CARE's DEFAULT AND TRANSITION STUDY 2010

(For the seven-year period 2003-2009)

Summary

CARE's Default and Transition Study for the period January 1, 2003 to December 31, 2009 reveals that the three-year cumulative issuer weighted average default rates were lower in the higher rating categories compared with the lower rating categories. In case of the AAA category there were no defaults while the default rate was 1.1% for AA category, 4% for A category and 7.5% for BBB group. In case of the non-investment grade category, the default rate was 18.2%. CARE's ratings have thus shown good discriminatory power across rating categories.

The average one-year transition matrix for the period, calendar year 2003 to calendar year 2009 shows that 99.2% of the AAA rated companies retained their rating while the same proportion was 96.7% for AA rated entities. However, this ratio was lower in case of A and BBB rated companies at 81.6% and 83.3% respectively. The less than investment grade category had a retention ratio of 96.2%.

The default and transition rates were affected quite perceptibly by the overall state of the economy during this time period. There were broadly speaking two phases for the economy, the first up to 2007-08 and the second for the two-year period up to March 2010. The first phase was typified by robust GDP and industrial growth and supported by high growth in credit and capital issues. This resulted in growing profit margins and better debt servicing. However, on account of the global economic crisis, there was a slowdown in economic growth

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in 2008-09 with only a modest recovery being witnessed in 2009-10. Also industrial growth in 2008-09 had declined to 2.7% thus affecting the financial wherewithal of companies. This was a phase when profit margins had declined and the investment climate remained subdued with credit growth slowing down and capital issues being modest. With growth in exports slowing down considerably in 2008-09 and moving into the negative zone in 2009-10, the corporate sector was under severe pressure which did impact its performance in terms of servicing its debt commitments.

The publication of this default and transition study is an endeavour of CARE towards increasing transparency of its ratings. This study updates the earlier study[1] for the period 2003-08 by adding data for the CY2009. It may be highlighted here that the implementation of Basel II standardized approach for risk weights for CRAR determination based on ratings of approved rating agencies in a phased manner effective March 31, 2008 and increased use of Bank loan ratings has seen a substantial change in the composition of rated borrowers with the increasing sample size across rating categories. Going ahead, it is felt that after a stressful period in the last eighteen months, the default rates are expected to settle around the current level in future.

However, a limitation in the interpretation of these results is the relatively small sample size given the number of issuers in each rating category.

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[1] CARE Default study 2009.

CARE's Default Study

This section examines default experience of CARE's long-term and medium-term ratings from January 1, 2003 to December 31, 2009.

Methodology

The Cohorts method has been used to calculate the performance of CARE rated entities across various rating categories. Category-wise three-year Cumulative Default Rate (CDR) is calculated for the five Cohorts outstanding on January 1, 2003, January 1, 2004, January 1, 2005, January 1, 2006 and January 1, 2007. Then the issuer weighted average of the three-year CDR of these five Cohorts is computed to arrive at the three-year CDR of each rating category. A higher rating given to an entity implies lower credit risk and should therefore have lower CDR, and the CDR numbers for January 1, 2003 to December 31 2009, generally display this property.

The definition of default for this CDR study and detailed methodology for computing CDR is presented in **Annexure I**.

Coverage

The CDR study includes ratings of issuers across all sectors – banks, financial institutions and corporates. Structured Obligations (SO) are not a part of this study which would comprise securitisation transactions, ratings backed by third-party guarantees or instruments with a structured payment mechanism.

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Static Pool / Cohort

- The study tracks the long/medium-term ratings assigned and accepted by the issuer and is based on issuer-specific data and not instrument-specific data (thus counting an issuer only once).

- The rating of senior-most long-term debt of an issuer is considered as the rating of that issuer. If CARE has not rated the long-term instrument of that issuer, then the medium-term rating is considered as the issuer's rating.

