

## **Practices of Capital Structure Decisions: Malaysia Survey Evidence**

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*How firms make their corporate financing decisions has been one of the most extensively researched areas in corporate finance. Yet there is little consensus on how firms choose their capital structure. This study examines the capital structure practices of the Malaysian CFOs by employing a survey analysis on the non-financial listed firms in Malaysia, conducted from November 2010 to March 2011. 203 usable responses from the Malaysian CFOs were obtained, thus representing a response rate of 25%. This study is to analytically identify how the capital structure choices are influenced by those who make the decisions in practice. The survey result provides mixed support for the notion that firms does trade-off costs and benefits to derive an optimal debt ratio. From the financing hierarchy point of view, this study finds that Malaysian managers regard the use of internal funds for financing projects as the most important source of financing. This study enriches the literature by discovering the extent to which the capital structure theories are able to explain the corporate financing behavior and practices of Malaysian managers.*

### **1. Introduction**

Since the influential work of Modigliani and Miller (1958) on the irrelevance of capital structure in investment decision, a rich theoretical literature has emerged that models firms' capital structure choice under different assumptions. For example, the static trade-off rely on traditional factors such as tax advantage and potential bankruptcy cost of debt (Scott 1976, Modigliani and Miller 1963) while others use the asymmetric information, in which debt or equity is used as a signaling mechanism or strategy tool (Donaldson 1961, Myers and Majluf 1984, Myers 1984, Titman and Wessels 1988, Chung 1993, Wiwattanakatang 1999, Tong and Green 2004 and Chen 2004). Many of these theories have also been empirically tested. How firms make their capital structure decisions has been one of the most extensively researched areas in corporate finance, yet there is little consensus on how firms choose their capital structure and much remains to understand the link between theory and practice of capital structure.

Graham and Harvey (2001) fill this gap by providing evidence on the practice of corporate finance theories through a comprehensive survey of the managers of the

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U.S. firms. The Graham and Harvey survey initiative has been followed by several similar papers questioning European CFOs (Banceland Mittoo 2004, Brounen et al. 2004, 2006, De Jong and Dijk 2007) and by survey papers on other topics, such as dividend policy (Brav et al 2005) and financial reporting and disclosure (Graham et al. 2005). These survey-based studies on capital structure indicate that, despite the theories that govern financing decision making activities, in practice, managers' decision in establishing capital structure policy for their companies rarely in line with the developed theories (Graham and Harvey 2001, Bancel and Mittoo 2004, and Brounen et al. 2004, 2006). Interestingly, financial executives are much less likely to follow the academically prescribed factors and theories when determining capital structure. This raises the possibilities for additional thought and research on the real practice of financial decision making. Perhaps the relatively weak support for many capital structure theories indicates that it is time to critically reevaluate the assumptions and implications of these mainline theories. Alternatively, perhaps the theories are valid descriptions of what firms should do, but corporations disregard the theoretical advice.

This study attempts to investigate similar issue in the Malaysian context by focusing primarily on the capital structure practices. Two main theories of capital structure are examined in this study, namely, the static trade off theory and the pecking order theory. Data for this study is assembled by conducting a survey on 203 CFOs of Malaysian non-financial listed companies, on their perceptions to the various capital structure issues as well as their capital structure practices. From the survey responses, this study analyzes the important factors that influence the financing decisions of the managers and discovers whether the capital structure practices of Malaysian managers are in line with the capital structure theories, Finding provides a mixed support on the applicability of those theories that are developed based on US markets to the understanding of capital structure practices in the emerging countries.

The rest of the paper is organized as follows. Next section discusses a brief review of recent approach towards the survey analysis in further exploring and understanding the corporate financing decisions, by highlighting the various unresolved issues in the capital structure. Explanation on the survey data and methodology is in the following section and followed by the findings. Finally, summary and conclusions of the research are reported.

## **2. Literature Review**

The common approach adopted in most studies on capital structure seeks to explain observed capital structures in terms of factors perceived to be important, usually using large-scale cross-sectional (and time series) regression methods. This approach merely identifies the broad consensus (average) behavior of firms. It cannot capture the diversity in behavior that can arise from firms adopting different capital structure policies. Further, even in dynamic time series studies, only indirect inferences can be made about the financing decision making process as only the outcome of the process is studied. Researchers in the area are beginning to argue that it is necessary to extend the dominant method by the use of different empirical approaches that offer greater insight into the behavioral aspects of the decision process (Tufano 2001), such as the survey methods. Using survey method, company managers can be directly questioned on their attitudes and behavior regarding corporate financing, including the

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actual factors that they consider important in setting financing policy for their companies. This allows both the process and diversity of practice to be investigated, offering a richer understanding on the capital structure issues.

Graham and Harvey (2001) test the implications of different capital structure theories through a survey of US managers and find that executives rely heavily on practical, informal rules when choosing capital structure. They observe moderate support that firms follow the trade-off theory and target their debt ratios. They also find some support for the pecking-order theory. Their results show that firms value financial flexibility but its importance is not related to information asymmetry or growth options in the manner predicted by the pecking order theory. They find little evidence that other factors including agency costs, signaling, asset substitution, free cash flow and product market concerns affect capital structure choice. They also report that managers use many informal criteria, such as credit rating and earnings per share dilution, in making their financing decisions.

Replicating Graham and Harvey's (2001) approach, Bancel and Mittoo (2004) survey managers in 16 European countries on the determinants of capital structure, in order to examine whether European and US managers' views on capital structure are driven by similar factors. They find that financial flexibility and earnings per share dilution are primary concerns of managers in issuing debt and common stock, respectively. In their international replication and extension of Graham and Harvey (2001), Brounen et al. (2004) surveyed 313 CFOs across 4 European countries (the UK, the Netherlands, Germany and France), including 68 from the UK. They also found financial flexibility to be the most important debt determinant but, while consistent with the pecking order theory, this was not driven by asymmetric information. A comprehensive survey of corporate financing decision-making in UK listed companies was reported by Beattie et al. (2006). A key finding is that firms are heterogeneous in their capital structure policies. About half of the firms seek to maintain a target debt level, consistent with trade-off theory, but 60% claim to follow a financing hierarchy, consistent with pecking order theory. These survey analysis on capital structure were mainly adopted by studies in the U.S. and European countries, with few recent studies focusing on emerging market, such as Sri Lanka (Colombage 2007), Malaysia (Isa 2008) and Middle Eastern countries (Chazi et al. 2010).

Colombage (2007) provides significant evidence from emerging market by investigating capital structure practices among of the Sri Lankan listed companies. The results demonstrate a devotion to a financial hierarchy, which appears to be the dominant financial policy among listed Sri Lankan companies. By utilizing both market data and survey data from various sources (including other studies in local markets and other countries), Isa (2008) focuses on capital budgeting, capital structure and dividend policies and practices of the Malaysian companies. The study concludes that the average debt level among Malaysian companies is less than half of the international average. This indicates that there is much scope for corporate lending in the banking industry and also much scope for private debt securities in the capital markets. A recent survey study by Chazi et al. (2010) adapts an amended Graham and Harvey (2001) survey in six Middle Eastern countries (Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and UAE). Result of this study was inconclusive with regard to either the information asymmetry pecking-order or the trade-off theories, consistent

with Graham and Harvey (2001). The results offer mixed support as to which theory better explains the debt-to-equity ratio in the Middle East.

Review on the past studies that employ survey analysis on investigating the capital structure practices indicate inconsistencies in term of factors considered important by the managers in making debt-equity financing decisions as well as some deviations between the theories and the practices of capital structure. Graham and Harvey (2001) argue that the relatively low support for these capital structure theories indicates that there is either a problem with the theories or that practitioners are ignoring them. Such discrepancies may also due to the fact that there is no single theory which is good enough and that these theories are complementary rather than competing. This issue raises the need for further exploration and critical analysis on the important factors that influence the corporate financing decisions of the managers. This requires knowledge of the measures that managers use, the factors that affect the choices made, and the theories that are being applied (explicitly or implicitly, partially or completely) as well as knowledge of those factors and theories that they apparently disregard. Hence, this study aims to analytically examine how the Malaysian firms determine their overall financing strategy, why they choose a particular mix of financing instruments, and why they choose to limit borrowings or set up spare borrowing capacity. The managers' feedback is crucial in discovering whether the capital structure practices of Malaysian managers are in line with the capital structure theories, specifically the static trade off theory and the pecking order theory.

### **3. Data and Methodology**

#### **3.1. Sample Selection and Study Variables**

This study conducts a survey analysis on Chief Financial Officers (CFOs) of 203 non-finance Malaysian Public Listed firms. These firms are listed on Bursa Malaysia (known as Kuala Lumpur Stock Exchange prior to 2004). Firms from the financial sector such as banks, insurance and finance companies are not included due to the different accounting categories and rules practiced by these firms (Hovakimian et al. 2004, Kayhan and Titman 2007).

This study utilizes the modified form of the 2001 Graham and Harvey survey, focusing exclusively on the capital structure issue, with additional parts on the firm characteristics and management characteristics (CFOs demographic). Pertaining to the capital structure decisions, the questionnaire has separate questions on debt, equity, debt maturity, target debt ratios, credit rating, and actual debt ratios. Apart from the debt versus equity financing issues, this study also analyzes the responses conditional on firm characteristics as well as management characteristics, as shown in Table I below. The variation in executive and firm characteristics permits a rich description of the practice of corporate finance, and allows this study to infer whether corporate actions are consistent with academic theories.

#### **3.2. Research Design: Survey Analysis**

This study adapts Graham and Harvey's (2001) questionnaire that is also employed by other previous studies and researchers including Bancel and Mittoo 2004, Brounen et al. 2006, Beattie et al. 2006, and Chazi et al. 2009. Although adapting such well-

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established and widely applied questionnaire from past studies, this study has taken the initiative to have some review on the questionnaire from qualified references, as well as test the questionnaire at smaller group including few from the target respondents before it is distributed to the respondents. These approaches are taken for several reasons including, to ensure the readability of the questionnaire, including the right selection and understandability of the wordings and terminologies, scaling, presentability and the arrangement of questions, the relevancy of the questions, length of time taken to complete the questionnaire, etc. In line with Dillman (2007), questionnaire for this study is circulated to seven prominent academics and ten CFOs for feedback. Their suggestions are incorporated and the questionnaire is revised accordingly. In addition, this study also seeks the advice of marketing research experts on the survey design and execution. Based on the review, amended questionnaire is produced and further tested to a larger group. This pilot test is conducted on a group of 50 MBA graduating students, majoring in finance. Feedback from the pilot study on the MBA group is then be used to revise the questionnaire content, wordings and terminology accordingly.

The final version of the questionnaire covering capital structure decisions contains 9 questions. Apart from the various initiatives undertaken to ensure that the questionnaire is of a high quality, several standard response-enhancing techniques are also adopted (Bourque and Fielder 1995 and Mangione 1995). Among the techniques include: designing a clear questionnaire layout; piloting; covering letters signed by FRGS project leader, addressing the covering letter to a specific named individual (CFOs details and addresses are obtained from annual report and are individually confirmed by telephone); and stamped reply envelopes addresses to third party, which are enclosed with the questionnaire. The stamped reply envelopes are addressed to Graduate School of Business, Universiti Kebangsaan Malaysia (GSB-UKM), to ensure the respondents on the confidentiality of their responses.

**Table I. Firm and management characteristics – classification and codes.**

Industry	Manufacturing and industrial products Firms (1)*	Consumer Products Industrial Products Manufacturing
	Firms from all other industries (2)	Construction Properties Utilities Trading/Services Telecommunication/Media Tech (software/biotech/etc.) Hotels Mining

Table I (cont.). Firm and management characteristics – classification and codes.

