

## FINANCIAL DETERMINANTS OF CORPORATE CREDIT RATINGS IN INDIA

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*Credit rating agencies help in bridging the information gap between investors and issuers. The rating agencies provide an opinion on the creditworthiness of the debt instruments. They use qualitative and quantitative information to assign ratings-some of which is not easily available in public domain. Apart from this, there is an element of subjective judgment of the team of experts who arrive at a rating. This makes it very difficult to understand the ratings and the measures used by the rating agencies. A number of research studies have attempted to study credit ratings with the help of publicly available information. In Indian context, most of the studies evaluate the performance of rating agencies in terms of their usefulness to individual and institutional investors. The present paper attempts to empirically analyze the relationship of financial characteristics and credit ratings. Multinomial logistic regression model has been used on a sample of 245 companies in three industries of the manufacturing sector of India- Textile, Steel and Paper. The model depicts a significant relationship between the credit ratings and the selected variables. The independent variables that have been found to be significant determiners of credit ratings are Interest coverage ratio, leverage ratio, profitability ratio and size. The model is able to classify ratings with reasonable accuracy.*

**Key words:** Credit Ratings, Financial Ratios, Multinomial Logistic Regression

### INTRODUCTION

The financial markets play the role of an intermediate in a market economy. They arbitrate between an investor in search of investment avenues and the issuer in search of credit. The efficiency of the financial markets depends on the availability of reliable data. There are various sources of information like offer document of the issuer(s), research reports of market intermediaries and media reports. Nevertheless, it is the assessment of the credit rating agencies in the form of credit ratings that is utilized as a tool for risk assessment by the investors.

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According to Standard and Poor's Rating Services<sup>3</sup>, a credit rating is a symbolic indicator of the current view of the relative capacity of the issuer to service its debt obligation in a timely manner, with specific reference to the instrument being rated. It is a qualified assessment and formal evaluation of company's credit history and capability of repaying obligations.

The Credit Rating Agencies not only specialize in accumulating information, they also have an access to non-public information. Therefore, they are able to provide independent assessments of the probability of default by companies, governments and the providers of a wide range of financial instruments. Even if they merely collate existing data, they offer service in summarizing the existing disjointed information, and giving an assessment. Thus, the credit rating agencies provide vital information for investors and regulators on one hand and ease the access of funds for the issuer on the other.

There are four international credit rating agencies: Moody's Investors Service, Inc., Fitch, Inc. Standard and Poor's and Duff and Phelps. In India, the ratings industry has been built up to its present position over a period of twenty five years. The ratings have been operating in India since 1988. There are five credit rating agencies recognized by Securities and Exchange Board of India (SEBI). CRISIL (Credit Rating and Information Services of India Limited), ICRA (Investment Information and Credit Rating Agency of India Limited) and Fitch India have collaborative arrangements with S&P, Moody's and Fitch respectively. CARE (Credit Analysis & Research Ltd.) is promoted by IDBI & Canara Bank. Brickworks, the latest entrant, was established in 2008. The Indian credit rating industry is next to United States of America in terms of number of ratings issued.

The growing importance of the credit rating system all over the world is due to many factors such as an increasing role of capital and money markets, increased securitization of borrowing and lending consequent to disintermediation, globalization of the credit market, continuing growth of information technology, growth of confidence in the efficiency of the market mechanism, etc. However, the credit rating agencies are currently facing a reputational crisis. This has been due to their inability to predict the 1997–1998 Asian crises, 2007–09 subprime crisis and the bankruptcies of Enron, World Com and Parmalat. The ongoing sovereign debt crisis in the Euro zone has further raised apprehensions about the credibility of credit rating agencies and is prompting legislators

<sup>3</sup> Credit ratings <http://www.standardandpoors.com/ratings> retrieved on September 13, 2013

worldwide to regulate rating agencies. It is crucial that the credit rating agencies maintain their reputation as reliable and objective source of information. There has been a lot of discussion about the reliability and relevance of the information provided by credit ratings. Closer to home, big corporate giants like Satyam and non banking finance companies floated by C R Bansali (CRB scam) with favorable credit ratings and audit reports collapsed causing losses to many small investors. The accuracy and timeliness of ratings have been debatable.

The credit rating agencies claim that they use qualitative and quantitative information to assign ratings-some of which is not easily available in public domain. Apart from this, there is an element of subjective judgment of the team of experts who arrive at a rating. This makes it very difficult to understand the ratings and the measures used by the rating agencies. The present research work is an attempt to understand credit ratings with the help of financial determinants.

The rest of this paper is organized as follows: The next section discusses the related literature. Section 3 elaborates upon the research methodology of the study. It briefly discusses the variables and method of investigation used in the study. The analysis and interpretation of results is presented in Section 4. The last section presents the conclusion and policy implications.

## REVIEW OF EMPIRICAL STUDIES

The econometric methods for analyzing categorical dependent variables have evolved over a period of time. The statistical techniques include multiple regression analysis (Horrigan, 1966; Pogue and Soldofsky, 1969; West, 1970), multiple discriminant analysis (Pinches and Mingo, 1973, 1975), ordered linear probit model (OLPM) (Kaplan and Urwitz, 1979; Blume et al, 1998; Poon, 2003; Amato and Furfine, 2004; Roje, 2005; Gray et al, 2006; Hwang et al., 2008; Purda, 2008; Tanthanongsakkun and Treepongkaruna, 2008). There are few which have used machine learning techniques, for example, Artificial neural networks (Kumar and Haynes, 2004).

The earlier studies (Horrigan, 1966; Pogue and Soldofsky, 1969; West, 1970) treated the dependent variable i.e. credit ratings as a continuous variable. This was criticized in subsequent studies. The multiple discriminant analysis technique was the most commonly used in earlier studies (Pinches and Mingo, 1973, 1975) to predict credit ratings. The main drawback of the technique was that it does not consider the ordinal

