ratings 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.

15. In the first stage, the quantitative factors referred to in Article 1 of the ITS have been taken into account to differentiate between the levels of risk of each rating category:

- The *long run default rate* of a rating category has been used to arrive at an initial mapping proposal by comparing its value with the benchmark specified in point (a) of Article 14 of the ITS.
- The *short run default rates* of a rating category have been compared with the benchmarks specified in point (b) of Article 14 of the ITS, which represent the maximum expected deviation of a default rate from its long-term value within a CQS.

16. In a second stage, the qualitative factors proposed in Article 7 of the ITS have been considered to challenge the result of the previous stage, 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

17. The short run and long run default rates of each rating category have been calculated with the pools of items rated from 1 July 2001 to 1 July 2010, based on the information contained in CEREP and according to the provisions laid down in the ITS. The following aspects should be highlighted:

- As the CEREP data is available only for 19 periods, while according to Article 5(2) of the ITS we should use at least 20 periods to calculate the long-run default rate, the default rates from 1 January 2001 were estimated based on the value observed for 1 July 2001.
- For AAA and AA rating categories, the number of credit ratings cannot be considered to be sufficient for the calculation of the short run and long run default rates specified in Articles 3 – 5 of the ITS. Therefore the allocation of the CQS has been made in accordance with Article 6 of the ITS, as shown in Figure 18 of Appendix 3. In these cases, the long run default rate benchmark associated with the equivalent category in the international rating scale is a key qualitative factor that has been used for the mapping proposal.
- For RD and D rating categories, no calculation of default rates has been made since they already reflect a ‘default’ situation.
- For the remaining rating categories, the number of credit ratings can be considered to be sufficient and therefore the calculation has followed the rules established in Articles 3 to 5 of the ITS. The result of the calculation of the short run and long run default rates for each rating category is shown in Figure 9 to Figure 11 of Appendix 3.

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

19. The default definition applied by Fitch, 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

20. As illustrated in the second column of Figure 20 in Appendix 4, the rating categories of the Long-term issuer credit rating scale of Fitch have been initially allocated to each CQS based on the comparison of the long run default rates (see Figure 11 in Appendix 3) and the long run default rate benchmark intervals established in point (a) of Article 14 of the ITS.
21. In the case of rating categories AAA and AA, where the number of credit ratings cannot be considered to be sufficient, this comparison has been made according to Article 6 of the ITS. The result, as shown in Figure 18 of Appendix 3, is not clear. When the analysis is done for the 2006h1 – 2010h2 period, the 17 defaults observed in these categories suggest a mapping to CQS2. However, the analysis of the 2001h1 – 2005h2 period reveals that no defaults were observed during those years and that CQS 1 should be proposed instead. Therefore, the conclusion is not clear and should be based on the qualitative factors.
22. In the case of rating categories BBB, BB and B, their short run default rates have shown a cyclical pattern during the second half of the observation period (i.e. years 2006 to 2010) which is closely aligned to the one observed for other comparable ECAIs<sup>6</sup>. However, this similarity has not been observed during the first half of the observation period (i.e. years 2001 to 2005). This difference is most significant in the case of category B. Indeed, according to Fitch Ratings' explanations, its traditionally small coverage of some relevant segments (mainly the high-yield US market) explains the difference in the B category default rate relative to that of Moody's and S&P's similar category. Fitch's indicates that they expect the B grade to align itself to the reference in the future as they increase their presence in this part of the market.
23. Following the above explanation, confirmed by the significant increase observed in the number of entities rated by Fitch throughout the observation period, it has been concluded that the BBB, BB and B pools before 1 July 2006 are not representative of the pools currently rated BBB, BB and B by Fitch and that therefore they should not be part of the calculation of the long-run default rate. Instead, comparable short-run default rates have been estimated for the 2001-2006 period based on the historical behavior of these rating categories between 2006 and 2010 and of equivalent rating categories (of their peers) during the period 2001-2010. The estimated values are presented in Figure 12. Following this assumption, the estimated long-run default rates of categories BBB, BB and B correspond to the CQS 3, 4 and 4 respectively. However, these numbers should be taken with some prudence given that they are estimated values and not observed ones.

#### 4.1.3. Reviewed mapping based on the short run default rates

<sup>6</sup> Standard & Poor's and Moody's are considered as comparable ECAIs, both in terms of rated population and rating methodology.



24. As shown in Figure 13 to Figure 17 in Appendix 3, the short run default rates of rating categories A to B have been compared with the short run default rate benchmark values established in point (b) of Article 14 of the ITS<sup>7</sup>.

25. The objective is to assess, for each rating category, whether the short-run default rates have deviated from their corresponding benchmark values and whether any observed deviation has been caused by a weakening of the assessment standards. Therefore short run default rates experienced within a rating category have been confronted with the short run benchmarks “monitoring” and “trigger” levels specified in Annex I of the ITS: to perform this analysis confidence intervals for the short run default rates have been calculated. The result of this comparison can be found in the third column of Figure 20 in Appendix 4:

- **A:** the short run default rate has breached the monitoring level three times. However, the lower limit of the 95% confidence does not reach the monitoring level. Therefore no material and systematic breach of the monitoring/trigger levels has been observed and the initial mapping based on the long run default rate is confirmed at this stage.
- **BBB, BB:** no short run default rate has breached the monitoring level during the observation period. Therefore no material and systematic breach of the monitoring/trigger levels has been observed and the initial mapping based on the long run default rate is confirmed at this stage.
- **B:** the short run default rates have breached both the monitoring and trigger levels of default rates for 4 consecutive periods in 2007-2009. The lower limit of the 95% confidence intervals also crossed the monitoring level, but only once, in 2008. Therefore, this material breach cannot be considered as systematic and therefore the initial mapping based on the long run default rate is confirmed at this stage.

#### 4.2. Final mapping after review of the qualitative factors

26. 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<sup>8</sup>, as it is the case of AAA and AA rating categories.

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

- The types of default events considered are shown in Appendix 2 and are the ones specified in Article 4(4) of the ITS. Restrictive default (RD) is consistent with letters (b) and

<sup>7</sup> For AAA and AA rating categories, the number of credit ratings cannot be considered to be sufficient and therefore no calculation of the short run default rate has been made. In the case of rating categories CCC-C, the review of the short run default rates is not necessary since they have been mapped to CQS 6.

<sup>8</sup> 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.



(c) of the benchmark definition, while Default category (D) is consistent with letter (a) of the benchmark definition.

- The information provided by Fitch does not show the share of bankruptcy-related events. However, the similarity of Fitch's pool of rated items with other international ECAIs where the share of bankruptcy events is close to 50% suggests that, in the case of Fitch, this number should also be expected.