Sales	Firms with sales revenue of < RM1 billion = low sales ≥ RM1 billion = high sales	< RM25 million RM25-99 million RM100-499 million RM500-999 million RM 1-5 billion > RM5 billion
Foreign sales	Firms with foreign sales of < 24% = low foreign sales (1) ≥ 24% = high foreign sales (2)	0% 1 -24% 24-49% > 50%
Pay	Paying dividends (1) Not paying dividends (2)	Yes No
Regulated	Regulated firms (1) Non-regulated firms (2)	Yes No
PE ratios	Firms with PE ratios of < 15 = low growth > 15 = high growth	Open-ended question
CFO Education	Those CFOs that hold MBA degree (1) non-MBA degree (2)	Undergraduate MBA non-MBA masters > master's degree
CFO Tenure	Those CFOs in current job for < 9 years = short tenure (1) ≥ 9 years = long tenure (2)	< 4 years 4-9 years > 9 years < 40
CFO Age	Those CFOs with age of < 59 = young (1) ≥ 60 = mature (2)	40-49 50-59 > 60
CFO Gender	Male (1) Female (2)	Male Female
CFO Race	Those CFOs who are Malays (1) All other races = non-Malays (2)	Malay Chinese Indian Others

\* coding is stated in parenthesis ( )

### 3.3. Delivery and Response Rate

Questionnaire for this study is distributed to the respective CFOs of all non-financial listed companies via three mechanisms, mailing, online survey or e-survey and hand delivery. In a mail survey, questionnaires are printed and sent by mail. The respondents are asked to complete the questionnaire and send it back using the stamped reply envelopes addresses to GSB-UKM. The due date for sending back is also mentioned in the cover letter attached. Three days after the questionnaire is mailed, phone calls are made to each of the firms to ensure the questionnaire is received and successfully reached the right respondent. The second data collection method utilized by this study is e-survey, or online survey, where respondents are

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notified on the availability of the e-survey via the cover letter enclosed to the mailed questionnaire as well as via email invitation sent directly to the respondents. Respondents are given options either to reply by mail, or participate in the e-survey, by visiting a website where the questionnaire can be filled in and returned electronically, whichever convenience for them. Apart from the mailing and e-survey method of data collection, questionnaires are also delivered directly to the respective firms located around the Klang Valley. This approach is very costly, but is traded off with the benefits of increasing response rate for this study. Appointments are made prior to the visit, to ensure the availability of the respective CFOs. Follow up via phone call after one month from the initial distribution of the questionnaire is made to ensure that the questionnaire is being entertained accordingly. The second stage is planned in advance and designed to maximize the response rate. Upon the follow up, second copy of the questionnaire is sent via mail, fax or e-mail.

The survey administration takes five months approximately, from November 2010 to March 2011. 203 usable responses from the Malaysian CFOs are collected, thus representing a response rate of about 25%, a highly satisfied and remarkable rate for a survey analysis in the field of finance. The usual response rate for similar surveys conducted in US and UK is 9-24% (Scott and Johnson 1982, Pinegar and Wilbricht 1989, Norton 1989, Graham and Harvey 2001, Stonehill et al. 1975, Allen 1991, 2000, Brav et al. 2005, Bancel and Mittoo 2004, Brounen et al. 2004, 2006, Beattie et al. 2006 and Chazi et al 2010).

### 3.4. Summary on Firm and Management Characteristics

Figure I below presents summary information about the firms in our sample. For this study, size is measured based on the board listing at the Bursa Malaysia (formerly known as the Kuala Lumpur Stock Exchange). This classification is consistent with other studies undertaken on Malaysian listed firms, such as a study undertaken in 2008 by SM Ali et al. Based on the board listing (Fig. Ia), 67% of the sample firms are listed on the Bursa Malaysia Main Board (large firms) and the remaining 33% of the firms are listed on the Bursa Malaysia Second Board (small firms). In term of the sales revenues (Fig.Ib), 87% of the sample firms have sales of less than RM1 billion and only 13% of the sample firms have sales of at least RM1 billion. In contrast to this study, Graham and Harvey (2001) classify firm size based on the sales revenues, in which those firms with sales revenues greater than RM1 billion are referred as large firms. Fig. I(c) presents the price-earnings ratio of the sample firms, where 21% of the firms have price-earnings ratios of 15 or greater. This study refers to these firms as growth firms in analyzing how investment opportunities affect corporate behavior. The remaining 52% of the respondents are referred as non-growth firms. 32% of the firms are manufacturers (Fig. Id). For this study, manufacturing firms are consisting of firms from two sectors, manufacturing (13%) and industrial products (19%). The non-manufacturing firms are evenly spread across other industries, including consumer products (14%), construction (9%), properties (15%), utilities (1.5%), trading/services (12%), telecommunication (1%), technology (9%), hotels (2%) and plantation (4%).

The distribution of debt levels is less uniform (Fig. Ie) as majority of the sample firms (65%) are having debt-to-asset ratios ranging from 20% to 29%. This study refers to firms with debt ratios greater than 30% as highly levered firms. Thus, from the distribution, 73% of the sample firms are low levered firms and the remaining 27% of

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the sample firms are highly levered. 64% of the firms (Fig. 1f) are considered as having target debt ratio (somewhat tight and strict ratings), whereas, 36% of the sample firms are not having target debt ratio (flexible and none ratings). The creditworthiness of the sample is also dispersed (Fig. 1g). From a total of 203 sample firms, only 23 firms provide their credit ratings information, accounting to only 11% of the total responding firms. 10% of the sample firms are classified as having good credit ratings (ratings of A, AA, AAA, B, BBB) and 1% of the samples are classified as having low credit ratings (ratings of P1 and P2). Majority of the sample firms (65%) indicates that their firms have no foreign sales, and are mainly domestically-oriented (Fig. 1h). From those firms with foreign sales, 26% of the sample firms generate 1% to 24% foreign sales, out of their total sales. Only 9% of the sample firms are having high foreign sales consisting of equal or greater than 24% of their total sales revenue. Among the responding firms, 35% issue dividends, and only 2% are regulated utilities (Fig. 1m).

Nearly half of the CFOs for the responding firms are between 50 and 59 years old (Fig. 1i). Another 18% are over the age of 59, a group that this study refers as "mature." 28% of the CFOs are between the ages of 40 and 49 and only 3% of the CFOs are below the age of 40. The survey reveals that executives change jobs less frequently (Fig. 1j). Only 12% of the CFOs have been in their jobs less than four years, and majority (54%) have been in their jobs between four and nine years. This study defines the 34% who have been in their jobs longer than nine years as having "long tenure". 48% percent of the CFOs have an undergraduate degree as their highest level of educational attainment (Fig. 1k). Another 17% have an MBA and 33% have a non-MBA master degree. Only 2% of the CFOs have educational attainment higher than the master levels. Majority of the CFOs (76%) of the sample firms are Chinese (Fig. 1l), followed by 18% of Malay CFOs, 2% are Indians and 4% from other races. Male CFOs dominated the firms that responded to this survey (84%), and the remaining 17% are female CFOs.

**Figure I. Firm and Management Characteristics.**

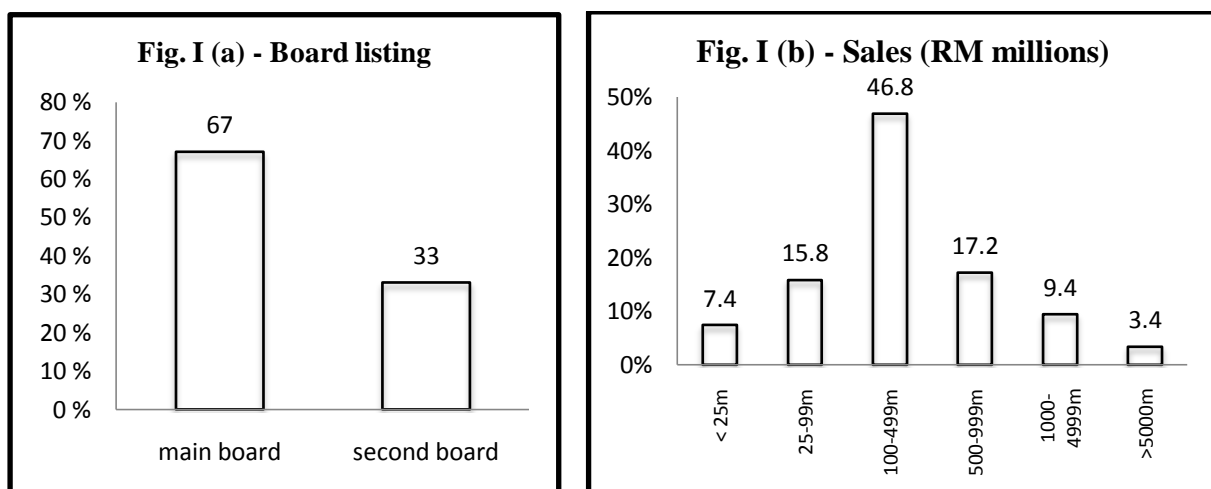




Figure I (cont.). Firm and Management Characteristics.

