### **CHAPTER 1**

## INTRODUCTION

## 1.1 Significance of Problem

After the Asian financial crisis, there have been structural changes in Asian bond markets. Bond markets have gained much attention from both governments and corporate firms. In Asia, during the 1997-2003 period, governments and corporate firms raised their capital through debt markets more often than the past. For instance, Thai government has continued to issue bonds with primary objective to finance budget deficit. During 1998, the government issued 400 billions baht, followed by 333 billions baht in 1999. In addition, many firms in this region have increased their debt financing through bond markets. In Malaysia, the amount of corporate bond outstanding goes up from 33.53 billions RM in 1996 to 104 billions RM in 2002.

In addition, investors have been much more interested in fix-income securities since stock markets yield unimpressive returns. Thai government bond turnover has increased considerably from 1.84 billions baht in December 1997 to 630 billions baht in December 2003. In Indonesia, bond-trading volume rises up from 10,474 billions rupiah in January 2001 to 47,986 billions rupiah in June 2003. Moreover, the upcoming "Asia Bond", which will be more developed in the future, should gain a lot of attention from investors.

Hence, it is obvious that Asian bond markets, in one hand, grow up overtime and will play a significant role in the future. In the other hand, these developments would cause a higher volatility of interest rate. Thus, the issue of interest rate exposure is of concern. Besides, many capital markets in this region have a few derivatives instruments. In order to hedge against interest rate risk effectively, it is necessary to find other techniques. In the balance fund management, for example, the fund's liabilities are sensitive to interest rate movements, so the manager must know the duration of each of the asset classes, including equity, to accurately assess overall interest rate exposure.

While the importance of equity duration has been recognized, a solid understanding of its determinants is elusive. Empirical studies also reveal different conclusions across industry groups and time periods.

Thus, this study is aimed to investigate the effect of growth options on the interest rate sensitivity of stock returns, the equity duration, which will provides investors a unique opportunity to hedge the interest rate risk.

### 1.2 Objective of Study

- 1. To investigate the relationship between stock returns and interest rate movement
- 2. To study whether the interest rate sensitivity of high-growth stocks is different from that of low-growth stocks.
- 3. To examine the effect of growth options on equity duration across Asian stock markets

## 1.3 Scope of Study

This study focuses on the interest rate sensitivities of stock returns in seven Asia markets; Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Taiwan, and Thailand, during July 1997 to June 2003. The sample covers listed companies, which have positive book-to-market value of equity.

#### 1.4 Limitations

- Since the sample period includes the time of Asia financial crisis, the data during the crisis may affect the accuracy of statistical tests.
- The study employs the yield on government bonds as the proxy of interest rate.
  However, there is no government bond yield in Indonesia and Philippines, so the lending rates are used instead of government bond yields.

# 1.5 Term and Definition

Growth options is the options that enables a companies to make new investment projects in the future. Because the firm is not obliged to undertake all of its future investment

opportunities, the value of growth opportunities reflects the value of future investments, which are expected to yield rates of return in excess of the opportunity cost of capital. Thus, growth opportunities can be regarded as call options on real assets.

Interest rate exposure is the possibility that the stock value will change because of interest rate movement.

#### 1.6 Contribution

1. Better the understanding of the interest rate sensitivity on stock returns

To gain the diversification benefit, it is inevitable that investors have to diversify their investment in both bonds and stocks. In the bond market, interest rate is the main source of risk. For the stock market, through, the interest rate risk is still ambiguous. This study will gives investors more understanding in the role of interest rate as the risk factor on stock returns.

2. Indicate investors to allocate portfolios more efficiently

In the near future, Asian investors will possibly distribute investment and tend to invest more in the foreign countries. Interest rate factor is one of critical factors, which are used to select a location for investing. The study helps international investors how to allocate their money across countries when interest rate movements occur in the region.

3. Help investors to hedge their interest rate risk

If the hypotheses are hold, balance fund managers could use high growth stocks to reduce their portfolio duration. Moreover, investors can take a view of interest rate level and its tendency to forecast risk and return from investment in equity market by employing the models in this study.

# 1.7 Organization of Study

The organization of this research divides into five sections. The first section is an introduction on the research and the following section is the literature review of past researches on the relation between stock return and interest rate. The third section provides the sample and methodology of this study. As for the fourth section, it displays the empirical results and an

interpretation of the regression model. Finally, the fifth section presents the conclusion of the study and further suggestions for future studies.