Therefore, no specific adjustment has been proposed based on this factor.

28.Regarding **the meaning and relative position of the credit assessments**, they are aligned with the initial mapping proposal resulting from the quantitative factors, if available. As for the other rating categories:

- In the case of the AAA and AA, where the quantitative evidence has been less conclusive, this factor suggests that both rating categories should be assigned CQS 1 according to the reference definitions established in Annex II ITS. Since the adjacent rating category (A) has been mapped on the basis of quantitative information to CQS 2, it can be concluded that the proposed mapping for AAA and AA rating categories is CQS 1.
- In the case of B rating category, even though the estimated long-run default rate is 9.77% (which would justify CQS 4), the meaning and relative position of the rating category would suggest a mapping to CQS 5 instead, especially since the calculation of the quantitative factor has partially relied on estimated values and it is close to the upper bound of CQS 4 (10.99%). Therefore, the proposed mapping for rating category B is CQS 5.
- In the case of RD and D rating categories, their meaning is consistent with the one of CQS 6 stated in Annex II ITS.

29.Regarding the **time horizon** reflected by the rating category, Fitch rating methodology focuses on the long-term, especially in the high-quality categories. This is confirmed by the stability of the rated items in these categories by the end of the 1-year and 3-year time horizons shown in Figure 19 of Appendix 3, with values close to 90% and 75% respectively over the 2000 – 2013 period. Therefore, the mapping proposal of AAA and AA to CQS 1 is reinforced.

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

## 5. Mapping of Fitch's Short-term rating scale

31.Fitch also produces short-term issuer ratings and assigns them to the Short-term ratings scale (see Figure 6 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 Fitch between these two rating scales (described in Figure 8 of Appendix 1) has been used to derive the mapping of the Short-term ratings scale. This should ensure the consistency of the mappings proposed for Fitch.

32. More specifically, as each short-term issuer rating can be associated with a range of long-term issuer ratings, the CQS assigned to the short-term credit rating category has been determined based on the most frequent CQS assigned to the related long-term credit rating categories. In case of draw, the most conservative CQS has been considered. If the most frequent step is identified as CQS 5 or 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

33. The result is shown in Figure 21 of Appendix 4:

- **F1+.** In particular, F1+ indicates an exceptionally strong intrinsic capacity for timely payment of financial commitments. It is mapped to long-term categories AAA/AA and A+, which are mostly mapped to CQS 1. Therefore, CQS 1 is the proposed mapping.
- **F1.** This rating category indicates the strongest intrinsic capacity for timely payment of financial commitments. F1 is internally mapped to the long-term category A, which is mapped to CQS 2. Therefore, CQS 2 is the proposed mapping.
- **F2.** This rating category indicates a good short-term credit quality. It is internally mapped to long-term categories A- to BBB, which are mostly mapped to CQS 3. Therefore, CQS 3 is proposed mapping.
- **F3.** This rating category indicates a fair short-term credit quality. 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 is regarded as vulnerable. It is internally mapped to long-term categories BB+ to B-, which are mapped to CQS 4 and 5. Since the risk weights assigned to CQS 4 to 6 are equal to 150% according to Article 131 CRR, the mapping proposed for the B rating category is CQS 4.
- **C.** This rating category is regarded as vulnerable and dependent upon favourable conditions. It is internally mapped to long-term categories CCC to C, which are all mapped to CQS 6. Since the risk weights assigned to CQS 4 to 6 are equal to 150% according to Article 131 CRR, the mapping proposed for the C rating category is CQS 4.
- **RD/D.** A short-term obligation rated RD or D indicates payment default. It is internally mapped to long-term categories D and RD, which are mapped to CQS 6. Since the risk weights assigned to CQS 4 to 6 are equal to 150% according to Article 131 CRR, the mapping proposed for the RD/D rating category is CQS 4.

## 6. Mapping of other Fitch credit rating scales

34. As mentioned in Section 3, Fitch produces a number of additional credit ratings that are assigned to different credit rating scales.

35. 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 Long-term or Short-term ratings scale. More specifically, as each rating can be associated with one or a range of 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.

36. The results are shown in Figure 22 to Figure 24 of Appendix 4:

- **Corporate finance obligations long-term rating scale** (see Figure 4 in Appendix 1). The rating categories can be considered comparable to those of the Long-term issuer credit ratings scale. Therefore the mapping of each rating category has been derived from its meaning and relative position and the mapping of the corresponding categories of the Long-term issuer rating scale. Notably, the only exception is rating category B, which is mapped to CQS 6 instead of CQS 5 as the rating category B in the Long-term issuer credit rating scale. The reason for this change is that category B may contain defaulted issuers, which are equivalent to CQS 6. The result of the mapping of this scale is shown in Figure 22 of Appendix 4.
- **Long-term international IFS ratings scale** (see Figure 5 in Appendix 1). The rating categories can be considered comparable to those of the Long-term issuer credit rating scale. Even though the definitions of the rating categories refer to insurance companies, the mapping was derived from the meaning and relative position of the rating categories and the mapping of the corresponding categories of the Long-term issuer rating scale. The result of the mapping of this scale is shown in Figure 23 of Appendix 4.
- **Short-term IFS ratings scale** (see Figure 7 in Appendix 1). The rating categories can be considered comparable to those of the Short-term 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 Short-term ratings scale. The result of the mapping of this scale is shown in Figure 24 of Appendix 4.

## Appendix 1: Credit ratings and rating scales

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

SA exposure classes	Name of credit rating	Credit rating scale
<b>Long-term ratings</b>		
Central governments/ Central banks	Long-term issuer default ratings	Long-term issuer credit ratings scale
	Long-term corporate finance obligation ratings	Corporate finance obligations - Long-term ratings scale
Regional and local governments and PSEs	Long-term issuer default ratings	Long-term issuer credit ratings scale
	Long-term corporate finance obligation ratings	Corporate finance obligations - Long-term ratings scale
Institutions	Long-term issuer default ratings	Long-term issuer credit ratings scale
	Long-term corporate finance obligation ratings	Corporate finance obligations - Long-term ratings scale
Corporates	Long-term issuer default ratings	Long-term issuer credit ratings scale
	Long-term corporate finance obligation ratings	Corporate finance obligations - Long-term ratings scale
	Long-term international insurer financial strength (IFS) ratings	Long-term international IFS ratings scale
Covered bonds	Long-term corporate finance obligation ratings	Corporate finance obligations - Long-term ratings scale

SA exposure classes	Name of credit rating	Credit rating scale
CIUs	International fund credit ratings	Long-term issuer credit ratings scale
<b>Short-term ratings</b>		
Central governments/ Central banks	Short-term issuer ratings	Short-term ratings scale
Regional and local governments and PSEs	Short-term issuer ratings	Short-term ratings scale
Institutions	Short-term issuer ratings	Short-term ratings scale
	Short-term obligation ratings	Short-term ratings scale
Corporates	Short-term issuer ratings	Short-term ratings scale
	Short-term obligation ratings	Short-term ratings scale

Source: Fitch

Figure 3: Long-term issuer credit ratings scale

Credit assessment	Meaning of the credit assessment
AAA	Highest credit quality. 'AAA' ratings denote the lowest expectation of default risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.
AA	Very high credit quality. 'AA' ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A	High credit quality. 'A' ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.
BBB	Good credit quality. 'BBB' ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.
BB	Speculative. 'BB' ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists which supports the servicing of financial commitments.
B	Highly speculative. 'B' ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.
CCC	Substantial credit risk. Default is a real possibility.
CC	Very high levels of credit risk. Default of some kind appears probable.

