



ICRA RATINGS

Performance of ICRA-Assigned Credit Ratings

Rating Transition and Default Study - 2014-15

Corporate Ratings

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Rating Transition and Default Study of ICRA-assigned Ratings for 2014-15



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SUMMARY

This report presents an update on the performance of ICRA-assigned credit ratings during 2014-15 in terms of transition across rating categories and trends in instances of default.

KEY HIGHLIGHTS

Trends in Rating Transition

- ❖ The stability of ICRA-assigned non-structured finance ratings improved in 2014-15 across most rating categories compared with the average for the last 10 years. However, compared with the year 2013-14, the ratings stability in 2014-15 was relatively lower in the [ICRA]AAA, [ICRA]AA and [ICRA]A categories. The rating downgrade of one [ICRA]AAA issuer to [ICRA]AA+ caused the stability in the highest long-term rating category to decline to 98.2% in 2014-15 from 100.0% in the previous year. In contrast, a relatively greater proportion of rating upgrades in the [ICRA]AA and [ICRA]A categories (to the next higher rating category) resulted in a decline in the stability metrics in these rating categories in 2014-15 vis-à-vis 2013-14.
- ❖ ICRA-rated asset-backed securitization (ABS) and mortgage-backed securitization (MBS) transactions exhibited strong performance during 2014-15 with no rating downgrade in senior tranches, and only one downgrade in a Second Loss Facility (SLF) provided in an ABS transaction. However, ratings for certain guarantee-backed debt were downgraded following downgrade in the ratings of the guarantors concerned. Overall, the [ICRA]AAA(SO) category saw 100% rating stability in 2014-15; stability was a tad lower in the [ICRA]AA(SO) and [ICRA]A(SO) categories in 2014-15 compared with the previous year.

Trends in Instances of Defaults

- ❖ Overall, 2.7% of total ICRA-assigned non-structured finance ratings moved to the default category in 2014-15 (2.8% in 2013-14). Among the investment grade entities, only 0.5% (0.8% in 2013-14) moved to the default category in 2014-15. The one-year default rates for the [ICRA]AAA and [ICRA]AA categories in the last 10 years remain nil. For the [ICRA]A and [ICRA]BBB categories, the one-year default rates were 0.0% and 0.7%, respectively in 2014-15. Real Estate & Construction, Textiles and Metals & Mining were the three largest sectors contributing to defaults during 2014-15.
- ❖ The one-year default rate for ICRA's investment grade ratings has remained below 1% over the last two years. The three-year default rate of ICRA's investment grade ratings declined to 4.9% for the cohort of ratings outstanding at the beginning of the year 2012-13 (the latest cohort having completed three years of seasoning), from 6.4% for the preceding year's cohort.

NON-STRUCTURED FINANCE RATINGS

RATING TRANSITION

Transition data for the last three years shows that ICRA ratings for around 20% of issuers were either upgraded or downgraded; and that of around 80% of issuers were reaffirmed

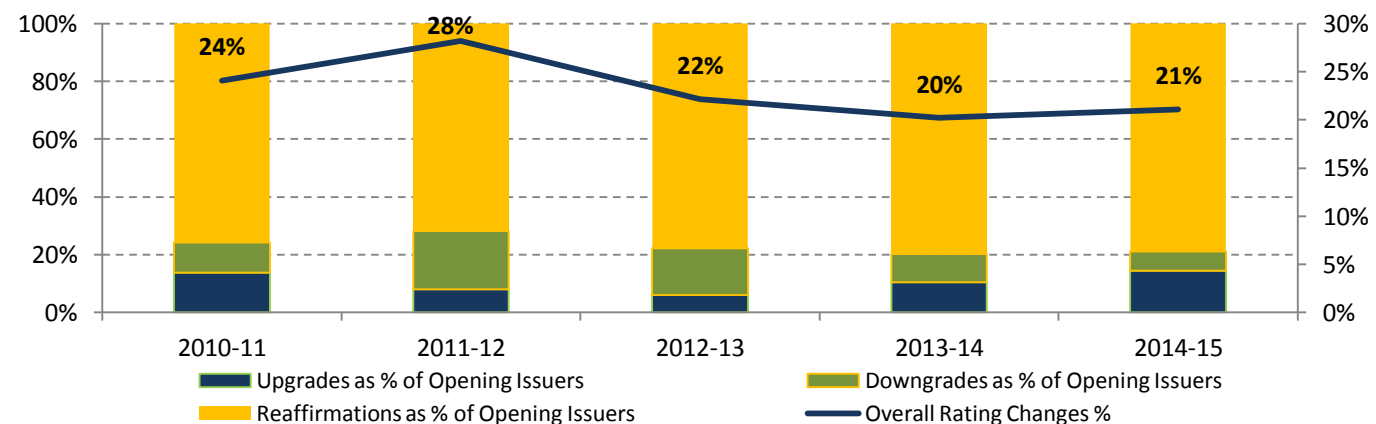
Overview

An important endeavor of the credit ratings process is assignment of ratings that are stable “through the cycle”. This draws from the premise that credit ratings are ordinal rankings of the fundamental credit worthiness of issuers and should not be too much influenced by the state of the business cycle. Yet, given that the 20-point long-term rating scale of ICRA is not strictly linear¹, an adverse business outlook is more likely to cause rating downgrades for issuers in the lower rating categories than those in the higher ones because of the greater vulnerability of the lower rated issuers to economic shocks. This implies that issuers in the higher rating categories are likely to demonstrate relatively more stable ratings through business cycles than issuers in the lower rating categories, everything else remaining the same.

Trend in Rating Changes

For ICRA-assigned ratings, the transition data for the last three years shows that the ratings of around 20% of the issuers were either upgraded or downgraded, while those of around 80% of the issuers were reaffirmed. The proportion of rating reaffirmations (80%) is observed to have remained broadly constant in each of the last three years. While this is more likely a case of statistical coincidence, it is nonetheless a useful anchor for the comparison of trends in rating action during different time periods.

Chart 1: Rating Changes and Reaffirmations as Proportion of Opening Issuers



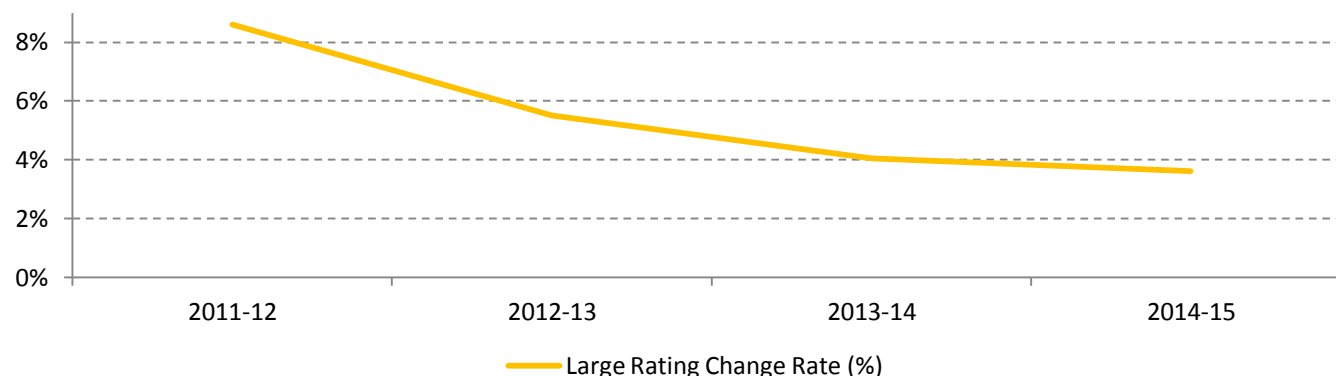
Source: ICRA

¹ ICRA's rating scale is not linear, though it is monotonic. This means that if $x > y$, then $f(x) > f(y)$. Thus, the median interest coverage ratio of [ICRA]A rated entities is higher than that of [ICRA]BBB rated entities which in turn is higher than that of [ICRA]BB rated entities.

