RATING METHODOLOGIES: A DIAGNOSIS OF CORPORATE DEFAULTS

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ABSTRACT

The rating agencies, with the help of their “superior investigative edge” are expected to read the financial pulse of the companies and convey the same to the investor. This, in turn, gives the investor an idea of the company’s credit worthiness. Of late, allegations have been raised against the rating agencies for not being prompt in identifying the impending failure. The immediate question that comes to mind in the present turmoil is where the regulatory authorities and rating agencies were. In order to examine this aspect, the present researcher intends to focus on the rating methodology of major rating agencies, with a particular intention to test default probabilities of

top five NASSCOM ranked IT companies. The findings indubitably turn attention to spot light the specifics that demand due consideration to understand the true worth of the company. Further signifies the need of rating agencies as a caution against default by acting as information intermediaries between issuers and investors. Rating agencies with reputation for independence and objectivity can only provide valuable service to meet the market-expanding needs, and pierce the fog of asymmetry. The best way to ensure corporate behavior is not necessarily to introduce more regulations, but to do as much as possible to promote transparency could be the more powerful weapon against corporate frauds.

KEY WORDS CREDIT RATING AGENCIES, RATING PROCESS, RATING GRADES, RATING PARAMETERS, DEFAULT PROBABILITIES, ALTMAN'S BANKRUPTCY MODEL

INTRODUCTION

Credit rating is of recent origin in India. Growing financial disintermediation created the necessity of an independent agency, which can assess the credit risk. Credit agencies provide a yardstick in terms of rating to measure the credit risk inherent in any instrument. The ratings assigned are generally regarded in the investment community as an objective evaluation of the probability that a borrower will default on a given security issue. It is no wonder that, the security ratings are so closely followed by investors. In fact, many investors accept the ratings assigned by credit rating agencies as a substitute for their own investigation of a security's investment quality. The fact that credit rating agencies have not been fully successful in performing its function of proper surveillance and providing timely and complete information about the companies rated by them. The level and variability of investment-grade default rates are particularly important for the investors who employ simple investment-grade rating cut-offs in the design of their investment eligibility plan. Further, the rating prior to default is reflective of the rating agencies success at assigning the lowest ratings to companies that subsequently default. Credit rating agencies have not only under performed on account of these two reasons but also due to the fact that, in some cases, it has not disclosed the rationale for default in its Rating profile.

The spate of financial crises and scandals have invited vehement public criticism of the credit rating agencies for failing to give timely warning of the impending crisis. It is hard to believe that Satyam Computer Services involved in a financial fraud entailing thousands of cores of rupees. Surprised to note that Satyam has its presence in 66 countries and is listed on the New York Stock Exchange (NYSE) and recently received Golden Peacock Global Award for Excellence in Corporate Governance for the year 2008. The case of Satyam Computers is neither the first nor the last corporate fraud to learn a lesson by the investors. The investors are supposed to be alerted by the credit rating system against the issuers who are prone to default .The reliability of ratings can be established on the basis of the actual default rates over a reasonably longer period. In the absence of a systematic study of default rates on credit rated instruments in India, it is not known whether the credit rating truly reflects the average default rate for each rating class.

LITERATURE REVIEW

In the literature, increasing attention has been given on the study of credit rating institutions of the country, ever since they have started functioning. To begin with, attention has been focused on the concept of credit rating and the efficacy of rating methodology adopted by the rating agencies and showed that the rating are too liberal by international standards. The analysis carried out by Raghunathan and Varma (1992) deserves special mention in this context. Varma. J.C (1999) observed that in the aftermath of the Asian Crisis and the scathing criticism on the failure of rating agencies to predict the crisis and later on their role in precipitating it through downgrades, the role of credit rating agencies has been placed under microscopic scrutiny. The merits and demerits of regulating credit rating agencies and the issue of rating have been discussed at many international forays.

Ravi Mohan. R (2000) opined that credit rating has gained importance over the years. Other factors like globalization of the Indian economy, regulatory reforms and also shift in benchmarks and criteria of credit rating agencies also contributed to this increased activity. According to Gupta, Gupta and Jain (2001), the major reason for the lack of confidence among the retail investors in the bonds of private sector companies is the high default rate. In his paper Choudhury.P.K (2003) has expressed that the most important ingredient of an effective credit rating system is the independence of the agencies. The most critical success factor of a credit rating agency is its credibility. R. Azhagaiah (2004) in his study highlighted the practices and problems of credit ratings as debt instruments in India.