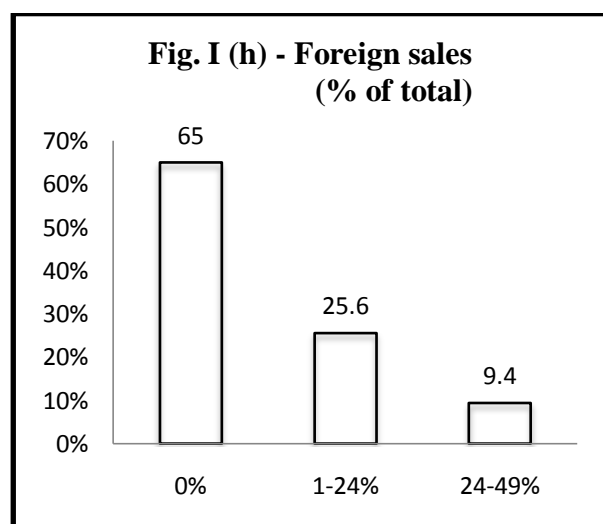
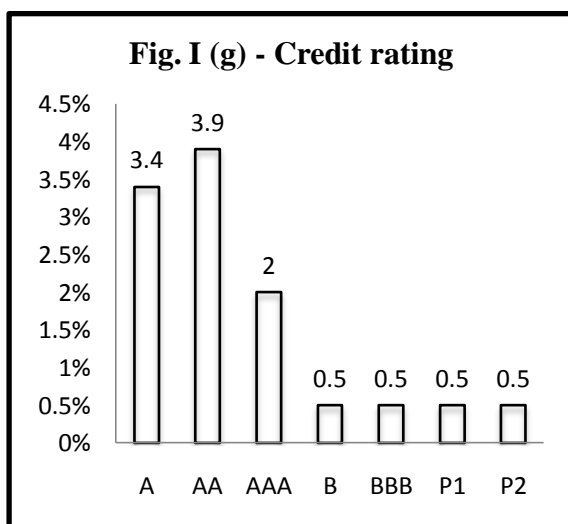
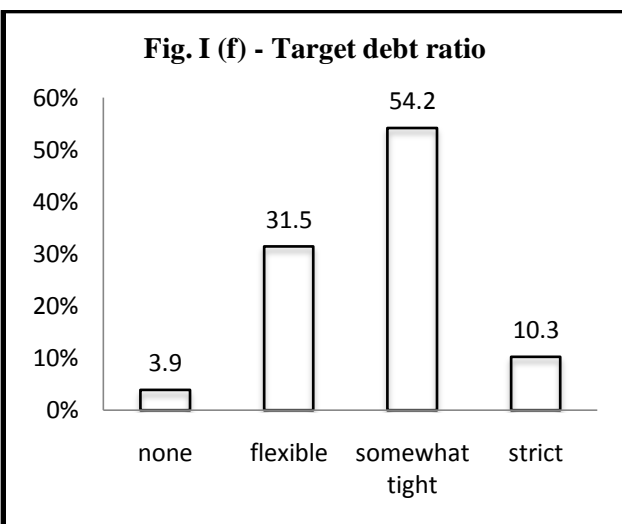
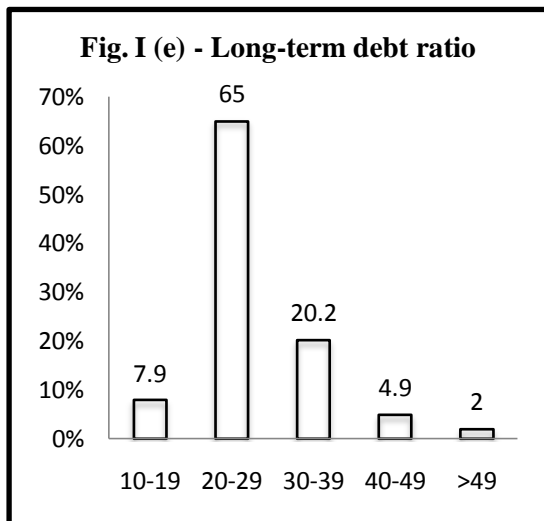
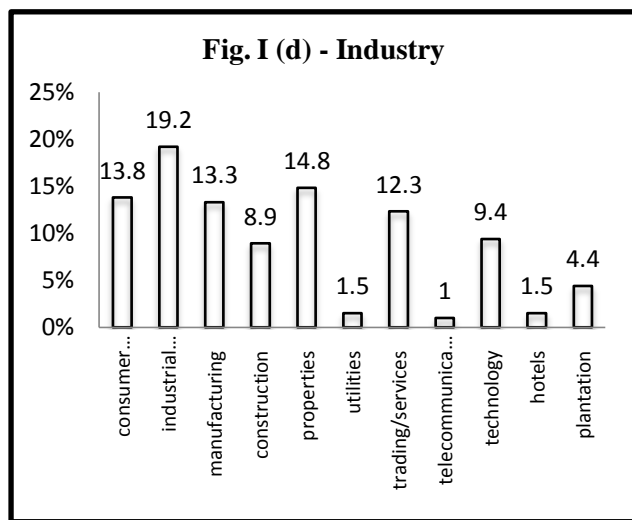
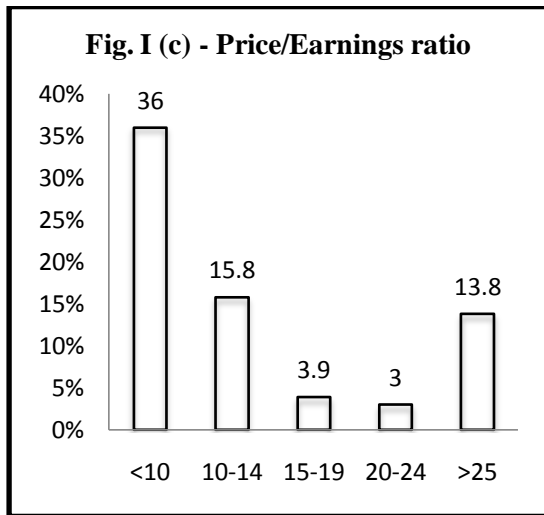
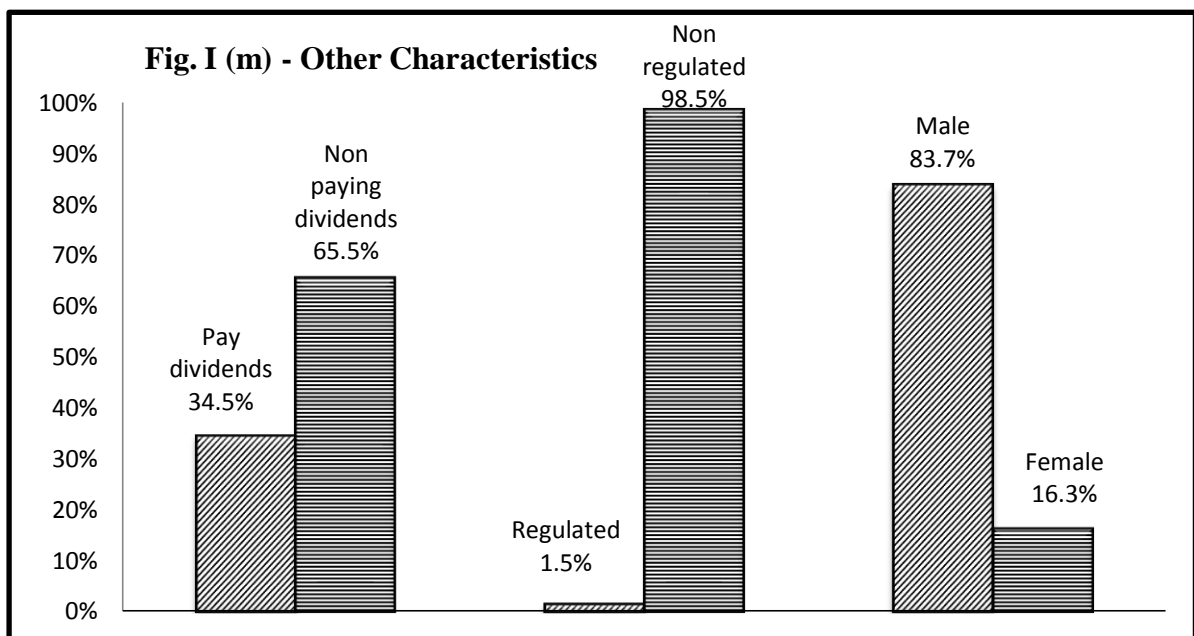
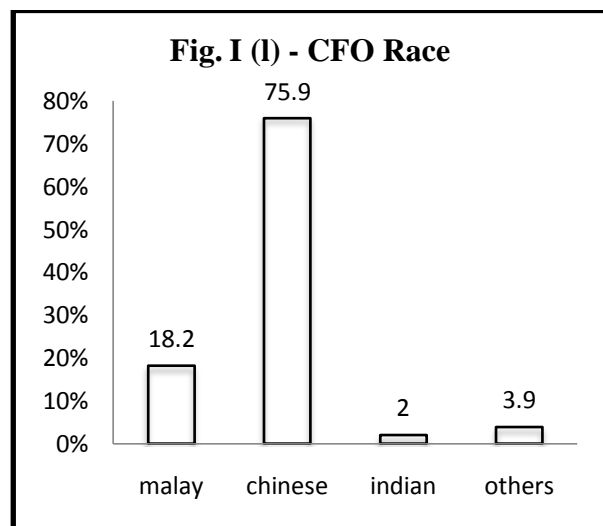
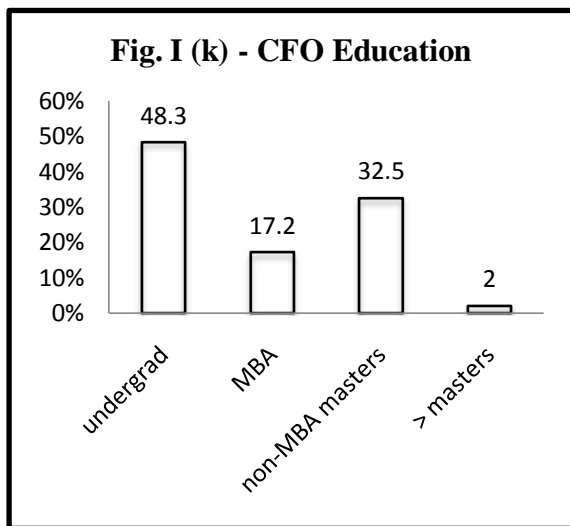
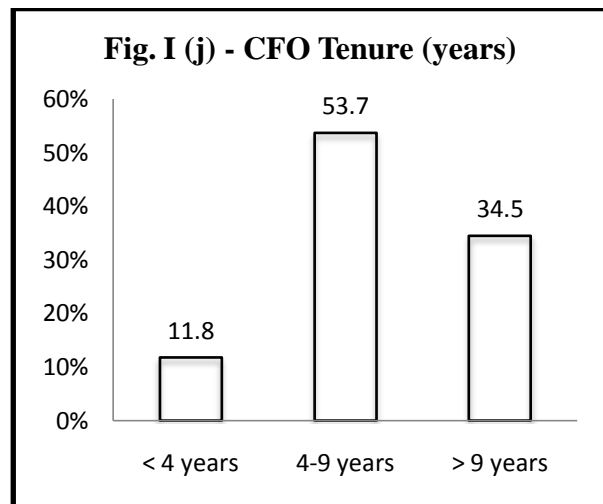
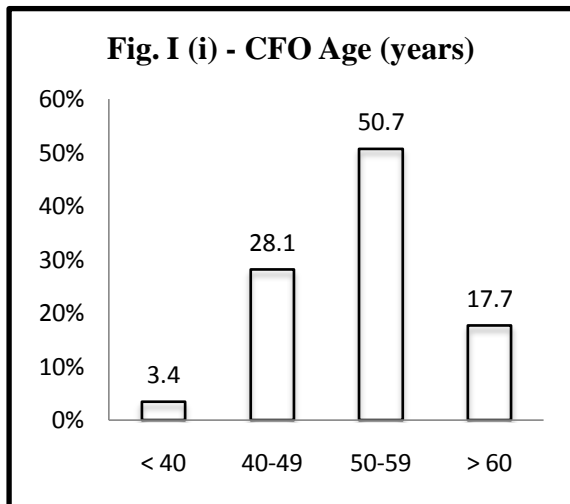


Figure I (cont.). Firm and Management Characteristics.



### 3.6. Data Analysis Methods

Questionnaire survey is the main quantitative analysis method approach for this study, with statistical data analysis using SPSS, which include descriptive statistical analysis and Univariate analysis. Univariate analysis is utilized in this study to explore each variable in a data set, separately. It looks at the range of values, as well as the central tendency of the values. It describes the pattern of response to the variable. It describes each variable on its own. Descriptive statistics describe and summarize data, while Univariate descriptive statistics describe individual variables. In this way, information about a number of items can be presented in a single table or figure. The ranking representation is useful for summarizing data for evaluations as well as comparing similar types of items from the survey. This study also performs Univariate analysis on the survey responses conditional on each separate firm and management characteristics.

An Independent-Samples t-Test compares the mean scores of two groups on a given variable. For the ordered or ranked responses, an Independent-Sample t-Test is performed, where mean responses to each question is analyzed and differentiated conditional to the various control variables included in this study (firm and management characteristics). The significant differences of the means are also depicted in the table that presents the mean values.

The  $t$  statistic to test whether the means are different can be calculated as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S_{X_1X_2} \cdot \sqrt{\frac{2}{n}}}$$

where

$$S_{X_1X_2} = \sqrt{\frac{1}{2}(S_{X_1}^2 + S_{X_2}^2)}$$

$S_{X_1X_2}$  is the grand standard deviation (or pooled standard deviation), 1 = group one, 2 = group two. The denominator of  $t$  is the standard error of the difference between two means. For significance testing, the degrees of freedom for this test, is  $2n - 2$  where  $n$  is the number of participants in each group.

