

ONICRA DEFAULT STUDY 2014

Contents

EXECUTIVE SUMMARY	1
INTRODUCTION TO MSME SECTOR	2
Deployment of Gross Bank Credit to MSME Sector	2
New Developments in MSME Sector	3
IMPORTANCE AND OBJECTIVE OF DEFAULT STUDY	4
Methodology	4
Findings of the Study	5
Rating Category-Wise Distribution	6
Industry Wise Distribution	7
Geographical Distribution	8
Turnover Wise Distribution	9
Legal Constitution Wise Distribution	10
Bank Category Wise Distribution	11
LORENZ CURVE AND GINI COEFFICIENT FOR ONICRA's RATINGS	12
GLOSSARY OF TERMS	13

The manufacturing sector continues to remain tepid, registering growth of 1.2% in (April - December) FY 2014–15.

.....

Onicra's default rate has been 2.47% with Gini coefficient at 0.55 times.

.....

ONICRA
experienced no defaults from the highest rating categories, viz, 1A, 1B and 2A, thereby implying better credit quality of higher ratings.

EXECUTIVE SUMMARY

ONICRA has come up with its third default study for January–December 2014 period. The detailed study assesses defaults on ratings assigned to micro, small and medium enterprises (MSMEs) and rating distribution of the defaults.

India's macro-economic position has improved favourably since May 2014. During last 12 quarters, economic growth averaged 6.7%, but since FY 2013–14 it has been growing at an average of 7.2%, the later based on the new growth estimates. Inflation has declined by over 6 percentage points since late 2013. The current account deficit (CAD) has shrunken from a peak of 6.7% of GDP (in Q3, FY 2012–13) to an estimated 1.0% in the coming fiscal year.

Manufacturing in India accounts for around 16% of GDP, a level that has remained largely unchanged in last two decades and is relatively low when compared to 20% plus share in countries like Brazil, China, Indonesia, Korea and Malaysia, even after considering differences in per capita incomes. Meanwhile, MSME growth also has been low. This has led to lower employment at both aggregate economic and MSME level.

In this time of economic uncertainty, the default study provides important insight into the performance of MSMEs. ONICRA has conducted the default study this fiscal keeping in mind the following determiners:

- It will be helpful in testing the resilience of ONICRA's ratings.
- It provides insight into any improvement required in ONICRA's rating process.
- It shall prove beneficial in studying any movement in the default rate and dispersion of the rating since the last exercise.

A sample set of 1,500 cases was chosen, higher by 76% as compared to the number of cases chosen last year. The default rate for calendar year (CY) 2014 has been **2.47%**, while last year's rate was 2.35%. Dispersion or the Gini coefficient has remained at 0.55 times. The change in the default rate is a result of changing global and domestic scenario. Low economic growth rate, declining manufacturing and services sector and high interest rate regime have hampered the investment climate in the country and the worst affected are MSME units. Since avenues of debt financing are low and the interest rates charged are high, chances of default are also high, which is reflected in current default study. To point out, there was a clear trend of increasing default rate amongst lower financial strength rating categories.

MSMEs are considered the engine of economic growth and a major source of employment in non-urban areas at a lower capital cost.

MSMEs account for 45% of total manufacturing output, 40% of exports, and contribute around 8% to GDP.

MSMEs have only constituted around 12% of gross bank credit deployment.

