Cumulative Default Rate

CARE commenced its rating activity in 1993, and has over the years acquired considerable experience in rating various types of securities covering a wide range of sectors including Manufacturing, Services, Financial Institutions & Banks, Infrastructure, Public Finance, Securitisation etc.

The publication of this default study is an endeavor of CARE towards increasing transparency of its ratings. Default rates are influenced by a number of factors and the general state of the economy is one of the key determinants. Default rates in India reached high levels in the late nineties upto 2002, in line with slowdown in economy during those years.

This study examines default experience of CARE's long-term and medium-term ratings from April 1, 2005 to March 31, 2010. The same period can be divided into two extreme cycles of economic activity. The three year period starting from 1st April 2005 to 31st March 2008 was one of the most buoyant phases in Indian economy. This was the time when the economy averaged an annual GDP growth rate of 9.4% per annum with industry growing by a robust average of 8.7% per annum. This combined with strong export performance and a strong rupee kept economic confidence high. Corporate revenues were increasing and profits were soaring. So naturally the default rates remained low during this period, whereas over the next one year global crisis had big impact on Indian economy. Growth slowed down to 7.1% and industrial production averaged 6.6% with FY09 witnessing low growth of 2.7% only. The increased turbulence caused credit markets to slow down, with RBI intervention in terms of higher preemptions and interest rates which is seen in the default rates also. The recovery being witnessed subsequently towards the end of FY10 and the beginning of FY11 after the slowdown is expected to have favorable impact on default rate in the near future.

In the context of above, CARE's ratings have shown good discriminatory power across rating categories with higher rated categories generally having lower default rates. However, relatively fewer issuers in each rating category pose limitations to the interpretation of the study results.

Static pool for the period under study

- **Static pools / Cohorts** for the three year study are the number of issuers outstanding in each rating category as on the three cut-off dates – April 1, 2005, April 1, 2006 and April 1, 2007. Default experience of each rating category for each cohort is examined over next three-year period.
- **Similarly Static pools / Cohorts** for the one year study are the number of issuers outstanding in each rating category as on the five cut-off dates – April 1, 2005, April 1, 2006, April 1, 2007, April 1, 2008 and April 1, 2009. Default experience of each rating category for each cohort is examined over next one-year period.

Non - Structured Instrument

Rating category wise sample size

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

Rating category	1st April 2005	1st April 2006	1st April 2007	1st April 2008	1st April 2009
AAA	15	21	23	31	44
AA	39	48	49	63	92
A	16	24	30	65	167
BBB	13	15	11	33	273
BB	3	2	2	1	57
B	0	2	0	0	8
C	1	0	0	0	1

Table 2: CARE's Issuer Weighted Default Rates for the period FY2006-FY2010 - Non structured Instrument

	Weighted Average Default rate for the last five financial year period	
Rating Category	One year Default rate (%)	Three year Cumulative default rate (%)
AAA	0.00	0.00
AA	0.00	0.74
A	0.99	7.14
BBB	5.22	7.69
BB	13.85	14.29
B	10.00	50.00
C	0.00	0.00

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.

<u>Structured Instrument</u>

The sample size in case of the structured ratings is extremely low. On account of the same even a single default in a category results in high default rate.

Rating category wise sample size

Table 3: Issuers Outstanding at the beginning of each Cohort period

Rating category	1st April 2005	1st April 2006	1st April 2007	1st April 2008	1st April 2009
AAA	8	7	7	10	31
AA	7	5	7	6	7
A	21	19	19	15	13
BBB	5	3	11	15	24
BB	10	9	1	1	2
B	0	0	0	0	0
C	0	0	0	0	0

Table 4**:** CARE's Issuer Weighted Default Rates for the period FY2006-FY2010 - Structured Instrument

	Weighted Average Default rate for the last five financial year period	
Rating Category	One year Default rate (%)	Three year Cumulative default rate (%)
AAA	0.00[#]	0.00[1]
AA	0.00	0.00
A	0.00[*]	0.00[2]
BBB	0.00	0.00
BB	0.00[@]	0.00[3]
B	0.00	0.00
C	0.00	0.00

On account of one outlier data points i.e. delay in interest payment by ITI Ltd. (also rated by another rating agency) on a sovereign guaranteed instrument. The guarantee was not invoked. Including ITI Ltd., the CDR for AAA would have been 1.59%.

* On account of delay in payment by Jammu and Kashmir State power Development Corporation, an instrument guaranteed by GOJK. While the guarantee was not invoked, subsequently the payment for the same has been made. But as per the definition of default it has been taken as default. Including this the CDR would have been 1.15%.

@ On account of delay by Maharashtra Water Conservation Corporation an instrument guaranteed by GOM. Guarantee not invoked but instrument paid subsequently. Same thing happened with Mysore Sugar Ltd. Including these CDR would have been 8.70%.

1 On account of one outlier data points i.e. delay in interest payment by ITI Ltd. (also rated by another rating agency) on a sovereign guaranteed instrument. The guarantee was not invoked. Including ITI Ltd., the CDR for AAA would have been 9.09%.

2 On account of delay in payment by Jammu And Kashmir State power Development Corporation, an instrument guaranteed by GOJK. While the guarantee was not invoked, subsequently the payment for the same has been made. But as per the definition of default it has been taken as default. Including this the CDR would have been 3.39%.

3 On account of delay by Maharashtra Water Conservation Corporation an instrument guaranteed by GOM. Guarantee not invoked but instrument paid subsequently. Same thing happened with Mysore Sugar Ltd. (Guaranteed by Govt. of Karnataka). Including these CDR would have been 15.00%.

These rating were based on the guarantees given by various state governments or Government of India. These guarantees were not invoked and accordingly there were delays in payment in these cases. As a result, these ratings were downgraded to default category. *However, in case the guarantees would have been invoked payments would have happened on time and subsequent downgrades could have been avoided.*

Limitation of study

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. For example A single default in the "A" category with a sample size of 17 results in a default rate of 5.88% while in the "BBB" rating category with a sample size of 11, it works out to be 9.09%. 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.