- **Static pools / Cohorts** for the study are the number of issuers outstanding in each rating category as on the five cut-off dates – January 1, 2003, January 1, 2004, January 1, 2005, January 1, 2006 and January 1, 2007. Default experience of each rating category for each cohort is examined over a three-year period.

Rating category-wise sample size is presented below:

Table 1: Issuers Outstanding at the beginning of each Cohort period

	No. of Issuers at the beginning of the cohort period				
Rating	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
AAA	8	14	14	19	22
AA	25	26	36	46	48
A	18	17	17	23	26
BBB	13	11	15	16	12
Below Investment Grade	6	5	4	4	2
Total	70	73	86	108	110

CARE's Three-Year Cumulative Default Rate

CARE's three-year cumulative issuer weighted average default rates (as shown in the tables) are lower in the higher rating categories and increase as we move down the rating categories.

There were no instances of default (in any Cohort) in AAA rating category during the period of this study.

There are very few issuers in the lower rated categories (BB, B & C). In fact in some cases one or no issuers are present in these rating categories. Also, there are overall sample size limitations for this study. Despite the low absolute number of defaults in each category, the default rates show high values as the **sample size for the study is relatively small**.

Table 2: CARE's Issuer Weighted 3-Year Cumulative Default Rates for the period 2003-2009

Rating Category	CDR (%)
AAA	0.0
AA	1.1
A	4.0
BBB	7.5
Below Investment Grade	18.2

The categories of AA, A, BBB, BB, B and C include ratings with the suffix '+' or '−' within the respective categories. Thus, for instance, the AA category includes three ratings: AA+, AA and AA-.

Observations

- Small sample size in all rating categories limits the interpretation of the study results, more-so in the lower rating categories from A, BBB and

down below. A single default in the "A" category with a sample size of 17 provides a default rate of 5.88% while in the "BBB" rating category with a sample size of 9, it works out to be 11.11%. In this situation it would be difficult to draw simple conclusions from such a study especially in the lower rated categories. Nevertheless the study is important from drawing broad inferences. As the sample size increases more meaningful conclusions can be reached.

- Despite these limitations, it can be observed that CARE's CDRs display good discriminatory power with higher rating categories generally having lower CDRs. There is no default in the highest rating category for the period 2003-2009.

- While structured obligations are not part of this study, CARE has not witnessed any defaults in the asset-backed or mortgage-backed securitisation transactions it has rated so far. A major part of CARE's structured obligation ratings are public finance ratings involving obligations of state level entity backed by state/central government guarantee. Predominantly it has been observed that missed payments on due dates have been of a short-term nature as a result of delays due to compliance with internal government procedure towards making the funds available to the rated entity.

Transition Study

Rating transition study looks at how ratings have changed over a period of time, an important aspect analyzed by CARE to evaluate the stability/migration of its ratings.

Methodology for transition rates

The methodology for studying rating transition is discussed below:

- The static pools, also known as cohorts, are created by grouping issuer ratings according to the year in which the ratings are active and outstanding at the beginning of the year.

- The study tracks the long/medium-term ratings assigned and accepted by the issuer on a year-to-year basis.

- The study is based on issuer-specific data and is not instrument-specific. Thus, it counts an issuer only once and avoids distortion.

- The transition study includes ratings of issuers across all sectors – banks, financial institutions and corporates. Structured Obligations (SO) are not a part of this study.

- Individual cohorts have been formed for each year under study; in all 7 cohorts have been prepared for the 7-year period of study. Each individual cohort for a given calendar year consists of the ratings outstanding in various rating categories at the beginning of the calendar year and tracks the changes in rating, if any, during the one-year period therefrom. For example, the 2008 cohort represents the ratings outstanding as on December 31, 2007 and their transitions or changes (upgrades, downgrades and re-affirmation) in the subsequent year till December 31, 2008.

- Data from all individual cohorts have been pooled together to obtain the average transition matrix.
- The study does not consider withdrawn or suspended ratings nor does it take into its purview the ratings which were no longer in use.

