Chapter 1: Introduction

1.1 Background

One of the three financing decisions is capital structure decisions. The questions on optimal capital structure and the factors contribute to it often being raised amongst financial managers. Financial economics has explained the factors that affect the financial policy of public firms. In 1958, Modigliani and Miller showed that if the market is perfect, capital structure decisions are unrelated and do not affect the value of the firm. Since Modigliani and Miller (1985) proposition, many studies have been done to explain that capital structure decisions are important by adding asymmetric information, cost of financial distress, taxes and governance problems to this perfect world. In an imperfect market and together with liquidity, leverage and dividend policies, managers need to match an appropriate mix of debts to maximize their firm's value.

The debt-maturity decision is one of several financing choices that the firm must make simultaneously. The firm must choose between debt and equity when deciding about the financing type and if it chooses debt, it must also choose the maturity of that debt. Recently, researchers have examined how a debt maturity structure of a firm, the choice between short-term and long-term debt, is determined. Debt maturity structure is important for many reasons. For example, firms can match their debt structure to their asset structure to avoid possible

liquidation. A firm might choose a particular debt maturity mix to signal its quality. In addition, firms can solve their agency problems such as underinvestment problem by choosing an appropriate debt maturity policy. Also if firms want to consider flexibility in financing and cost of financing, corporate debt maturity would be an important issue. Diamond and Rajan (2001) emphasize the role of debt maturity policy in credit availability and financial crises.

The corporate debt maturity structure theories were first designed during the 1980s and early 1990s (Barnea et al., 1980; Brick and Ravid, 1985; Flannery, 1986; Lewis, 1990; Diamond, 1991). The theories based on agency costs (Myres, 1977; Barnea et al., 1980) and the theories based on signaling (Flannery, 1986; Kale and Noe, 1990) support the use of short-term debt. The theories based on tax emphasize the use of long-term debt (Brick and Ravid, 1991). In the United States, the empirical tests of debt maturity started during 1990s (Barclay and Smith, 1995; Guedes and Opler, 1996; Stohs and Mauer, 1996) and the research continues (Johnson, 2003; Berger et al., 2005; Datta et al., 2005; Billet et al., 2007). Also a number of researches have been done in Japan (Cai et al., 1999) and in Western Europe on the determinants of corporate debt maturity (Ozkan, 2000; Antoniou et al., 2006).

The existing literature offers three main theories on the choice of debt maturity structure. The first theory deals with contracting cost and argues that agency costs lead to an underinvestment problem if managers reject projects with positive net present value in favor of shareholders. As a partial solution of the

conflict between equity holders and bondholders Myres (1977) suggests that firms should use short-term debt. Companies can diminish underinvestment problem by using short-term debt because their debt matures before investment options are exercised. Short-term debt may also alleviate the asset substitution problem since the value of short-term debt is less sensitive to changes in the value of firms' asset (Barnea et al., 1980).

The second theory is based on information asymmetries that lead to signaling and liquidity hypotheses. Kale and Noe (1990) suggest that issuance of short-term debt is a positive signal of the firm's high credit rating. High quality firms prefer short-term debt to signal their quality because their low-quality counterparts cannot afford the transaction costs of rolling over short-term debt (Flannery, 1986). Diamond (1991 b) also finds that firms with high credit rating prefer to issue short-term debt because the risk of refinancing is low and they are more likely to avoid a crisis at maturity. It is suggested by Hart and Moore (1994) that based on contracting cost and asymmetric information theories firms match the maturity of their assets and liabilities. The third theory is based on tax minimization objective of firms. Brick and Ravid (1985) find that firms use more long-term debt when the term structure of interest rate is upward sloping because higher-priced long-term debt enables firm to increase tax shield from leverage.

In spite of a number of theoretical researches, empirical studies on the determinants of corporate debt maturity structure are relatively new. Earlier works examine this issue indirectly. For example, Titman and Wessels (1988)

report that smaller firms tend to use more short-term debt in their capital structure. Mitchell (1991) finds that privately held firms are more likely to issue short-term debt to reduce the cost of informational asymmetry. Recent studies on the determinants of corporate debt maturity structure examine one hypothesis at a time. For instance, Kim et al. (1995) show a significant positive relationship between debt maturity and firm size. Barclay and Smith (1995) find that large firms that have few growth options borrow for longer terms. Guedes and Opler (1996) report that large firms with high growth options and better quality tend to have more short-term debt. Stohs and Mauer (1996) find that debt maturity is inversely associated with corporate tax rate and earnings surprises and it is directly related to asset maturity. Ozkan (2000) finds that debt maturity is inversely related to growth opportunity. He also suggests that size and asset maturity have positive impact on debt maturity structure. The findings of the study also reveal that the costs of being away from optimal debt maturity structure are significant. Scherr and Hulburt (2001) find no support for the relationship between tax, growth options, information asymmetries and debt maturity choice of small firms while they find evidence of relationship between debt maturity and matching the maturity of assets and liabilities. Demirguc-Kunt and Maksimovic (1999) find that in addition to the significance impact of size and asset maturity on debt maturity structure of firms, financial and legal institutions also play a significance role on the choice of debt maturity by firms.

