



European Securities and
Markets Authority

About the CEREP

How to interpret the statistics





I. In brief

The CEREP provides rating activity and performance statistics based on a stock concept model. All statistics are available to investors for periods ranging from six months to multiple years.

II Overview of statistics

1. In the CEREP, two different types of statistics are displayed which present the rating activities and performances of credit rating agencies.
2. Rating activity statistics include:
 - a. Number of ratings at the beginning of a period (BOP),
 - b. Number of ratings at the end of a period (EOP),
 - c. Number of upgrades during the period,
 - d. Average number of notches of an upgrade,
 - e. Number of downgrades during the period,
 - f. Average number of notches of a downgrade,
 - g. Upgrade/downgrade ratio,
 - h. Number of new ratings
 - i. Number of defaults,
 - j. Number of withdrawals incl. a breakdown by reasons of withdrawal.
3. Rating performance statistics include:
 - a. Default rates, from six months to multi-year periods,
 - b. Transition matrices, from six months to multi-year periods.
4. The user starts the search by selecting a specific Credit Rating Agency (CRA), the rating type (corporate, sovereign and public finance, structured finance) and the time horizon of the ratings (short-/long-term ratings). Once the rating type and the time horizon have been selected for a specific CRA, it is possible to select further for geographic area and segment (industry, sector type of asset, depending on the previous selection). It is also possible to navigate among the different cumulative and non cumulative periods and the different statistical tables.

- The CEREP provides statistics in two formats: as an absolute number and as a percentage, where applicable.

III “Stock concept”

- All rating activity and rating performance statistics are calculated based on a stock concept, i.e. a comparison of ratings at the beginning of a period and at the end of the period. A rating which is “A” at the beginning of the period and “B” at the end of the period will be displayed as a rating change. As a consequence, a rating which was “A” at the beginning of the period and changed to “B” during the period and changed back to “A” during the same period will not be displayed as a rating change. Also, two separate rating changes within one period (e.g. from “A” to “B” and later on from “B” to “C”) will be displayed only as one rating change, i.e. from “A” to “C”.
- Beginning of a period (BOP) can be 01/01 or 01/07 of a year, 00:00:00 Central European Time. End of a period (EOP) is 30/06 or 31/12 of a year, 23:59:59 Central European Time.

IV Rating scales

- Credit rating agencies do not use harmonized rating scales – these might differ with respect to both the nomenclature of rating categories and number of rating categories, i.e. the granularity of creditworthiness assessments. Most credit rating agencies differentiate further within a rating category by including notches as illustrated in the box below.

| Rating class / rating category | Notch |
|--------------------------------|-------|
| A | A+ |
| | A |
| | A- |
| B | B+ |
| | B |
| | B- |
| C | C+ |
| | C |
| | C- |

- In the CEREP, most statistics are displayed based on this more granular notch categorization, if available. This means that an upgrade from “A-“ to “A+” is displayed as an upgrade although the broad rating category has not changed. Broad rating categories used exclusively only for rating performance statistics, e.g. transition matrices, are ,due to very small cohorts (i.e. active ratings at the beginning of a period), which would be included in each notch level for the vast majority of credit rating agencies, and to presentational issues.

10. Credit rating agencies might use different rating scales for different types of issuers and/or instruments. Usually different rating scales are used for short-term and long-term ratings, but also for structured finance instruments. Therefore, the CEREP does not display rating activity and rating performance statistics for the whole universe of ratings issued by a credit rating agency, but the user has to specify the rating type and the time horizon first.
11. In cases where a CRA's rating scale or a CRA's methodology change in such a way as to impact the rating scale, ESMA considers two scenarios possible which might result in a different treatment of the changes within the CEREP:
 - a. The CRA's rating scaled is renamed without further amendment: in this case the format of the new rating scale will be adopted in the CEREP. The rating scales of the existing historical rating data will be amended to the new format.
 - b. Changes in a CRA's rating scale that amend or alter the existing rating scale in a way that would create a break in historical performance statistics: in this case, ESMA has decided it will stop creating statistics based on the old rating scales and start reporting and producing statistics based on the new rating scale from the time of change onwards. Existing performance statistics for the old rating scale will still be accessible. However, the old and the new rating scale will not be comparable.

V Default rates

12. For the purposes of reporting into the CEREP, no deterministic definition of a default event has been set up. Therefore the definitions might differ for various credit rating agencies, and users are strongly suggested to refer to the qualitative information provided by each credit rating agency.
13. Default rates presented in the CEREP are simply weighted by the number of defaulting issuers – no weighting by outstanding debt is applied.
14. Usually, default rates will fluctuate during the business cycle. For this reason particular attention should be paid to the interpretation of an individual one-year default rate, e.g. by including default rates of other years in the analysis or by looking at multi-year statistics.

VI Transition matrices

15. Transition matrices display the change of a rating from one point in time to another. The first column shows the rating as at the beginning of the statistics period. The percentages in any row always add up to 100% since for each rating at the beginning of the period exactly one state at the end of the period will exist (i.e. whether the rating has remained unchanged, has been upgraded, downgraded or withdrawn).

| | A | B | C | D | E | Withdrawal |
|---|-----|-----|-----|-----|-----|------------|
| A | 85% | 8% | 7% | 0% | 0% | 0% |
| B | 3% | 80% | 7% | 2% | 0% | 8% |
| C | 1% | 4% | 82% | 5% | 2% | 6% |
| D | 0% | 2% | 5% | 78% | 8% | 7% |
| E | 0% | 0% | 1% | 6% | 74% | 19% |

VII Multi-year statistics

16. Multi-year default rates and transition matrices are calculated by building cohorts at the beginning of the respective period – the ratings included in the cohort are followed until the end of the period. So any defaults or rating changes of issuers/instruments which have been rated for the first time only after the statistics period had started are not displayed in the table. E.g. a five-year transition matrix from 01/01/2005 to 31/12/2009 does not include the rating of an instrument for which the credit rating agency started coverage only in the course of 2007.
17. A T-year cumulative default rate is the number of ratings belonging to a cohort that defaulted during the period T considered related to the number of members of the cohort at the beginning of the period T.

VIII Comparability

18. Users should be very careful when comparing rating scales of different credit rating agencies. The rating scales might differ with respect to the number of rating categories and with respect to the definition of the categories.
19. This fact has an impact on some rating activity and performance measures, e.g. the average number of notches in cases of upgrade or downgrade. For users wanting to compare the activities of different credit rating agencies, the CEREP displays such figures in absolute and relative terms. So an average downgrade of two notches for a CRA with a 20-step rating scale translates into an average move of 10% of the rating scale while the same two-notch average downgrade for a CRA with a 10-step rating scale translates into an average rating move of 20%.
20. Default rates and transition matrices have to be interpreted with care when the sample size of issued ratings is low. The smaller the sample size, the lower the statistical significance of an outlier.