## 4. The Findings

This section explains the survey results of the corporate financing decisions of Malaysian managers. The discussion covers the various factors and issues that Malaysian managers consider important in making financing decisions in relation to their preferences between debt and equity as sources of funds for their firms. The responses are analyzed based on the two main theories of capital structure, i.e. the static trade off theory and the pecking order theory. Hence, this section condenses the most important findings from the capital structure questions and presents the results grouped by theoretical hypothesis or concept. In addition, the responses are also examined conditional on firms' characteristics as well as the surveyed managers' demographics factors. The next section will discuss and summarize the extent to

which the Malaysian managers' capital structure decision in practice is in line with the established theories, i.e. the static trade off theory and the pecking order theory. Table II – V are shown at the end of Section 4.

#### **4.1. Overview: Survey Evidence on Factors Affecting Debt and Equity Issuance**

Prior to a detail examination on the survey responses in relation to the three theories of capital structure, Figure II and Figure III below illustration overview of the factors that Malaysian managers view as important (ranked from the most important to the least important), and affecting their debt financing as well as equity financing decisions, respectively. Figure II shows the important factors considered by managers in debt issuance. 91.7% of the surveyed managers document that they restrict debt issuance to ensure that they have enough internal funds available for new projects financing. This factor is important for all participating firms and managers, regardless of their distinct natures and characteristics. The need for financial flexibility is then trailed by other factors including insufficient internal funds (91.6%), stock price changes (88.1%), earnings and cash flow volatility (87.2%), bankruptcy/distress costs (85.8%), shareholders versus managers conflict (83.8%), etc. Interestingly, the importance of interest tax savings in relation to debt financing receives the lowest rating from the managers (11.4%).

Figure III shows the important factors considered by managers in equity issuance. Malaysian managers' concern on earnings per share dilution receives the highest score with regards to equity issuance decisions (97.2%). Issues on earnings per share dilution are widely discussed and researched (Huang et al. 2009, Myers et al. 2007 and Graham and Harvey 2001, 2002) especially in examining their effects on a firm's financing decisions. Other factors affecting the equity financing decisions among Malaysian managers include the sufficiency of recent profits to fund activities (95.1%), equity undervaluation/overvaluation (92.1%), recent stock price performance (89.6%), inability to obtain funds from other sources (84.7%), maintaining target debt/equity ratio (81.8%), etc.

Figure II: Survey Evidence on Factors Affecting Debt Financing.

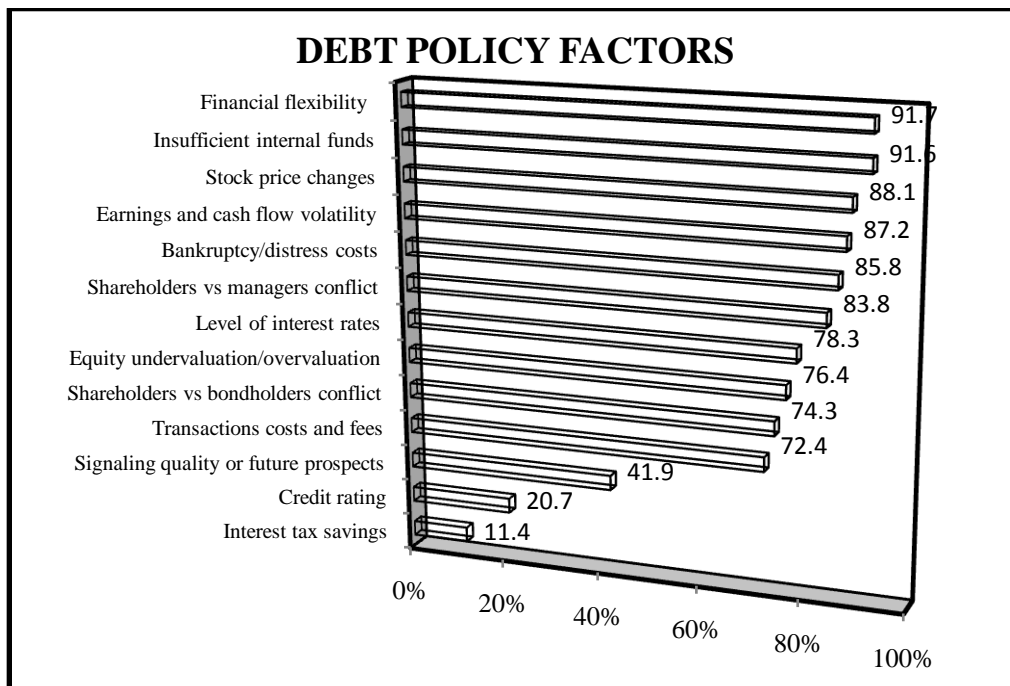
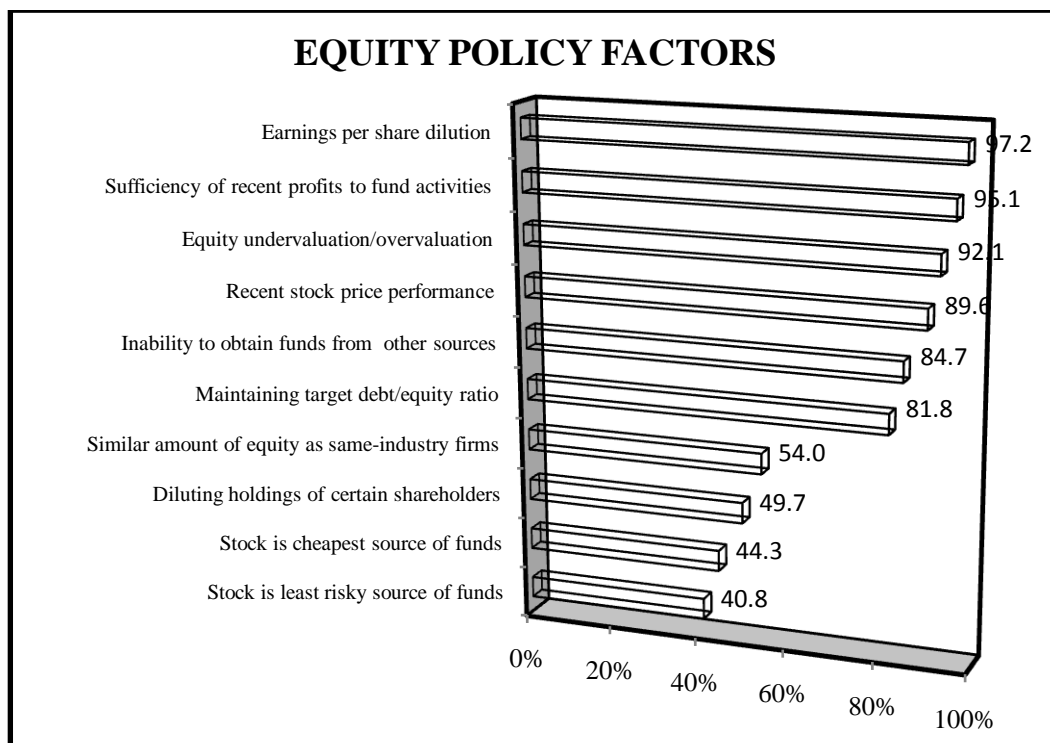


Figure III: Survey Evidence on Factors Affecting Equity Financing.



These are the important factors attained from the survey responses of 203 CEOs of public listed companies in Malaysia. The identified factors will be further examined in the following section, in relation to the two main theories, hence discovering the consistency between the theories and practice of capital structure in Malaysia.

#### **4.2. The Trade off Theory of Capital Structure**

The static trade-off theory predicts a trade-off between tax advantages and bankruptcy costs of debt (Bradley et al. 1984). As first developed by Modigliani and Miller (1963), this theory argues that firms balance beneficial tax shields with the financial distress costs when determining the appropriate amount of corporate debt. Firms that act along the lines of the static trade-off paradigm are expected to have a target debt ratio. Some work done in relation to this static trade-off model like DeAngelo and Masulis (1980), Scott (1976) and Jensen and Meckling (1976) share similar view that in order to maintain an optimal corporate financing, the benefits and costs of debts must be balanced constantly

In this section, this study analyzes the survey responses in relation to the trade-off theory, specifically on the costs and benefits that this theory claims to be traded off in achieving an optimal or target debt ratio. The ultimate objective of this study is to determine whether debt issuance decisions of the Malaysian managers are in line and influence by the tradeoff between costs and benefits of debt as this theory claims. Table II rank the factors that Malaysian managers consider important in choosing the appropriate amount of debt. The rank is established on the mean score of a Likert scale ranging from 0 to 4, where 0 and 4 indicate that the factor is not important and very important, respectively. The subsequent columns of Table II detail the mean responses of the factors across the firm and management characteristics (control variables). The significance level of mean differences is derived using the Independent-Sample t-Test. The survey result is based on the responses of 203 Malaysian managers.

##### **4.2.1. Interest Tax Savings**

A firm's optimal debt ratio is usually viewed as determined by a trade-off of the costs and benefits of borrowing, holding the firm's assets and investment plans constant (Myers 1984). The firm is portrayed as balancing the value of interest tax shields against the costs of bankruptcy or financial distress. The firm is supposed to substitute debt for equity, or equity for debt, until the value of the firm is maximized. This study examines the extent to which Malaysian managers view the interest tax shield as an important consideration in making debt financing. Surprisingly, in contrast to the trade-off theory, the managers claim that the corporate tax advantage of debt is insignificant in their capital structure decisions. Row (a) of Table II shows that the mean response for this factor is 1.24. However, the tax advantage is rated as most important for large firms with high level of leverage and with no target level of debt ratio. It is considered important relatively by female and mature managers. This study also finds very little evidence that firms directly consider personal taxes when deciding on debt policy (rating of 0.61; Row f of Table II).

##### **4.2.2. Bankruptcy and Financial Distress Costs**

Costs of financial distress include the legal and administrative costs of bankruptcy, as well as the agency, moral hazard, monitoring and contracting costs which can erode firm value even if formal default is avoided. These costs exist though one may debate on their magnitude. As for the potential costs of bankruptcy or financial distress, 88% of Malaysian managers indicate that this factor is strongly influencing their decision in

taking debt as a source of financing for their firms, with a mean response of 3.23 (Row *b* of Table II). This factor is rated as crucial among the small (3.86) and low growth firms (3.34) with low level of foreign sales (3.34) and without target debt ratio (3.75). It is also important for non-regulated (3.27) and non-dividend paying firms (3.44). Relatively, senior managers (3.50) regard the financial distress costs as more important as compared to their younger counterparts.

