Rating’s Transition & Default Study FY 2016
Brickwork Ratings India Private Limited (BWR/Brickwork/Brickwork Ratings) began its credit rating operations in 2008 as a SEBI registered credit rating agency. In April 2012, Brickwork Ratings was recognized by the Reserve Bank of India as an eligible credit rating agency to undertake bank loan ratings. With the addition of bank loan ratings to its services offered, Brickwork Ratings has further expanded its ratings base in the market place.

The total number of long term ratings assigned by Brickwork Ratings that were outstanding as of 31st March 2016 exceeded over 4200. The ratings distribution has a median of BB. The non-investment grade population of Brickwork Ratings contributes to around 73% of the total rated population for FY16.

The Credit Ratings Behavior Ratio (CRBR) is an indication of the rating action trend and is defined as (Rating Upgrades / Rating Downgrades). For the current year the CRBR for the total rated population stood at 2.72 overall. Modified Credit Ratings Behavior Ratio (MCRBR) which is ((Rating Upgrades + Ratings Reaffirmed)/(Rating Downgrades + Ratings Reaffirmed)) for the total rated population stood at 1.09 overall.

The Transition and Default Study report is an annual publication of Brickwork Ratings. Brickwork considers analytical excellence, integrity and transparency as its core values in its operations. The report seeks to provide an insight into the rating performance of all ratings assigned by Brickwork Ratings to the investing community and the public at large. All rating rationales are also available on the website of Brickwork Ratings. www.brickworkratings.com
Ratings Distribution

The rating distribution as on March 2016 has shifted slightly to the right compared to that of March 2015, with nearly 73% of the total ratings assigned (including structured obligations) falling in the non-investment category. The median of the rating distribution continues to remain in the BB rating category as on March 2016.

Credit Ratings Behavior ratio & Modified Credit Ratings Behavior ratio

CRBR for the total rated population for the period 2015-16 stood at 2.72 which is a result of 354 upgrades as against 130 downgrades. The MCRBR for the total rating population stood at 1.02 overall.

The CRBR calculated should be understood after considering the following:

- The small rating population of Brickwork Ratings
- The portfolio of the rated population of Brickwork Ratings

The downgrades were primarily due to changes in the financial performance, deteriorating liquidity profiles and delays in debt servicing. The upgrades, on the other hand, were due to strong liquidity profiles, change in management and improved financial performance. While the overall economic growth in 2015-16 was muted, Brickwork Ratings upgraded companies that showed their ability to grow and strengthen their financial and operational performance in adverse conditions.
Around 97.5% of the ratings continued to be in the investment/non-investment grades after the rating actions taken. Of the 2.5% of the ratings that shifted between the two, 44 were upgraded from a noninvestment grade to an investment grade while 25 were downgraded from an investment grade to a noninvestment grade. The CRBR should be seen with the stability indicators for a proper analysis and not on a stand-alone basis.

The reasons for steep downgrades include inability of the Company to repay debt, stressed liquidity scenarios and certain regulatory concerns.

**Transition Matrix and Default Study**

The transition matrix shows the stability rates as well as the percentage of ratings upgraded or downgraded for each rating scale. The highlighted cells indicate the stability rates which reflect the strength of the rating methodology of Brickwork Ratings. Transition Matrix for rated instruments excludes structured finance ratings (only 1 structured finance rating has been assigned by BWR to date). The table below indicates weighted average transition of ratings.
AAA stability is less than that of AA because of the small sample size of AAA rated companies. For a small rating population, even one company being downgraded/upgraded can cause a big shift in the stability rate.
BWR Transition and Default Methodology

The Transition Rate is calculated across all rating categories over one and three year time period to evaluate behavior of ratings over different time horizon. BWR has adopted long-term rolling-over weighted average approach to assess CDR (Cumulative Default rate) for arriving at one year CDR and three year CDR of the ratings which are reviewed on an ongoing basis.

- The study tracks long term ratings assigned and accepted by the client/issuer and is issuer specific for bank loan ratings which is a major part of rating population of BWR and also for NCD's/Bonds.
- The static pool consists of number of ratings outstanding for each rating category as on the beginning of financial year under study. Default behavior of each rating category is examined over one and three year periods.

The highlighted cells in Table 1.1 & 1.2 indicate the stability rate across respective rating categories.

Cumulative Default Rates

One year and Three year Cumulative Default rate (CDR): Table 1.3

<table>
<thead>
<tr>
<th>Rating Category</th>
<th>1-Year CDR</th>
<th>3-Year CDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA or equivalent</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>AA or equivalent</td>
<td>0.50%</td>
<td>1.32%</td>
</tr>
<tr>
<td>A or equivalent</td>
<td>0.00%</td>
<td>1.52%</td>
</tr>
<tr>
<td>BBB or equivalent</td>
<td>1.68%</td>
<td>5.41%</td>
</tr>
<tr>
<td>BB or equivalent</td>
<td>0.71%</td>
<td>0.98%</td>
</tr>
<tr>
<td>B or equivalent</td>
<td>1.04%</td>
<td>6.98%</td>
</tr>
<tr>
<td>C or equivalent</td>
<td>3.30%</td>
<td>11.11%</td>
</tr>
</tbody>
</table>

BWR annual default rates are calculated on an issuer basis. One year and three year Cumulative Default rate has been calculated on weighted average basis. Data prior to FY12 is insignificant to be considered for default study as the population was too small, consisting of only bond and NCD ratings of large corporates with hardly any default.
Lorenz curve and Gini Coefficient Ratio

Lorenz curve and Gini Coefficient (accuracy ratio) is adopted as a measure to represent the accuracy of the rating exercise by BWR. Following is the Lorenz Curve for the period FY12-FY16.

The Lorenz curve (Cumulative Curve) represents the actual scenario vis-à-vis Perfect Scenario. The closer the Lorenz curve is to perfect curve, the better the predictability of ratings. The Gini Coefficient is a ratio which represents the area between the cumulative curve (Lorenz Curve) and random Curve in relation to area between perfect curve and the random curve. This ratio is also called accuracy ratio. If the ratio is nearer to 1, it indicates ratings having better predictive ability, wherein cumulative curve will merge closely with perfect curve. BWR's Gini Coefficient for One year average default for FY 2012-16 was 0.28.

**Lorenz Curve : FY2012-FY2016**
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