C Exceptionally high levels of credit risk. Default is imminent or inevitable, or the issuer is in standstill. Conditions that are indicative of a 'C' category rating for an issuer include: (a) the issuer has entered into a grace or cure period following non-payment of a material financial obligation; (b) the issuer has entered into a temporary negotiated waiver or standstill agreement following a payment default on a material financial obligation; or (c) Fitch Ratings otherwise believes a condition of 'RD' or 'D' to be imminent or inevitable, including through the formal announcement of a distressed debt exchange.

RD Restricted default. 'RD' ratings indicate an issuer that in Fitch Ratings' opinion has experienced an uncured payment default on a bond, loan or other material financial obligation but which has not entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure, and which has not otherwise ceased operating. See the definition of default for further information (Annex 2).

D Default. 'D' ratings indicate an issuer that in Fitch Ratings' opinion has entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure, or which has otherwise ceased business. See the definition of default for further information (Annex 2).

Source: Fitch



Figure 4: Corporate finance obligations - Long-term ratings scale

Credit assessment	Meaning of the credit assessment
AAA	Highest credit quality. 'AAA' ratings denote the lowest expectation of credit risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.
AA	Very high credit quality. 'AA' ratings denote expectations of very low credit risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A	High credit quality. 'A' ratings denote expectations of low credit risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.
BBB	Good credit quality. 'BBB' ratings indicate that expectations of credit risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.
BB	Speculative. 'BB' ratings indicate an elevated vulnerability to credit risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial alternatives may be available to allow financial commitments to be met.
B	Highly speculative. 'B' ratings indicate that material credit risk is present.
CCC	Substantial credit risk. 'CCC' ratings indicate that substantial credit risk is present.
CC	Very high levels of credit risk. 'CC' ratings indicate very high levels of credit risk.
C	Exceptionally high levels of credit risk. 'C' indicates exceptionally high levels of credit risk.

Defaulted obligations typically are not assigned 'RD' or 'D' ratings, but are instead rated in the 'B' to 'C' rating categories, depending upon their recovery prospects and other relevant characteristics. This approach better aligns obligations that have comparable overall expected loss but varying

vulnerability to default and loss.

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Source: Fitch

Figure 5: Long-term international IFS ratings scale

Credit assessment	Meaning of the credit assessment
AAA	Exceptionally strong. 'AAA' IFS Ratings denote the lowest expectation of ceased or interrupted payments. They are assigned only in the case of exceptionally strong capacity to meet policyholder and contract obligations. This capacity is highly unlikely to be adversely affected by foreseeable events.
AA	Very strong. 'AA' IFS Ratings denote a very low expectation of ceased or interrupted payments. They indicate very strong capacity to meet policyholder and contract obligations. This capacity is not significantly vulnerable to foreseeable events.
A	Strong. 'A' IFS Ratings denote a low expectation of ceased or interrupted payments. They indicate strong capacity to meet policyholder and contract obligations. This capacity may, nonetheless, be more vulnerable to changes in circumstances or in economic conditions than is the case for higher ratings.
BBB	Good. 'BBB' IFS Ratings indicate that there is currently a low expectation of ceased or interrupted payments. The capacity to meet policyholder and contract obligations on a timely basis is considered adequate, but adverse changes in circumstances and economic conditions are more likely to impact this capacity.
BB	Moderately weak. 'BB' IFS Ratings indicate that there is an elevated vulnerability to ceased or interrupted payments, particularly as the result of adverse economic or market changes over time. However, business or financial alternatives may be available to allow for policyholder and contract obligations to be met in a timely manner.
B	Weak. 'B' IFS Ratings indicate two possible conditions. If obligations are still being met on a timely basis, there is significant risk that ceased or interrupted payments could occur in the future, but a limited margin of safety remains. Capacity for continued timely payments is contingent upon a sustained, favourable business and economic environment, and favourable market conditions. Alternatively, a 'B' IFS Rating is assigned to obligations that have experienced ceased or interrupted payments, but with the potential for extremely high recoveries. Such obligations would possess a recovery assessment of 'RR1' (Outstanding).

CCC	Very weak. 'CCC' IFS Ratings indicate two possible conditions. If obligations are still being met on a timely basis, there is a real possibility that ceased or interrupted payments could occur in the future. Capacity for continued timely payments is solely reliant upon a sustained, favourable business and economic environment, and favourable market conditions. Alternatively, a 'CCC' IFS Rating is assigned to obligations that have experienced ceased or interrupted payments, and with the potential for average to superior recoveries. Such obligations would possess a recovery assessment of 'RR2' (Superior), 'RR3' (Good), and 'RR4' (Average).
CC	Extremely weak. 'CC' IFS Ratings indicate two possible conditions. If obligations are still being met on a timely basis, it is probable that ceased or interrupted payments will occur in the future. Alternatively, a 'CC' IFS Rating is assigned to obligations that have experienced ceased or interrupted payments, with the potential for average to below-average recoveries. Such obligations would possess a recovery assessment of 'RR4' (Average) or 'RR5' (Below Average).
C	Distressed. 'C' IFS Ratings indicate two possible conditions. If obligations are still being met on a timely basis, ceased or interrupted payments are imminent. Alternatively, a 'C' IFS Rating is assigned to obligations that have experienced ceased or interrupted payments, and with the potential for below average to poor recoveries. Such obligations would possess a recovery assessment of 'RR5' (Below Average) or 'RR6' (Poor).