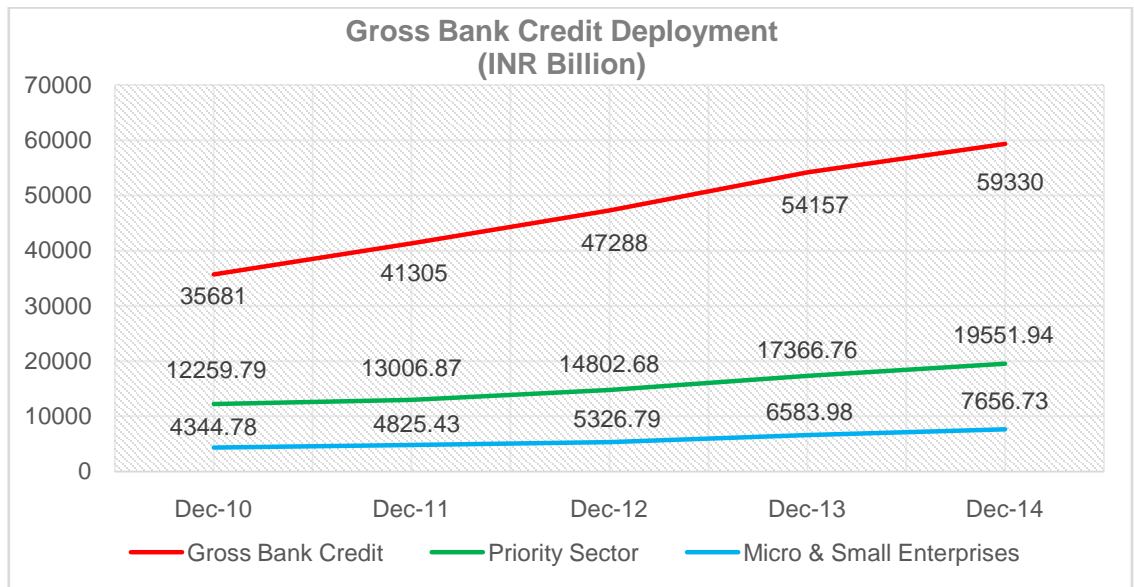
INTRODUCTION TO MSME SECTOR

MSME sector has emerged as the crucial sector of the economy, providing self-employment opportunities and employment opportunities to workers at relatively lower capital infusion and cost. The sector also helps in industrialisation of the rural and backward areas. It ensures an equitable distribution of income. MSMEs support larger corporate units and act as their ancillaries contributing manifold socio-economic activity in a region.

MSME growth is stymied because of adequate credit deficiency. Higher operational risk as compared to large corporate organisations, lack of personal guarantee and relatively uncertain future cash flows make it difficult for an MSME to serve financial obligations and hence there is reluctance amongst lending institutions to facilitate credit to MSMEs.

Deployment of Gross Bank Credit to MSME Sector

MSME sector faces a major crunch in finance access. Over the years, poor growth in credit deployment to the sector is observed and, on an average, it has constituted around 12% of gross bank credit deployment.



*Lending to Medium enterprises is not eligible to be included for the purpose of computation of priority sector lending

To encourage greater bank-led financing, the Reserve Bank of India (RBI) had increased its focus on the sector through directed lending policies such as priority sector lending norms, but the gap in financing has widen owing to significant demand-supply constraints.

New Developments in MSME Sector

- Setting up of Micro Units Development and Refinance Agency (**MUDRA**) Bank with a corpus of INR 20,000 crore and a credit guarantee fund of INR 3,000 crore with directed lending to MSMEs.
- Development of a comprehensive bankruptcy code by FY 2015–16 to facilitate easy exit from sick or non-profitable ventures.
- Creation of a trade receivables platform to finance receivables from corporates and other buyers through financial institutions.

Rating serves as a trusted third party opinion on the MSME unit's capabilities and credit worthiness.

.....

The NSIC Performance and Credit Rating Scheme has proved a successful tool to reduce information asymmetry and enhance credibility in the MSME sector.

.....

Sample size considered for the current year study is 1,500, which is 76% higher than the sample chosen last year.

Ratings conducted by ONICRA are point-in-time ratings.

IMPORTANCE AND OBJECTIVE OF DEFAULT STUDY

Indian economy has been suffering from a slowdown since last 2 years. This is a result of the trickle down from the global meltdown and slackness in Indian manufacturing and services industry. In such a scenario, default rates on various instruments are expected to be high. Thus, studying the default rates becomes significant on two levels – as a measure of the credit risk profile of a rated entity and as a measure of efficiency of rating scale of an issuer.

Credit risk profile of a rated entity: Credit rating is an opinion on credit worthiness of a rated entity and default rate signifies probability of default at each rating level. A high-default rate implies a higher probability of default in the rating category. The default rate of the issuer at a rating level is a measure of the credit risk associated with the rated entity.