Large Rating Change Rate

The Large Rating Change Rate (LRCR) is defined as the ratio of issuers for whom the rating change (downgrade or upgrade) was by three or more notches to the number of live issuers at the beginning of the period under review. The LRCR, in practice, is influenced mainly by downward rating changes since multiple-notch movements happen primarily in the downward direction. This excludes upgrades on account of technical reasons². The LRCR for ICRA's ratings declined to 3.6% in 2014-15 from 4.1% in 2013-14, indicating reduction in the severity of rating changes. Also, the LRCR for downgraded entities (excluding movement to default category) declined to 0.2% in 2014-15 from 0.5% in 2013-14; the LRCR for upgraded entities (excluding movement from default category) increased slightly to 0.4% in 2014-15 from 0.3% in 2013-14.

Chart 2: Number of Issuers with Large Rating Changes as Proportion of Opening Issuers



The LRCR for ICRA's ratings declined to 3.6% in 2014-15 from 4.1% in 2013-14, indicating reduction in the severity of rating changes

Source: ICRA

- ❖ **Downgrades:** A total of 230 issuers' ratings were downgraded by three or more notches in 2014-15, of which the ratings of 217 issuers got downgraded to the [ICRA]D category. Of the other 13 issuers, whose ratings were not downgraded to [ICRA]D but who experienced a large rating change, the ratings of four were downgraded from the investment grade to the non-investment grade. The reason for this was adverse impact on the credit quality and liquidity position of the issuers concerned from large inventory losses, adverse regulatory developments and imprudent (in ICRA's opinion) thrust to achieve business growth, among other factors.
- ❖ **Upgrades:** A total of 110 issuers' ratings were upgraded by three or more notches in 2014-15, of which the ratings of 83 issuers got upgraded from the [ICRA]D category. Of the other 27 issuers who experienced a large rating change, the ratings of six were upgraded from the non-investment grade to the investment grade. The reason for this was improvement in the credit quality and liquidity position of the issuers concerned following successful project commissioning and achievement of desired operating parameters, fresh equity infusion, elongation of debt maturity period and earlier than expected improvement in capacity utilization (and hence profitability).

²Technical reason means an upgrade from the default [ICRA]D category following correction of technical delays in debt servicing.

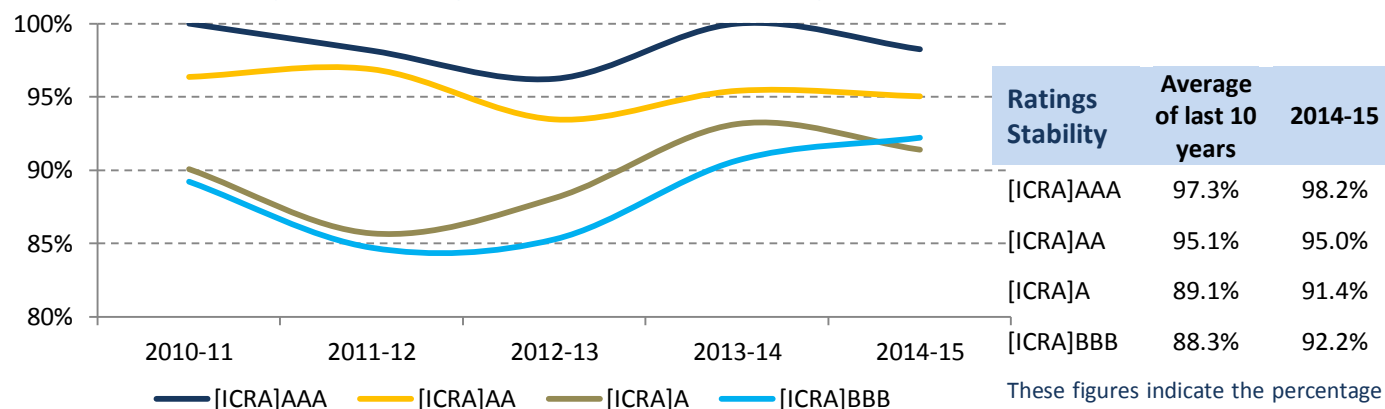
RATING TRANSITION

Stability of ICRA's ratings across most investment grade categories was higher in 2014-15 than the average of the last 10 years

Stability of Long-Term Ratings

The stability of ICRA's ratings has fluctuated over time within a broad range and in 2014-15 was higher than the average for the last 10 years across most rating categories.

Chart 3: Trend in Stability of ICRA's Ratings across Investment Grade Categories



Source: ICRA

Table 1: One-Year Transition Matrix of Long-Term Ratings for 2014-15

2014-15	[ICRA]AAA	[ICRA]AA	[ICRA]A	[ICRA]BBB	[ICRA]BB	[ICRA]B and Lower
[ICRA]AAA	98.2%	1.8%	0.0%	0.0%	0.0%	0.0%
[ICRA]AA	5.0%	95.0%	0.0%	0.0%	0.0%	0.0%
[ICRA]A	0.0%	6.6%	91.4%	1.9%	0.0%	0.0%
[ICRA]BBB	0.0%	0.1%	5.2%	92.2%	2.2%	0.2%

Table 2: One-Year Transition Matrix of Long-Term Ratings for 2013-14

2013-14	[ICRA]AAA	[ICRA]AA	[ICRA]A	[ICRA]BBB	[ICRA]BB	[ICRA]B and Lower
[ICRA]AAA	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
[ICRA]AA	0.0%	95.4%	4.6%	0.0%	0.0%	0.0%
[ICRA]A	0.0%	2.9%	93.2%	3.3%	0.3%	0.3%
[ICRA]BBB	0.0%	0.0%	3.7%	90.7%	4.9%	0.8%

How to Read the Rating Transition Tables: In 2014-15, 91.4% of the [ICRA]A category ratings remained in the same category at the beginning and at the end of the year. Of the total [ICRA]A category ratings outstanding at the beginning of the year, 6.6% were upgraded to [ICRA]AA category during the year, while 1.9% got downgraded to the [ICRA]BBB category during the year.