Source: Fitch

Figure 6: Short-term ratings scale

Credit assessment	Meaning of the credit assessment
F1	Highest short-term credit quality. Indicates the strongest intrinsic capacity for timely payment of financial commitments; may have an added "+" to denote any exceptionally strong credit feature.
F2	Good short-term credit quality. Good intrinsic capacity for timely payment of financial commitments.
F3	Fair short-term credit quality. The intrinsic capacity for timely payment of financial commitments is adequate.
B	Speculative short-term credit quality. Minimal capacity for timely payment of financial commitments, plus heightened vulnerability to near term adverse changes in financial and economic conditions.
C	High short-term default risk. Default is a real possibility.
RD	Restricted default. Indicates an entity that has defaulted on one or more of its financial commitments, although it continues to meet other financial obligations. Typically applicable to entity ratings only.
D	Default. Indicates a broad-based default event for an entity, or the default of a short-term obligation.

Source: Fitch

Figure 7: Short-term IFS ratings scale

Credit assessment	Meaning of the credit assessment
F1	Insurers are viewed as having a strong capacity to meet their near-term obligations. When an insurer rated in this rating category is designated with a (+) sign, it is viewed as having a very strong capacity to meet near-term obligations.
F2	Insurers are viewed as having a good capacity to meet their near-term obligations.
F3	Insurers are viewed as having an adequate capacity to meet their near-term obligations.
B	Insurers are viewed as having a weak capacity to meet their near-term obligations.
C	Insurers are viewed as having a very weak capacity to meet their near-term obligations.

Source: Fitch

Figure 8: Internal relationship between Fitch's long-term and short-term issuer ratings scales

Long-term issuer credit ratings scale	Short-term issuer credit ratings scale			
AAA	F1+			
AA+				
AA				
AA-				
A+	F1			
A				
A-				
BBB+	F2			
BBB	F3			
BBB-				
BB+	B			
BB				
BB-				
B+				
B	C			
B-				
CCC				
CC	RD/D			
C				
RD/D				

Source: Fitch



## Appendix 2: Definition of default

Fitch's current definitions of default are the same for corporate Issuer Default Ratings (IDR) and public and structured finance obligations' ratings and are as follows.

- **RD: Restricted Default.** RD ratings indicate an issuer in Fitch Ratings' opinion has experienced an uncured payment default on a bond, loan or other material financial obligation but which has not entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure, and which has not otherwise ceased business. This would include:
  - a. the selective payment default on a specific class or currency of debt;
  - b. the uncured expiry of any applicable grace period, cure period or default forbearance period following a payment default on a bank loan, capital markets security or other material financial obligation;
  - c. the extension of multiple waivers or forbearance periods upon a payment default on one or more material financial obligations, either in series or in parallel; or
  - d. execution of a coercive debt exchange on one or more material financial obligations.
- **D: Default.** D ratings indicate an issuer in Fitch Ratings' opinion has entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure, or which has otherwise ceased business.

Default ratings are not assigned prospectively to entities or their obligations; within this context, non-payment on an instrument that contains a deferral feature or grace period will generally not be considered a default until after the expiration of the deferral or grace period, unless a default is otherwise driven by bankruptcy or other similar circumstance, or by a distressed debt exchange.

"Imminent" default typically refers to the occasion where a payment default has been intimated by the issuer, and is all but inevitable. This may, for example, be where an issuer has missed a scheduled payment, but (as is typical) has a grace period during which it may cure the payment default. Another alternative would be where an issuer has formally announced a distressed debt exchange, but the date of the exchange still lies several days or weeks in the immediate future.

In all cases, the assignment of a default rating reflects the agency's opinion as to the most appropriate rating category consistent with the rest of its universe of ratings, and may differ from the definition of default under the terms of an issuer's financial obligations or local commercial practice.

With respect to structured finance ratings, ratings in the CC category and below are considered by Fitch to be materially impaired. All such ratings are therefore also captured within CEREP default statistics in accordance with CEREP reporting requirements.

The effective definition of default has not changed but the rating RD was introduced after 01/01/2006. Recovery values were reflected in the D rating category before 01/01/2006. After this date recovery values are reflected in the individual ratings of securities, not the IDR. Defaulted obligations in covered bond ratings prior to 10/05/2013 were not assigned RD or D ratings but were rated in the B to C rating categories.

Source: Fitch

## Appendix 3: Default rates of each rating category

Figure 9: Number of rated items

Date	AAA	AA	A	BBB	BB	B	CCC-C	RD,D
01/01/2001*	66	218	530	431	116	63	16	n.a.
01/07/2001	66	218	530	431	116	63	16	n.a.
01/01/2002	76	218	553	487	127	76	19	n.a.
01/07/2002	77	227	583	546	117	113	15	n.a.
01/01/2003	83	220	618	576	146	129	24	n.a.
01/07/2003	92	219	618	629	151	141	39	n.a.
01/01/2004	104	220	652	658	174	162	31	n.a.
01/07/2004	114	234	667	701	186	174	35	n.a.
01/01/2005	127	234	727	741	228	166	35	n.a.
01/07/2005	123	252	755	743	302	148	37	n.a.
01/01/2006	133	256	842	819	358	218	29	n.a.
01/07/2006	154	295	837	876	355	258	27	n.a.
01/01/2007	168	308	880	895	372	284	24	n.a.
01/07/2007	154	323	858	931	375	303	25	n.a.
01/01/2008	173	321	859	935	375	321	29	n.a.
01/07/2008	144	314	853	949	377	315	31	n.a.
01/01/2009	138	260	872	963	341	318	60	n.a.
01/07/2009	122	215	799	943	371	302	59	n.a.
01/01/2010	121	202	803	963	357	304	58	n.a.
01/07/2010	91	190	804	983	350	317	39	n.a.

Note: \* estimated based on default rates of the next period

Source: Joint Committee calculations based on CEREP data

Figure 10: Number of defaulted rated items

Date	AAA	AA	A	BBB	BB	B	CCC-C	RD,D
01/01/2001*	0	0	1	2	6	2	0	n.a.
01/07/2001	0	0	1	2	6	2	0	n.a.
01/01/2002	0	0	0	2	1	3	4	n.a.
01/07/2002	0	0	0	1	1	3	3	n.a.
01/01/2003	0	0	0	2	0	3	3	n.a.
01/07/2003	0	0	0	1	0	4	2	n.a.
01/01/2004	0	0	0	1	0	2	2	n.a.
01/07/2004	0	0	0	1	1	2	2	n.a.
01/01/2005	0	0	0	2	0	1	2	n.a.
01/07/2005	0	0	0	2	1	3	4	n.a.
01/01/2006	1	0	9	5	3	7	2	n.a.
01/07/2006	1	0	8	9	21	24	8	n.a.
01/01/2007	1	0	11	15	25	27	11	n.a.
01/07/2007	1	3	8	18	24	38	11	n.a.
01/01/2008	1	3	8	17	22	49	14	n.a.
01/07/2008	1	0	10	12	27	45	18	n.a.
01/01/2009	0	0	2	9	13	36	39	n.a.
01/07/2009	0	0	0	5	4	16	22	n.a.
01/01/2010	0	0	0	8	2	14	14	n.a.
01/07/2010	0	0	1	2	6	2	0	n.a.