Efficiency of the rating scale of an issuer: A rating scale assigns the degree of reliability to a rated entity at a rating level. Movement in rating scale is inversely proportional to the default rate. As we move up the rating scale, the default rate should come down and vice-versa.

The study concluded a default rate of 2.47% for ONICRA-assigned ratings. The rates were higher on lower ratings, thus indicating a good dispersion. This indicates the healthiness of the rating model employed by ONICRA. The Gini coefficient calculated was 0.55, which indicates a good discretionary power of ONICRA's rating model.

Methodology

ONICRA has a mandate from National Small Industries Corporation (NSIC) for point-in-time ratings for MSMEs. Consequently, the ratings are not tracked on a regular basis. The default study was conducted with a sample of 1,500 data sets, chosen from ONICRA's live ratings for January–December 2014 period. Sampling (as detailed below) required further caution as ONICRA aimed for a more comprehensive study this year as compared to the last year. The data collection exercise was conducted during January–March 2015. The current status of the accounts of the sample set was taken from respective bankers. A structured questionnaire was designed to assist symmetrical data collection. ONICRA has collected the data by conducting physical visits to the banks, over telephonic interactions and through e-mail correspondences with the bankers. We believe that the data collected through these modes is robust and reliable. The data was further converted into an excel format for analysis and preparation of this report.

The sample chosen included units rated during January – December 2014.

.....

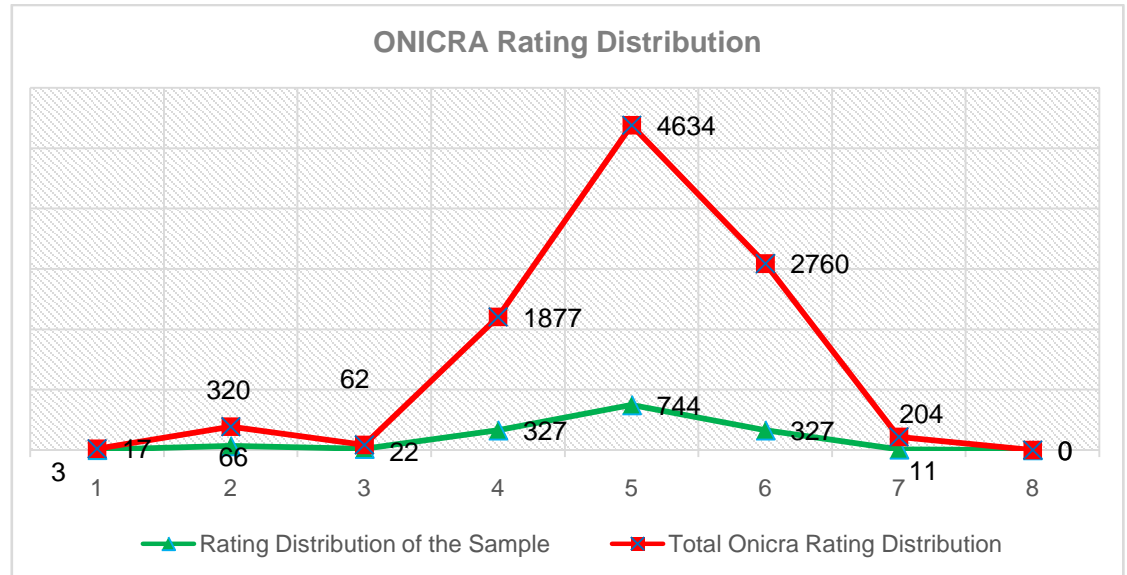
The observation period ranges from January 2015 to March 2015.

.....

ONICRA's ratings follow a standard bell curve with the median rating score falling on rating categories 4, 5 and 6.

Sampling

The chosen sample set of the rated units consisted of units belonging to mainland India, including North-Eastern Region (NER), which were rated during calendar year (CY) 2014 with size varying across three turnover slabs of 'up to INR 50 lakh', 'above INR 50 lakh and up to INR 200 lakh' and 'above INR 200 lakh'. The ratings were assigned across all rating categories.



ONICRA has assigned 9,874 ratings in CY 2014 and a representative sample set of 1,500 cases was chosen from the same.