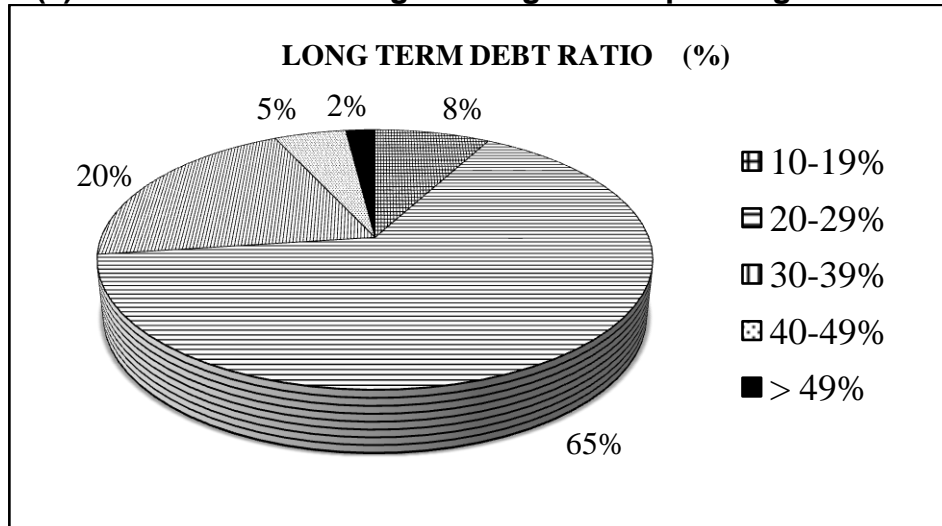
Despite the strong concern that Malaysian managers assign on the bankruptcy or financial distress costs, this study finds that, the managers disregard the importance of their credit ratings in making debt decisions, with a mean response of 1.67 (Row *d* of Table II). However, relatively, 21% of the Malaysian managers view this factor as important, specifically for firms with high level of leverage (2.09) and good investment grade (3.55). Credit rating is also a moderately important consideration among female managers (2.00) with more than nine years of working experience (2.00).

In line with their enormous concern on the bankruptcy and financial distress costs, 91.6% of the Malaysian managers respond positively to the importance of earnings and cash flows volatility in making capital structure decision with a mean response of 3.36 (Row *h* of Table II). This factor is relatively more important for large firms (3.31), with low level of growth (3.37) and leverages (3.40), and is a concern among mature managers (3.47) and those managers with non-MBA (3.33). Cashflow volatility may increase the costs of financial distress (Campello and Giambona 2010).

#### **4.2.3. Target Debt Ratio**

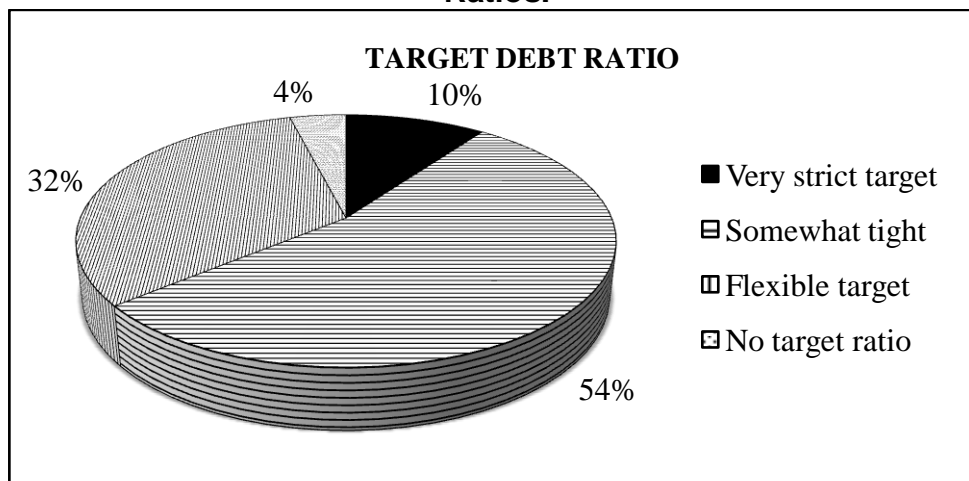
Figure IV (a) below illustrates the long term debt ratio of the responded 203 Malaysian public listed firms from various sectors. It is clearly shown that majority (65%) of the Malaysian public firms have a debt ratio ranging from 20-29%. This is followed by 20% firms possessing debt around 30-39%, 8% having 10-19%, 5% with 40-49% and finally only 2% of the surveyed firms say that their debt level is 49% and above. For the purpose of analysis, this study classifies the firms with the debt ratio of 30% and above as highly leveraged, and those lower than 30% as low leverage firms (Graham and Harvey 2001). Generally, 73% of the Malaysian public firms sampled for this study are classified as low leverage firms and only 27% of the firms are considered as highly levered firms.

Figure IV (a). The Level of Leverage among the Responding Firms in Malaysia.



In examining whether Malaysian firms have an optimal or target debt to equity ratio, the survey approaches the managers directly whether they have such target in their debt policy. Figure IV (b) shows that, from the total of 203 responses, 4% of the firms do not have a target debt ratio or target range. Another 32% have a flexible target, and 54% have a somewhat tight target or range. The remaining 10% of the firms claim that they have a strict target debt ratio.

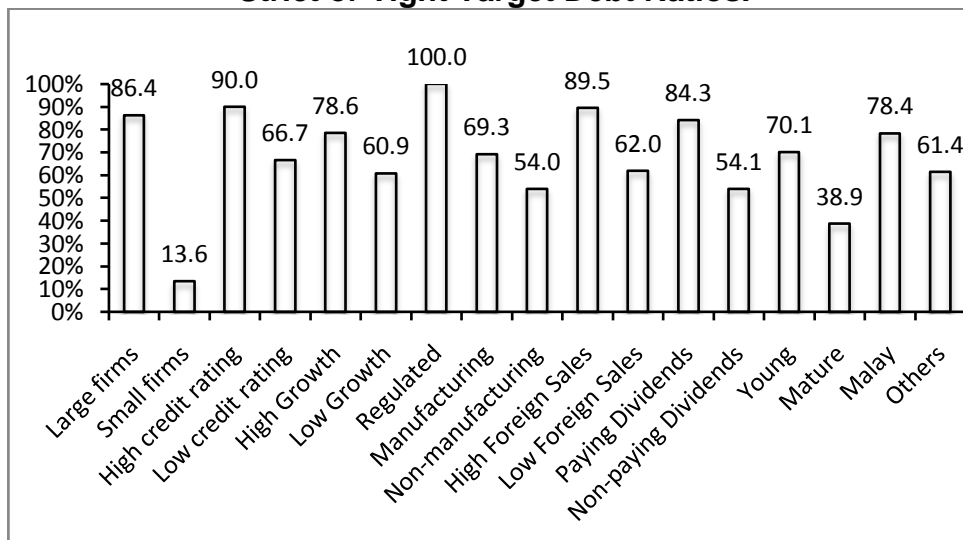
Figure IV (b). Survey Evidence on whether Firms have Optimal or Target Debt Ratios.



This study further examines the managers' responses on the presence of target debt ratio, conditional on firms' characteristics variable. As shown in Figure IV (c) below, large firms are more likely to have target debt ratios, in which 86.4% of the large firms have at least somewhat strict target ratios, compared to 13.6% of the small firms. Targets that are tight or somewhat strict are more common among high investment grade (90%) than low investment grade firms (66.7%) and among high growth (78.6%) than low growth firms (60.9%). Targets are more important for regulated (100%), manufacturing (69.3%) and dividends paying firms (84.3%) with high foreign sales (89.5%). Targets are also strict and somewhat strict for firms having young (70.1%) and Malay (78.4%) managers as compared to their counterparts, mature (38.9%) and other races (61.4%) respectively.



Figure IV (c). Survey Evidence on the Characteristics of Firms having Somewhat Strict or Tight Target Debt Ratios.



#### 4.2.4. Deviations From Target – Rebalancing

Scott (1976) and Jensen and Meckling (1976) view that in order to maintain an optimal corporate financing, the benefits and costs of debts must be balanced constantly. This is due to the fact that actual debt ratios vary across firms and through time. Hence, apart from identifying whether Malaysian firms have target debt ratios and examining the nature of the firms with target ratios, i.e. by relating the responses to several firm characteristics variables, this study also investigates the mechanisms that these firms use in maintaining their target debt ratios. From the survey responses to the question on factors considered important in issuing common stock, this study finds that Malaysian managers issue equities to maintain a target debt to equity ratio (rating of 3.06; Row e of Table III), especially among the manufacturing (3.24) and highly levered (3.44) firms.

Further, this study analyzes managers' responses towards changes in the price of equity to determine whether firms rebalance in response to market equity movements. 80.8% of the Malaysian managers stress that the changes in the price of their common stocks is one of the most important factors (rating of 3.29; Row s of Table II) that affect their debt policy. The changes in the price of common stock are regarded as crucial by large firms (3.60) mainly from the manufacturing sectors (3.37), having target debt ratios (3.66), and paying dividends (3.46). This factor is also important for young (3.46) and Malay managers (3.51). The high response to this factor supports the notion that firms do rebalance in response to market equity movements.

#### 4.3. The Pecking-Order Model of Financing Hierarchy

The pecking order theory is an alternative to the trade-off model which has emerged based on asymmetric information problem. The pecking order model suggests that there is a hierarchical choice of firm in financing investment project (Donaldson 1961, Myers and Majluf 1984, Myers 1984). There is no well-defined target mix of debt and equity finance as noted by Beattie et al. (2004). A firm will prefer internal to external finance and debt over equity. A firm will firstly use available internal fund like retained

earnings to finance new project. Next alternative will be reducing firm dividend policy to generate additional internal fund if the first alternative turns out to be insufficient. If these internal sources facing exhaustion, the firm may eventually resort to external funding, starting with issuing safest security like debt and when the firm has no more debt capacity, then hybrid securities like convertibles and finally equities will be the last resort (Allen 1991).

From the conducted survey, this study asks several questions related to the pecking order model. The questionnaire asks whether financial flexibility is important, if firms issue securities when internal funds are not sufficient to fund their activities, and separately ask if equity is used when debt, convertibles or other sources of financing are not available. The questionnaire also inquires whether managers consider equity undervaluation when deciding which security to use.

#### **4.3.1. Financing Priority: Internal Funds**

The first question on the pecking order model asks the managers about the flexibility they like to preserve in their financing. Financial flexibility here means that firm restricts debt so it will have enough internal funds available to pursue new projects as they come along. While this is not a direct test of the pecking order model, it shows how diligent firms are in keeping some financial slack available for potential new investments. This also indicates the tendency the firms to use their internal funds to finance future projects. The survey finding of this study indicates that Malaysian managers rank financial flexibility as the most important factor that they consider in making debt financing decisions for their firms. This shows that, Malaysian managers are very cautious on the availability and sufficiency of their internal funds for future projects and growth. 91.7% of the respondents say that flexibility is the most important with a mean rating of 3.47 (Row *g* of Table II). Flexibility is rated important by large (3.54) and highly levered firms (3.65) that pay dividends (3.97) and have mature (3.53), long tenure (3.53), male managers (3.52). A deeper investigation on the responses indicates that the desire for financial flexibility (which indicates firms' preference on the internal funds financing) is not driven by the factors behind the pecking order theory (asymmetry of information). Though the Malaysian managers' preference for financial flexibility confirms to the idea of the pecking order theory, which stresses on the need to preserve and increase internal fund, the importance of this factor is highly rated by large, levered and dividend paying firms. Relatively, this factor is also weighted as more important by firms with target debt ratios. Therefore, from a thorough observation of the survey response on this factor, in relation to the firms' characteristics, support to the static trade off theory exists (large, highly levered firms with target debt to equity ratios), though the managers' choice for financial flexibility confirms to the pecking order theory. Mixed-results appear on this issue.

Another aspect of pecking order model of financing hierarchy tested in this study is the notion of this theory that external financing will only be acquired when internal funds are insufficient. Survey response indicates that insufficient internal funds caused the managers to consider debt issuance as a source of financing for their activities (rating of 3.44; Row *n* of Table II). This factor is ranked as the second most important factors, next to the financial flexibility factor. A more direct test of the pecking order model is conducted on the factors that the managers consider in issuing equities. The notion of this theory is strongly supported by the Malaysian managers that they issue equity

when recent profits have been insufficient to fund their activities (rating of 3.41; Row *g* of Table III) especially from low leveraged firms (3.48) and that small (3.29) and dividend paying (3.36) firms issue equity after their ability to obtain funds from debt or convertibles is diminished (rating of 3.22; Row *k* of Table III).