RATING TRANSITION

The ratings of 2.5% of issuers rated [ICRA]BBB got downgraded to the non-investment grade category in 2014-15, a proportion much lower than the average of the last 10 years

Table 3: One-Year Transition Matrix of Long-Term Ratings: Average for Last 10 Years

Average of 10 yrs	[ICRA]AAA	[ICRA]AA	[ICRA]A	[ICRA]BBB	[ICRA]BB	[ICRA]B and Lower
[ICRA]AAA	97.3%	2.7%	0.0%	0.0%	0.0%	0.0%
[ICRA]AA	1.9%	95.1%	2.7%	0.2%	0.0%	0.1%
[ICRA]A	0.0%	3.9%	89.1%	6.3%	0.3%	0.4%
[ICRA]BBB	0.0%	0.0%	3.3%	88.3%	5.7%	2.6%

Table 4: One-Year Stability of Long-Term Ratings in Investment Grade

	2010-11	2011-12	2012-13	2013-14	2014-15	Average Over Last 10 Years
[ICRA]AAA	100.0%	98.1%	96.2%	100.0%	98.2%	97.3%
[ICRA]AA	96.4% (2.9%)	96.9% (0.0%)	93.5% (0.0%)	95.4% (0.0%)	95.0% (5.0%)	95.1% (1.9%)
[ICRA]A	90.1% (6.5%)	85.7% (3.2%)	88.1% (0.3%)	93.2% (2.9%)	91.4% (6.6%)	89.1% (3.9%)
[ICRA]BBB	89.2% (4.7%)	84.7% (3.1%)	85.3% (0.7%)	90.7% (3.7%)	92.2% (5.3%)	88.3% (3.4%)

Figures in parentheses indicate percentage transition to a higher category, or upgrade

Note: Stability metrics in Table 1, Table 2, Table 3 and Table 4 relate to all issuances except those for structured obligations. The universe of ICRA-assigned ratings considered for this analysis does not include private ratings and credit opinions.

The categories of [ICRA]AA, [ICRA]A, [ICRA]BBB and [ICRA]BB include ratings with suffixes “+” and “-” within the respective categories. For instance, the category [ICRA]AA contains three rating levels: [ICRA]AA+, [ICRA]AA and [ICRA]AA-.

Downgrades

- ❖ As in the previous year, there was no instance of a rating downgrade from the [ICRA]AAA and the [ICRA]AA categories to the non-investment grade in 2014-15.
- ❖ Unlike in 2013-14, when the ratings of two issuers were downgraded from [ICRA]A to the non-investment grade, there was no such rating migration in 2014-15.
- ❖ In 2014-15, the ratings of 2.5% of the issuers rated [ICRA]BBB got downgraded to the non-investment grade. This was much lower than the last 10 years’ average of 8.3% and also lower than the 5.7% figure for 2013-14.

Upgrades

- ❖ The ratings of 4.5% of the non-investment grade issuers got upgraded to the investment grade in 2014-15. This was higher than the last 10 years’ average of 3.5% and also higher than the 3.3% figure for 2013-14.
- ❖ Overall, a greater stability expected in the macroeconomic environment and an improved business outlook resulted in the number of upgrades exceeding downgrades on a relative basis in 2014-15. This is also reflected in the improvement in the overall Credit Ratio (*ratio of number of issuers upgraded to those downgraded, excluding upgrades due to technical reasons*) of ICRA’s ratings to 1.9x in 2014-15 from 0.9x in 2013-14).

RATING TRANSITION

Stability of [ICRA]A1, [ICRA]A2 and [ICRA]A3 ratings improved in 2014-15 over the previous year and was also higher than the last 10 year average

Stability of Short-Term Ratings

ICRA has a 9-point rating scale for short-term ratings as against a 20-level rating scale for long-term ratings. The short-term ratings are generally mapped to the long-term ratings, implying that for a particular long-term rating level, there could be more than one option of mapping a particular short-term rating level. For instance, for the long-term rating of [ICRA]A, either of the short-term ratings of [ICRA]A1 or [ICRA]A2+ could be mapped depending on the relative strength of the issuer's short-term liquidity position. Table 5 to Table 8 present the one-year transition metrics for ICRA's short-term ratings for various time periods. Generally, short-term ratings are more dynamic compared with long-term ratings as short-term ratings get influenced more by changes in the near term liquidity position of issuers, unlike long-term ratings which are influenced more by fundamental changes in credit quality.

Table 5: One-Year Transition Matrix of Short-Term Ratings for 2014-15

2014-15	[ICRA]A1+	[ICRA]A1	[ICRA]A2	[ICRA]A3	[ICRA]A4	[ICRA]D
[ICRA]A1+	98.0%	1.7%	0.3%	0.0%	0.0%	0.0%
[ICRA]A1	11.2%	83.2%	5.6%	0.0%	0.0%	0.0%
[ICRA]A2	1.4%	8.3%	88.0%	2.0%	0.3%	0.0%
[ICRA]A3	0.0%	0.0%	7.5%	88.8%	3.5%	0.2%
[ICRA]A4	0.0%	0.0%	0.0%	2.0%	95.4%	2.5%
[ICRA]D	0.0%	0.0%	0.2%	0.0%	8.2%	91.6%

Table 6: One-Year Transition Matrix of Short-Term Ratings for 2013-14

2013-14	[ICRA]A1+	[ICRA]A1	[ICRA]A2	[ICRA]A3	[ICRA]A4	[ICRA]D
[ICRA]A1+	96.7%	2.4%	0.6%	0.0%	0.3%	0.0%
[ICRA]A1	9.8%	79.7%	9.8%	0.0%	0.7%	0.0%
[ICRA]A2	0.6%	5.6%	86.0%	5.6%	1.2%	1.2%
[ICRA]A3	0.0%	0.0%	5.2%	88.0%	6.1%	0.7%
[ICRA]A4	0.0%	0.0%	0.0%	1.9%	95.2%	2.9%
[ICRA]D	0.0%	0.0%	0.0%	0.5%	11.8%	87.7%

Table 7: One-Year Transition Matrix of Short-Term Ratings: Average for Last 10 Years

Average of 10 yrs	[ICRA]A1+	[ICRA]A1	[ICRA]A2	[ICRA]A3	[ICRA]A4	[ICRA]D
[ICRA]A1+	96.7%	2.7%	0.5%	0.0%	0.0%	0.0%
[ICRA]A1	10.4%	77.5%	10.7%	0.8%	0.2%	0.4%
[ICRA]A2	0.5%	5.8%	85.3%	6.1%	1.6%	0.6%
[ICRA]A3	0.0%	0.1%	5.4%	83.9%	9.1%	1.6%
[ICRA]A4	0.0%	0.0%	0.0%	2.1%	94.2%	3.7%
[ICRA]D	0.0%	0.0%	0.1%	0.2%	11.4%	88.4%

RATING TRANSITION

Table 8: One-Year Stability of Short-Term Ratings

	2010-11	2011-12	2012-13	2013-14	2014-15	Average Over Last 10 Years
[ICRA]A1+	99.6%	97.1%	94.2%	96.7%	98.0%	96.7%
[ICRA]A1	72.1% (21.6%)	72.6% (6.7%)	85.4% (1.5%)	79.7% (9.8%)	83.2% (11.2%)	77.5% (10.4%)
[ICRA]A2	84.8% (11.6%)	87.8% (3.6%)	84.3% (1.5%)	86.0% (6.1%)	88.0% (9.7%)	85.3% (3.2%)
[ICRA]A3	85.0% (9.3%)	78.8% (3.4%)	79.2% (3.1%)	88.0% (5.2%)	88.8% (7.5%)	83.9% (5.5%)
[ICRA]A4	87.3% (5.8%)	88.9% (2.9%)	95.5% (0.6%)	95.2% (2.0%)	95.4% (2.1%)	94.2% (2.1%)
[ICRA]D	100.0% (0.0%)	72.8% (27.2%)	87.8% (12.2%)	87.7% (12.3%)	91.6% (8.4%)	88.4% (11.6%)

Figures in parentheses indicate percentage transition to a higher category, or upgrade

Note: The categories of [ICRA]A2, [ICRA]A3 and [ICRA]A4 include ratings with suffixes “+” within the respective categories. For instance, the category [ICRA]A2 contains two rating levels: [ICRA]A2+ and [ICRA]A2.