A small sample size is a limitation to the study conducted. ONICRA has covered 1,500 data sets in the study, which is almost 15% of the total number of units rated. Although this is a handsome sample size, limitations of conducting the study on the sample remain. Prudence needs to be exercised for generalising any conclusion(s).

Findings of the Study

Default rate for ONICRA-rated entities has been 2.47% for CY 2014. The rate is higher than the 2.35% rate for ONICRA-rated entities in CY 2013. Due to sluggish growth in manufacturing industry and difficult economic conditions, the default rate has slightly deteriorated. The study conducted last year provided some helpful insights in improving the rating process and this financial year's default study is another step towards the benefits thus derived.

The detailed study of the defaults across various rating categories on the rating scale provides a meaningful perspective to the robustness of the rating model.

Rating Category-Wise Distribution

ONICRA Rating Scale	Irregular Account	Registered as an NPA	Satisfactory	Default Rate: Regular + NPA (in %)
1	0	0	3	0
2	0	0	66	0
3	0	0	22	0
4	2	2	323	1.22
5	9	7	728	2.15
6	8	5	314	3.98
7	2	2	7	36.36
8	0	0	0	0
Grand Total	21	16	1463	2.47

Inverse correlation is desirable between credit ratings and default probabilities.

.....

Highest number of defaults has occurred in the lowest rating category.

Considering the incidence of rated entities falling under a particular rating category, ONICRA ratings have been inversely related to the default rate in the categories. As we descend the scale, the percent of default increases in categories 4, 5 and 6. This is indicative of the discretionary powers of a robust rating model followed at ONICRA.

The study includes enterprises from 30 different industries with major contribution coming from textile, agriculture and allied products, healthcare and food and beverages.

Industry Wise Distribution

	Total Number of Units in Sample	Contribution in Total Sample	No. of Default	Default Rate (In %)
Textile	147	9.80	4	2.72
Agriculture & Allied Products	130	8.67	3	2.31
Food & Beverages	77	5.13	3	3.90
Health Care	26	1.73	3	11.54
Construction Materials	102	6.80	3	1.96
Others	88	5.87	2	3.41
Iron and Steel	46	3.07	2	4.35
Leather & Leather Products	20	1.33	2	10.00
Machinery & Equipments	125	8.33	2	1.60
Plastic & Plastic Products	39	2.60	2	5.13
Printing	28	1.87	2	7.14
Services	47	3.13	2	4.26
Transportation/ Logistics & Warehousing	16	1.07	2	12.50
Construction & Engineering	112	7.47	1	0.89
Education	17	1.13	1	5.88
Electrical Components & Equipments	64	4.27	1	1.56
Retailing/Trading	71	4.73	1	1.41
Wood & Wood Products	31	2.07	1	3.23
Auto & Auto Components	48	3.20	0	0.00
Chemicals/ Fertilizers	37	2.47	0	0.00
Containers & Packaging	55	3.67	0	0.00
FMCG & Personal Products	11	0.73	0	0.00
Furniture	19	1.27	0	0.00
Gems & Jewellery	16	1.07	0	0.00
Hospitality	19	1.27	0	0.00
Information Technology	19	1.27	0	0.00
Media & Entertainment	6	0.40	0	0.00

Metal & Metal Products	42	2.80	0	0.00
Oil & Gas	8	0.53	0	0.00
Paper & Paper Products	6	0.40	0	0.00
Pharmaceuticals	25	1.67	0	0.00
Telecommunication & Technology Hardware	3	0.20	0	0.00
Total	1500.00	100.00	37	2.47

Textile industry has registered highest number of defaults followed by Agriculture and Allied Products, Food and Beverages and Health Care. A tepid manufacturing condition is reflected in the industry-wise analysis of the default rate as well.

Penetration of credit ratings is increasing in North-Eastern Region (NER) and Jammu & Kashmir.

.....

Out of the total units rated under the NSIC-PCR Scheme since inception, only 1,200 units belong to NER. ONICRA has contributed close to 80% rating in NER.