#### **4.3.2. Equity Undervaluation or Overvaluation**

##### ***Equity Issuance***

Firms are reluctant to issue common stock when they perceive that it is undervalued (rating of 3.38; Row *j* of Table III). Whether the firm's stock is undervalued or overvalued is an important factor for 92.1% of the responding managers, especially for large (3.45), dividend-paying firms (3.40) with target debt to equity ratios (3.44). Graham (1998) finds that more than two-thirds of the executives feel that their common equity is undervalued by the market and that only 3% of CFOs think their stock is overvalued. This finding suggests that the preference for pecking order financing hierarchy might be driven by managerial optimism (Heaton 2000). In line with this, Heaton (2002) comes out with a model where, under the assumption of efficient capital markets, optimistic managers believe that the available projects offer better expected return than they appear to be. Hence, to them, the securities issued by the firm, may it be bonds or stocks are undervalued systematically by outside investors. Stocks are, by nature, the securities most prone to be undervalued. Therefore, consequently firm will adopt the hierarchical financing options to fund its investment projects, keeping issuing new stocks as the very last resort (Barros and Silveira 2007). Heaton (2002) predicts that, the more optimistic is the manager, the hierarchical financing options (the pecking order theory) will be more pronounced, *ceteris paribus*. Similarly, this prediction is later offered by Malmendier and Tate (2002, 2003) as well as Fairchild (2005).

##### ***Convertible Issuance***

Taken together, these findings indicate that a large percentage of companies are hesitant to issue common equity because they feel their stock is undervalued. Many firms issue convertible debt instead. In this study, Malaysian managers respond that, equity undervaluation is the second most important factor that drives them to the issuance of convertible debt (rating of 3.38; Row *f* of Table IV). The option towards issuance of convertible debt when equity is undervalued is the most important for highly levered firms (3.38). This indicates that, when equity is undervalued, instead of further increasing the debt level, highly levered firms will delay the issuance of equity by opting for the convertible debt as an alternative source of funds. Convertible debt is "delayed" common stock that has lower distress costs than debt and smaller undervaluation than equity (Bancel and Mittoo 2004, Billingsley and Smith 1996). From the survey findings, Malaysian managers assign the highest rating to this factor, thus confirming convertibles' use as an inexpensive way to issue "delayed" common stock (rating of 3.48; Row *a* of Table IV). Furthermore, convertible debt is relatively insensitive to asymmetric information between management and investors, due to its call or conversion feature (Brennan and Kraus 1987, Brennan and Schwartz 1988). Consistently, this study finds that the call or conversion feature is seriously considered by the Malaysian managers in issuing convertible debt (rating of 3.31; Row *g* of Table IV).

***Debt Issuance***

In relating the equity undervaluation issue with the debt issuance decision, this study questions the managers on the effect of equity undervaluation on their debt policy. 76.4% of the responding managers say that they will issue debt when equity is undervalued (rating of 3.02; Row *q*, Table II). Similar to their responses on equity decision, i.e. avoiding equity when equity is undervalued, this factor is crucial for large (3.34), dividend-paying firms (3.41) with target debt ratios (3.27). In addition, the decision to debt issuance in response to equity undervaluation is also important for firms with high level of growth (3.33) and substantial amount of foreign sales (3.58).

Overall, this study finds that the Malaysian managers' concern on the importance of (i) financial flexibility, (ii) sufficiency of internal funds and (iii) equity undervaluation is generally consistent with the pecking order model of financing hierarchy. However, the importance of these factors is not directly related to the notion of asymmetric information.

**4.4. Other Factors Affecting Capital Structure – EPS Dilution**

Survey and empirical evidence reveals that managers prefer to avoid earnings dilution, though financial theory suggests that it is irrelevant in firm valuation (Modigliani and Miller 1958). Brealey and Myers (1996) however, claim that there is a common belief among executives that share issuance dilutes earning per share (EPS). Graham and Harvey (2001) also argue that managers appear to be reluctant to issue equity if it dilutes the accounting measures of performance or value. To investigate this issue, this study asks managers if EPS dilution concerns affect their equity issuance decisions. Interestingly, 97.2% of the responded Malaysian managers strongly agree that EPS dilution is the most important factor affecting their equity issuance decisions (rating of 3.63; Row *l* of Table III). This factor is a big concern among regulated firms (4.00) and firms that pay dividends (3.71) as compared to their counterparts. A detailed observation of the response ratings indicate that, regardless of the different firm characteristics and managers demographic factors, all respondents to this survey rate EPS dilution as either important or very important (all ratings are above 3.00) to their equity issuance decisions. This finding is consistent with Graham and Harvey (2002) survey evidence that despite the efforts of academics to demonstrate that EPS dilution per se should be irrelevant to stock valuation, avoiding dilution of EPS was the most cited reason for firms' reluctance to issue equity. Hovakimian et al. (2001) also empirically find that firms are less likely to choose equity over debt financing when an equity issue will dilute EPS.

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**Table II: Survey responses to the question: What factors affect how you choose the appropriate amount of debt for your firm? [\*\*\*, \*\*, \* denotes significant at 1%, 5% and 10% respectively]**

	Imp. or very imp (%)	Mean	Size		P/E		Leverage		Target debt ratio		Investment grade		Pay dividends		Industry		
			Small	Large	Low growth	High growth	Low	High	Yes	No	Low	High	Yes	No	Manu.	Other	
g)	financial flexibility (we restrict debt so we have enough internal funds available to pursue new projects when they come along)	91.7	3.47	3.32	3.54**	3.46	3.50	3.43	3.65*	3.52	3.38	3.33	3.70	3.97	3.20***	3.48	3.46
n)	we issue debt when our recent profits (internal funds) are not sufficient to fund our activities	91.6	3.44	3.98	3.18***	3.46	3.36	3.46	3.32	3.21	3.86***	4.00	3.75	3.31	3.50	3.48	3.42
h)	the volatility of our earnings and cash flows	87.2	3.36	3.48	3.31*	3.37**	3.33	3.40*	3.21	3.33	3.43	3.00	3.35	3.33	3.38	3.27	3.41
s)	changes in the price of our common stock	80.8	3.29	2.64	3.60***	3.26	3.38	3.30	3.24	3.66	2.61***	3.67	3.70	3.46	3.20**	3.37	3.11**
b)	the potential costs of bankruptcy, near-bankruptcy, or financial distress	88.1	3.23	3.86	2.93***	3.34	2.81***	3.22	3.29	2.95	3.75***	3.00	2.95	2.83	3.44***	3.44	3.13**
l)	to issue sufficient debt to ensure that upper management works hard and efficiently, as large portion of our cash flow is committed to interest payments	83.8	3.22	3.55	3.06***	3.22	3.19	3.20	3.29	3.12	3.39**	3.67	3.05	2.79	3.44***	3.36	3.15**
p)	we issue debt when interest rates are particularly low	78.3	3.13	2.86	3.26***	3.10	3.24	3.05	3.53***	3.24	2.93**	3.00	3.65	3.33	3.02**	3.27	3.06
q)	we use debt when our equity is undervalued by the market	76.4	3.02	2.36	3.34***	2.94	3.33**	3.07	2.82	3.27	2.58***	3.00	3.55	3.41	2.82***	2.89	3.09
m)	to limit our borrowing so that profits from new/future projects can be captured fully by shareholders and do not have to be paid out as interest to debt holders	82.3	2.99	2.97	3.00	2.78	3.81***	3.04	2.76*	2.97	3.03	3.67	2.90	2.97	3.00	2.97	3.00
e)	the transactions costs and fees for issuing debt	72.4	2.84	3.76	2.39***	2.88	2.67	2.89	2.59	2.44	3.57***	3.00	1.95	2.27	3.14***	2.86	2.82
r)	we delay issuing debt because of transactions costs and fees	54.7	2.39	2.38	2.39	2.27	2.86***	2.66	1.06***	2.34	2.47	2.33	1.70	2.14	2.52*	1.80	2.67***
o)	using debt gives investors a better impression of our firm's prospects than issuing stock	41.9	1.86	0.58	2.47***	1.73	2.36***	1.93	1.50*	2.32	1.01***	3.00	1.85	2.20	1.68***	1.74	1.91
d)	our credit rating (as assigned by rating agencies)	20.7	1.67	1.67	1.66	1.64	1.76	1.58	2.09**	1.73	1.54	3.00	3.55**	1.96	1.51***	1.85	1.58
a)	the tax advantage of interest deductibility	11.4	1.24	0.97	1.36***	1.24	1.2	1.12	1.79***	1.47	0.82***	1.33	1.75	1.39	1.16	1.36	1.18
c)	the debt levels of other firms in our industry	8.8	1.16	1.23	1.12	1.15	1.19	1.04	1.76***	1.23	1.03	0.67	1.55**	1.30	1.08	1.09	1.19
t)	we issue debt when we have accumulated substantial profits	9.4	1.15	1.18	1.14	1.12	1.26	1.15	1.15	1.10	1.25	1.00	1.35	1.16	1.15	0.85	1.30***
i)	to limit debt so our customers/suppliers are not worried about our firm going out of business	11.8	1.04	1.05	1.04	1.06	1.00	0.98	1.38**	1.05	1.04	0.33	1.75**	1.33	0.89***	0.92	1.10
k)	to issue debt, so our competitors know that we are very unlikely to reduce our output	1	0.71	0.82	0.66	0.71	0.71	0.62	1.21***	0.67	0.79	1.00	0.90	0.73	0.71	1.12	0.52***
j)	to consider having enough debt so that we are not an attractive takeover target	5	0.67	0.67	0.66	0.69	0.57	0.55	1.24***	0.68	0.64	0.67	1.05	0.80	0.59	0.71	0.64
f)	the personal tax cost our investors face when they receive interest income	3.9	0.61	0.61	0.61	0.60	0.62	0.57	0.76*	0.57	0.67	0.67	1.55	0.50	0.66*	0.73	0.55**

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**Cont. Table II: Survey responses to the question: What factors affect how you choose the appropriate amount of debt for your firm? [\*\*\*, \*\*, \* denotes significant at 1%, 5% and 10% respectively]**

