Update for 2007

Performance of ICRA-Assigned Ratings

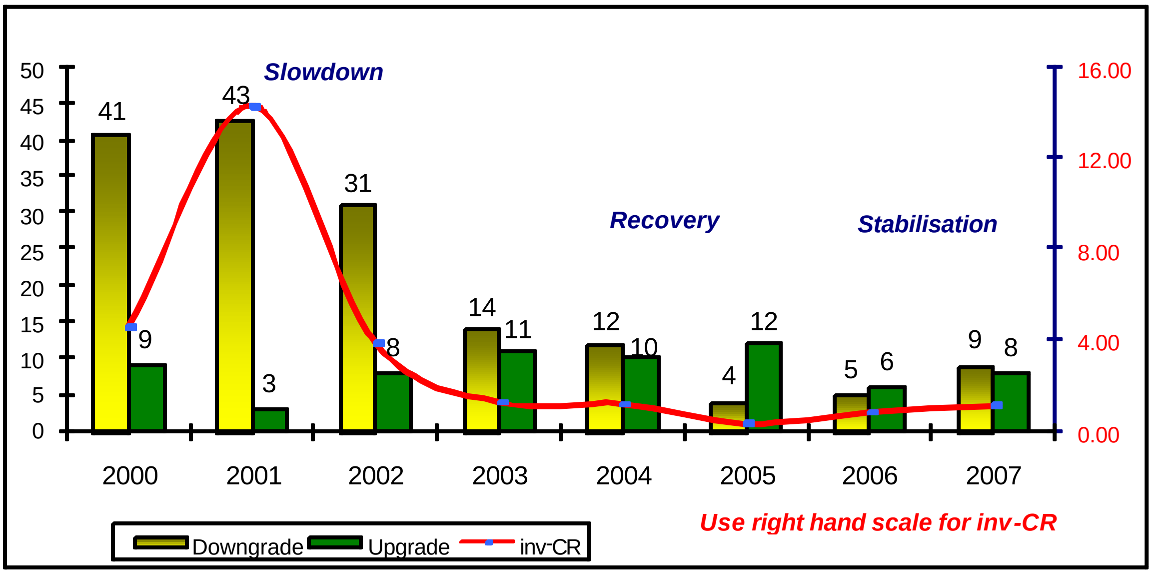
ICRA continually monitors the stability/transition[1] and the associated default rates of the ratings it assigns. The performance of ICRA-assigned ratings in 2007 reflects the anticipated deterioration (as highlighted in our 2006 performance report) in the credit profiles of some of the rated entities following debt-funded expansion and reversal in the relevant commodity cycles. With the credit profiles of the rated entities showing some deterioration, the number of downgrades exceeded the number of upgrades in 2007, thereby reversing the trend of the preceding two years. However, on back of a buoyant business environment and the structural adjustments made by rated entities, none of the investment-grade instruments defaulted in 2007, maintaining the trend established by the preceding three years.

This rating feature presents a study of the transitions made by ICRA-assigned ratings, in terms of upgrade, downgrade and retention, in calendar 2007, besides a snapshot of the default rates associated with debt issuers rated by ICRA over the last six calendar years (2002-2007). The key findings of the study are as follows:

- None of the entities rated in the investment grade defaulted in 2007, just as in the preceding three years. Thus, the three-year cumulative default rates over a four-year horizon beginning calendar 2003 remained nil. ICRA believes the the scenario of nil defaults by investment-grade issuers not only reflects the buoyancy in the economic environment, but also the structural adjustments made by Indian corporate entities against the backdrop of a changing business landscape.
- None of the securitisation transactions (including Asset-Backed Securitisation, or ABS; Mortgage-Backed Securitisation, or MBS; and single corporate loan securitisation) rated by ICRA has defaulted till date. In October 2007, ICRA revised downwards the ratings for three securitisation/direct assignment transactions (out of a total of close to 200 ratings outstanding as on December 2007). This was the first instance of downgrade of any ABS transaction rated by ICRA.
- Some signs of weakness in the rating transition trends that had surfaced in 2006 for the pool of entities rated by ICRA became more pronounced in 2007. The number of rating downgrades exceeded the number of upgrades in 2007, reversing the trend of the preceding two years. This resulted in deterioration in the inverse credit ratio (which increased from 0.33 in 2005 to 0.83 in 2006 and then to 1.13 in 2007), increase in the number of overall rating changes, transition of rating for structured transactions (in 2007 for the first time), and a marginal decline in the stability of certain LAAA and LAA ratings vis-a-vis the 2006 levels. Nevertheless, ICRA continues to believe that the business environment remains benign even as a moderate deterioration in the credit profiles of corporate entities because of scaling up of investment activities (including acquisitions) cannot be ruled out. For entities exposed to commodity cycles or international competition, any deterioration in the global economic environment may cause some erosion in their credit metrics, especially in a scenario in which the Indian rupee strengthens further and duty protection levels decline. Entities with significant short-term funding or currency mismatches may also experience higher stress.