Geographical Distribution

State	Total Number of Units in Sample	Contribution in Total Sample (In %)	No. of Default	Default Rate (In %)
Tamil Nadu	195	13.00	7	3.59
West Bengal	206	13.73	7	3.40
Assam	42	2.80	5	11.90
Madhya Pradesh	120	8.00	4	3.33
Maharashtra	121	8.07	4	3.31
Uttar Pradesh	148	9.87	2	1.35
Karnataka	196	13.07	2	1.02
Manipur	12	0.80	1	8.33
Bihar	17	1.13	1	5.88
Haryana	18	1.20	1	5.56
Orissa	39	2.60	1	2.56
Rajasthan	51	3.40	1	1.96
Andhra Pradesh	52	3.47	1	1.92
Arunachal Pradesh	1	0.07	0	0.00
Chandigarh	1	0.07	0	0.00

Although, North-Eastern States account for nearly 3% MSMEs, they account for 16% of the total defaults occurred.

.....

Due to lack of access to credit and low credibility, units with turnover slab up to INR 50 lakh have registered the highest number of defaults.

Chhattisgarh	6	0.40	0	0.00
Delhi	38	2.53	0	0.00
Gujarat	91	6.07	0	0.00
Himachal Pradesh	7	0.47	0	0.00
Jharkhand	5	0.33	0	0.00
Kerala	1	0.07	0	0.00
Nagaland	1	0.07	0	0.00
Punjab	50	3.33	0	0.00
Telangana	35	2.33	0	0.00
Tripura	7	0.47	0	0.00
Uttarakhand	40	2.67	0	0.00
Grand Total	1500	100	37	2.47

ONICRA default study was conducted pan-India. The highest number of defaults was registered in the regions of Tamil Nadu, West Bengal and Assam. Default rates in these states have been significantly higher than the national average.

Turnover Wise Distribution

Turnover Slab	Total Number of Units in Sample	Contribution in Total Sample (in %)	No. of Default	Default Rate (In %)
Up to INR 50 Lakh	262	17.47	15	5.73
Above INR 50 Lakh up to INR 200 Lakh	413	27.53	9	2.18
Above INR 200 Lakh	825	55.00	13	1.58
Grand Total	1500	100.00	37	2.47

Sample covered in 'up to INR 50 lakh' category has been small as the number of units availing banking facility in the category is lower. However, the probability of default increases as the size of the rated entity decreases. With size comes stability in a unit, which lends it an ability to raise funds from multiple channels and capacity to repay debt obligations. Consequently, the default rates are highest in the lowest turnover slab.

Proprietorship is the most commonly adopted ownership structure (94.50% of all MSMEs), followed by partnership, private limited and public limited.

.....

Out of the total defaults registered, 62% of the defaults have occurred in proprietorship constitution.

Legal Constitution Wise Distribution

Constitution	Total Number of Units in Sample	Contribution in Total Sample (In %)	No. of Default	Default Rate (In %)
Proprietorship	843	56.20	23	2.73
Partnership	331	22.07	6	1.81
Private Limited Company	305	20.33	7	2.29
Society	6	0.40	0	0.00
Trust	15	1.00	1	6.67
Grand Total	1500	100	37	2.47

The type of ownership structure of enterprises determines the form of capital (equity or debt) these enterprises can access and absorb from external sources. This can significantly impact growth potential at both start-up stage and growth/expansion stage, when capital is needed. Default occurrence is maximum under proprietorship constitution owing to lack of high-interest expenses, tight terms of payment, high-cost of production, non-transparency regarding financial conditions, etc.

The PSBs account for about 73% of the total assets in the Indian Banking Industry followed by 20% with Private Banks and 6% with foreign banks

.....
PSBs accounted for 80% of the NPAs of the banking system in 2014.

