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Capital Structure in Malaysian Government-Linked Companies (GLCs): Evidence from Panel Data Analysis

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ABSTRACT

In Malaysia, the existent of GLC is relatively new compared to developed economy and its operation is primarily based on commercial objective in which the government has a direct controlling stake. This paper examines the capital structure of 24 government-link companies (GLC) listed on the Bursa Malaysia from 2006 through 2011. Using random effects GLS regression estimation, the results successfully highlight the dominance of the firm size profitability, liquidity and growth on firm's leverage. Overall, the results suggest that firm-specific attributes are fundamentals in explaining Malaysia GLC capital structures. Notwithstanding, the general recognition that of firm-specific attributes has on capital structure, the other factors such as macroeconomics are also important and should not be excluded for future research.

KEYWORDS: GLCs, Capital Structure, Panel Data, Malaysia, Leverage.

INTRODUCTION

Capital structure decision is widely acknowledged to have a great impact on the overall performance of a firm and thus, becoming a very popular theme in the world of corporate finance. It brings a significant impact on the overall cost of capital and its weighted average leading to optimal financing mix leading to maximizing of stock market value. Any firms will have to face the challenges to make the best optimal decision on their financing structures. There are many theories and evidence on attaining optimal capital structure and whether it exists in the real world. Following the work of Modigliani-Miller (1958) (MM) who report that financing decisions is irrelevance since they do not affects firm cash flow and thus believes that investment decisions are independent. They have also shown that if there are no taxes or transaction costs, a firm's value depends solely on the level of risk and its future cash flows. Firms will therefore, be indifferent whether to use internal or external funds to finance its investment activities. In short, they belief capital structure decisions do not have any impact on firms' value. However, in [1] has different opinion. They argue that the assumption underlying the MM theory are not fulfilled and does not hold water. An optimal capital structure exists with its premise stem from the balancing between benefits and costs of debt financing. In fact, the interest payments for the debt financing are tax deductible or commonly known as 'tax shield' for a firm. Yet, there is still grey area with no specific guidelines to assist firms in attaining efficient financing structure. One may wonder whether calculated judgment plus some understanding of financial theory are possible tool to be applied in facilitating financing mix that can maximize the firm's market value.

The first and foremost objective of this study is to address the issue related to capital structure of a Government-Linked Companies (GLC) in an emerging market such as Malaysia. Much of the literature discusses the capital structure of public listed firms in developed nation. More generally, the GLC comprises a rather disparate group of companies and it is relatively new to emerging market. In fact, GLCs in Malaysia are operating primarily on commercial objective in which the government has a direct controlling stake. In particular, some firms survive on their own while others have to strongly depend on government assistance. Moreover, the government also has a controlling stake in major decisions in the GLCs such as contract awards, strategy, restructuring and financing, and acquisition and investment. It also has influences on the appointment of the board of directors and senior management positions. Nevertheless, some of the GLCs have been partially privatized and are now listed in Bursa Malaysia stock market. In addition, most GLCs companies are established from government privatization programs and thus contributes significantly to the overall economy by controlling more than one-third of the market capitalization [2]. Hence, the GLCs are an integral part of the Malaysian economic engine. Indeed, GLCs contribute very significant to the nation economy. They constitute 36% of the total market capitalization at Bursa Malaysia and contribute approximately 13% of domestic investment GDP [3]. Examples of GLCs that been call as G20

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include MBSB, MRCB, CIMB Group Bhd, MAHB, MAS, Pos Malaysia Bhd, Proton Holdings Bhd, Malaysia International Shipping Corp Bhd, Telekom Malaysia Bhd, Gamuda Bhd,TH Plantations Bhd, DRB-Hicom, Tenaga Nasional Bhd, Phamaniaga Bhd, Malayan Banking Bhd (MAYBANK), BIMB Holdings Bhd, MMC Corporation Bhd, CCM Bhd, Boustead Holdings Bhd, UMW Holdings Bhd, Petroleum Nasional Bhd, Affin Holdings Bhd and Sime Darby Bhd [3].

