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# Mapping of Euler Hermes Rating's 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 Euler Hermes Rating (EHR).
2. The methodology applied to produce the mapping is a combination of the provisions laid down in Article 136(2) Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR) and those proposed in the Consultation paper on draft Implementing Technical Standards on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013 published on 5 February 2014 (draft ITS).
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 nor should be understood as a comparison of the rating methodologies of EHR with those of other ECAIs. This mapping should however be interpreted as the correspondence of the rating categories of EHR 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 addendum to the draft ITS published today. Figure 1 below shows the result for the only ratings scale of EHR, the Global long-term rating scale, together with a summary of the main reasons behind the mapping proposal for each rating category.

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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).

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Figure 1: Mapping of EHR's Global long-term rating scale

Credit assessment	Credit quality step	Main reason for the mapping
AAA	2	The quantitative factors are representative of the final CQS.
AA	2	
A	2	The quantitative factors are representative of the final CQS.
BBB	4	The quantitative factors are representative of the final CQS.
BB	4	The quantitative factors are representative of the final CQS.
B	5	The quantitative factors are representative of the final CQS.
CCC	6	The quantitative factors are representative of the final CQS.
CC	6	
C	6	
SD	6	The meaning and relative position of the rating category is representative of the final CQS.
D	6	The meaning and relative position of the rating category is representative of the final CQS.

## 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 Euler Hermes Rating (EHR).
6. EHR is a credit rating agency that has been registered with ESMA in 16 November 2010 and therefore meets the conditions to be an eligible credit assessment institution (ECAI)<sup>2</sup>. EHR is a focuses on ratings of mid-size companies have previously not been rated or whose current rating does not sufficiently factor in the specific nature of their business.<sup>3</sup>
7. The methodology applied to produce the mapping is a combination of the provisions laid down in Article 136(2) CRR and those proposed in the Consultation paper on draft Implementing Technical Standards on the mapping of ECAIs' credit assessments under Article 136(1) and (3) of Regulation (EU) No 575/2013 published on 5 February 2014 (draft ITS). Two sources of information have been used. Firstly, the quantitative and qualitative information available in CEREP has been used to obtain an overview of the main characteristics of this ECAI and an initial estimate of the default rates of its credit assessments. Secondly, since the available data in CEREP for EHR is scarce, 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 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 nor should be understood as a comparison of the rating methodologies of EHR with those of other ECAIs. This mapping should however be interpreted as the correspondence of the rating categories of EHR 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.
9. Section 3 describes the relevant ratings scales of EHR for the purpose of the mapping. Section 4 contains the methodology applied to derive the mapping of EHR's ratings scale. The mapping table is shown in Appendix 4 of this document and have been specified in Annex III of the addendum to the draft ITS published today.

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<sup>2</sup> It is important to note that the mapping does not contain any assessment of the registration process of EHR carried out by ESMA.

<sup>3</sup> Euler Hermes

### 3. EHR credit ratings and rating scales

10. HER produces two types of credit ratings, which may be used by institutions for the calculation of risk weights under the Standardised Approach (SA)<sup>4</sup>, as shown in column 2 of Figure 2 in Appendix 1:

- **Long-term corporate rating (issuer)**, the issuer rating is an opinion on the financial strength of a debtor/company and its ability to satisfy its financial obligations.
- **Long-term corporate rating (issue)**, the issue rating reflects an assessment of the loss given default and the severity of loss for the specific financial instrument.
- **Long-term credit portfolio rating (issuer)**, credit portfolio rating is the consideration of the probability of the nominal amount of the portfolio being repaid and the agreed interest payments being made in good time until the end of the portfolio term.
- **Long-term credit portfolio rating (issue)**, similar to issuer credit portfolio rating but regarding financial instruments.

11. EHR assigns these credit ratings to a single rating scale, **Global long-term rating scale**, as illustrated in column 3 of Figure 2 in Appendix 1. Therefore, a specific mapping has been prepared for this scale. The specification of the Global long-term rating scale is described in Figure 3 of Appendix 1.

12. The mapping of the Global long-term rating scale is explained in Section 4 and it has been derived in accordance with the quantitative factors, qualitative factors and benchmarks specified in the draft ITS.