Note: \* estimated based on default rates of the next period

Source: Joint Committee calculations based on CEREP data

Figure 11: Short-run and long-run observed default rates

Date	AAA	AA	A	BBB	BB	B	CCC-C	RD,D
01/01/2001*	n.a.	n.a.	0.19	0.46	5.17	3.17	0.00	n.a.
01/07/2001	n.a.	n.a.	0.19	0.46	5.17	3.17	0.00	n.a.
01/01/2002	n.a.	n.a.	0.00	0.41	0.79	3.95	21.05	n.a.
01/07/2002	n.a.	n.a.	0.00	0.18	0.85	2.65	20.00	n.a.
01/01/2003	n.a.	n.a.	0.00	0.35	0.00	2.33	12.50	n.a.
01/07/2003	n.a.	n.a.	0.00	0.16	0.00	2.84	5.13	n.a.
01/01/2004	n.a.	n.a.	0.00	0.15	0.00	1.23	6.45	n.a.
01/07/2004	n.a.	n.a.	0.00	0.14	0.54	1.15	5.71	n.a.
01/01/2005	n.a.	n.a.	0.00	0.27	0.00	0.60	5.71	n.a.
01/07/2005	n.a.	n.a.	0.00	0.27	0.33	2.03	10.81	n.a.
01/01/2006	n.a.	n.a.	1.07	0.61	0.84	3.21	6.90	n.a.
01/07/2006	n.a.	n.a.	0.96	1.03	5.92	9.30	29.63	n.a.
01/01/2007	n.a.	n.a.	1.25	1.68	6.72	9.51	45.83	n.a.
01/07/2007	n.a.	n.a.	0.93	1.93	6.40	12.54	44.00	n.a.
01/01/2008	n.a.	n.a.	0.93	1.82	5.87	15.26	48.28	n.a.
01/07/2008	n.a.	n.a.	1.17	1.26	7.16	14.29	58.06	n.a.
01/01/2009	n.a.	n.a.	0.23	0.93	3.81	11.32	65.00	n.a.
01/07/2009	n.a.	n.a.	0.00	0.53	1.08	5.30	37.29	n.a.
01/01/2010	n.a.	n.a.	0.00	0.83	0.56	4.61	24.14	n.a.
01/07/2010	n.a.	n.a.	0.00	0.81	1.43	5.05	30.77	n.a.
<b>Weighted Average</b>	<b>n.a.</b>	<b>n.a.</b>	<b>0.40</b>	<b>0.81</b>	<b>3.01</b>	<b>7.17</b>	<b>27.37</b>	<b>n.a.</b>

Note: \*estimated based on default rates of the next period

Source: Joint Committee calculations based on CERE data

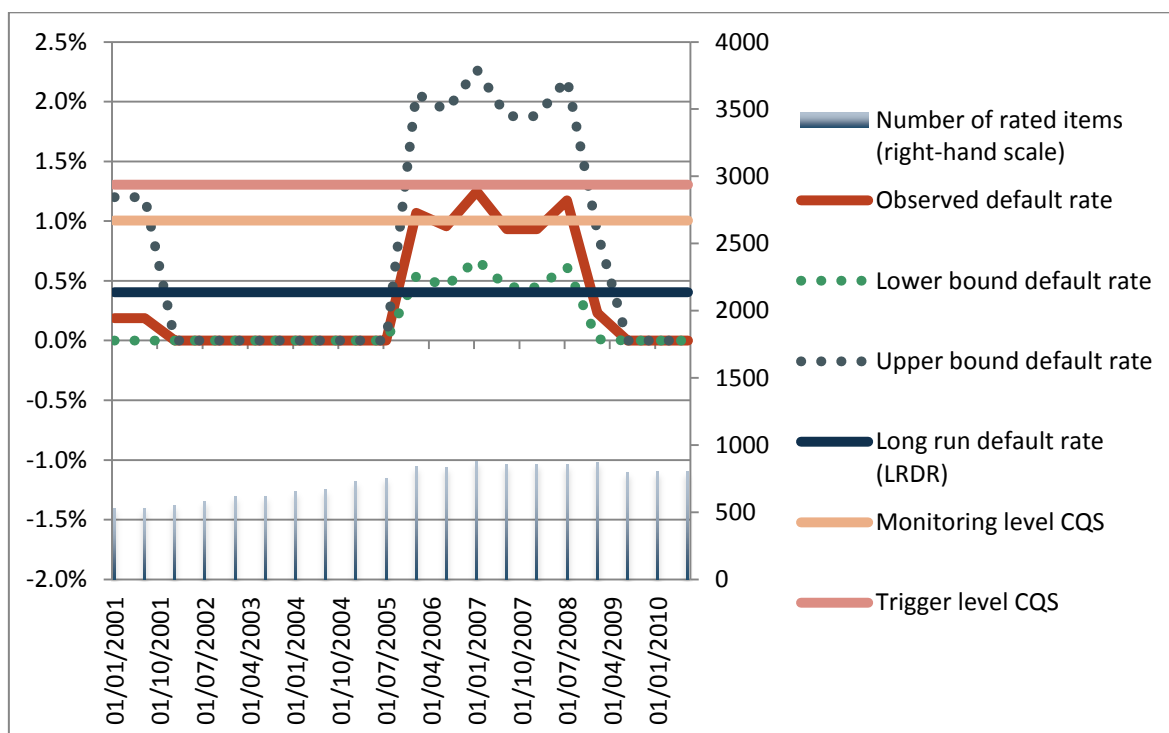
Figure 12: Short-run and long-run default rates with estimated short-run default rates for rating categories BBB, BB and B for 2001h1-2006h1