	Imp. or very imp (%)	Mean	CFO Age		CFO Tenure		CFO Education		CFO Gender		CFO Race		Regulated		Foreign Sales		
			Young	Mature	Short	Long	MBA	Others	Male	Female	Malay	Others	Yes	No	Low	High	
g)	financial flexibility (we restrict debt so we have enough internal funds available to pursue new projects when they come along)	91.7	3.47	3.46	3.53	3.44	3.53	3.49	3.46	3.52	3.21**	3.57	3.45	4.00	3.46	3.46	3.53
n)	we issue debt when our recent profits (internal funds) are not sufficient to fund our activities	87.2	3.44	3.37	3.75**	3.44	3.43	3.54	3.42	3.49	3.18*	3.22	3.49*	4.00	3.43	3.46	3.26
h)	the volatility of our earnings and cash flows	91.6	3.36	3.34	3.47*	3.32	3.44	3.54	3.33*	3.38	3.27	3.32	3.37	3.33	3.37	3.35	3.47
s)	changes in the price of our common stock	80.8	3.29	3.46	2.47***	3.29	3.27	3.40	3.26	3.32	3.12	3.51	3.23*	4.00	3.28	3.26	3.53
b)	the potential costs of bankruptcy, near-bankruptcy, or financial distress	88.1	3.23	3.17	3.50**	3.20	3.29	3.17	3.24	3.22	3.27	3.03	3.28	1.00	3.27***	3.34	2.16***
l)	to issue sufficient debt to ensure that upper management works hard and efficiently, as large portion of our cash flow is committed to interest payments	83.8	3.22	3.16	3.50***	3.16	3.33	3.43	3.17*	3.22	3.18	3.00	3.27*	3.00	3.22	3.23	3.11
p)	we issue debt when interest rates are particularly low	78.3	3.13	3.13	3.11	3.08	3.23	3.29	3.10	3.17	2.91	3.24	3.10	3.33	3.13	3.11	3.26
q)	we use debt when our equity is undervalued by the market	76.4	3.02	3.20	2.19***	2.99	3.09	2.89	3.05	3.14	2.42***	3.16	2.99	3.33	3.02	2.97	3.58***
m)	to limit our borrowing so that profits from new/future projects can be captured fully by shareholders and do not have to be paid out as interest to debt holders	82.3	2.99	2.96	3.14	3.02	2.93	2.74	3.04*	3.10	2.42***	2.62	3.07***	2.33	3.00	2.98	3.05
e)	the transactions costs and fees for issuing debt	72.4	2.84	2.74	3.28***	2.85	2.81	2.51	2.90**	2.76	3.21**	2.51	2.91*	0.00	2.88***	2.88	2.42
r)	we delay issuing debt because of transactions costs and fees	54.7	2.39	2.41	2.31	2.38	2.41	1.86	2.50***	2.36	2.52	2.24	2.42	0.67	2.42**	2.40	2.26
o)	using debt gives investors a better impression of our firm's prospects than issuing stock	41.9	1.86	1.96	1.39**	1.84	1.89	1.66	1.90	1.86	1.82	1.95	1.84	1.00	1.87	1.81	2.32
d)	our credit rating (as assigned by rating agencies)	20.7	1.67	1.63	1.83	1.49	2.00***	1.89	1.62	1.60	2.00**	1.81	1.63	2.67	1.65	1.64	1.95
a)	the tax advantage of interest deductibility	11.4	1.24	1.31	0.92**	1.24	1.23	1.23	1.24	1.18	1.52**	1.35	1.21	1.67	1.23	1.21	1.47
c)	the debt levels of other firms in our industry	8.8	1.16	1.13	1.28	1.14	1.19	1.66	1.05***	1.00	1.97***	1.65	1.05***	1.33	1.16	1.51	1.21
t)	we issue debt when we have accumulated substantial profits	9.4	1.15	1.13	1.28	1.11	1.24	1.37	1.11	1.11	1.36	1.62	1.05***	1.00	1.16	1.16	1.05
i)	to limit debt so our customers/suppliers are not worried about our firm going out of business	11.8	1.04	1.08	0.86	0.98	1.17	1.26	1.00	0.88	1.88***	1.32	0.98*	2.00	1.03	1.03	1.16
k)	to issue debt, so our competitors know that we are very unlikely to reduce our output	1	0.71	0.65	1.03***	0.63	0.87**	0.66	0.73	0.68	0.91	0.78	0.70	0.00	0.73*	0.73	0.58
j)	to consider having enough debt so that we are not an attractive takeover target	5	0.67	0.68	0.61	0.65	0.70	1.06	0.58***	0.49	1.58***	1.05	0.58***	0.67	0.67	0.67	0.58
f)	the personal tax cost our investors face when they receive interest income	3.9	0.61	0.57	0.75*	0.62	0.59	0.80	0.57**	0.62	0.52	0.43	0.64**	0.00	0.62*	0.61	0.58

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**Table III: Survey responses to the question: Survey responses to the question: What factors considered important in issuing common stock? [\*\*\*, \*\*, \* denotes significant at 1%, 5% and 10% respectively]**

	Imp. or very imp (%)	Mean	Size		P/E		Leverage		Target debt ratio		Investment grade		Pay dividends		Industry	
			Small	Large	Low growth	High growth	Low	High	Yes	No	Low	High	Yes	No	Manu.	Other
l) earnings per share dilution	97.2	3.63	3.64	3.63	3.65	3.55	3.61	3.74	3.65	3.60	4.00	3.75	3.71	3.59*	3.68	3.61
g) the sufficiency of our recent profits to fund our activities	95.1	3.41	3.35	3.45	3.43	3.33	3.48	3.09***	3.40	3.43	3.67	3.40	3.47	3.38	3.30	3.47*
j) whether our stock is undervalued or overvalued by the market	92.1	3.38	3.24	3.45**	3.35	3.48	3.41	3.24	3.44	3.26*	3.67	3.55	3.40**	3.37	3.26	3.44*
a) good stock market, so we can issue stock at higher price	89.6	3.32	3.52	3.23***	3.37	3.12**	3.27	3.59**	3.28	3.39	3.33	3.00	3.00	3.49***	3.50	3.23***
k) inability to obtain funds using debt, convertibles, or other sources	84.7	3.22	3.29	3.19	3.22	3.21	3.25	3.09	3.18	3.29	3.67	3.30	3.36	3.15*	3.30	3.18
e) maintaining a target debt-to-equity ratio	81.8	3.06	3.11	3.04	3.09	2.98	2.99	3.44***	3.05	3.08	3.00	3.05	3.04	3.08	3.24	2.98**
f) using a similar amount of equity as other firms in our industry	34	1.95	1.92	1.96	1.96	1.93	2.00	1.71	2.00	1.86	2.67	1.70	2.00	1.92	1.95	1.95
i) diluting the holdings of certain shareholders	49.7	1.89	1.83	1.91	1.98	1.52**	1.89	1.88	1.84	1.97	1.33	1.90	1.83	1.92	1.83	1.91
d) common stock is our cheapest source of funds	44.3	1.84	1.95	1.79	1.86	1.76	1.92	1.44*	1.75	2.01	1.67	1.60	1.66	1.94	1.70	1.91
b) stock is our "least risky" source of funds	44.8	1.69	1.85	1.62	1.72	1.60	1.64	1.94	1.69	1.69	2.00	2.40	2.06	1.50***	1.89	1.60
c) providing shares to employee (stock option plans)	12.8	1.66	1.55	1.72	1.63	1.79	1.66	1.68	1.71	1.57	1.33	1.45	1.69	1.65	1.45	1.76***
h) issuing stock gives investors a better impression of our firm's prospects than using debt	10.2	1.59	2.29	1.26***	1.58	1.62	1.42	2.44***	1.28	2.15***	2.00	1.90	1.56	1.61	2.11	1.34***

	Imp. or very imp (%)	Mean	CFO Age		CFO Tenure		CFO Education		CFO Gender		CFO Race		Regulated		Foreign Sales	
			Young	Mature	Short	Long	MBA	Others	Male	Female	Malay	Others	Yes	No	Low	High
l) earnings per share dilution	97.2	3.63	3.60	3.75	3.65	3.60	3.60	3.64	3.64	3.61	3.65	3.63	4.00	3.63	3.63	3.68
g) the sufficiency of our recent profits to fund our activities	95.1	3.41	3.44	3.31	3.44	3.36	3.17	3.46**	3.48	3.09***	3.38	3.42	4.00	3.41	3.40	3.53
j) whether our stock is undervalued or overvalued by the market	92.1	3.38	3.40	3.31	3.37	3.40	3.49	3.36	3.38	3.39	3.41	3.37	3.67	3.38	3.38	3.42
a) good stock market, so we can issue stock at higher price	89.6	3.32	3.32	3.33	3.37	3.23	3.31	3.32	3.31	3.36	3.11	3.37**	3.00	3.33	3.33	3.26
k) inability to obtain funds using debt, convertibles, or other sources	84.7	3.22	3.19	3.36	3.25	3.17	3.26	3.21	3.31	2.79	3.38	3.19	3.67	3.22	3.22	3.26
e) maintaining a target debt-to-equity ratio	81.8	3.06	3.02	3.25	3.04	3.11	3.00	3.08	3.08	2.97	3.08	3.06	3.33	3.06	3.07	3.05
f) using a similar amount of equity as other firms in our industry	34	1.95	1.92	2.11	1.93	1.99	1.91	1.96	1.90	2.21	2.24	1.89*	1.00	1.97	1.97	1.74
i) diluting the holdings of certain shareholders	49.7	1.89	1.88	1.92	1.87	1.91	1.77	1.91	1.86	2.03	1.73	1.92	2.33	1.88	1.88	1.95
d) common stock is our cheapest source of funds	44.3	1.84	1.84	1.86	1.89	1.74	1.43	1.93**	1.76	2.27**	1.57	1.90	0.00	1.87***	1.85	1.74
b) stock is our "least risky" source of funds	44.8	1.69	1.59	2.17**	1.56	1.94*	2.03	1.63	1.68	1.79	1.92	1.64	3.00	1.68*	1.64	2.26*
c) providing shares to employee (stock option plans)	12.8	1.66	1.69	1.50	1.68	1.63	1.86	1.62*	1.55	2.21***	1.76	1.64	1.00	1.67	1.68	1.47
h) issuing stock gives investors a better impression of our firm's prospects than using debt	10.2	1.59	1.46	2.19***	1.50	1.77	1.83	1.54	1.45	2.30***	1.62	1.58	0.33	1.61*	1.63	1.21

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**Table IV: Survey responses to the question: Survey responses to the question: What factors considered important in issuing convertible debt? [\*\*\*, \*\*, \* denotes significant at 1%, 5% and 10% respectively]**

	Imp. or very imp (%)	Mean	Size		P/E		Leverage		Target debt ratio		Investment grade		Pay dividends		Industry		
			Small	Large	Low growth	High growth	Low	High	Yes	No	Low	High	Yes	No	Manu.	Other	
a)	convertibles are an inexpensive way to issue "delayed" common stock	96.0	3.48	3.48	3.47	3.48	3.45	3.26	3.52***	3.47	3.50	3.33	3.30	3.46	3.49	3.41	3.51
f)	our stock is currently undervalued	93.1	3.38	3.42	3.36	3.39	3.38	3.38	3.38***	3.37	3.42	3.33	3.35	3.36	3.40	3.39	3.38
g)	ability to "call" or force conversion of convertible debt if or when we need to	83.8	3.31	3.42	3.25	3.32	3.26	3.28	3.44	3.24	3.42	3.67	3.45	3.31	3.30	3.41	3.26
e)	avoiding short-term earnings dilution	82.7	3.22	3.27	3.19	3.23	3.17	3.18	3.38	3.17	3.31	3.00	3.35	3.21	3.22	3.26	3.20
b)	protecting bondholders against unfavourable actions by managers or stockholders	75.4	2.88	2.88	2.88	2.86	2.95	3.07	1.91	2.89	2.85	2.33	2.45	2.66	2.99**	2.41	3.10***
c)	convertibles are less expensive than straight debt	37.9	1.80	1.64	1.88	1.81	1.74	1.82	1.68	1.85	1.71	1.67	2.30	1.74	1.83	1.79	1.80
h)	to attract investors who are unsure about the riskiness of our company	2.0	1.03	1.06	1.01	0.96	1.29***	1.01	1.15	1.06	0.97	1.33	1.15	1.06	1.02	1.06	1.01
d)	other firms in our industry successfully use convertibles	19.3	0.92	1.02	0.87	0.94	0.81	0.81	1.44***	0.92	0.90	1.67	0.90	0.91	0.92	1.30	0.73***
	Imp. or very imp (%)	Mean	CFO Age		CFO Tenure		CFO Education		CFO Gender		CFO Race		Regulated		Foreign Sales		
			Young	Mature	Short	Long	MBA	Others	Male	Female	Malay	Others	Yes	No	Low	High	
a)	convertibles are an inexpensive way to issue "delayed" common stock	96.0	3.48	3.49	3.42	3.47	3.49	3.26	3.52***	3.46	3.55	3.62	3.45*	3.00	3.49	3.49	3.32
f)	our stock is currently undervalued	93.1	3.38	3.41	3.28	3.41	3.34	3.51	3.36	3.37	3.45	3.32	3.40	4.00	3.38*	3.35	3.68**
g)	ability to "call" or force conversion of convertible debt if or when we need to	83.8	3.31	3.31	3.31	3.32	3.29	3.43	3.28	3.28	3.42	3.24	3.32	4.00	3.30	3.28	3.58
e)	avoiding short-term earnings dilution	82.7	3.22	3.24	3.11	3.20	3.26	3.54	3.15***	3.21	3.24	3.22	3.22	3.33	3.22	3.20	3.42
b)	protecting bondholders against unfavourable actions by managers or stockholders	75.4	2.88	2.93	2.61*	2.93	2.77	2.49	2.96***	2.92	2.64	2.76	2.90	2.33	2.89	2.91	2.58
c)	convertibles are less expensive than straight debt	37.9	1.80	1.81	1.72	1.89	1.63	1.83	1.79	1.82	1.67	1.79	1.81	1.33	1.81	1.80	1.74
h)	to attract investors who are unsure about the riskiness of our company	2.0	1.03	0.99	1.19	0.98	1.11	1.00	1.04	1.01	1.15	0.95	1.05	1.00	1.03	1.02	1.11
d)	other firms in our industry successfully use convertibles	19.3	0.92	0.87	1.11	0.89	0.97	0.94	0.91	0.94	0.82	0.59	0.99***	0.67	0.92	0.91	0.95



