

## Annex 2

### Standardised Approach - Implementing the Mapping Process

1. Because supervisors will be responsible for assigning eligible ECAI's credit risk assessments to the risk weights available under the standardised approach, they will need to consider a variety of qualitative and quantitative factors to differentiate between the relative degrees of risk expressed by each assessment. Such qualitative factors could include the pool of issuers that each agency covers, the range of ratings that an agency assigns, each rating's meaning, and each agency's definition of default, among others.

2. Quantifiable parameters may help to promote a more consistent mapping of credit risk assessments into the available risk weights under the standardised approach. This annex summarises the Committee's proposals to help supervisors with mapping exercises. The parameters presented below are intended to provide guidance to supervisors and are not intended to establish new or complement existing eligibility requirements for ECAs.

### Evaluating CDRs: two proposed measures

3. To help ensure that a particular risk weight is appropriate for a particular credit risk assessment, the Committee recommends that supervisors evaluate the cumulative default rate (CDR) associated with all issues assigned the same credit risk rating. Supervisors would evaluate two separate measures of CDRs associated with each risk rating contained in the standardised approach, using in both cases the CDR measured over a three-year period.

- To ensure that supervisors have a sense of the long-run default experience over time, supervisors should evaluate the ten-year average of the three-year CDR when this depth of data is available.<sup>150</sup> For new rating agencies or for those that have compiled less than ten years of default data, supervisors may wish to ask rating agencies what they believe the 10-year average of the three-year CDR would be for each risk rating and hold them accountable for such an evaluation thereafter for the purpose of risk weighting the claims they rate.
- The other measure that supervisors should consider is the most recent three-year CDR associated with each credit risk assessment of an ECAI

4. Both measurements would be compared to aggregate, historical default rates of credit risk assessments compiled by the Committee that are believed to represent an equivalent level of credit risk.

5. As three-year CDR data is expected to be available from ECAs, supervisors should be able to compare the default experience of a particular ECAI's assessments with those issued by other rating agencies, in particular major agencies rating a similar population.

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<sup>150</sup> In 2002, for example, a supervisor would calculate the average of the three-year CDRs for issuers assigned to each rating grade (the "cohort") for each of the ten years 1990-1999.

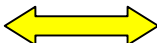
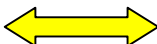
## Mapping risk ratings to risk weights using CDRs

6. To help supervisors determine the appropriate risk weights to which an ECAI's risk ratings should be mapped, each of the CDR measures mentioned above could be compared to the following reference and benchmark values of CDRs:

- For each step in an ECAI's rating scale, a ten-year average of the three-year CDR would be compared to a long run "reference" three-year CDR that would represent a sense of the long-run international default experience of risk assessments.
- Likewise, for each step in the ECAI's rating scale, the two most recent three-year CDR would be compared to "benchmarks" for CDRs. This comparison would be intended to determine whether the ECAI's most recent record of assessing credit risk remains within the CDR supervisory benchmarks.

7. Table 1 below illustrates the overall framework for such comparisons.

Table 1  
Comparisons of CDR Measures<sup>151</sup>

International Experience (derived from the combined experience of major rating agencies)	Compare to	External Credit Assessment Institution
<i>Set by the Committee as guidance</i>		<i>Calculated by national supervisors based on the ECAI's own default data</i>
Long-run "reference" CDR		Ten-year average of the three-year CDR
CDR Benchmarks		Two most recent three-year CDR

### 1. Comparing an ECAI's long-run average three-year CDR to a long-run "reference" CDR

8. For each credit risk category used in the standardised approach of the New Accord, the corresponding long-run reference CDR would provide information to supervisors on what its default experience has been internationally. The ten-year average of an eligible ECAI's particular assessment would not be expected to match exactly the long-run reference CDR. The long run CDRs are meant as guidance for supervisors, and not as "targets" that ECAIs would have to meet. The recommended long-run "reference" three-year CDRs for each of the Committee's credit risk categories are presented in Table 2 below, based on the Committee's observations of the default experience reported by major rating agencies internationally.

<sup>151</sup> It should be noted that each major rating agency would be subject to these comparisons as well, in which its individual experience would be compared to the aggregate international experience.