Transition in ratings in the [ICRA]A1, [ICRA]A2 and [ICRA]A3 categories was mostly in the upward direction during 2014-15

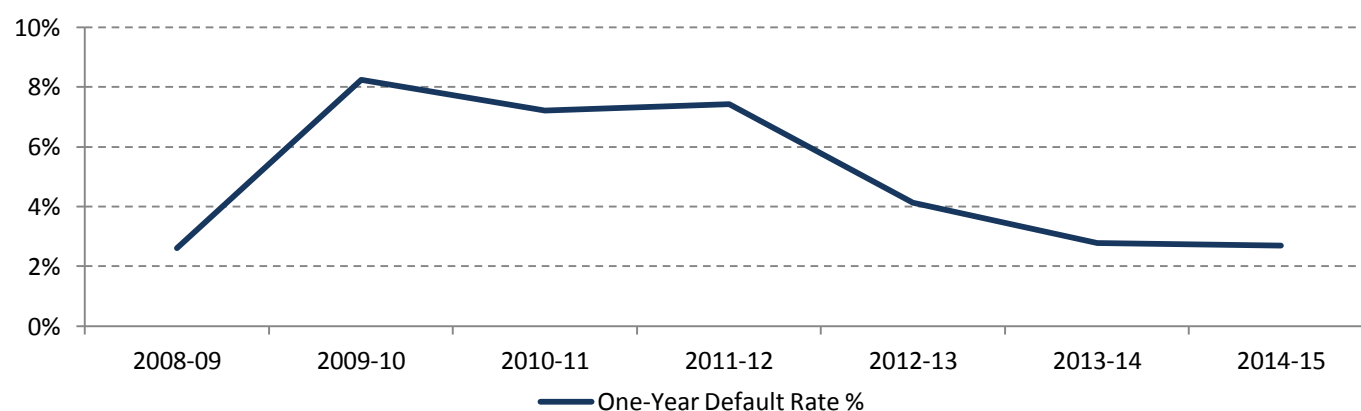
- ❖ The stability of [ICRA]A1, [ICRA]A2 and [ICRA]A3 ratings improved in 2014-15 over the previous year and it was also higher than the 10 year average. The transition in ratings in the three short-term rating categories mentioned was mostly in the upward direction during the year. In contrast, while the stability of [ICRA]A1, [ICRA]A2 and [ICRA]A3 ratings was lower in 2013-14 compared with 2014-15, the rating transitions during 2013-14 were in both directions - almost equally distributed between upgrades and downgrades to the next higher or lower rating category, respectively. This additionally highlights the easing of downward pressure on ratings in 2014-15 vis-à-vis the previous year.
- ❖ The stability of ICRA's short term rating of [ICRA]A1+ had been the lowest in 2012-13 in the last five years; and also lower than the last 10 year average with a relatively larger proportion of such ratings getting downgraded to [ICRA]A1. This followed from the relatively lower stability of ICRA's long-term ratings in the [ICRA]AA category in 2012-13 as a relatively larger proportion of entities in this category had got downgraded to the [ICRA]A category. Accordingly, this reduced the stability of [ICRA]A1+ ratings during 2012-13.
- ❖ The stability of [ICRA]A1 ratings was amongst the weakest in 2010-11 and 2011-12 over the last 10 years. Since then, the stability rate in this category has improved.

Overall Default Rates have been trending down over the last three years

Trend in Default Rates

The previous section discussed the performance of ICRA's ratings on stability, measured by the frequency and magnitude of rating changes. This section discusses the performance with respect to ratings accuracy as measured by the correlation between each rating level and instances of default. ICRA defines "default" as a missed or a delayed payment by an issuer in breach of the agreed terms of the issue (*Refer to ICRA's website to know more on "How ICRA Deals with Default"*). Chart 4 shows the trend in ICRA's default rate over the years.

Chart 4: Trend in Default Rate of ICRA-assigned Ratings



Source: ICRA; Note: The above estimates are without adjusting for rating withdrawals during the given time horizon

One-Year Default Rate for 2014-15 = (Number of long-term ratings downgraded to [ICRA]D during 2014-15) / (Total number of long-term ratings outstanding as at the beginning of the year 2014-15 that were not rated in the default category)

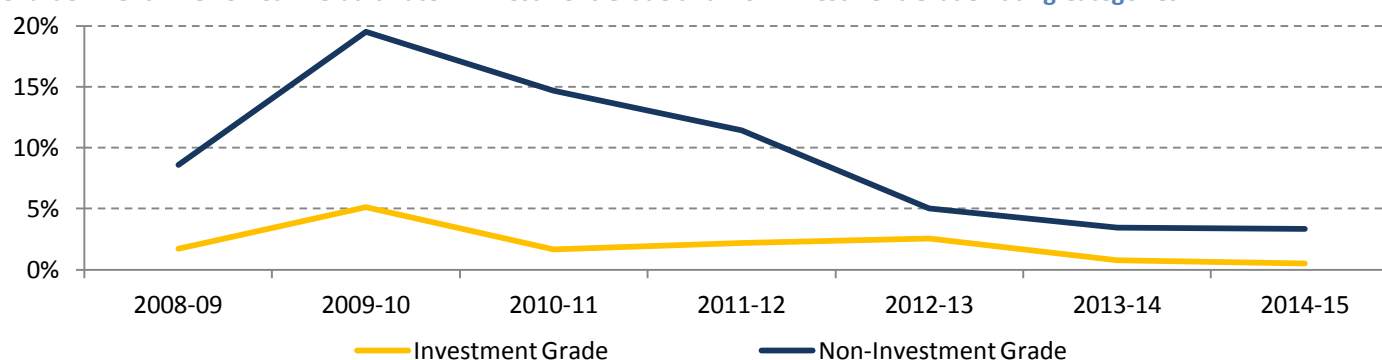
For the cohort of ratings pertaining to the beginning of the year 2014-15, the one-year default rate stood at 2.7%, which was marginally lower than the rate of 2.8% for the previous year's cohort.

One-year default rate for ICRA's investment grade ratings has remained below 1% over the last two years, being 0.5% in 2014-15 (the lowest since 2008-09)

Default Rates in Investment Grade and Non-Investment Grade

- ❖ The one-year default rate of ICRA's investment grade ratings had spiked in 2009-10 and had remained elevated over the following three years as a fall-out of the economic downturn that exerted pressure on the liquidity position of several entities leading to defaults by issuers in debt servicing.
- ❖ While credit challenges have continued to persist, a relatively larger number of entities have been able to appropriately adjust their business models and financing mix over the last couple of years to the weakness in the economic environment. Accordingly, the one-year default rate for ICRA's investment grade ratings has remained below 1% over the last two years, being 0.5% in 2014-15 (the lowest since 2008-09) and 0.8% in 2013-14.
- ❖ Likewise, the one-year default rates in the non-investment grade have also eased over the last few years but as expected remain much higher than the default rates in the investment grade.

Chart 5: Trend in One-Year Default Rate in Investment Grade and Non-Investment Grade Rating Categories



Source: ICRA; Note: The above estimates are without adjusting for rating withdrawals during the given time horizon

Cumulative Default Rates

- ❖ While recent cohorts of ICRA's investment grade ratings have experienced moderation in default rates, the last seven cohort average of three-year cumulative default rates (CDR-3) continues to be adversely impacted by the higher number of defaults during the three years 2009-10 to 2011-12.
- ❖ Temporary delays account for a significant proportion of defaults in the [ICRA]BBB category. In fact, the one-year default rate for the [ICRA]BBB category, adjusted for the temporary delays, was lower at 0.58% in 2014-15 than the 0.74% reported without adjusting for the temporary delays.
- ❖ With increased awareness among issuers on the implication of such temporary delays on their credit rating, the instances of such delays arising out of credit culture issues have been declining.