[1] *measured by the number and extent of rating changes*

1. Inverse credit ratio shows some deterioration



RATING REVISIONS (LONG- & MEDIUM-TERM) SINCE 2000

ICRA considers both medium - and long-term rating revisions to calculate the inverse credit ratio (inv-CR), which is the ratio between downgrades and upgrades

- The number of rating downgrades exceeded the number of upgrades in 2007, reversing the trend of the preceding two years. This was reflected by the consistent increase in the inv-CR from 0.33 in 2005 to 083 in 2006 and then to 1.13 in 2007. The inv-CR for corporate entities deteriorated to 1.75 in 2007 from 1.25 in the previous calendar while that for financial sector entities improved from 1 to 0.5 over the same period.

- As for the magnitude of rating changes, around 63% of the entities upgraded breached their respective rating categories in 2007 as against around 67% the previous year. The proportion of downgraded entities breaching the rating category was 66% in 2007 as against 60% in 2006

- Industry-wise the rating downgrades happened in the Commodity (sugar, chemicals and petrochemicals), Financial Services, Power, and Pharmaceutical sectors. As for upgrades, half of these were in the Financial Services sector, with the balance being spread across the Hotels, Media, Chemicals, and Fashion Accessories.

- Most of the downgrades (around 45%) in 2007 were a consequence of weakening of the capital structure following large debt-funded expansion and/or reversal of the relevant commodity cycle; the balance downgrades were on account of pressure on earnings because of internal or external factors. As for the upgrades, improved earnings, strengthened capital structure, and takeover by an entity with a stronger credit profile were the primary reasons.

Going forward, while the overall business environment is expected to remain benign, a moderate deterioration in the credit profiles of the rated entities may be expected. The reasons for this prognosis are brought out in the following bullets.

- With corporate entities expected to pursue aggressive expansion (including acquisition) the level of leveraging and project risks (integration related challenges in the case of acquisitions) are likely to increase. Besides, high-value acquisitions may also impact their cost competitiveness and capital structures adversely.

- For entities exposed to commodity cycles or international competition, any deterioration in the global economic environment may cause some erosion in their credit metrics, especially in a scenario in which the Indian rupee strengthens further and duty protection levels decline. However, this may benefit entities in the user industries, especially those that service the domestic market. There could be some deterioration in the credit profiles of corporate entities with significant exposures to credit derivates

2. Rating Transition

2.1. No investment grade rating moves to non-investment grade, though stability declines marginally for LAAA and LAA categories

Table 1: ONE-YEAR TRANSITION MATRIX: LONG-TERM RATINGS—2007

	LAAA	LAA	LA	LBBB	NI
LAAA	**95.24%**	4.76%	0.00%	0.00%	0.00%
LAA	**0.00%**	**94.00%**	6.00%	0.00%	0.00%
LA	0.00%	**10.00%**	**90.00%**	0.00%	0.00%
LBBB[2]	0.00%	0.00%	25.00%	**75.00%**	0.00%

NI: Non-investment-grade; ratings below LBBB- (viz. LBB+ till LD)
The categories of LAA, LA and LBBB include ratings with suffixes "+" and "-" within the respective categories. Thus, for instance, the category LAA contains three ratings, LAA+, LAA, and LAA-.