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**Table V: Survey responses to the question: What factors affect your choice between short- and long-term debt? [\*\*\*, \*\*, \* denotes significant at 1%, 5% and 10% respectively]**

		Imp. or very imp (%)	Mean	Size		P/E		Leverage		Target debt ratio		Investment grade		Pay dividends		Industry	
				Small	Large	Low growth	High growth	Low	High	Yes	No	Low	High	Yes	No	Manu.	Other
				a)	we issue short term when short term interest rates are low compared to long term rates	94.6	3.48	3.42	3.50	3.50	3.40	3.43	3.71**	3.53	3.39	3.33	3.55
b)	matching the maturity of our debt with the life of our assets	93	3.34	3.45	3.29	3.38	3.21	3.35	3.32	3.31	3.40	3.67	3.50	3.27	3.38	3.52	3.26***
c)	we issue short-term when we are waiting for long-term market interest rates to decline	90.6	3.33	3.47	3.27*	3.35	3.26	3.37	3.15*	3.27	3.46*	3.67	3.20	3.31	3.35	3.48	3.26**
d)	we borrow short-term so that returns from new projects can be captured more fully by shareholders, rather than committing to pay long-term interest to debt holders	66.5	2.80	2.88	2.76	2.55	3.76***	2.55	2.83*	2.77	2.85	3.33	2.50	2.89	2.75	3.02	2.69**
e)	we expect our credit rating to improve, so we borrow short-term until it does	53.2	2.49	2.48	2.49	2.47	2.57	2.50	2.41	2.49	2.49	3.00	2.40	2.44	2.51	2.56	2.45
g)	we issue long-term debt to minimize the risk of having to refinance in "bad times"	46.3	2.33	2.17	2.41	2.32	2.36	2.40	1.97**	1.56	1.51	0.67	2.05	1.57	1.53	1.48	1.58***
f)	borrowing short-term reduces the chance that our firm will want to take on risky projects	19.7	2.15	1.52	1.56	1.53	1.60	1.38	2.35***	2.36	2.28	2.33	2.30	2.31	2.34	1.92	2.53

		Imp. or very imp (%)	Mean	CFO Age		CFO Tenure		CFO Education		CFO Gender		CFO Race		Regulated		Foreign Sales	
				Young	Mature	Short	Long	MBA	Others	Male	Female	Malay	Others	Yes	No	Low	High
				a)	we issue short term when short term interest rates are low compared to long term rates	94.6	3.48	3.49	3.44	3.47	3.50	3.51	3.47	3.51	3.30*	3.57	3.46
b)	matching the maturity of our debt with the life of our assets	93	3.34	3.34	3.39	3.34	3.36	3.37	3.34	3.37	3.21	3.22	3.37	3.33	3.35	3.34	3.42
c)	we issue short-term when we are waiting for long-term market interest rates to decline	90.6	3.33	3.29	3.53*	3.31	3.39	3.17	3.37	3.43	2.85***	3.00	3.41***	3.00	3.34	3.32	3.53
d)	we borrow short-term so that returns from new projects can be captured more fully by shareholders, rather than committing to pay long-term interest to debt holders	66.5	2.80	2.76	2.97	2.83	2.74	2.49	2.86**	2.85	2.55	2.51	2.86**	1.67	2.82**	2.76	3.21**
e)	we expect our credit rating to improve, so we borrow short-term until it does	53.2	2.49	2.54	2.25	2.48	2.50	2.43	2.50	2.43	2.79*	2.05	2.58***	1.33	2.51**	2.52	2.21
g)	we issue long-term debt to minimize the risk of having to refinance in "bad times"	46.3	2.33	1.53	1.61	1.47	1.70	1.86	1.48	1.51	1.76	1.73	1.51	2.67	1.53	1.54	1.63
f)	borrowing short-term reduces the chance that our firm will want to take on risky projects	19.7	1.55	2.31	2.42	2.31	2.37	2.09	2.38	2.35	2.21	2.32	2.33	2.33	2.33	2.35	2.11

## 5. Summary and Conclusions

Understanding on the real practices of these managers will lead to extremely important conclusions, i.e. whether capital structure theories (trade off theory and pecking order theory) that receive continuous debates and discussions among the academics for so many years are relevant in the Malaysian setting. One can also conclude whether, the arguments and claims by these theories successfully describe and consistent with the way that the Malaysian managers actually make corporate financing decisions, specifically in relation to the debt versus equity financing.

### 5.1. The Trade off Theory of Capital Structure

An important issue to be noted here is that: do Malaysian managers really engage in “trading off” activities in their efforts towards establishing a target debt ratio as well as maintaining the set targets, as stipulated by the trade off theory of capital structure? The survey result provides mixed support for the notion that firms does trade-off costs and benefits to derive an optimal debt ratio. From the responses, we can conclude that the Malaysian managers assign different emphasis and priorities in trading off the costs and benefits of debt financing. The survey analysis indicates that Malaysian managers weigh the need to avoid the potential costs associated with debt financing (i.e. bankruptcy and financial distress costs) as more important than experiencing the benefits from debt financing (i.e. interest tax shield). The enormous concern of Malaysian managers on the bankruptcy costs and agency costs found in this study is in contrast to the argument made by Miller (1977) who claims that bankruptcy costs and agency costs do indeed exist, but seem disproportionately small relative to the tax savings they are supposedly balancing. The Malaysian managers however, assign greater weight to the bankruptcy costs than the benefits of tax savings from debt issuance.

The high concern of Malaysian managers on the potential cost of bankruptcy and the volatility of earnings and cash flows is in line with the trade-off theory’s prediction that firms reduce debt usage when the probability of bankruptcy is high (Castanias 1983). This finding is also consistent with Hugonnier et al. (2011) that cash holdings represent essentially a risk management tool aimed at insuring the firm against potential losses. The study also suggests that cash holdings should be used to cover operating losses rather than to finance new investment, consistent with the large sample studies of Opler et al. (1999), Bates et al (2009) and with the survey of Lins et al. (2010). This proposition is evidenced by a survey of 1,050 CFOs by Campello et al. (2010) which indicates that the contraction in capital supply during the recent financial crisis led firms to burn through more cash to fund their operations and to bypass attractive investment opportunities. Interestingly, when firm characteristics are considered, survey result shows that the tax advantage is rated as important relatively by large firms with high level of leverage and with no target level of debt ratio. Hence, tax advantage in this case, is more important for firms without target debt ratio, which means that these firms are not actually trading off the cost and benefits of debt financing as what the theory says. They might increase their debt levels to enjoy the tax shield advantage, but not necessarily indicates that they are trading off the costs and benefits of debt in order to reach the optimum or target debt level, hence maximize their firms’ value.

Finding indicates that 73% of the Malaysian public firms sampled for this study are classified as low leverage firms. Apart from being classified as underleveraged firms (in line with Isa 2008) and having target debt ratio, this study indicates that Malaysian managers

disregard the tax benefits of debt issuance, hence raising a question on the applicability of the trade off theory of capital structure in describing the corporate financing practices of Malaysian managers. This issue however, can be related to a recent study by Blouin et al. (2010) who re-examine prior research that claims that many corporations fail to take full advantage of debt tax shields and therefore appear to be underlevered. By developing improved estimates of marginal tax rates using a non-parametric procedure that produces more accurate estimates of the distribution of future taxable income, Blouin et al. (2010) show that additional debt would provide firms with much smaller tax benefits. This suggests that many corporations are not as underlevered as previously thought. Further examinations indicate that the underlevered firms have difficult-to-measure non-debt tax shields that are not captured in researchers' estimates of taxable income. Thus, Blouin et al. (2010) argues that when the expected distress costs and non-debt tax shields are considered, most underlevered firms are likely to have tax-efficient capital structures. This argument provides room for further research and investigation on the benefits of debt tax shields claimed by the trade-off theory of capital structure.

## **5.2. The Pecking-Order Model of Financing Hierarchy**

The survey tests Malaysian managers on Pecking Order model of financing hierarchy. The survey finds that Malaysian managers rank financial flexibility as the most important factor in firms' debt financing decisions. This shows Malaysian managers stresses the need to preserve and increase internal fund to ensure its sufficiency to finance future projects. The importance this factor nevertheless is not driven by asymmetry of information as proposed by the theory. Instead there is evidence that large highly levered and dividend paying firms support the importance of restricting debt to ensure sufficient internal funds to finance future projects. This shows a support on static trade off theory. Mixed results appear on financial flexibility issue. In term of debt and equity issuance, the study finds that Malaysian managers issue debt followed by equity because recent profits have been insufficient to finance future projects, thus in support of financing preference as proposed by the theory.

In addition to the debt and equity issuance, firms are reluctant to issue debt and equity when they perceive the securities are undervalued. This finding is generally consistent with the pecking order theory. However, when further investigation on how equity undervaluation affects financing decision (debt or equity) is carried out, the support for pecking order model vanishes. For both equity and debt decisions in responding to equity underinvestment, survey shows that this issue is regarded as highly important by large, dividend-paying firms with target debt ratios. In general, these findings are not consistent with the pecking order idea that informationally induced equity undervaluation causes firms to avoid equity financing.

Overall, this study finds that the Malaysian managers' concern on the importance of (i) financial flexibility, (ii) sufficiency of internal funds and (iii) equity undervaluation is generally consistent with the pecking order model of financing hierarchy. However, the importance of these factors is not directly related to the notion of asymmetric information. The survey findings of this study contribute broadly to the corporate finance literature. This literature has generally tended to on two competing models to explain firms' financing decisions, i.e., the traditional trade off model, in which firms identify optimal leverage by weighing the costs and benefits of additional debt, and Myers' (1984) pecking order model, in which external financing decisions are driven by internal financial deficits.

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