Results

The table shows issuer weighted average transition rates on the CARE rating scale over the period 2003-2009.

Table 3: Average 1-year Rating Transition Rates for the period CY 2003-2008

(%)

Rating	Sample Size	AAA	AA	A	BBB	Below Investment Grade
AAA	**128**	**99.22**	0.78	0.00	0.00	0.00
AA	**301**	1.33	**96.68**	1.33	0.00	0.66
A	**261**	0.00	3.07	**81.61**	11.49	3.83
BBB	**221**	0.00	0.00	1.36	**83.26**	15.38
Below Investment Grade *	**26**	0.00	0.00	3.85	0.00	**96.15**

** Below Investment Grade; ratings below BBB- (i.e. BB+ till D)*
The categories of AA, A, BBB, BB, B and C include ratings with the suffix '+' or '−' within the respective categories. Thus, for instance, the AA category includes three ratings: AA+, AA and AA-.

The diagonal of the matrix denotes the percentage of ratings which have been retained whereas the area to the left and right of the diagonal represents upgrades and downgrades, respectively.

Based on CARE's average one-year transition matrix, it can be inferred that out of all the AA rated companies at the beginning of the year, 96.7% have remained at the same category AA at the year ending. Out of the remaining AA rated

companies, 1.3% have been upgraded to AAA and 1.3% have been downgraded to A. Similar interpretation can be done for other rating categories as well.

Upgrades & Downgrades

Table 4: Rating Changes

Calendar Year	Upgrades	Downgrades	Rating Changes*
2003	1	7	8
2004	4	2	6
2005	1	5	6
2006	1	4	5
2007	1	4	5
2008	1	5	6
2009	7	62	69

*Rating
categories include ratings with the suffix '+' or '–' within the respective categories. Thus, for instance, the AA category includes three ratings: AA+, AA and AA- and the rating changes would not include notching changes like downgrade of AA+ to AA or upgrade of AA- to AA.

The absolute numbers of rating upgrades have been less than the downgrades during the period January 2003 to December 2009 with the sole exception of the calendar year 2004. In CY 2009 numbers of downgrade were far higher on account of the slowdown in the economy impacting the performance of the corporate.

Stability of Ratings

Stability rate for each rating category indicates percentage of ratings remaining in the same category at the end of one year. One-year average stability of CARE's ratings during the period 2003-2009 is presented below:
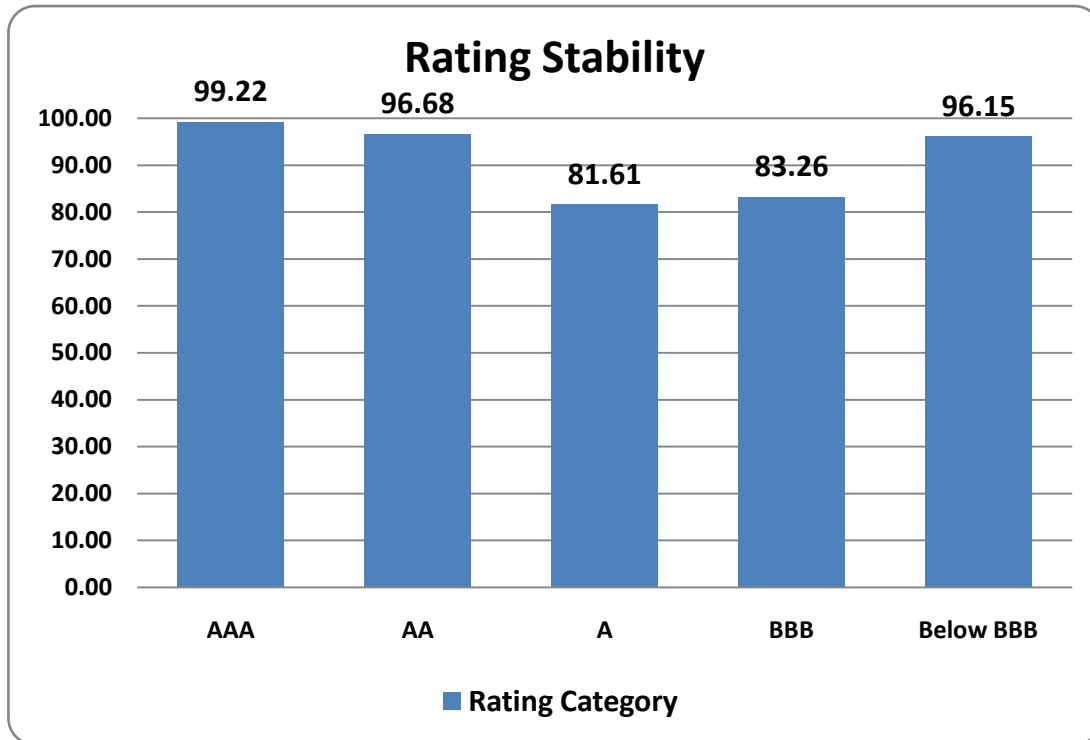
Rating Stability