Table 9: Average Cumulative Default Rates (Cohorts starting April 1, 2006)

	CDR-1	CDR-2	CDR-3
[ICRA]AAA	0.0%	0.0%	0.0%
[ICRA]AA	0.0%	0.0%	0.0%
[ICRA]A	0.4%	1.4%	2.7%
[ICRA]BBB	2.7%	5.6%	8.9%

How are Cumulative Default Rates (CDR) Computed?

CDR-1: For each rating category, this reflects the weighted average of the default rate of issuers over a **one-year time horizon for nine cohorts**. First, the one-year default rate is computed for each of the nine cohorts from April 1, 2006 to April 1, 2014. Then, the weighted average one-year default rate is computed to arrive at CDR-1 where the weights are the number of issuers in each of the nine cohorts. The number of issuers considered in each rating category is after adjusting for rating withdrawals.

CDR-2: For each rating category, this reflects the weighted average of the default rate of issuers over a **two-year seasoning of ratings for eight cohorts**. First, the two-year default rate is computed for each of the eight cohorts from April 1, 2006 to April 1, 2013. Then, the weighted average two-year default rate is computed to arrive at CDR-2 where the weights are the number of issuers in each of the eight cohorts. The number of issuers considered in each rating category is after adjusting for rating withdrawals.

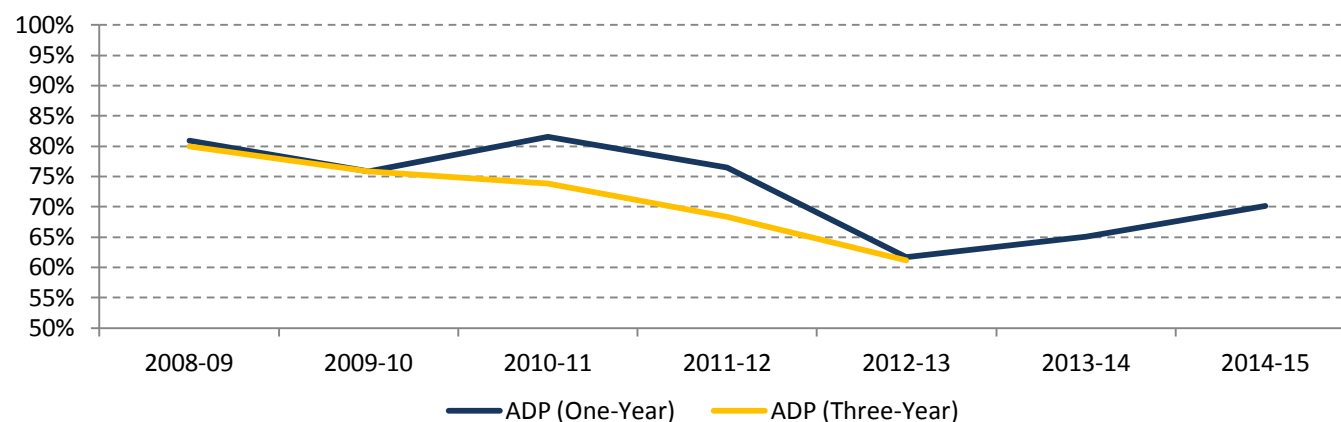
CDR-3: For each rating category, this reflects the weighted average of the default rate of issuers over a **three-year time horizon for seven cohorts**. First, the three-year default rate is computed for each of the seven cohorts from April 1, 2006 to April 1, 2012. Then, the weighted average three-year default rate is computed to arrive at CDR-3 where the weights are the number of issuers in each of the seven cohorts. The number of issuers considered in each rating category is after adjusting for rating withdrawals.

Refer *Annexure-2* for more details on computation of CDR

Average Default Position

The Average Default Position (ADP) measures how well ratings are assigned within a cohort of issuers at a given point in time. The ADP weighs both Type-1 errors as well as Type-2 errors. Type-1 errors occur when relatively risky credits are assigned high ratings and thereby get placed too high in the rank order. Type-2 errors occur when relatively safe credits are assigned ratings which are too conservative, placing them too low in the rank order. Both sources of error cause the average default position to fall. Numerically, the closer the ADP is to the score of 100%, the greater is the rating system's accuracy. Conversely, an ADP closer to 0% signifies less accurate ratings of the subject cohort. The ADP measure gets influenced by two key variables: (1) the distribution of ratings across various rating categories in a given cohort; and (2) the default probability of each rating level. The latter is measured by the ratio of the number of defaults in a given rating category to the total number of defaults during the time period of study.

Chart 7: Trend in ADP of ICRA's Ratings



Source: ICRA

- ❖ The proportion of lower rated issuers in the universe of ICRA-rated entities has increased significantly over the last few years. The percentage of opening issuers rated in the non-investment grade rating categories (i.e. [ICRA]BB or lower) increased to 77% in 2014-15 from 43% in 2010-11. Over this period, the median long-term rating for the ICRA-rated universe shifted from [ICRA]BB as on April 1, 2011 to [ICRA]B+ as on April 1, 2015. This is attributable to the large addition of relatively lower-rated bank loans in the rating universe. Given this stark change in the distribution of ICRA's ratings, a comparison of ADP over the years, as depicted in Chart 7, is not fully informative.
- ❖ However, the distribution of ICRA's ratings did not change by much in the last two years, which makes the last two-year comparison of ADP more meaningful. In 2014-15, the 'One-Year ADP' of ICRA ratings estimated for the cohort of issuers that defaulted within one-year of being assigned a non-default rating improved to 70.1% from 65.1% in the previous year.

Refer *Annexure-3* for more details on computation of ADP

DEFAULT STUDY

Real Estate & Construction, Textiles and Metals & Mining were the largest three sectors in terms of the number of default occurrences during 2014-15

The number of Defaults and the Default Rate was the highest in the non-investment grade categories in 2014-15, as expected

Temporary delays (less than 30 days) accounted for 18% of total defaults in 2014-15