Date	AAA	AA	A	BBB	BB	B	CCC-C	RD,D
01/01/2001*	n.a.	n.a.	0.19	1.43	4.78	9.82	0.00	n.a.
01/07/2001	n.a.	n.a.	0.19	1.43	4.78	9.82	0.00	n.a.
01/01/2002	n.a.	n.a.	0.00	1.43	4.78	9.82	21.05	n.a.
01/07/2002	n.a.	n.a.	0.00	1.43	4.78	9.82	20.00	n.a.
01/01/2003	n.a.	n.a.	0.00	1.43	4.78	9.82	12.50	n.a.
01/07/2003	n.a.	n.a.	0.00	1.43	4.78	9.82	5.13	n.a.
01/01/2004	n.a.	n.a.	0.00	1.43	4.78	9.82	6.45	n.a.
01/07/2004	n.a.	n.a.	0.00	1.43	4.78	9.82	5.71	n.a.
01/01/2005	n.a.	n.a.	0.00	1.43	4.78	9.82	5.71	n.a.
01/07/2005	n.a.	n.a.	0.00	1.43	4.78	9.82	10.81	n.a.
01/01/2006	n.a.	n.a.	1.07	1.43	4.78	9.82	6.90	n.a.
01/07/2006	n.a.	n.a.	0.96	1.03	5.92	9.30	29.63	n.a.
01/01/2007	n.a.	n.a.	1.25	1.68	6.72	9.51	45.83	n.a.
01/07/2007	n.a.	n.a.	0.93	1.93	6.40	12.54	44.00	n.a.
01/01/2008	n.a.	n.a.	0.93	1.82	5.87	15.26	48.28	n.a.
01/07/2008	n.a.	n.a.	1.17	1.26	7.16	14.29	58.06	n.a.
01/01/2009	n.a.	n.a.	0.23	0.93	3.81	11.32	65.00	n.a.
01/07/2009	n.a.	n.a.	0.00	0.53	1.08	5.30	37.29	n.a.
01/01/2010	n.a.	n.a.	0.00	0.83	0.56	4.61	24.14	n.a.
01/07/2010	n.a.	n.a.	0.00	0.81	1.43	5.05	30.77	n.a.
<b>Weighted Average</b>	<b>n.a.</b>	<b>n.a.</b>	<b>0.40</b>	<b>1.31</b>	<b>4.58</b>	<b>9.77</b>	<b>27.37</b>	<b>n.a.</b>

Note: \*estimated based on default rates of the next period; fields marked in grey are estimated based on the default rates of S&P and Moody's

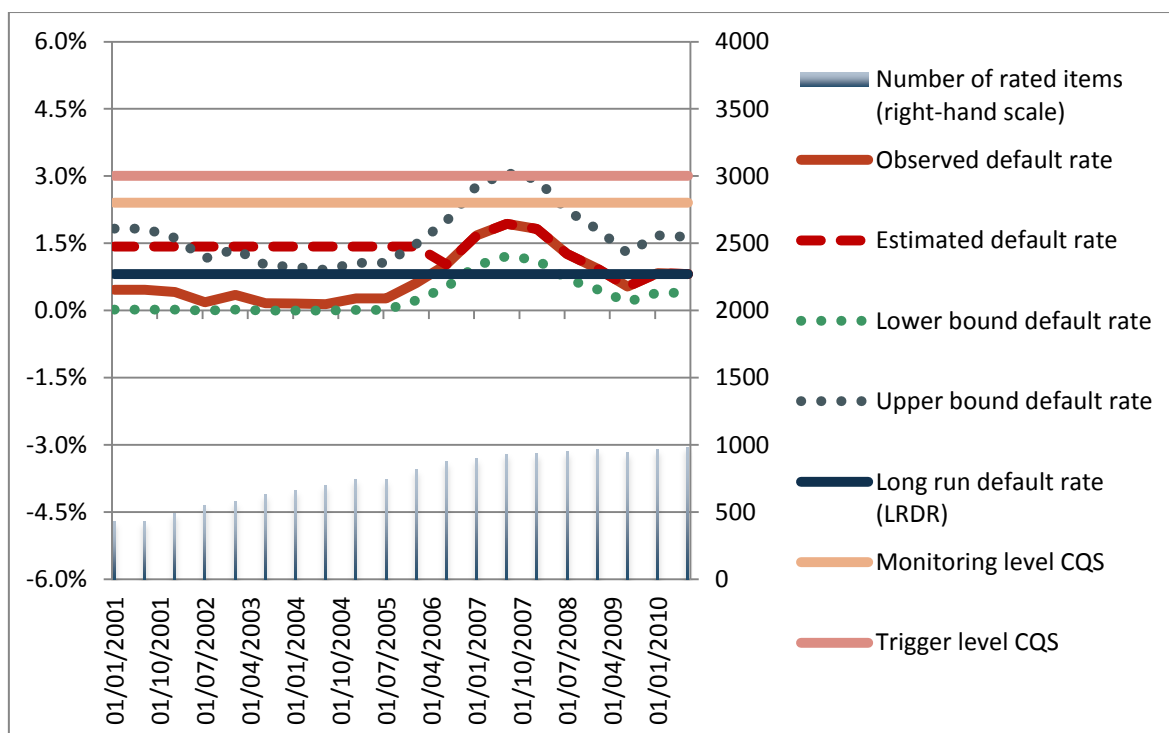
Source: Joint Committee calculations based on CERE data

Figure 13: Short-run and long-run observed default rates of A rating category



Source: Joint Committee calculations based on CERP data

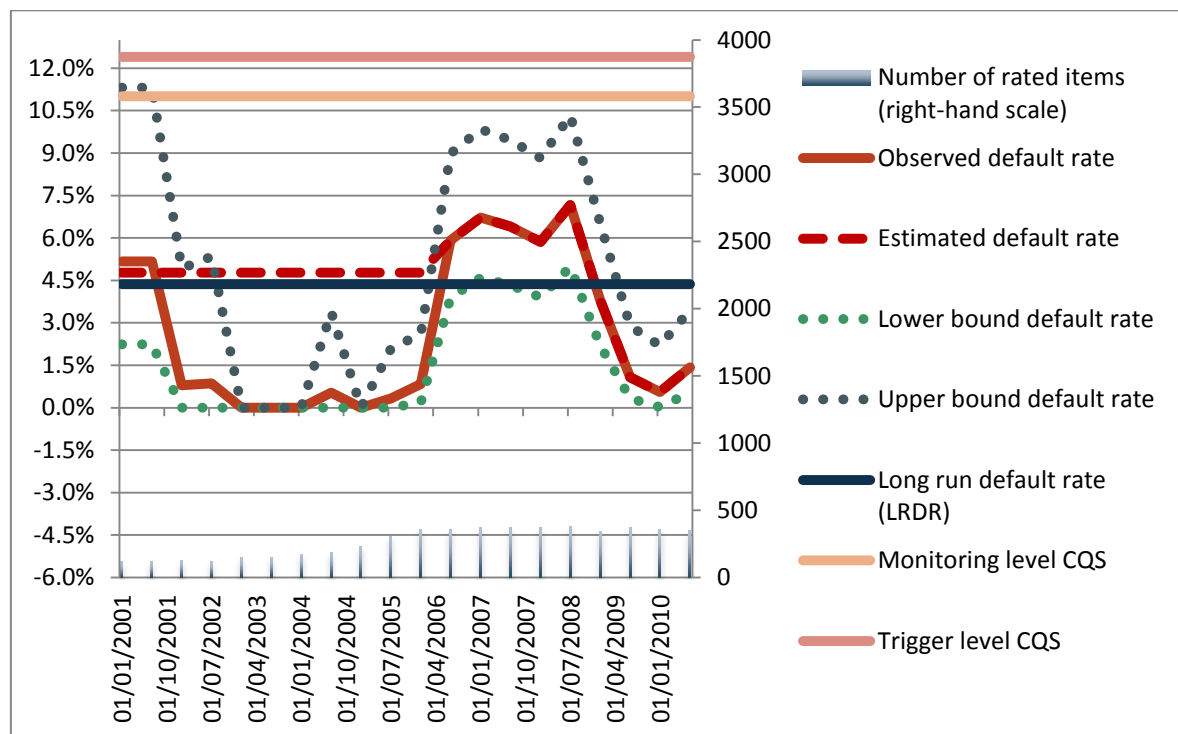
Figure 14: Short-run and long-run observed default rates of BBB rating category