### 4. Mapping of EHR's Global long-term rating scale

13. The mapping of the Global long-term rating scale has consisted of two differentiated stages where the quantitative and qualitative factors as well as the benchmarks specified in Article 136(2) CRR have been taken into account. Figure 11 in Appendix 4 illustrates the outcome of each stage.

14. In the first stage, the quantitative factors referred to in Article 1 draft 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 Article 15(2) draft ITS.

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<sup>4</sup> As explained in recital 2 draft 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.

- The *short run default rates* of a rating category have been compared with the benchmarks specified in Article 15(3) draft ITS, which represent the maximum expected deviation of a default rate from its long-term value within a CQS.

15. In cases when the number of credit ratings cannot be considered to be sufficient, the *long run default rate* of a rating category has been calculated in accordance with Article 7 draft ITS.

16. In a second stage, the qualitative factors proposed in Article 8 draft 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 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 2002 to 1 July 2010, based on the information contained in CEREP<sup>5</sup>, on ratings and default data, shown in Figure 4 and Figure 5 in Appendix 3, and according to the provisions laid down in the draft ITS:

- The information contained in CEREP on rating categories AAA/AA, A, and BBB cannot be considered sufficient for the calculation of the short and long run default rates specified in the Articles 2 – 4 of the draft ITS since the number of rated items is below the required minimum. As a result, the allocation of the CQS for these rating categories has been made in accordance with Article 7 of draft ITS, as shown in Figure 7 of Appendix 3. 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 SD and D rating categories, no allocation has been made based on this methodology since these rating categories already reflects 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 2 to 4 draft ITS. The result of the calculation of the short run and long run default rates for each rating category is shown in Figure 6 of Appendix 3.

18. As post withdrawal data on defaults is included in the dataset provided by EHR, no withdrawal adjustment has been applied as proposed in Article 3(5) draft ITS.

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

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<sup>5</sup> CEREP is the central repository owned by ESMA to which all registered/certified CRAs have to report their credit assessments. Its specification can be found in [http://cerep.esma.europa.eu/cerep-static-pub/Regulatory\\_Technical\\_Standards\\_CEREP.pdf](http://cerep.esma.europa.eu/cerep-static-pub/Regulatory_Technical_Standards_CEREP.pdf)

#### 4.1.2. Mapping proposal based on the long run default rate

20. As illustrated in the second column of Figure 11 in Appendix 4, the rating categories of the Global long-term rating scale of EHR have been initially allocated to each CQS based on the comparison of the long run default rates (see Figure 6 in Appendix 3) and the long run default rate benchmark intervals established in Article 15(2) draft ITS.

21. In the case of rating categories AAA/AA, A and BBB, where the number of credit ratings cannot be considered to be sufficient, the assignment of the rating categories to credit quality steps has been made in accordance with Article 7 of draft ITS. Therefore, the numbers of defaulted and non-defaulted rated items have been used together with the prior expectation of the equivalent rating category of the international rating scale. The results are specified in Figure 7 of Appendix 3:

- **AAA/AA and BBB:** the number of rated items in these categories is not sufficient to justify the credit quality step associated with the AAA/AA and BBB rating categories in the international rating scale (CQS 1 and CQS 3 respectively). Therefore, the proposed credit quality steps for these rating categories are CQS 2 and CQS 4 respectively.
- **A:** the number of rated items in these categories is sufficient to justify the credit quality step associated with the A rating category in the international rating scale (CQS 2).
- **CCC/CC/C:** since the CQS associated with the equivalent rating category of the international rating scale is 6, the proposed mapping for these rating categories is also CQS 6.

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

22. Figure 8 and Figure 9 in Appendix 3, the short run default rates of rating categories BB and B have been compared with the short run default rate benchmark values established in Article 15(3) draft ITS<sup>6</sup>.