Chart 8: Sector-Wise Break-up Of Defaults in 2014-15

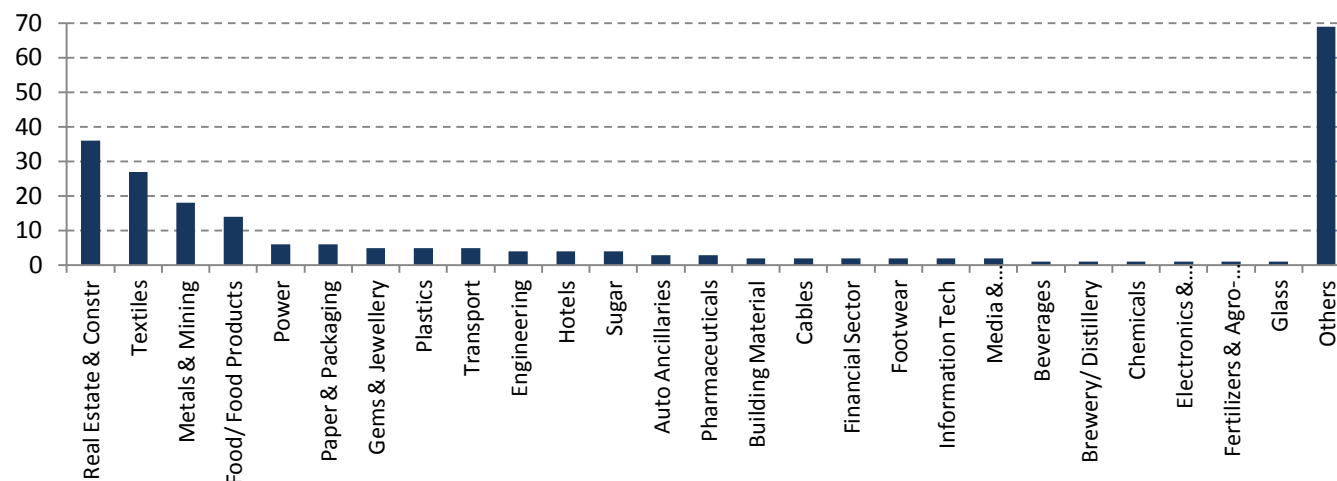


Chart 9: Rating Category-Wise Distribution of Defaults in 2014-15 based on Long-Term Ratings Prior to Default

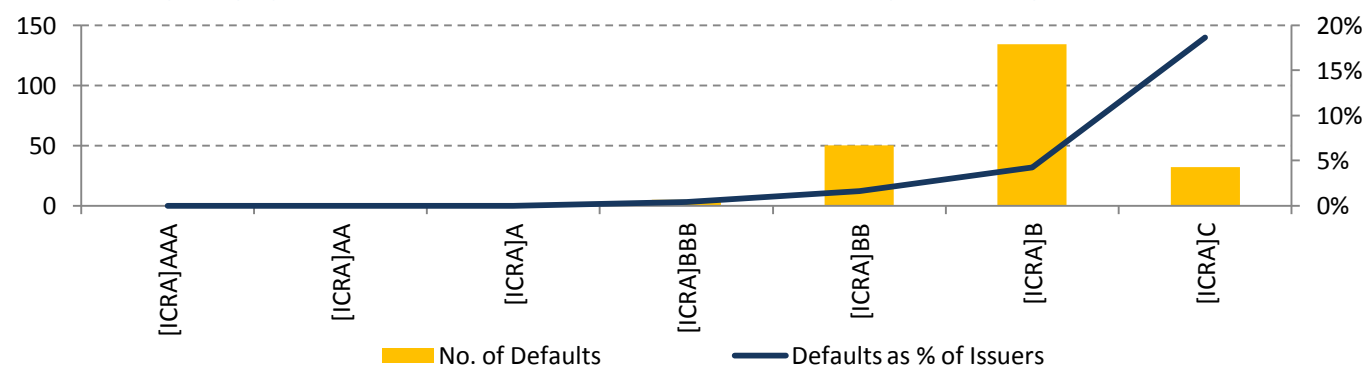
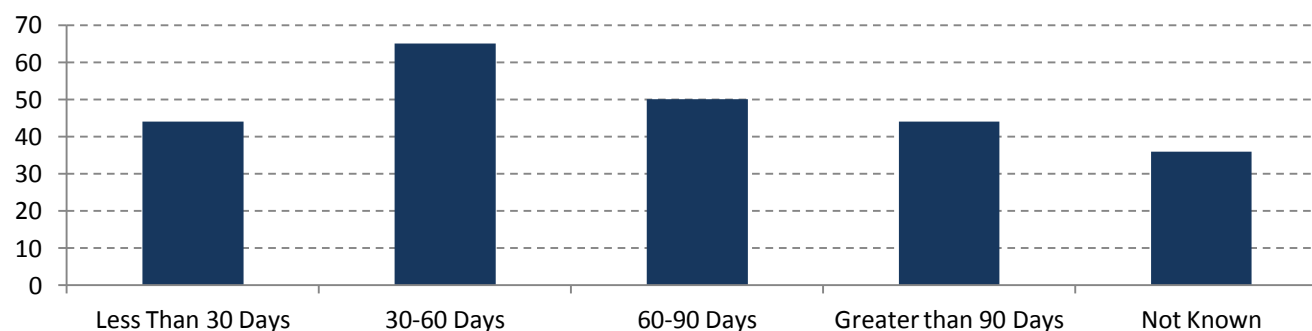


Chart 10: Duration of Delays for Entities that Defaulted in 2014-15



Source: ICRA

STRUCTURED FINANCE RATINGS

Upgrades and Downgrades

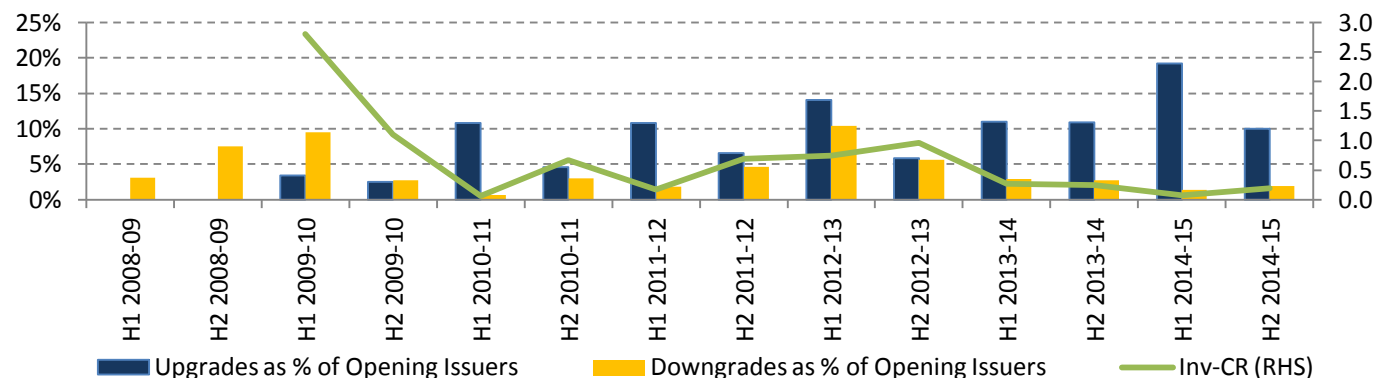
In 2014-15, there were 102 rating upgrades and one rating downgrade among asset-backed securitisation (ABS) and mortgage-backed securitisation (MBS) transactions rated by ICRA. The rating upgrades were mainly on account of the following factors:

- ❖ Most of the upgrades pertained to transactions with micro loan pools as the underlying asset class. These transactions demonstrated increased Credit Enhancement (CE) cover for the rated instruments over the residual tenure, owing to strong collection performance and rapid amortisation of the pool principal amount.
- ❖ Other upgrades pertained to the Second Loss Facility (SLF) of the CE. [In many ABS and MBS transactions, the total CE for senior investors is split into two portions; the SLF is utilised only after the First Loss Facility (FLF) has been fully used up. In these cases, the SLF is usually rated in low investment grade category at transaction initiation, usually at the [ICRA]BBB(SO) level, while the FLF is not rated]. Subsequently, with the underlying pools reporting strong performance, the utilisation of the CE for making senior investor payouts was low. Thus, the proportion of FLF to SLF increased as the transaction progressed, thereby ensuring greater credit comfort for the SLF.