- It can be observed from the above chart that CARE's higher rating categories AAA and AA exhibit high level of stability within one-year period.
- Stability rates of CARE's investment grade higher rating categories have generally been higher than those for the investment grade lower rating categories.

Annexure I

Definition of Default for the Study

For the purpose of this study, default has been defined as any missed payment on the rated instrument i.e. a single rupee delay even for a single day has been treated as default.

Concept of Static Pool / Cohort

Static Pool / Cohort for the study is the number of issuers outstanding in each rating category as on a given date. Default experience of each rating category is examined over the study period. New issuers during the study period are not considered and in that sense the data pool remains static. Companies that withdraw or default during the period remain withdrawn or in default for the remaining years. Therefore, a withdrawn company which is rated again or a company from the pool that defaults and recovers is not considered for re-inclusion in that pool. However those entities, which are rated again after withdrawal or which recover from default (and are rated again), are taken as new entities for future static pools.

Structured Obligations (SO) are not a part of this study for CDR computation, which would comprise of securitisation transactions, ratings backed by third-party guarantees or instruments with a structured payment mechanism. Therefore issuers backed by sovereign or sub-sovereign guarantees do not form a part of this study.

Cumulative Default Rate (CDR)

Cumulative Default Rate (CDR) shows the number of defaults from a given static pool as a proportion of total issuers in that static pool and provides an estimate of default frequency. For a given cohort, three-year CDR is computed as follows:

Three-Year CDR = No. of issuers which defaulted over the three-year period / No. of issuers outstanding at the beginning of the three-year period.

A hypothetical example is presented here:

	Cohort 1			Cohort 2		
	Opening Issuers (A)	Defaults during next 3 years (B)	3 Yr CDR = (B/A) (%)	Opening Issuers (A)	Defaults during next 3 years (B)	3-Yr CDR = (B/A) (%)
AAA	50	0	0.00	60	0	0.00
AA	40	1	2.50	50	1	2.00
A	30	2	6.67	20	2	10.00
BBB	20	3	15.00	15	3	20.00

Issuer weighted average three-year CDR is computed to arrive at the average CDR over a specified period of time. The above example is continued here to arrive at the average CDR:

	Cohort 1		Cohort 2		
	3 Yr CDR (C1) (%)	Opening Issuers (W1)	3 Yr CDR (C2) (%)	Opening Issuers (W2)	Weighted Average 3 Yr CDR =(C1*W1+C2*W2)/(W1+W2) (%)
AAA	0.00	50	0.00	60	0.00
AA	2.50	40	2.00	50	2.22
A	6.67	30	10.00	20	8.00
BBB	15.00	20	20.00	15	17.14