23. 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, the methodology specified in the explanatory box of Article 15 draft ITS has been implemented, what requires the calculation of confidence intervals for the short run default rates presented in the figures. The result of this comparison can be found in the third column of Figure 11 in Appendix 4:

- **BB:** the short run default rates have breached the monitoring and the trigger levels on 1 occasion. However, the lower limit of the 95% confidence intervals did not reach the

<sup>6</sup> For AAA, AA, A and BBB 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 to C, the review of the short run default rates is not necessary since they have been mapped to CQS6.

monitoring level. These breaches cannot be considered as material and therefore 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 level on 2 occasions. However, the lower limit of the 95% confidence intervals did not reach the monitoring level. These breaches cannot be considered as material 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

24. The qualitative factors specified in Article 8 draft 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, as it is the case of rating categories AAA/AA, A and BBB of EHR's Global long-term rating scale.

25. The **definition of default** applied by EHR 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 3(6) draft ITS. While the D rating category documents solely the bankruptcy of the company, SD rating category is consistent with letters (a), (b), (c) and (d) of the benchmark definition.
- All defaults reported by EHR are bankruptcy related events.

Since only defaults relating to bankruptcies have been recorded and used in this mapping exercise, the mapping has been reviewed according to Article 9 of the draft ITS. Therefore, in accordance with the ITS, the default rates are increased by 100%, especially in cases where the default rate is close to the upper bound of the assigned CQS. Based on this factor, for those categories where there are no reported defaults, no change is proposed to the mapping based on this factor. In case of BBB category, since the mapping proposed by the quantitative factor is CQS4 (one step less favorable than initially assumed) this factor would have no impact.

26. Regarding **the meaning and relative position of the credit assessments**, it suggests a more favourable mapping of AAA, AA, and BBB rating categories. However, the absence of empirical evidence does not allow a significant use of this factor to modify any of the proposed mappings. In the case of the D and SD rating categories, its meaning is consistent with the one of CQS 6 stated in Annex II draft ITS.

27. Regarding the **time horizon** reflected by the rating category, EHR applies point in time 12-month approach which in general is not comparable with the 3-year time horizon that characterizes the benchmarks established in Annex I draft ITS. Nevertheless, the three-year transition probabilities are very low and ratings are relatively stable in most of the rating

categories (except BB, which has a high upgrade probability), as shown in Figure 10 of Appendix 3. Therefore, no change is proposed to the mapping.

28. 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 all rating categories under Article 7 draft ITS.



## Appendix 1: Credit ratings and rating scales

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

SA exposure classes	Name of credit rating	Credit rating scale
<b>Long-term ratings</b>		
Institutions	Long-term corporate rating (issuer)	Global long-term rating scale
	Long-term corporate rating (issue)	Global long-term rating scale
Corporates	Long-term corporate rating (issuer)	Global long-term rating scale
	Long-term corporate rating (issue)	Global long-term rating scale
CIUs (that primarily refer to the credit quality of the underlying assets)	Long-term credit portfolio rating (issuer)	Global long-term rating scale
	Long-term credit portfolio rating (issue)	Global long-term rating scale

Source: EHR

Figure 3: Global long-term rating scale

Credit assessment	Meaning of the credit assessment
AAA	AAA rated companies demonstrate an excellent credit quality. Such companies are characterized by an extremely positive future outlook and are viewed as being “first class” business partners. Although the various security elements can certainly change, such changes – to the extent this can be assessed – are highly unlikely to adversely affect the fundamentally strong position of such companies.
AA	AA rated companies demonstrate very high quality with respect to future security. Along with the AAA rated companies, this group forms the so-called “quality class.” Security margins may, however, be comparatively thinner, the solidity of the security elements may fluctuate more or individual assessment components may indicate a greater long-term risk than is the case for AAA rated companies.
A	A rated companies demonstrate high quality with respect to future security. They show many favourable features which secure their future. Nevertheless, there may be isolated factors which reveal a slightly increased susceptibility to the worsening of circumstances and general economic conditions in the future.
BBB	BBB rated companies demonstrate reasonable quality with respect to future security. Compared to A rated companies, however, it is more likely that worsening of general economic conditions could weaken the capability of fulfilling financial obligations.
BB	BB rated companies still have structures adequate to secure their future. Yet they are subject to greater insecurities. Negative business developments or changes in the general financial and economic conditions can make it impossible for them to fulfil their financial obligations in a suitable manner.
B	B rated companies lack the usual structures to secure their future. Negative business developments or changes in the general financial and economic conditions will most likely make it impossible for them to fulfil their financial obligations in a suitable manner.
CCC	CCC rated companies have structures which greatly endanger the security of their future. Capital service is in jeopardy. Such a company is dependent on a favourable development of general economic conditions if it is to be able to meet its financial obligations in the long

term.