The organization of the paper is as follows. Section II reviews the related literature. Section III outlines the data and methodology employed. Section IV discusses the empirical results. Section V concludes with a recommendation for future studies.

LITERATURE REVIEW

The financial literature offers much study on the capital structure in many developed countries. In [4] for example, argue that large firms should be more highly leveraged. The reason is because cost of issuing debt and equity securities are related to firm size. In contradict , small firms tend to pay more than large firms. In [5] also find that the return rates are inversely proportional to debt, meaning that the larger the debt, the lower its profitability in both the service and manufacturing industries. Similar results reported by [6] who examine the relation between leverage and growth over a period of 20 years and find a strong negative relation. In [7] examine the effects of liquidation costs on capital structure formation using direct estimate of liquidation costs from information contained in bankruptcy reorganization plans and discover that liquidation costs are significantly negative with the proportions of both private and secured debt.

However, in [8] demonstrates a link between capital structure and firm liquidity and report opposite results. Based on unbalanced panel data set of listed UK firms for financial variables of non-financial firms, he finds evidence of significant positive relationship between long term leverage and liquid asset holding. In [9] extends the existing literature by examining the relation between asset liquidity and leverage for a broad sample of U.S public firms. He finds positive relation between liquidity and level of secured debt which is consistent with most of the previous studies.

In [10] shows large Chinese firms positive relationships between the sizes of the firm to total debt. However, the coefficient of size to long term debt is negative suggesting that large firms has a better access to capital markets for equity finance. In [11] investigates the choice of capital structure of financial services companies for two Chinese stock markets and finds that size has significant and positive relationship with total leverage.

DATA AND METHODS

Data

The sample data consists of 24 GLC listed on the Bursa Malaysia. The variables use are firm leverage, size, profitability, liquidity and growth for the period from 2006 through 2011, totalling 144 obtained from firm annual report and Bursa Malaysia Statistical online database retrieve from Osiris Databases. The descriptive statistics are shown in Table 1 which consists of mean, minimum, maximum and standard deviation.

Table 1: Descriptive statistics

Variable	Obs	Mean	Std. Dev	Min	Max
Leverage	144	.6444132	.1869344	.2234	.9984
Size	144	3.69e+07	7.34e+07	203206	4.12e+08
Profitability	144	736623	1127422	-2523988	4619800
Liquidity	144	1.240208	.7001673	.05	3.36
Growth	144	1.703819	2.032096	.32	23.6

Dependent variable consists of leverage obtained by using the firm's ratio of debt to total financing. The first independent variable is size measured by firm assets. The larger the firm size will intend to have higher leverage ratios than the small firm. The second independent variable is profitability. The third independent variable is liquidity consists of liquid asset holdings. The fourth independent variable is growth- a proxy of capital expenditure.

Panel Data Model

The present study applies the panel data technique which, are considered powerful as research tools. The panel data model specify in this study is of the following structure

$$y_{it} = x'_{it}\beta + z'_{it}a + \varepsilon_{it} \tag{1}$$

or

$$y_{it} = \sum_{j=1}^{N} \alpha_i d_{ij} + x_{it}\beta + \varepsilon_{it} \tag{2}$$

where

$$d_{ij} = \begin{cases} 1 & if \quad i = j \\ 0 & otherwise \end{cases} \tag{3}$$

which are used to capture the individual effects (either fixed or random). The y_{it} is the dependent variable of log Leverage (lnLEVERAGE) and the X_{it} represents four independent variables which are log size (lnSIZE), log profit (lnPROFIT), log liquidity (lnLIQUID), and log growth (InGROWTH)) where i, number of firms =1, 2,…..24, t, number of years = 1,2,……..6. The ε is the error term.