Table 2: ONE-YEAR TRANSITION MATRIX: LONG-TERM RATINGS—2006

	LAAA	LAA	LA	LBBB	NI
LAAA	**97.44%**	2.56%	0.00%	0.00%	0.00%
LAA	**5.00%**	**95.00%**	0.00%	0.00%	0.00%
LA	0.00%	**5.88%**	**94.12%**	0.00%	0.00%
LBBB[3]	0.00%	0.00%	0.00%	**80.00%**	20.00%

Table 3: ONE-YEAR TRANSITION MATRIX: SINCE 2003

	LAAA	LAA	LA	LBBB	NI
LAAA	**97.73%**	2.27%	0.00%	0.00%	0.00%
LAA	**4.44%**	**93.89%**	1.67%	0.00%	0.00%
LA	0.00%	**4.55%**	**87.50%**	6.82%	1.14%
LBBB	0.00%	0.00%	9.68%	**83.87%**	6.45%

None of the investment-grade ratings moved into the non-investment grade in 2007; in 2006 one entity had made such a rating transition.

2.2. No downward transition in medium-term investment-grade ratings in 2007

Table 4: ONE-YEAR TRANSITION MATRIX: MEDIUM-TERM RATINGS—2007

	MAAA	MAA	MA	NI
MAAA	100.00%	0.00%	0.00%	0.00%
MAA	0.00%	100.00%	0.00%	0.00%
MA	0.00%	0.00%	100%	0.00%

NI: Non-investment-grade; ratings below MA- (viz. MB+ till MD)
The categories of MAA and MA include ratings with suffixes "+" and "-" within the respective categories. Thus, for instance, the category MAA contains three ratings, MAA+, MAA, and MAA-.

[2] Rating migration for this rating category appears very high because a limited number of ratings gets accepted in this category, and as a result, the denominator remains low
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Table 5: ONE-YEAR TRANSITION MATRIX: MEDIUM-TERM RATINGS—2006

	MAAA	MAA	MA	NI
MAAA	100.00%	0.00%	0.00%	0.00%
MAA	0.00%	100.00%	0.00%	0.00%
MA	0.00%	2.94%	97.06%	0.00%

Table 6: ONE-YEAR TRANSITION MATRIX: MEDIUM-TERM RATINGS—SINCE 2003

	MAAA	MAA	MA	NI
MAAA	**99.08%**	0.92%	0.00%	0.00%
MAA	**2.80%**	**96.26%**	0.93%	0.00%
MA	0.00%	**1.66%**	**97.79%**	0.00%

As in the previous calendar, none of the medium-term ratings got downgraded in 2007

3. *ICRA-assigned ratings remain stable*

The stability percentages (over a 12-month horizon) of ICRA's long-term investment-grade and medium-term investment-grade ratings for the last three years vis-à-vis the average for the five years since 2003 are presented in *Table 7 and Table 8*.

Table 7: STABILITY OF INVESTMENT-GRADE LONG-TERM RATINGS

	Stability 2005	Stability 2006	Stability 2007	1-yr. Avg. Stability (since 2003)
LAAA	**100**	**97.44**	**95.24**	**97.73**
LAA	**93.75 (6.25)**	**95.00 (5.00)**	**94.00**	**93.89 (4.44)**
LA	**93.75 (6.25)**	**94.12 (5.88)**	**90.00 (10.00)**	**87.50 (4.55)**
LBBB	**85.71 (14.29)**	**80**	**75.00 (25.00)**	**83.87 (9.68)**

Figures in parentheses indicate percentage transition to a higher category or upgrades

Although the stability of LAAA and LAA rated entities declined marginally in 2007 from the previous year's level, fewer downward revisions were seen for the LA and LBBB categories in 2007.

Table 8: STABILITY OF INVESTMENT-GRADE MEDIUM-TERM RATINGS

	Stability 2005	Stability 2006	Stability 2007	1-yr. Avg. Stability (since 2003)
MAAA	**100**	**100**	**100**	**99.08**
MAA	**100**	**100**	**100**	**96.26 (2.80)**
MA	**97.14 (2.86)**	**97.06 (2.94)**	**100**	**97.79 (1.66)**

Figures in parentheses indicate percentage transition to a higher category or upgrades

ICRA-assigned ratings, both in the long-term and medium-term categories, have remained stable. The stability data for 2007 (as presented in *Tables 7* and *8*) are in line with the stability statistics (average) for the five-year period between 2003 and 2007, both calendars included.