In the light of above discussion it seems that no previously published research however, has examined the comparative rating process of major rating agencies in India. In this paper, nevertheless an attempt has been made, to test how far the credit rating agencies could able to assess the default probabilities of companies well in advance.

OBJECTIVES OF THE STUDY

The major objectives of the study are:

- To understand the function of credit rating in India.
- To examine the credit rating process adopted by the major credit rating agencies in India.
- To predict the default probabilities and viability of top five Information Technology (IT) sector companies.
- To offer suitable suggestions on the basis of findings of the study.

HYPOTHESIS

In the light of the above objectives, the study attempts to test the following hypothesis:

- The rating processes adopted by the major rating agencies are one and the same.

- Rating agencies considers accurate information in all respects to differentiate its rating superiority.
- The ratings awarded by the rating agencies are in accordance with the financial status of the organization.

DATA AND METHODOLOGY

The present study has been undertaken to critically examine the rating process adopted by the major rating agencies in discharging their function. The particulars of agencies and their methodologies have been gathered from manuals and websites of concerned institutions. As a researcher it is quite interesting to understand the impact of current U.S economy recession on Indian IT sector. Nevertheless sudden collapse of Satyam Computer Services draws the attention of millions of people and raised doubts against the other IT players too. In the light of this the study aims to evaluate the financial stability and operational health of the top five NASSCOM ranked IT sector companies (see Table-1). The data from the published sources of select companies covering a period of five years from 2003-04 to 2007-08 form the basis to carry out ratio analysis. Of the many financial ratios used frequently to gauge the financial performance of a company, most only provide warning when it is too late to take corrective action. Altman's Z-Score (Altman's Bankruptcy Model) has been tested by the investigator to predict the financial distress of selected companies as solvent or insolvent depending on the Z-Score secured by them. The formula used to evaluate Z-Score analysis is:

$$Z\text{-} = 0.717\ X_1 + 0.847\ X_2 + 3.107\ X_3 + 0.420\ X_4 + 0.998\ X_5$$

Z is the composite index comprising the variables X_1 to X_5 are computed as absolute values in number of times. Z-Score of less than 1.20 suggests a high probability of bankruptcy, while Z-Scores above 2.90 imply a low probability of bankruptcy. Scores between 1.20 and 2.90 are in the grey or ambiguous area.

RATING PROCESS COMPARISON

By observing the rating process of the three credit rating agencies, viz., (1) Credit Rating Information Services of India Limited (CRISIL), (2) Investment Information and Credit Rating Agency of India Limited (ICRA) and (3) Credit Analysis and Research Limited (CARE) the researcher identified some important aspects. The rating process of the three rating agencies starts with the request of the client. Upon the receipt of the request, the agency assigns a rating team to carry out the rating assignment. Based on the information submitted by the client, the team conducts the basic research. The team conducts meetings and visits to sites to gather additional information. Apart from the additional data gathered through meetings and visits to the companies, ICRA collects more information from outside sources such as Bankers, Auditors, Competitors, and Industry experts, Suppliers, Dealers and Customers for analysis and to prepare reports. But after gathering additional information, the rating team of CRISIL meets the company executives and interacts with the backup team for collecting industry information. After the analysis and preparation of reports from the data gathered, CRISIL, ICRA and CARE follow their own methods of analyzing information. For instance, CRISIL considers the findings of the back-up team and present them to an internal committee consisting of senior executives of CRISIL. ICRA conducts preview meetings to decide rating. CARE hands over the task to an internal committee, which previews the analysis. After that CRISIL and CARE communicate the awarded rating to the client. Before awarding rating, ICRA conducts a rating meeting and awards rating through review process and then communicates the same to clients. After communication of rating, the client may or may not accept the rating. If the client accepts the rating awarded, then only dissemination of rating publication takes place otherwise if the client appeals for review of the rating assigned and furnishes additional information, the review process follows. The final rating will be announced. If the client has the opinion not to accept the final rating; in which case rating will not be published, or monitored. If the client accepts the rating, surveillance and annual reviews will continue.

On the whole, the rating process adopted by the three major agencies is similar. There are few minor deviations in respect of collection of client's information. Depending upon their creditworthiness, investments are classified into the four grades. These grades and symbols are presented in a summarized format in Table-2.