The one rating downgrade (among ABS and MBS transactions) was for the SLF of a transaction backed by commercial vehicle loan receivables. While the vehicle loan portfolio across originators witnessed stress during 2014-15, there were no other rating downgrades among ICRA-rated vehicle loan pools. Also, there has been no downgrade among ICRA-assigned mortgage-backed securitisation (MBS) ratings till date.

In other structured finance transactions (i.e., other than retail loan securitisation), there were 51 rating upgrades and 17 rating downgrades. Most of these pertained to guarantee-backed debt, wherein the ratings of the guarantors were revised. *Chart 11* depicts the trend in upgrades and downgrades in ICRA-assigned structured finance ratings over the past seven years.

Chart 11: Rating Revisions in Structured Finance Transactions over Last Seven Years



Source: ICRA

While the appetite for non-AAA(SO) rated paper has been gradually increasing over the last two to three years, the market for ABS and MBS transactions—which account for a substantial portion of structured finance ratings—in India remains skewed towards AAA(SO) rating. For such transactions, if the performance of the underlying pools is in line with initial expectations, the ratings would get re-affirmed. Thus, upgrades are possible only in case the performance of previously downgraded transactions improves.

The year 2008-09 witnessed a few downgrades but no upgrades among the ICRA-assigned structured finance ratings. Subsequently, owing to a steady improvement in the performance of the underlying pools as well as greater amortisation, upgrades were witnessed in 2009-10 and 2010-11. As a result, the inverse-CR ratio reported a declining trend up to H1, 2010-11. In H2, 2010-11 however, while the broad trend of stabilisation/improvement in ABS continued, the inverse-CR ratio got impacted by eight rating downgrades in corporate loan securitisation transactions. All these transactions were backed by loans given to a common underlying obligor whose rating was downgraded.

The period H1, 2011-12 witnessed a number of upgrades among ratings of microfinance pools as well as SLF, resulting in a decline of the inverse-CR ratio. However in H2, 2012, the inverse-CR ratio increased on account of 16 downgrades in ratings of guarantee-backed debt. In 2012-13, the inverse-CR ratio increased further on account of downgrades in ratings of guarantee-backed debt. In 2013-14 and 2014-15, the inverse-CR ratio declined substantially on account of a large number of upgrades among ratings of microfinance pools as well as SLF, and also because of ratings of ABS and MBS transactions holding fort despite a weak operating environment and deterioration in the asset quality of retail loans across multiple asset classes. The inverse-CR ratio increased marginally in H2 2014-15 compared with H1, 2014-15 following a downgrade in the second loss portion of an ABS transaction.

The performance of ABS and MBS transactions during the last few years demonstrates the robustness of ratings assigned and of the credit enhancement stipulated by ICRA in these transactions.

Stability of Ratings

ICRA assigns ratings for ABS, MBS and various other structured obligations, such as guarantee-backed debt and escrow-backed debt³. This section presents the one-year transition rates for the various categories of structured finance ratings.

The retail asset quality of financiers across asset classes such as Commercial Vehicle and Construction Equipment witnessed severe stress in 2014-15. However, ICRA-rated ABS and MBS transactions exhibited strong performance with no rating downgrade among senior tranches, and only one downgrade in the SLF provided in an ABS transaction during the year. However, ratings for certain guarantee-backed debt were downgraded following downgrade in the ratings of the guarantors.

³ For the present purpose, ABS and MBS include rated bilateral loan pool assignment transactions. Each tranche in a transaction has been accounted for separately. The rated portions of the credit enhancement as well as the liquidity facilities have also been included in the analysis. Private ratings and credit opinions do not form a part of this study.

RATING TRANSITION

Table 10: One-Year Transition Matrix of Long-Term Structured Finance Ratings for 2014-15

2014-15	[ICRA]AAA(SO)	[ICRA]AA(SO)	[ICRA]A(SO)	[ICRA]BBB(SO)	[ICRA]BB(SO)	[ICRA]B(SO) and Lower
[ICRA]AAA(SO)	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
[ICRA]AA(SO)	3.7%	96.3%	0.0%	0.0%	0.0%	0.0%
[ICRA]A(SO)	0.0%	16.7%	83.3%	0.0%	0.0%	0.0%
[ICRA]BBB(SO)	0.0%	1.0%	21.1%	74.0%	2.9%	1.0%

Table 11: One-Year Transition Matrix of Long-Term Structured Finance Ratings for 2013-14

2013-14	[ICRA]AAA(SO)	[ICRA]AA(SO)	[ICRA]A(SO)	[ICRA]BBB(SO)	[ICRA]BB(SO)	[ICRA]B(SO) and Lower
[ICRA]AAA(SO)	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
[ICRA]AA(SO)	6.9%	93.1%	0.0%	0.0%	0.0%	0.0%
[ICRA]A(SO)	0.0%	32.7%	67.3%	0.0%	0.0%	0.0%
[ICRA]BBB(SO)	0.0%	1.6%	33.9%	62.9%	1.6%	0.0%

Table 12: Average One-Year Transition Matrix of Long-Term Structured Finance Ratings (Average since April 1, 1995)

Average	[ICRA]AAA(SO)	[ICRA]AA(SO)	[ICRA]A(SO)	[ICRA]BBB(SO)	[ICRA]BB(SO)	[ICRA]B(SO) and Lower
[ICRA]AAA(SO)	97.7%	1.9%	0.3%	0.1%	0.1%	0.0%
[ICRA]AA(SO)	4.1%	89.4%	3.6%	0.3%	0.8%	1.8%
[ICRA]A(SO)	1.1%	8.1%	85.1%	4.4%	0.7%	0.7%
[ICRA]BBB(SO)	0.4%	2.0%	14.3%	80.6%	1.8%	0.9%

Table 13: One-Year Stability of Long-Term Structured Finance Ratings

Average	2012-13	2013-14	2014-15	One-Year Average Stability since 1995
[ICRA]AAA(SO)	97.5%	100.0%	100.0%	97.7%
[ICRA]AA(SO)	86.4% (11.4%)	96.4% (3.6%)	96.3% (3.7%)	89.4% (4.1%)
[ICRA]A(SO)	79.2% (4.2%)	85.6% (12.2%)	83.3% (16.7%)	85.1% (9.2%)
[ICRA]BBB(SO)	92.1% (3.9%)	75.2% (23.8%)	74.0% (22.1%)	80.6% (16.7%)

Figures in parentheses indicate percentage transition to a higher category, or upgrade

Overall, the stability rates are high at the AAA(SO) level. While a relatively higher transition is observed from the AA(SO) and A(SO) categories, this should be viewed in the context of the low number of ratings in these categories.

Note: (SO): The letters SO in parenthesis suffixed to a rating symbol stand for Structured Obligation. An SO rating is specific to the rated issue, its terms, and its structure; the categories of AA, A, BBB and BB include ratings with suffixes “+” and “–” within the respective categories. For instance, the category AA contains three ratings: AA+, AA, and AA–

The CDR for the AAA(SO) category, as presented in Table 14, relates to partial shortfalls to the investors in four ABS transactions, the underlying asset categories being car loans and unsecured personal loans. In one of those transactions, within one month of default, the entire outstanding to the investor was paid through recoveries and there was no eventual loss. These shortfalls were primarily on account of higher-than-expected delinquency against the backdrop of a difficult operating environment and tighter liquidity conditions prevailing during 2008-09. The CDRs for the AA(SO) category and below relate to defaults on instruments backed by State Government guarantee and corporate guarantee. As discussed earlier, the default rates in the AA(SO) category and below should be viewed in the context of the very low number of ratings outstanding in these categories.