4. *Default level remains moderately low*

This is the third study on the default rates of ICRA-assigned ratings. Please refer *Annexure* for an overview of how ICRA computes default rates. This study covers all long-term (and equivalent) ratings and captures the **cumulative (three-year) default rates** (CDRs) over a six-year horizon beginning calendar 2002. The findings of the study are as follows:

Table 9: CDRS FOR THE SIX–YEAR HORIZON BEGINNING 2002

	CDR: 1 year	CDR: 2 years	CDR: 3 years
LAAA	0.00%	0.00%	0.00%
LAA	0.00%	0.00%	0.00%
LA	2.62%	2.62%	2.62%
LBBB	1.36%	3.12%	3.12%

The three-year CDRs over a six-year horizon beginning calendar 2002 remained low. None of the investment-grade rated entities defaulted over the four years till 2007. The defaults over the six-year period show an inverse relationship between ICRA-assigned ratings and default risk, that is, higher the rating lower the default risk, and vice versa. ICRA believes that the low level of defaults not only reflects the buoyancy in the economic environment, but also the structural adjustments made by Indian corporate entities against the backdrop of a changing business landscape.

However, it needs to be emphasised that rating-default statistics from domestic rating agencies (like ICRA) are inherently prone to greater variability than those from international rating agencies. This characteristic is imposed on local rating agencies by the twin limitations of a smaller population of rated entities across rating categories and the "concentration" of all ratings in a single market, that is, a complete lack of geographical diversity.

5. Performance of Structured Finance Ratings

None of the securitisation transactions (this includes ABS, MBS and single corporate loan securitisation) rated by ICRA have defaulted till date.

In 2007, ICRA revised downwards the ratings for three securitisation/direct assignment transactions (out of a total of close to 200 ratings outstanding as on December 2007). This was the first instance of ICRA downgrading any ABS transaction.

None of the MBS transactions rated by ICRA have been downgraded till date.

ANNEXURE 1

A synopsis of how ICRA computes default rates, that is, an overview of the basic building blocks is presented here.

1. **Definition of Default:** ICRA defines default as a missed or delayed payment by an issuer in breach of the agreed terms of the issue. ICRA uses this definition of default consistently for all its default-related studies. Please refer the ICRA article "How ICRA deals with default" while assigning ratings, for details (www.icraratings.com, www.icra.in).

2. **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[4] at the beginning of the year under study, adjusted for withdrawals. ICRA follows a strict policy on rating withdrawals: no rating is withdrawn to show better but distorted default rates.

3. **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.

4. **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.

A*n illustration on how the three-year CDR is computed is presented here.*

Illustration: Computation of three-year CDR for the last four years for the rating category LA at the end of year 2006

The CDR would be based on defaults experienced in the LA ratings outstanding as on January 1, 2003 and January 1, 2004, which would be captured through the MDRs for each year from 2003 to 2006. However, in this case, the rating cohorts of January 1, 2005 and 2006 are excluded, as these have not completed three years of seasoning.

Step 1: Computation of MDRs for the 2003 cohort

We take the cohort of issuers rated LA as on January 1, 2003 (original cohort C for 2003) to explain the concept of MDRs.

$$MDR1 = \frac{\text{Defaults in calendar 2003 out of C}}{(C - (W1 / 2))}$$

MDR1: Marginal default rate for year 1
W1: Withdrawals in calendar 2003 out of C

$$MDR2 = \frac{\text{Incremental defaults in calendar 2004 out of C}}{(C - W1 - (W2 / 2)) \times (1 - MDR1)}$$

MDR2: Marginal default rate for year 2
W2 = Withdrawals in Calendar 2004 out of C

$$MDR3 = \frac{\text{Incremental defaults in calendar 2005 out of C}}{(C - W1 - W2 - (W3 / 2)) \times (1 - MDR1) \times (1 - MDR2)}$$

MDR3: Marginal default rate for year 3
W3 = Withdrawals in calendar 2005 out of C

[4] *Cohorts consist of issuers rated on the long-term scale as well on the medium-term scale (with medium-term ratings suitably mapped on to ICRA's long-term scale), but exclude structured obligations*

Step 2: Computation of MDRs for the LA category for the 2004 cohort

Step 3: Weight averaging of MDRs

Now we have two sets[5] of MDRs (MDR1, MDR 2, MDR3) for the LA rating category.