CC	Companies receiving a CC rating have very little security for their future. Capital service is in great jeopardy.
C	C rated companies have the least future security of all. The basic conditions enabling such debtors to fulfil their financial obligations are extremely poor. Default is imminent.
SD	If an issuer defaults with respect to a certain financial liability or class of liabilities but is still able to honour its payment obligations under other financial liabilities or classes of liabilities within the requisite period, it is assigned SD (selective default) status.
D	Companies with a D rating are already in default of payment or have filed for bankruptcy. The D rating is irrelevant for the future; it documents solely the bankruptcy of the company.

Source: EHR

## Appendix 2: Definition of default

A rated company is deemed to be in default (D) if it is no longer able to or has failed to meet its obligations under financial liabilities and EHR takes the view that the rated company will not be honouring its remaining financial obligations within the requisite period. Moreover, a default is deemed to occur if the rated company becomes the subject of insolvency proceedings or a settlement in court or out of court or a petition for the commencement of insolvency or title execution proceedings is lodged.

If a rated company defaults with respect to a certain financial liability or class of liabilities but is still able to honour its payment obligations under other financial liabilities or classes of liabilities, the rated company is assigned SD (selective default) status. In order to identify a default, EHR relies on information from the capital market or information provided by the rated company itself. In the case of solicited ratings, the representatives of the rated company are under a duty to disclose any default events. With unsolicited ratings, EHR is solely responsible for obtaining the necessary information. Failure to settle a trade payable does not result in the default of the rated company.

It is assumed that a default occurred on the earliest of the dates on which:

- EHR downgraded the rating to D or SD, or
- The rated company failed to observe its payment obligation, or
- The rated company became insolvent, or
- The rated company becomes the subject of insolvency proceedings or settlement in court or out of court or a petition for the commencement of insolvency or title execution proceedings is lodged with the responsible court.

Source: EHR

## Appendix 3: Default rates of each rating category

Figure 4: Number of rated items

Date	AAA	AA	A	BBB	BB	B	CCC/CC /C
01/07/2002						1	
01/01/2003			1			2	
01/07/2003			1		1	3	
01/01/2004			2	1	2	4	
01/07/2004		1	2	1	4	4	
01/01/2005		1	5	9	8	6	
01/07/2005		1	5	12	8	8	
01/01/2006			4	21	12	7	
01/07/2006		1	5	18	12	8	
01/01/2007		1	6	21	32	6	
01/07/2007		1	6	19	30	7	
01/01/2008			6	18	26	6	
01/07/2008		1	5	17	17	4	
01/01/2009		1	3	18	16	4	
01/07/2009			2	15	11	4	1
01/01/2010			4	11	7	3	2
01/07/2010		2	6	13	7	1	2

Source: Joint Committee calculations based on data provided by Euler Hermes

Figure 5: Number of defaulted rated items

Date	AAA	AA	A	BBB	BB	B	CCC/CC /C
01/07/2002						0	
01/01/2003			0			0	
01/07/2003			0		0	1	
01/01/2004			0	0	0	1	
01/07/2004		0	0	0	0	1	
01/01/2005		0	0	0	0	0	
01/07/2005		0	0	1	0	1	
01/01/2006			0	1	0	0	
01/07/2006		0	0	0	0	1	
01/01/2007		0	0	1	4	1	
01/07/2007		0	0	1	4	1	
01/01/2008			0	1	2	0	
01/07/2008		0	0	1	1	0	
01/01/2009		0	0	1	1	1	
01/07/2009			0	1	1	1	0
01/01/2010			0	1	0	1	0
01/07/2010		0	0	1	0	0	0