Bank Category Wise Distribution

Bank Category	Total Number of Units in the sample	% Contribution in the total Sample	No. of Default	% Default
Public Sector Bank	1178	78.53	35	2.97
Private Sector Bank	245	16.33	2	0.82
Co-operative Bank	43	2.87	0	0.00
Foreign Bank	17	1.13	0	0.00
Regional Rural Bank	13	0.87	0	0.00
NBFC	4	0.27	0	0.00
Grand Total	1500	100	37	2.47

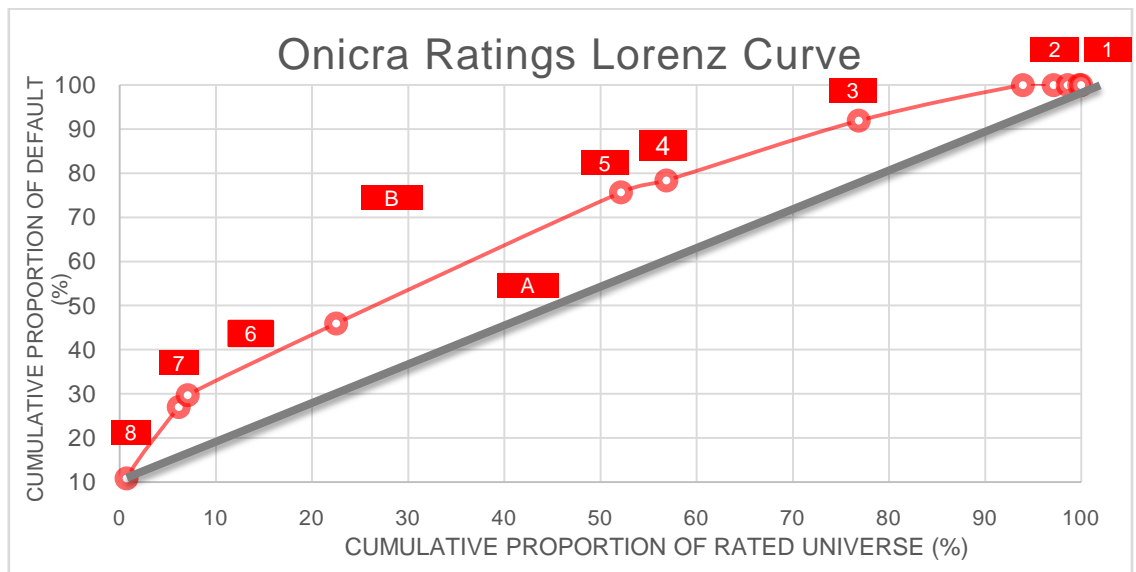
The banking system in India consists of Commercial Banks and Cooperative Banks of which the Commercial Banks account for more than **90 percent** of the banking system's assets. Based on the ownership pattern, the Commercial Banks can be grouped into three type i.e. (i) State owned or Public Sector Banks (PSBs), (ii) Private Banks under Indian ownership, and (iii) Foreign Banks operating in India. As per the default study conducted by Onicra, maximum defaults have occurred under PSBs.

Gini coefficient is a measure of statistical dispersion. A higher Gini coefficient indicates superior predictive ability of a rating system.

Gini coefficient (G) for ONICRA's ratings is 0.55. The higher value of Gini coefficient indicates better discriminatory power of ONICRA Rating Grades.

Superior resilience of ONICRA Ratings has been observed as none of the highest rated entities defaulted or underwent restructuring.

LORENZ CURVE AND GINI COEFFICIENT FOR ONICRA'S RATINGS



In the graph above:

A = Area between the random curve and the Lorenz curve

B = Area between the Lorenz curve and the line of inequality

In the graph, 80% of defaults recorded were in ONICRA 4 rating category and lower categories. These categories included only 55% of total ratings assigned. In other words, the bottom 55% ratings accounted for 80% of defaults that occurred. These rating categories are marked by limited information available about them and their inherent vulnerability to sharp rating changes.

Gini coefficient (G) of the curve is 0.55; it is depicted in the graph as 'A/ (A+B)'. ONICRA Gini coefficient indicates superior discriminatory powers of the rating model. The closer the cumulative curve is to the ideal curve, the better the predictive power of the ratings. Gini Coefficient or accuracy ratio will be 1 if ratings have perfect predictive ability, as cumulative curve will coincide with ideal curve. On the other hand, it will be close to zero if ratings have poor predictive power, as in this case, the cumulative curve will almost coincide with the random curve. Thus, a higher Gini Coefficient indicates the superior predictive ability of a rating mechanism.

