ABSTRACT

A credit or bond rating provides a convenient summary statistic of the bonds default probability assessed by a rating agency independent of the issuer. It incorporates into a single easily communicated code all the major ingredients of the bond's risk and hence partially solves the informational asymmetry that exists between the debtors and creditors in the financial market.

From 1991, with the onset of economic liberalisation in India there have been some major changes in the landscape of the Indian economy. The establishment of credit rating agencies was an important step in the direction to resolve information asymmetries between the agents that characterise the financial markets of developing world. The Indian Credit Rating Industry, which cam~ into existence with the establishment of CRISIL in 1987-88, is now eight years old. Given the important role that had been entrusted to the credit rating agencies, this thesis has attempted to do a detailed evaluation of the industry from several perspectives. Starting from a broad canvas, each of the chapters asks a set of questions that are ana1ysed and new questions are asked which are in turn addressed in the subsequent chapters.

The thesis envisaged carrying out the evaluation process of the Indian agencies in four distinct chapters. The summary of the findings of these four exercises is as follows

- The first analysis uses two objective criteria - international comparison and

internal consistency defined in terms of the eight 'key ratios' of Standard and Poor, an internationally recognised credit rating agency in US to evaluate the performance of the Indian credit rating agencies. The first criterion entailed a comparison of the *equivalent* rated firms of India and Standard and Poor while the second criterion checked for the monotonic fall in the value of the ratios (on an average) as one moves down the rating scale. The analysis *apparently* revealed that the Indian agencies are considerably *lenient* by international standards. However, when one discounted for the institutional differences prevailing in the two economies, the aberration between the Indian rating agencies and Standard and Poor seemed to disappear to a great extent. The second criteria looked into the issue of internal consistency or monotonicity of the rating process of

Indian agencies. The conclusion from this exercise suggested that the ratios exhibited high degrees of dispersion around their central value. As a result even though for agencies like CRISIL, monotoncity seemed to be present in the median values of the ratios, the hierarchy seemed to disappear when one considered the average differences between the different rating categories relative to their dispersion levels. The study also found significant *learning effects* on the part of CRISIL vis a vis the other two rating agencies, i.e. IICRA and CARE.

- The second exercise looked into the rating process of CRISIL and tried to find factors specific to the Indian conditions that seemed to playa significant role in explaining the CRISIL's rating process. These factors were then related to those that have been identified as significant in the studies conducted abroad. The analysis revealed that in conformity with earlier studies, measures of coverage, leverage, profitability and liquidity seemed to be playing a crucial role in explaining CRISIL's rating process. Qualitative factors like type of debt instrument and type of industry also enhanced the explanatory power of the models.

- The fourth and the fifth chapter proposed an altogether new framework to evaluate the rating process of CRISIL. Both the chapters tried to put forward a methodology that quantifies the likelihood of the firms to default. The third chapter used the model called Emerging Market Score model developed by Altman (1995) and his associates to arrive at Standard and Poor rating equivalents of firms in the developing countries. The framework in its heart has a discriminant score model developed for US firms, which needed to go through subsequent rounds of adjustments to arrive at an Standard and Poor equivalent ratings of the firms. The most significant conclusion of this exercise was that quite contrary to the common notion, most of the firms rated by CRISlL fared quite well vis a vis this model with only a small percentage of the firms migrating to the *below investment grade.* This result was partly attributable to the unusual high ratings observed for the CRISIL firms after applying the discriminant score model developed for the US firms. This in turn implied that perhaps the discriminant model needed to be re-estimated to determine the appropriate weights, given Indian conditions.

- As a sequel to the last exercise, in the fifth chapter I re-estimated the emerging market score model. The second logical step entailed a search that was conducted to check whether there existed a superior model than the re-estimated emerging market score model that could better identify the 'good' from the 'bad' firms. Accordingly, in this chapter a new model has been developed called the 'India Model'. The re-estimated emerging market model and the India Model were estimated using discriminant analysis. Once convinced of the explanatory/predicting power of the latter, it was then used to evaluate the ratings of CRISIL. The conclusion of the above analysis suggested that based on the discriminant scores that measures the likelihood of the firm to default, CRISIL's seems to have achieved some degree of internal consistency when one considered the median scores of its broad rating categories. However, based on the finer ratings, CRISIL seems still to have a long way to go. This completed the analysis and one found that the conclusions were in conformity with the findings in earlier chapters where CRISIL exhibited internal consistency based on broad rating categories and not otherwise.