Table 14: Average Cumulative Default Rates (Cohorts starting April 1, 1995)

	CDR-1 (based on 20 cohorts)	CDR-2 (based on 19 cohorts)	CDR-3 (based on 18 cohorts)
Time Horizon	One-Year	Two-Year	Three-Year
[ICRA]AAA(SO)	0.0%	0.3%	0.9%
[ICRA]AA(SO)	0.5%	0.9%	1.5%
[ICRA]A(SO)	0.6%	1.8%	2.5%
[ICRA]BBB(SO)	0.7%	1.4%	2.3%

Cumulative Loss to Investors in ABS and MBS Transactions

For rating ABS and MBS transactions, ICRA also factors in the estimate of the relative potential loss to the investor (taking into account credit enhancements, if any) over the tenure of the rated instrument. Hence, it would be appropriate to consider the quantum of loss faced by investors and not just the instance of default. *Table 15* brings out the cumulative loss to investors as a percentage of the initial amounts.

Table 15: Cumulative Loss for Cohorts Starting April 1, 1998 (There were no ratings assigned to ABS/MBS transactions prior to this period)

	Cumulative Loss-1 (based on 17 cohorts)	Cumulative Loss-2 (based on 16 cohorts)	Cumulative Loss-3 (based on 15 cohorts)
Time Horizon	One-Year	Two-Year	Three-Year
[ICRA]AAA(SO)	0.00%	0.00%	0.01%
[ICRA]AA(SO)	0.00%	0.01%	0.00%
[ICRA]A(SO)	0.04%	0.40%	0.74%
[ICRA]BBB(SO)	0.00%	0.00%	0.00%

As *Table 15* shows, the loss rates have been low across all rating categories. In four ABS transactions, there has been some partial shortfall to investors. In one of these transactions, full recovery to the investor happened within one month of default. For others, the shortfall occurred after a significant part of the principal had amortised already. Given the highly granular nature of the underlying pools, some cash flow realisation continues, and the eventual loss to the investor is expected to be

Definitions

1. **Cohort:** Cohorts consist of issuers rated on the long-term scale³ at the beginning of the year under study. The issuers present in the cohort are evaluated for their performance over one to three year time horizons.

2. **Default:** ICRA defines default as a missed or delayed payment by an issuer in breach of the agreed terms of the issue. It must be emphasised that ICRA uses this definition of default consistently for all its default-related studies.

Some additional points on the default definition are as follows:

- If an issuer defaults during the year and the rating is withdrawn the same year, the event is considered a case of default.
- If the issuer applies for restructuring and starts delaying on repayments, the event is considered a case of default even if the lender subsequently approves the restructuring package with retrospective effect.

3. **Annual Default Rate:** The annual default rate is the number of entities in a particular rating category defaulting in a year as a proportion of the number of entities in that rating category in the cohort at the beginning of the year under study, adjusted for withdrawals. It must be emphasised that ICRA follows a strict policy on rating withdrawals: no rating is withdrawn to show better but distorted default rates.

4. **Cumulative Default Rate (CDR):** While the annual default rate captures the default rate on a one-year investment horizon, the CDR captures the default rate over the more-than-one-year horizon. In calculating the CDR the weighted average marginal default rates (MDRs) of the various cohorts are used, the weights being the number of issuers in the cohorts across various rating categories.

5. **Marginal Default Rate (MDR):** MDR is defined as the number of entities defaulting in a particular year in a specific rating category as a proportion of the number of entities in that rating category in the cohort at the beginning of the year under study, adjusted for withdrawals.

³ as well on the medium-term scale (with medium-term ratings suitably mapped on to ICRA's long-term scale), but excluding structured obligations.

Illustration: Computation of three-year CDR (or CDR-3) for the rating category [ICRA]A

The CDR would be based on defaults experienced in the [ICRA]A ratings outstanding as on April 1, 2012, which would have completed three years of seasoning i.e. 2012-13, 2013-14 and 2014-15.

Step 1: Computation of MDRs for the April 1, 2012 cohort

We take the cohort of issuers rated [ICRA]A as on April 1, 2012 (original cohort C) to explain the concept of MDRs.

$$MDR1 = \frac{\text{Defaults in the year 2012-13 out of C}}{(C - (W1 / 2))}$$

MDR1: Marginal default rate for year 1

W1: Withdrawals in 2012-13 out of C

$$MDR2 = \frac{\text{Incremental defaults in 2013-14 out of C}}{C - W1 - (W2 / 2) \times (1 - MDR1)}$$

MDR2: Marginal default rate for year 2

W2 = Incremental withdrawals in 2013-14 out of C

$$MDR3 = \frac{\text{Incremental defaults in 2014-15 out of C}}{(C - W1 - W2 - (W3 / 2)) \times (1 - MDR1) \times (1 - MDR2)}$$

MDR3: Marginal default rate for year 3

W3 = Incremental withdrawals in 2014-15 out of C

Step 2: Computation of CDRs

Cumulative defaults at the end of year 3 would equal:

$$CDR = \{1 - [1 - MDR1] \times [1 - MDR2] \times [1 - MDR3]\}$$

In the case of ABS and MBS transactions, the numerator for the cumulative loss ratio been taken as “Loss to the investor” and the denominator the “Initial rated amount”.

Concept of Average Default Position

Here we explain the basics of the concept of Average Default Position (ADP). As an example, we show how to measure “ratings position” and “default probability” for the cohort of issuers having ratings outstanding as on April 1, 2014. When measuring the performance of an ordinal ratings system, we analyze whether companies that ultimately defaulted had lower ratings than did issuers which did not default. The ratings system aims to ensure that defaulters are near the bottom of the ratings spectrum long before they default. The ADP is one means of assessing how well this is achieved.

What is Ratings Position?: An issuer’s relative rating position is defined as the percentage of issuers with higher ratings. Thus, issuers rated [ICRA]AAA have positions near 0%; while issuers rated [ICRA]C or [ICRA]D have positions near 100%. We can then determine where in the ratings system the issuers that defaulted were positioned.

What is Default Probability?: Let us say a total of 100 defaults happen during a year, of which 2 defaults pertain to the [ICRA]A category, 5 to the [ICRA]BBB category, 13 to the [ICRA]BB category, 50 to the [ICRA]B category and 30 to the [ICRA]C category. Then we define Default Probability as the ratio of the number of defaults in a particular rating category to the total number of defaults in the given time period.

The “Ratings Position”, “Default Probability” and “ADP” of the above ratings performance is computed below for illustration.

Table 16: Illustration: Calculating ADP

	A	B	C	D	E
	No. of Issuers Outstanding	Ratings Position	No. of Defaults in One Year	One-Year Default Probability	E=B*D
[ICRA]AAA	50	0.3%	0	0.0%	0.0%
[ICRA]AA	200	1.9%	0	0.0%	0.0%
[ICRA]A	400	5.6%	2	2.0%	0.1%
[ICRA]BBB	1200	15.5%	5	5.0%	0.8%
[ICRA]BB	3000	41.6%	13	13.0%	5.4%
[ICRA]B	3000	78.9%	50	50.0%	39.4%
[ICRA]C	200	98.8%	30	30.0%	29.6%
	8,050		100	100.0%	75.4%

Total Number of Issuers

Total Number of Defaults

Unadjusted ADP

$$ADP = \frac{\text{Unadjusted ADP} - 0.5}{1 - (\text{Total Number of Defaults} / \text{Total Number of Issuers})} + 0.5 = 75.7\%$$

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