GLOSSARY OF TERMS

DEFAULT

Default is identified by ONICRA as an occurrence of delay in payment/non-payment of any debt obligation including current maturity, interest payment, etc. Any late recovery of debt obligation is not reversed for identification of the account as default.

DEFAULT RATE

Default Rate for ONICRA has been calculated as the number of defaults amongst rated entities as a percentage of total entities rated and outstanding under the period of study. Default rate can be calculated across each rating category.

LORENZ CURVE

Lorenz curve, also known as cumulative curve, is a graphical representation of the cumulative distribution function of the empirical probability distribution of the variable. It is useful in business modelling, e.g. in consumer finance, to measure the actual delinquency Y% of the X% of population with worst predicted risk scores.

RANDOM CURVE AND LINE OF INEQUALITY

A random curve is a straight line at 45 degrees of x-axis. It is also known as the line of equality and represents a perfectly equal distribution of delinquency over risk scores.

By contrast, line of inequality is the perfect distribution where all the defaults or delinquency are distributed over one risk score, i.e. the lowest rating category. This is an ideal scenario, where all the defaults should be at the lowest categories. Since no system is perfect, the actual default rate distribution would lie somewhere between the line of inequality and the random curve.

GINI COEFFICIENT

Gini coefficient, also known as Gini index or Gini ratio or Accuracy ratio, is a measure of statistical dispersion. It measures inequality amongst values of a frequency distribution. Gini coefficient is measured as the area between line of equality and Lorenz Curve, as a ratio of the area between the line of equality and the line of in-equality. It is also known as the accuracy ratio. A Lorenz curve nearer to the line of inequality would indicate concentration of the cumulative defaults at the lowest rating categories. The higher the coefficient, the more unequal is the distribution. A higher Gini coefficient would indicate higher predictive power of the rating model.

DISCLAIMER

This report is a proprietary of ONICRA Credit Rating Agency of India Limited and no part of this report may be copied/reproduced in any form or any manner whatsoever without a written consent by ONICRA. ONICRA has taken utmost care in preparing this report. Information has been obtained from sources considered to be reliable. However, ONICRA does not guarantee the accuracy, adequacy or completeness of information and is not responsible for any errors in transmission. It is especially stated that ONICRA, its directors, employees and others associated with the rating assignment do not have any financial liability whatsoever including but not limited to attorney's or consultant's fees to the users of this report.

Key Contacts

Vishnu Ramachandran
Senior Vice President

Contact No. :
+91- 124-4125487

Manish Goyal
General Manager

Contact No.:
+91-124-4125707

Shalu Malaviya
Deputy Manager

Contact No.:
+91-124-4125732

Our Offices

HARYANA

Gurgaon Corporate & Rating office

Building No. 21-22, 5thFloor
Udyog Vihar Phase-IV,
Gurgaon-122015, India

TELANGANA

Hyderabad

7-1-28/12/1, 4th Floor,
Serenity Plaza, Shyam
Karan Road, Near Andhra
bank, Ameerpet Branch,
Hyderabad-500016, India

GUJARAT

Ahmedabad

603, Aniket, Above Metro
Showroom, Opp. Jain
Derasar, CG Road,
Navrang Pura,
Ahmedabad-380009,
India

WEST BENGAL

Kolkata

3 D & F, 3rd Floor, Jindal
Tower, Block – A, 21/1A/3,
Darga, Kolkata – 700017,
India

KARNATAKA

Bengaluru

N-705, 7th Floor, North
Block, Manipal Centre
47, Dickenson Road
Bengaluru – 560042, India

MAHARASHTRA

Mumbai

520, 5th Floor
Nirmal Corporate Centre,
Nirmal Life Style, LBS
Marg, Mulund (West)
Mumbai – 400080, India

UTTAR PRADESH

Noida

B10, Sector – 59
Noida – 201301, India

Lucknow

239 Tej Kumar Plaza,
Hazratganj , Lucknow –
226001, India

TAMIL NADU

Chennai

25, Ranganathan Garden,
Ground Floor, 15th
Main Road, Annagar
West,
Chennai-600040, India