1.2 Statement of the Problem

The financing decision of a firm plays a vital role in determining the capital structure of the firm. The sources of capital funding could be coming from internal retained earnings or external debt and equity. The various decision of capital funding could shape the financial condition of the firm differently. The use of debt financing could help the firm to gain the greatest benefit of interest tax shield. However, increase in financial leverage also causes the firm in facing more financial distress and thus leads to a higher tendency in bankruptcy. Therefore, it is very important to achieve an optimal capital structure for a firm. If firm chooses to use debt, it must also choose the maturity of that debt which is choice between short-term debt and long-term debt. This study investigates how the chosen firm characteristics affect firm's debt maturity structure which provides valuable information to the managers in setting up an optimal debt maturity structure for their firms later.

1.3 Purpose and Significance of the Study

Some of the assumptions in the literatures about corporate debt maturity structure need modification for firms operating in emerging markets (Demirguc-Kunt and Maksimovic, 1998). For instance, in these markets firms have to use relatively expensive external funds and also they cannot send appropriate signals about their quality because of smaller variety of available products. Therefore, it is necessary and interesting to apply the theories and test the findings from

developed countries in an emerging market such as Malaysia. So the purpose of the study is to determine the relationship and impact of growth opportunities, size, asset maturity, quality, liquidity risk, leverage, and effective tax rate on corporate debt maturity structure of Malaysian firms

This study sheds some lights on the determinants of debt maturity structure for financial managers in Malaysian firms. To the best knowledge of the author, so far no research has been conducted to study the determinants of corporate debt maturity in Malaysian context. The results of this study are expected to help the managers in making vital decisions to achieve their optimal debt maturity structure. Consequently, firms enjoy a better control in agency cost with a balance in bankruptcy risk and signal appropriate information about their quality. The analysis of debt maturity structure of the Malaysian companies would be significant to the market players in enhancing the value of their companies by being able to adopt a more efficient mix of debt and equity.

1.4 Research Questions / Objectives of the Study

The lack of consistency in findings reported in the literature provides a strong motivation for further examination of the determinants of debt maturity. So the study is going to answer the following questions:

1. How does growth opportunity affect debt maturity structure of Malaysian firms?
2. How does firm size affect debt maturity structure of Malaysian firms?

3. How does asset maturity affect debt maturity structure of Malaysian firms?
4. How does firm quality affect debt maturity structure of Malaysian firms?
5. How does liquidity risk affect debt maturity structure of Malaysian firms?
6. How does leverage affect debt maturity structure of Malaysian firms?
7. How does effective tax rate affect debt maturity structure of Malaysian firms?
8. How consistent are the findings with those in developed countries?

The existing studies on determinants of debt maturity have generally been done in developed countries and cross-country studies (Antoniou et al., 2006 examine the case of France, Germany and the UK) on the issue are few as well as studies in developing countries. There is no empirical study on determinants of debt maturity structure in the Malaysian context. So the main objective of this study is to fill this gap and estimate a model that contains factors included in all major debt maturity theories to find the potential determinants of debt maturity structure of Malaysian listed companies for the period 2004-2009. In this study the potential determinants are growth opportunity, firm size, asset maturity, firm quality, liquidity risk, leverage, and effective tax rate. This approach also tests different theories of the determinants of debt maturity such as contracting cost, information asymmetry or signaling and tax saving in a single model. Moreover, the majority of the empirical studies have been done in the United States. This study provides an opportunity to compare the main determinants of debt maturity

structure of non-financial Malaysian companies with those which appear to have effect on the debt maturity structure of the U.S. firms.

1.5 Scope of the Study

This study investigate the determinants of debt maturity choice for a sample of 1300 firm-year observations for 260 Malaysian listed firms for the period 2005-2009. Based on the results from Likelihood Ratio and Hausman test, fixed effects are chosen to estimate the model. The study examines the contracting-cost hypothesis, signaling hypothesis, and tax hypothesis which have been offered to explain corporate debt maturity.

The evidence reported in this study suggests that debt maturity structure of Malaysian firms is positively related to their size, asset maturity, and leverage. Large firms tend to use more long-term debt and firms tend to match the maturity of their debt with the maturity of their assets.

Considerable support is also found for the view that debt maturity is inversely related to firm quality and liquidity risk of firms. The study provides no significant evidence that debt maturity structure is negatively related to growth opportunities which suggest that the under investment problem is mitigated by bank monitoring and lowering leverage, not by reducing debt maturity (Myers, 1977). The findings do not support the theory concerning effective tax rate.

1.6 Organization of the Study

The rest of the study is organized as follows. In chapter 2 the theories of debt maturity are reviewed and relative literatures are provided. Chapter 3 describes related hypotheses and variables. It also provides information on the sample, data collection procedure and data analysis techniques. The empirical results are presented in chapter 4. Chapter 5 concludes the study, discusses limitations of the study and provides suggestions for future research.