Table 2

**Proposed long run "reference" three-year CDRs**

<b>S&amp;P Assessment (Moody's)</b>	<b>AAA-AA (Aaa-Aa)</b>	<b>A (A)</b>	<b>BBB (Baa)</b>	<b>BB (Ba)</b>	<b>B (B)</b>
20-year average of three-year CDR	0.10%	0.25%	1.00%	7.50%	20.00%

**2. Comparing an ECAI's most recent three-year CDR to CDR Benchmarks**

9. Since an ECAI's own CDRs are not intended to match the reference CDRs exactly, it is important to provide a better sense of what upper bounds of CDRs are acceptable for each assessment, and hence each risk weight, contained in the standardised approach.

10. It is the Committee's general sense that the upper bounds for CDRs should serve as guidance for supervisors and not necessarily as mandatory requirements. Exceeding the upper bound for a CDR would therefore not necessarily require the supervisor to increase the risk weight associated with a particular assessment in all cases if the supervisor is convinced that the higher CDR results from some temporary cause other than weaker credit risk assessment standards.

11. To assist supervisors in interpreting whether a CDR falls within an acceptable range for a risk rating to qualify for a particular risk weight, two benchmarks would be set for each assessment, namely a "monitoring" level benchmark and a "trigger" level benchmark.

**(a) "Monitoring" level benchmark**

12. Exceeding the "monitoring" level CDR benchmark implies that a rating agency's current default experience for a particular credit risk-assessment grade is markedly higher than international default experience. Although such assessments would generally still be considered eligible for the associated risk weights, supervisors would be expected to consult with the relevant rating agency to understand why the default experience appears to be significantly worse. If supervisors determine that the higher default experience is attributable to weaker standards in assessing credit risk, they would be expected to assign a higher risk category to the agency's credit risk assessment.

**(b) "Trigger" level**

13. Exceeding the "trigger" level benchmark implies that a rating agency's default experience is considerably above the international historical default experience for a particular assessment grade. Thus there is a presumption that the ECAI's standards for assessing credit risk are either too weak or are not applied appropriately. If the observed three-year CDR exceeds the trigger level in two consecutive years, supervisors would be expected to move the risk assessment into a less favourable risk category. However, if supervisors determine that the higher observed CDR is not attributable to weaker

assessment standards, then they may exercise judgement and retain the original risk weight.<sup>152</sup>

14. In all cases where the supervisor decides to leave the risk category unchanged, it may wish to rely on Pillar 2 of the New Accord and encourage banks to hold more capital temporarily or to establish higher reserves.

15. When the supervisor has increased the associated risk category, there would be the opportunity for the assessment to again map to the original risk category if the ECAI is able to demonstrate that its three-year CDR falls and remains below the monitoring level for two consecutive years.

**(c) Calibrating the benchmark CDRs**

16. After reviewing a variety of methodologies, the Committee decided to use Monte Carlo simulations to calibrate both the monitoring and trigger levels for each credit risk assessment category. In particular, the proposed monitoring levels were derived from the 99.0<sup>th</sup> percentile confidence interval and the trigger level benchmark from the 99.9<sup>th</sup> percentile confidence interval. The simulations relied on publicly available historical default data from major international rating agencies. The levels derived for each risk assessment category are presented in Table 3 below, rounded to the first decimal:

Table 3  
**Proposed three-year CDR benchmarks**

<b>S&amp;P Assessment (Moody's)</b>	<b>AAA-AA (Aaa-Aa)</b>	<b>A (A)</b>	<b>BBB (Baa)</b>	<b>BB (Ba)</b>	<b>B (B)</b>
Monitoring Level	0.8%	1.0%	2.4%	11.0%	28.6%
Trigger Level	1.2%	1.3%	3.0%	12.4%	35.0%

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<sup>152</sup> For example, if supervisors determine that the higher default experience is a temporary phenomenon, perhaps because it reflects a temporary or exogenous shock such as a natural disaster, then the risk weighting proposed in the standardised approach could still apply. Likewise, a breach of the trigger level by several ECAIs simultaneously may indicate a temporary market change or exogenous shock as opposed to a loosening of credit standards. In either scenario, supervisors would be expected to monitor the ECAI's assessments to ensure that the higher default experience is not the result of a loosening of credit risk assessment standards.