# Annexure VII

## 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 write up examines default experience of CARE's long-term and medium-term ratings from April 1, 2006 to March 31, 2011. The Indian economy has made significant strides in the last 5 years in various economic dimensions. More importantly it came out well during the financial crisis with limited impact on growth. The financial system is quite stable. Besides being one of the fastest growing economies in the last few years, with the average GDP of 8.5% for the period of FY07 to FY11, the country has also built up reserves of foreign exchange which has been the result of high capital inflows in the form of investment – both direct and portfolio. A proactive policy regime that has helped to provide a sustained stimulus to growth has complemented the overall growth process.

In the first nine months of FY11, economic growth has been 8.6%, as against a growth of 7.4% for the same period in FY10. Advance Estimates of GDP growth suggest a growth of 8.6% in FY11. The tertiary sector has been the driver of growth in first 9 months of FY11, with a growth of 9.3% in this period. Trade, transport, hotels and communication, etc. grew at 10.8% and financing, insurance, real estate and business services at 9.1% in the same period.

It is important to look at the results of the Cumulative Default Rate against the following background. RBI had targeted 18% growth in Deposits (Rs. 8 lakh crore) and 20% growth in Credit (Rs. 6.5 lakh crore). However, it has been observed that bank deposit grew by 17% y-o-y and stood at Rs. 53,24,953 crore while credit grew by 22% y-o-y and stood at Rs. 32,40,399 crore. Further, liquidity was under strain for most part of the year, especially the second half and the RBI had to intervene to ensure that funds were available through various monetary measures. Also, consistently high inflation necessitated relentless increases in interest rates, which kept the 10-year GSec yield above 8% for most part of the year, while the 364 days CP rates had crossed the double digit mark. Notwithstanding this environment, the Cumulative Default Rate appears to be improving.

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, 2006, April 1, 2007 and April 1, 2008. 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, 2006, April 1, 2007, April 1, 2008, April 1, 2009 and April 1, 2010. 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 2006 | 1st April 2007 | 1st April 2008 | 1st April 2009 | 1st April 2010 |
|---|---|---|---|---|---|
| AAA | 21 | 23 | 31 | 44 | 48 |
| AA | 48 | 49 | 63 | 92 | 116 |
| A | 24 | 30 | 65 | 167 | 221 |
| BBB | 15 | 11 | 33 | 273 | 556 |
| BB | 2 | 2 | 1 | 57 | 183 |
| B | 2 | 0 | 0 | 8 | 24 |
| C | 0 | 0 | 0 | 1 | 3 |

Table 2: CARE's Issuer Weighted 3-Year Cumulative Default Rates for the period FY2007-FY2011 - 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 | 1.25 |
| A | 0.59 | 5.88 |
| BBB | 2.70 | 5.08 |
| BB | 7.76 | 20.00 |
| B | 17.65 | 50.00 |
| C | 25.00 | 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.

Structured Instrument

**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 2006 | 1st April 2007 | 1st April 2008 | 1st April 2009 | 1st April 2010 |
|---|---|---|---|---|---|
| AAA | 7 | 7 | 10 | 31 | 67 |
| AA | 5 | 7 | 6 | 7 | 32 |
| A | 19 | 19 | 15 | 13 | 28 |
| BBB | 3 | 11 | 15 | 24 | 72 |
| BB | 9 | 1 | 1 | 2 | 7 |
| B | 0 | 0 | 0 | 0 | 0 |
| C | 0 | 0 | 0 | 0 | 1 |

Table 4: CARE's Issuer Weighted 3-Year Cumulative Default Rates for the period FY2007-FY2011 - 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# | 0.0[1] |
| AA | 0.0 | 0.0 |
| A | 0.00* | 0.0[2] |
| BBB | 0 | 0.0 |
| BB | 5.0[@] | 0.0[3] |
| B | 0.0 | 0.0 |
| C | 0.0 | 0.0 |

[#] 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 0.82%.

* 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 1.06%.

[@] On account of delay by Maharashtra Water Conservation Corporation an instrument guaranteed by GOM. Guarantee not invoked but instrument paid subsequently. Including this CDR would have been 10.0%.

[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 4.17%.

[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 5.66%.

[3] On account of delay by Maharashtra Water Conservation Corporation an instrument guaranteed by GOM. Guarantee not invoked but instrument paid subsequently. Including this CDR would have been 9.09%.

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 BBB and down below. 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.