Source: Joint Committee calculations based on data provided by Euler Hermes

Figure 6: Default rates

Date	AAA	AA	A	BBB	BB	B	CCC/CC /C
01/07/2002	n.a.	n.a.	n.a.	n.a.		0.0	n.a.
01/01/2003	n.a.	n.a.	n.a.	n.a.		0.0	n.a.
01/07/2003	n.a.	n.a.	n.a.	n.a.	0.0	33.3	n.a.
01/01/2004	n.a.	n.a.	n.a.	n.a.	0.0	25.0	n.a.
01/07/2004	n.a.	n.a.	n.a.	n.a.	0.0	25.0	n.a.
01/01/2005	n.a.	n.a.	n.a.	n.a.	0.0	0.0	n.a.
01/07/2005	n.a.	n.a.	n.a.	n.a.	0.0	12.5	n.a.
01/01/2006	n.a.	n.a.	n.a.	n.a.	0.0	0.0	n.a.
01/07/2006	n.a.	n.a.	n.a.	n.a.	0.0	12.5	n.a.
01/01/2007	n.a.	n.a.	n.a.	n.a.	12.5	16.7	n.a.
01/07/2007	n.a.	n.a.	n.a.	n.a.	13.3	14.3	n.a.
01/01/2008	n.a.	n.a.	n.a.	n.a.	7.7	0.0	n.a.
01/07/2008	n.a.	n.a.	n.a.	n.a.	5.9	0.0	n.a.
01/01/2009	n.a.	n.a.	n.a.	n.a.	6.3	25.0	n.a.
01/07/2009	n.a.	n.a.	n.a.	n.a.	9.1	25.0	n.a.
01/01/2010	n.a.	n.a.	n.a.	n.a.	0.0	33.3	n.a.
01/07/2010	n.a.	n.a.	n.a.	n.a.	0.0	0.0	n.a.
<b>Long-run default rate</b>	n.a.	n.a.	n.a.	n.a.	<b>6.74</b>	<b>12.8</b>	<b>n.a.</b>

Source: Joint Committee calculations based on data provided by Euler Hermes

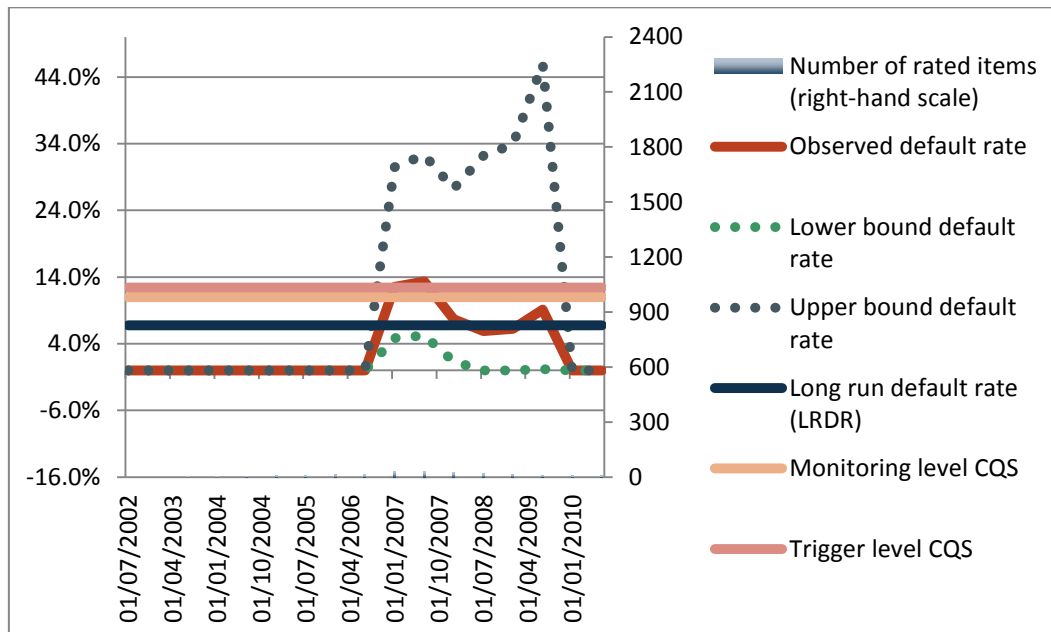
Figure 7: Mapping proposal for rating categories with a non-sufficient number of credit ratings

	AAA/AA	A	BBB
CQS of equivalent international rating category	CQS 1	CQS 2	CQS 3
N. observed defaulted items	0	0	10
Minimum N. rated items	496	0	323
Observed N. rated items	10	63	194
<b>Mapping proposal</b>	<b>CQS 2</b>	<b>CQS 2</b>	<b>CQS 4</b>