Source: Joint Committee calculations based on CERP data

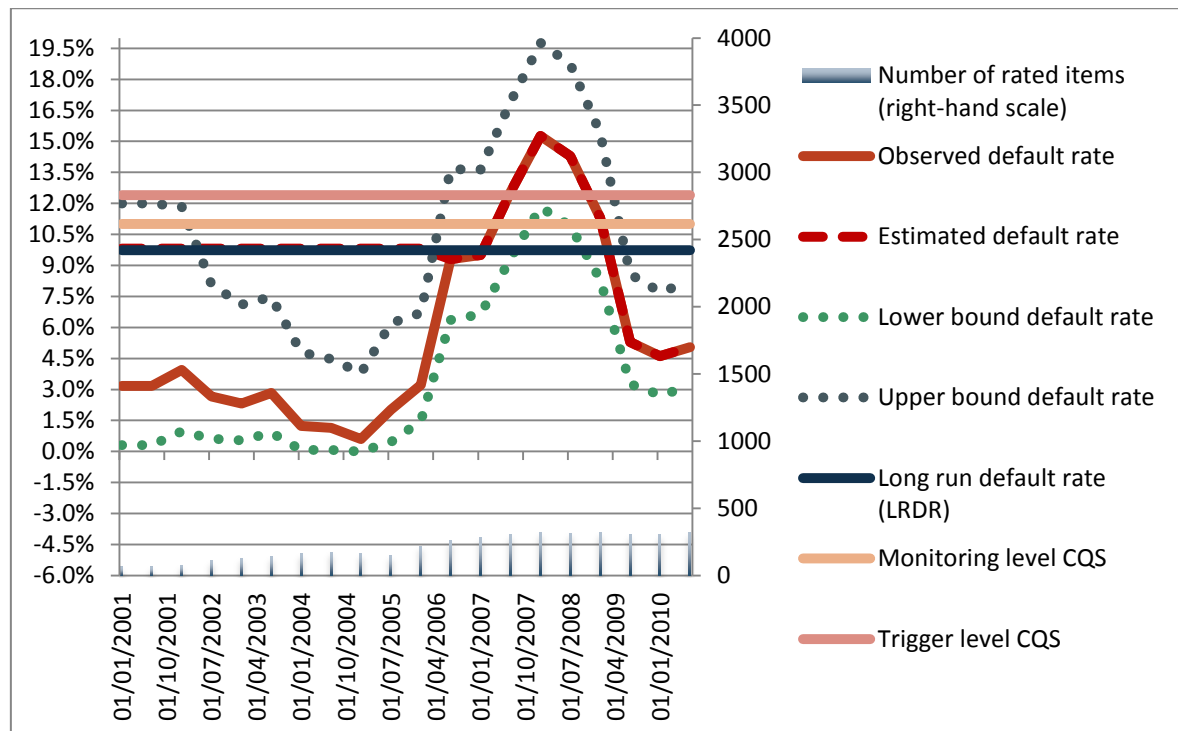


Figure 15: Short-run and long-run observed default rates of BB rating category



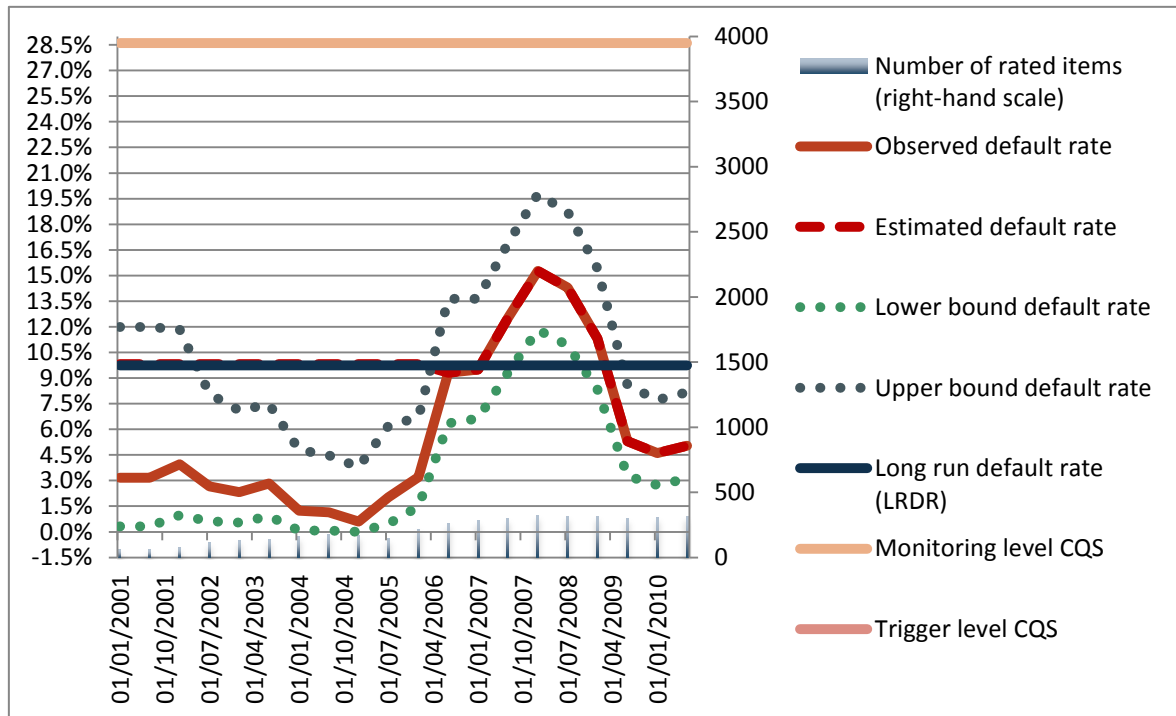
Source: Joint Committee calculations based on CERP data