As regards the parameters used for rating, the researcher identified that the three rating agencies CRISIL, ICRA and CARE consider certain key analyses such as, business analysis, financial analysis, management analysis and environment analysis to award rating. The factors examined under each key area of analysis vary from agency to agency. The details of parameters used by each agency under consideration are given in Table–3.

TESTING FOR DEFAULT PROBABILITIES OF SELECT COMPANIES

The key financial performance indicators (five financial ratios, x_1 to x_5) judging the financial health of all the five select companies in Table-4 found that the Z-Score of TCS Ltd were more than 2.90 during the period under study except in 2004 which is recorded as 0.5723 due to nil sales registered in that year. This is an indication to high probability of bankruptcy. Later, Improvement of sales led to quick recovery of Z-Score crossing over 5.00 during the period 2005 to 2007. In the year 2008, Z-Score is declined to 4.6874, but the company is still in the safe zone.

The Z-Score of Infosys Tech Ltd were more than 2.90 during the entire period of the study which is an indication of low probability of bankruptcy. The Z-score crossed over 4.00 during the entire period of study, and signals for no bankruptcy. The Z-Scores of WIPRO Ltd is nearing to 4.00, except in the year 2004 with 3.7918 and in the year 2008 with 3.2300, giving the signals for no bankruptcy.

The study results reveals an interesting insight over the Satyam Computers services with Z-Score crossed over 2.9 except in the year 2007.In the year 2007 the Z-Score registered with 2.2736 and signals a caution for grey or ambiguous situation. Neither the credit rating agencies nor regulating authorities warn the situation. In 2008, surprisingly the Z value improved to

3.7892 indicating the situation of low probability of bankruptcy and it bagged **Golden Peacock Global Award** for Excellence in Corporate Governance for the year 2008**.** Aftermath of Satyam Computers financial fraud the ratings and awards were withdrawn by the respective authorities.

The Z-Score of HCL Ltd were less than 2.90 during the period 2004 and 2005 and there after a gradual improvement is noticed and crossed over 3.00, indicating low probability of bankruptcy.

FINDINGS

All the credit rating agencies in India follow the same rating methodology comprising of three broad sets of areas, such as business analysis, financial analysis and management evaluation. In addition, for finance companies emphasis is laid on fundamental analysis and regulatory environment.

- The select three rating agencies are considering the parameters such as accounting quality, earning protection, cash flow adequacy and financial flexibility for making financial analysis and track record. Organizational structure, corporate strategy and philosophy are commonly considered for management evaluation in their rating process. In their rating methodology, CRISIL and CARE are examining environmental analysis but ICRA is not considering this important aspect.

- Fundamental analysis is the most important aspect in investment management, which is considered only by CRISIL. The other two agencies, viz., ICRA and CARE are not adopting fundamental analysis.
- Each rating assigned to a security reflect at least three factors: (1) character of the security (2) the default probability and ability of the issuer to make timely payment (3) the degree of protection afforded to the investor if the security declare bankruptcy. As the matter of practice investment agencies focus mainly upon (a) past and probable cash flows (b) volume and composition of outstanding debt (c) stability of issuer's cash flows overtime. Quality analysts also place heavy emphasis upon interest coverage ratios and liquidity of the issuing firm.
- Rating agencies and regulating authorities simply believe the audited figures. There is a greater scope for window dressing in the audited figures. As a result the rating agencies and regulating authorities were failed to reveal the true picture of companies like Satyam Computer Services Ltd.

Though the rating agencies follow different rating process the basic purpose is to provide valuable information to the investing public in the matters of investment decisions. Further, in the absence of adequate information, transparency and ethical code of conduct on the part of the corporate, the governance of rating agencies is questionable

RECOMMENDATIONS

- It has been opined that had the rating agencies been quick in envisaging the company's bankruptcy, many investors would have saved themselves from burning their fingers. One needs rating agencies to improve the efficiency of rating by acting as information intermediaries between issuers and investors, which leads to greater transparency and pierces the fog of asymmetry.
- We believe that rating agencies should establish policies to guard the integrity and objectivity of the rating. Governments and regulators should also create an environment that allows rating agencies to operate independently. The key is for rating agencies to be able to assign ratings free from any influence that can impair the rating process and ultimately, diminish the value of rating. Rating agencies with reputation for independence and objectivity can provide valuable service to meet market-expanding needs.
- Financial analysts, regulating authorities like SEBI and RBI, financial service organization like credit rating agencies, failed to warn the Satyam Computer Services financial performance to the investors well in advance. As the study findings revealed the grey or ambiguous situation of Satyam Computer Services in the year 2007, but no agency and regulating authority could point out it, until the issue blast out. These organizations are to be suggested not hurry to give both ratings and corporate governance awards with out in depth enquiry.