The weighted average MDRs for the two cohorts (2003 and 2004) are computed with the weights being the number of issuers in the cohorts for the LA category.

Step 4: Computation of CDR

CDR = 1 – [(1 - WMDR1) x (1 - WMDR2) x (1 - WMDR3)]

WMDR1: Weighted Average Marginal default rate for year 1
WMDR2: Weighted Average Marginal default rate for year 2
WMDR3: Weighted Average Marginal default rate for year 3

Based on the weighted average MDR of year 1, we would compute the survivors at the end of year 1 (i.e. 1 - MDR for year 1). Survivors at the end of year 1 multiplied by (1 - MDR for year 2) would give us survivors at the end of year 2. This multiplied by (1 - MDR for year 3) would give us survivors at the end of year 3. One minus survivors at the end of year 3 would be the CDR.

[5] *one for the 2002 cohort and the other for the 2003 cohort*

Example

CDR for original Cohort Size (C_0) = 53

Year	Defaults	Withdrawals	Cohort adjusted for withdrawals	Survivors at the risk of default	MDR	Survivors	CDR
	$D_{(t-1,t)}$	$W_{(t-1,t)}$	$C_{Wt} = C_{t-1} - (W_{(t-1,t)} + W_{(t-2,t-1)}) / 2$	$N_t = C_{Wt} \times \prod_{t=1}^{3} S_{t-1}$	$D_{(t-1,t)} / N_t$	$S_t = (1-MDR_t)$	$CDR = 1 - \prod_{t=1}^{3} S_t$
1	2	7	49.5	49.50	4.04%	95.96%	4.04%
2	1	8	42	40.30	2.48%	97.52%	6.42%
3	1	10	33	30.88	3.24%	96.76%	9.45%

Annexure 2

Table A: DETAILS OF RATING CHANGES IN 2007

	COMPANY	Revised Rating	Earlier Rating	Industry
	Upgrades			
1	BHW home Finance Ltd	LAA+	LAA	Financial Services
	BHW home Finance Ltd	MAA+	MAA	
2	Punjab & Sind Bank	LAA	LA+	Financial Services
3	Sundaram Home Finance Ltd	MAA+	MAA	Financial Services
4	BOB Housing Finance Ltd	LAAA	LAA+%	Financial Services
5	Gujarat State Fertilizers & Chemicals Limited	MA+*	MB	Chemicals
6	Taj Lands End Limited	LAA+	LAA(SO)	Hotel
7	Television Eighteen India Ltd	LA-	LBBB+	Media
8	Titan Industries Ltd	LAA-	LA	Fashion Accessories
	Downgrades			
1	India Glycols Ltd	LA+	LAA-	Chemicals
2	Jagsonpal Pharmaceuticals Ltd	MA-	MA	Pharmaceutical
3	DCM Shriram Consolidated Ltd	LA	LAA-	Diversified
4	Tata Power Company Ltd, The	LAA	LAAA@	Power
5	The Waterbase Ltd	LB	LBB	Aquaculture
6	Balrampur Chini Mills Ltd	LA+	LAA	Sugar
7	Indian Oil Corporation Ltd	LAA+	LAAA	Petrochemical
8	Karvy Consultants Ltd	LA-	LA@	Financial Services
9	Karvy Stock Broking Ltd	LA-	LA@	Financial Services

Table B: ABS TRANSACTIONS

	Transaction Identification	Instrument Description	Revised Rating	Earlier Rating
1	TML Direct Channel Pool Direct Assignment February 2006	Purchaser payouts	LAA+(SO)	LAAA(SO)
2	BHPC Auto Securitisation Trust May 2006	PTCs Series A3	LAA+(SO)	LAAA(SO)
3		PTCs Series A4	LAA+(SO)	LAAA(SO)
4	TML Direct Channel Pool Direct Assignment June 2006	Purchaser payouts	LAA+(SO)	LAAA(SO)

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