Figure 16: Short-run and long-run observed default rates of B rating category relative to CQS 4 benchmarks



Source: Joint Committee calculations based on CERP data

Figure 17: Short-run and long-run observed default rates of B rating category relative to CQS 5 benchmark values



Source: Joint Committee calculations based on CERP data

Figure 18: Mapping proposal for rating categories with a non-sufficient number of credit ratings

2001 - 2005	AAA/AA
CQS of equivalent international rating category	CQS 1
N. observed defaulted items	0
Minimum N. rated items	496
Observed N. rated items	3,188
<b>Mapping proposal</b>	<b>CQS1</b>

2006 - 2010	AAA/AA
CQS of equivalent international rating category	CQS 1
N. observed defaulted items	12
Minimum N. rated items	7,167
Observed N. rated items	4,082
<b>Mapping proposal</b>	<b>CQS2</b>

Source: Joint Committee calculations based on CERP data

Figure 19: Transition matrix

3-year transition matrices, 9-year average (2001 - 2013)

Rating end period	AAA	AA	A	BBB	BB	B	CCC-C	D
<b>Rating start period</b>								
<b>AAA</b>	82.85	9.53	2.90	3.95	0.77	0	0	0
<b>AA</b>	0.56	67.40	28.53	2.93	0.41	0.16	0	0.01
<b>A</b>	0.04	3.65	78.57	14.95	2.21	0.47	0.05	0.06
<b>BBB</b>	0.10	0.40	7.83	80.76	7.45	2.55	0.73	0.18
<b>BB</b>	0.13	0	0.76	25.68	57.49	12.37	2.46	1.11
<b>B</b>	0.06	0	0.68	3.88	23.37	65.21	5.52	1.28
<b>CCC-C</b>	0	0	0.23	5.29	10.8	56.32	22.3	5.06

Source: Joint Committee analysis based on CEREP data. Only items rated both at the beginning and at the end of the time horizon have been considered in the calculation.

1-year transition matrices, 11-year average (2001 - 2013)

Rating end period	AAA	AA	A	BBB	BB	B	CCC-C	D
<b>Rating start period</b>								
<b>AAA</b>	93.16	4.81	0.65	1.38	0	0	0	0
<b>AA</b>	0.22	87.26	11.70	0.74	0.09	0	0	0
<b>A</b>	0.01	1.39	91.47	6.33	0.70	0.06	0.01	0.03
<b>BBB</b>	0.03	0.11	2.74	92.59	3.71	0.65	0.12	0.05
<b>BB</b>	0.06	0	0.13	9.46	82.00	6.86	1.06	0.43
<b>B</b>	0.07	0	0.41	0.41	9.12	84.07	5.13	0.79
<b>CCC-C</b>	0	0	0	0.55	2.36	28.99	61.4	6.70

Source: Joint Committee analysis based on CEREP data. Only items rated both at the beginning and at the end of the time horizon have been considered in the calculation.

## Appendix 4: Mappings of each rating scale

Figure 20: Mapping of Fitch's Long-term issuer credit ratings scale

Credit assessment	Initial mapping based on LR DR (CQS)	Review based on SR DR (CQS)	Final review based on qualitative factors (CQS)	Main reason for the mapping
AAA	n.a.	n.a.	1	Quantitative evidence is not clear. The meaning, relative position and time horizon of the rating category are representative of the final CQS.
AA	n.a.	n.a.	1	
A	2	2	2	The quantitative factors are representative of the final CQS.
BBB	3	3	3	The quantitative factors are representative of the final CQS.
BB	4	4	4	The quantitative factors are representative of the final CQS.
B	4	4	5	The quantitative factors suggest CQS 4. The meaning and relative position of the credit assessment are representative of the final CQS.
CCC	6	6	6	The quantitative factors are representative of the final CQS.
CC	6	6	6	The quantitative factors are representative of the final CQS.
C	6	6	6	The quantitative factors are representative of the final CQS.
RD	n.a.	n.a.	6	The meaning and relative position of the rating category is representative of the final CQS.



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n.a.

**6**

The meaning and relative position of the rating category is representative of the final CQS.

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Figure 21: Mapping of Fitch's Short-term rating scale

Credit assessment	Corresponding Long-term issuer credit ratings scale assessment (established by Fitch)	Range of CQS of corresponding Long-term issuer credit ratings scale	Final review based on qualitative factors (CQS)	Main reason for the mapping
<b>F1+</b>	AAA/A+	1 - 2	<b>1</b>	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category.
<b>F1</b>	A+/A-	2	<b>2</b>	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category.
<b>F2</b>	A-/BBB	2 - 3	<b>3</b>	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category.
<b>F3</b>	BBB/BBB-	3	<b>3</b>	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category.
<b>B</b>	BB+/B-	4 - 5	<b>4</b>	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.
<b>C</b>	CCC/C	6	<b>4</b>	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.
<b>RD/D</b>	RD/D	6	<b>4</b>	The final CQS has been determined based on the most frequent step associated with the corresponding long-term credit rating category. The risk weights assigned to CQS 4 to 6 are all 150%, therefore CQS 4.



Figure 22: Mapping of Fitch's Corporate finance obligations - Long-term ratings scale

Credit assessment	Corresponding Long-term issuer credit ratings scale assessment (assessed by JC)	Range of CQS of corresponding Long-term issuer credit ratings 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 long-term credit rating category.
AA	AA	1	1	
A	A	2	2	
BBB	BBB	3	3	
BB	BB	4	4	
B	B – RD/D	5 - 6	6	
CCC	CCC – RD/D	6	6	
CC	CC – RD/D	6	6	
C	C – RD/D	6	6	

Figure 23: Mapping of Fitch's Long-term international IFS ratings scale

Credit assessment	Corresponding Long-term issuer credit ratings scale assessment (assessed by JC)	Range of CQS of corresponding Long-term issuer credit ratings scale	Final review <i>based on qualitative factors</i> (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 long-term credit 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	

Figure 24: Mapping of Fitch's Short-term IFS ratings scale

Credit assessment	Corresponding Short-term ratings scale assessment (assessed by JC)	Range of CQS of corresponding Short-term ratings scale assessment	Final review based on qualitative factors (CQS)	Main reason for the mapping
<b>F1+</b>	F1+	1	<b>1</b>	The final CQS has been determined based on the most frequent step associated with the corresponding short-term rating category.
<b>F1</b>	F1	2	<b>2</b>	
<b>F2</b>	F2	3	<b>3</b>	
<b>F3</b>	F3	3	<b>3</b>	
<b>B</b>	B	4	<b>4</b>	
<b>C</b>	C	4	<b>4</b>	