# CHAPTER I

## Introduction

### 1.1 Background and Problem Review

A corporate credit rating is an independent assessment of a firm's ability to make debt payments on time. A credit rating may be assigned to a particular debt issue, or it may indicate the general capacity of a firm to meet its obligations. It is assigned by credit rating agencies such as Standard & Poor's and Moody's. Credit ratings are very important as they impact the firm's cost of debt, its financing structure, and even its ability to continue trading. In a recent survey, Graham and Harvey (2001) found that consideration of credit ratings is the second most important factor, after the maintenance of financial flexibility, with 57.1% of CFOs saying that credit ratings are important in how they choose the appropriate amount of debt for their firms. From the investors' perspective, they use credit ratings to decide their investment policies and the risk of their bond portfolios. Moreover, the payoffs of some credit derivatives depend on credit ratings, and several regulations relating to financial institutions' and other intermediaries' investments in bonds are directly related to credit ratings. As for the regulators, Basel Committee suggests using credit ratings as a method in deciding banks' capital reserve.

Many studies provided models to explain and predict the credit ratings. Moreover, it is important to study the credit ratings change. Suppose a firm has a large portfolio of credit risky assets, then the projection of credit ratings change is a way to help the firm for adjusting reserves against the change in the likelihood of portfolio loss. Therefore, a good understanding of the behavior of ratings and rating change is important for all investors', companies', financial institutions' and regulators' perspective.

Most studies on credit ratings use static model by ignoring the fact that firms change through time. Consequently, inconsistence would occur in the estimations by ignoring the time-varying of credit ratings and firms' characteristics. For example, some papers used three years' observations on independent variables to calculate the average, while others chose five years' data, Blume, Lim, and Mackinlay (1998) and Gray, Mirkovic, and Ragunathan (2006). In the corporate default literature, Shumway (2001) argued that static model estimates are biased, and proved the superior default prediction power of his hazard rate model which resolves the problem of static model by explicitly accounting for time. This argument can be applied to credit rating literature.

Although, investors can use the ratings which provided by agencies as a factor for making investing decision they might take wrong actions. Since many critiques of rating agencies claimed that the agencies do not provide timely information about the creditworthiness of companies, SEC (2003). Hence investors may follow slow responses of rating change by agencies. However, most researchers agree that credit ratings provide a reasonable rank-ordering of relative credit risk, Carty (1997), other studies statement that results may challenge the stability of rating as predictors of credit risk over time. Nevertheless, there are some doubts that whether rating agencies have lower standard when they assign issuer ratings. This is because there were the distress failures of US energy giant Enron, the country's seventh biggest company at that time, followed soon by telecom WorldCom, Italian dairy company Parmalat and HIH Insurance even though these companies had investment rates. The main reason of these failures might be accounting frauds but when assigning rating the agencies use not only accounting information but also non public information. Hence, the agencies might relax their standards.

This paper employs five set of explanatory variables of five well-known papers and takes advantage of the flexibility of hazard rate model proposed by Shumway (2001) and static model to study behavior of issuer ratings change and compares the performances of accurate predicting between these two models between five sets of explanatory variables and indicates that which variable set can outperform others. Also, this paper does examine whether the standards of rating agencies have become weaker in terms of the specific variables used.

## 1.2 Statement of Problem / Research Questions

To fulfill the gap that discussed above, the problem to be investigated in this thesis can be stated as follows:

1. Which is the best model between hazard and static models which has more accurately prediction on issuer rating change?

2. Does the rating agency have weaker standard in assigning the issuer ratings?

## 1.3 Objective of the Study

To study the behavior of issuer ratings change outside US and the standard in assigning issuer rating of rating agency.

## 1.4 Scope of the Study

The sample contains listed firms in G7 except US and rated by S&P at the end of June 2007. The firms of Canada, France, Germany, Italy, Japan, and UK are from Toronto Stock Exchange, Paris Stock Exchange, Frankfurt Stock Exchange, Milan Stock Exchange, Tokyo Stock Exchange, and London Stock Exchange, respectively. The period of this study is during 1997-2007.

## 1.5 Contribution

This study provides empirical international evidence on the behavior of issuer rating change outside US and presents which models between static and hazard rate models can predict rating change more precisely; no prior studies directly predict issuer ratings change. Additionally, this study presents more understanding the standard of rating agency in assigning the issuer rating.