Source: Joint Committee calculations based on data provided by Euler Hermes

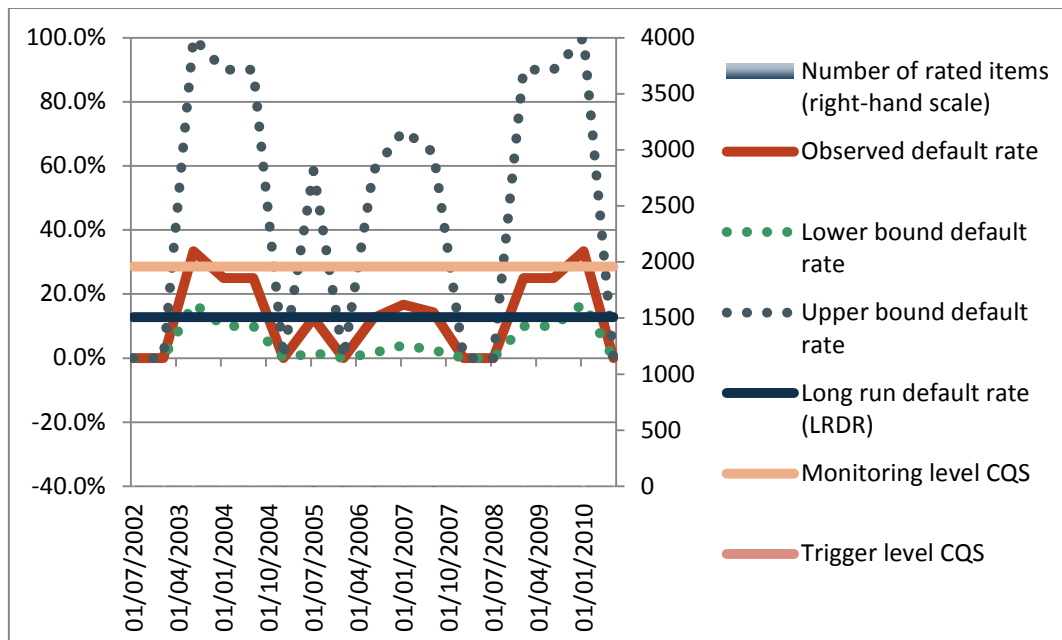


Figure 8: Short-run and long-run observed default rates of BB rating category



Source: Joint Committee calculations based on CERP data

Figure 9: Short-run and long-run observed default rates of B rating category



Source: Joint Committee calculations based on CERP data

Figure 10: Transition matrix

3-year transition matrices, 8-year average (2002 - 2013)

Rating end period	AAA	AA	A	BBB	BB	B	CCC/CC/C
Rating start period							
AAA	0	0	0	0	0	0	0
AA	0	100	0	0	0	0	0
A	0	2.5	92.5	0	5	0	0
BBB	0	0	0	87.8	11.11	0	1.11
BB	0	0	0	53.1	31.25	16	0
B	0	0	0	0	0	100	0
CCC/CC/C	0	0	0	0	0	0	0

Source: Joint Committee calculations based on CEREP data

## Appendix 6: Mappings of each rating scale

Figure 11: Mapping of EHR's Global long-term rating scale

Credit assessment	Initial mapping <i>based on LR</i> <i>DR</i> (CQS)	Review <i>based on SR</i> <i>DR</i> (CQS)	Final review <i>based on</i> <i>qualitative</i> <i>factors</i> (CQS)	Main reason for the mapping
AAA	2	n.a.	2	The quantitative factors are representative of the final CQS.
AA	2	n.a.	2	
A	2	n.a.	2	
BBB	4	n.a.	4	The quantitative factors are representative of the final CQS.
BB	4	4	4	The quantitative factors are representative of the final CQS.
B	5	5	5	The quantitative factors are representative of the final CQS.
CCC	6	n.a.	6	The quantitative factors are representative of the final CQS.
CC	6	n.a.	6	
C	6	n.a.	6	
SD	n.a.	n.a.	6	The meaning and relative position of the rating category is representative of the final CQS.



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SUPERVISORY AUTHORITIES

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

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