- Chief financial officer and financial committee members of any company would have full access to balance sheet details; hence authenticity has to be established once the financial investigation is done and further appropriate action would be taken against them if they are found to be involved.
- Relatively lax corporate oversight in the country has had its share of corporate frauds. But the harsh penalties for executives convicted of abuses, including execution make the country less vulnerable than its corporate governance ratings might suggest.
- The best way to ensure corporate behaviour was not necessarily to introduce more regulations, but to do as much as possible to promote transparency that could be the more powerful weapon against corporate frauds.

Though the rating agencies follow different rating process, the basic purpose is to provide valuable information to the investing public in the matters of investment decisions. Further, in the absence of adequate information, transparency and ethical code of conduct on the part of the corporate, the governance of rating agencies is questionable. The findings certainly turn attention towards the fact that excessive reliance on credit rating agencies need to be reduced. Since this paper is limited to the comparative study of three major credit agencies and assessment of default probabilities of selected IT companies, the same conclusions are not applicable to all. Future research could be carried out to test the findings for other credit rating agencies with the same perceptive or different.

LIMITATIONS

The following are the limitations of the data used in the study:

- With a view to evaluating the financial performance of companies, the balance sheets, income and expenditure statements, profit and loss statements, etc., are used in credit rating. As known to everyone, these financial statements are not exhaustive and may not give a realistic and true picture of the financial soundness of the company.
- The data compiled through client meetings and site visits by credit rating agencies is subjected to non-disclosure, these posed a great problem to the researcher in eliciting the adequate information about the companies.

REFERENCES

- Azhagaiah, R (2004). "Credit Rating Practices and problems", Indian Journal of Commerce, Vol. 57 (4), 101-107.
- Altman, E. I (1968). "Financial Ratios, Discriminate Analysis and the Production of Corporate Bankruptcy", Journal of Finance, Vol.23 (3), 589-609.
- Altman, Edward, (1966). "Financial ratios, Discriminate Analysis and Prediction of Corporate Bankruptcy", Journal of Finance, Vol.9, 589-607.
- Argenti. John, (1976), "Corporate Collapse: The causes and symptoms", Mc Grew-Hill, New York, USA.
- Chowdary, P.K, (2003). "Credit Rating: Agencies diversity services", The Hindu survey of Indian Industry, 61-63.
- Choudhary, Roy. Anil, B, (1970), "Analysis and Interpretation of Financial Statements through Financial Ratios", Orient Longmans, Chennai, INDIA.

- Edwards R.C (1975). "Stages in corporate stability and the risks of corporate failure",Journal of Economic History, June, 428-457.
- Eisenbeis R.A. (1977). "Pitfalls in the application of discriminant analysis in business finance and analysis", Journal of finance, June, 875-900.
- Gupta, L.c, Gupta, C.P and Jain, Naveen (2001). Indian Hourseholds', "Investment preferences; The Third All- India survey", SCMR&D, New Delhi: Alankrit printers.
- Karles, G.V. and prakash , A. (1987). "Multivariate normality and forecasting of business bankruptcy", Journal of business Finance and Accounting, winter, 573-593.
- Opler, T and Titman, S. (1994). "Financial distress and corporate performance", Journal of Finance, vol. 49, 1015-1040.
- Raghunathan, V and Varama, J.R (1992). "CRISIL Rating: When Does AAA Mean B?" Vikalpa, 17 (2), 35-42.
- Ravi Mohan, R (2000). "Credit Rating: A paradigm shift", Charted Financial analyst,71-73
- Tamari, M. (1993). "Financial ratios as a means of forecasting bankruptcy", Management International review, vol. 4, 15-21.
- Verma, J.C (1999). "Regulating Credit Rating agencies," chartered secretary, 29 (Oct), 1114.

ANNEXURE I