RESULTS AND DISCUSSION

Table 2: Random effects GLS regression results

Random-effects GLS regression				**Number of obs = 137**		
Group variable: code				**Number of groups = 24**		
R-sq: within = 0.2249				**Obs per group: min = 4**		
between = 0.6430				**avg = 5.7**		
overall = 0.5881				**max = 6**		
Random effects u_i ~ Gaussian				**Wald chi2(4) = 86.39**		
Corr (u_i, x) = 0 (assumed)				**Prob > chi2 = 0.0000**		
lnLEVERAGE	Coef.	Std. Err.	z	P > [z]	[95%Conf.Interval]	
lnSIZE	.1583965	.0252384	6.28	0.000	.1089301	.207863
lnPROFIT	-.1041672	.0228539	-4.56	0.000	-.1489599	-.0593744
lnLIQUID	-.0914749	.0303773	-3.01	0.003	-.1510133	-.0319364
lnGROWTH	.065073	.0325655	2.00	0.046	.0012458	.1289002
CONS	-1.751705	.2832828	-6.18	0.000	-2.306929	-1.196481
sigma_u	.11896494					
sigma_e	.10464197					
rho	.56379251	(fraction of variance due to u_i)				

From Table 2, three out of four independent variables was significant at 5% as the p-value for the each variable is less than 0.05. The result size of the firms is significantly positive supporting the trade-off theory. Larger firms turn out to be more diversified than smaller firms; therefore it is less prone to the risk of default. The results support the findings of [12], where the size is positively and significantly related to long term debt and negatively and significantly related to short term debt. This result implies that big companies borrow on long term basis while small ones are relatively sticking to short term borrowing. This is so because larger firms have the ability to reduce the unsystematic risk via diversification. However, our results contradict with [6], who mentions that size of the firms will be positive if in short term, but significantly negative for the long term.

As for the profitability, the result implies that GLC listed firms are less likely to finance their activities with debt as their profit increase. This is because the proportion of internal funds is substantially higher than external financing. Our results support the pecking theory that the firm prefers internal to external financing. It can be concluded that internally generated funds through higher profits increase the level of internal financing and therefore less debt financing. Although retained earnings is the most convenient source of financing, however, external financing is sometime occupied a leading position in GLC's companies.

The results of liquidity shows negative and significantly related to the ratio of the total debt firm, indicating that firms with high liquidity are using those cash to finance short term obligations as part of its long term investment [12]. Empirical evidence suggests that larger firms are more diversified and, hence are perceived to have low liquidity.

As for growth, we find positive and is significantly related to the leverage. It shows that for a company to grow, more capital investment in the form of debt is needed. Our study support the finding by [10] who mentions that with the high market capitalisation may suggest growth opportunities associated with the firms and have been recognised by the capital market. As such, banks have high regard and therefore are willing to assign higher valuations to highly levered firms and thus, will issue more long-term debt to finance the firms' growth opportunities. However, our results contrast with [6, 13], who find strong negative relation between leverage and growth for the firm.

CONCLUSION AND RECOMMENDATIONS

The capital structure theory has attracted long discussion in the corporate financial management. The basic question normally raised is what factors contribute a firm's optimal capital structure. While, most of the literature seeks the nature of relations between the capital structure and the firm specific characteristics in public or private companies, the present study focuses on the Malaysian government link companies-a company in which the government has a large interest in the form of direct controlling stake.

In this paper we have used panel data method to examine the capital structure of 24 government link companies listed on the Bursa Malaysia over the period 2006-2011. Previous studies have used either pooled data analysis or time series data but both methods have shortcoming. Using pooled data have limitation in that it is open to spurious regression arising from the OLS estimation bias while time series may yield unreliable results due to short time spans data sets. We have made used of the GLS regression of panel data method in favor of OLS of pooled since it is more efficient in dealing with problems of endogeneity of regressors. Moreover, GLC parameter estimation is more efficient. Four variables are used to determine the firms leverage. The results show that firm-specific attributes of Malaysia GLC such as size, profitability, liquidity and growth are significantly contributed in explaining the leverage.

An interesting extension to the present study is to look on its limitations and work progressively in the area. The present study focuses on the capital structure which is wholly explained only by firm-specific attributes. Whereas in real world, other important variables which is non-firm specific in natures such as macroeconomics factors are also important and shall be included in the analysis for future research.

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