

## Capital Structure and Impact of Debt Maturity Structure on Firms' Leverage Level in Malaysia

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**Abstract:** The main objective of a firm's manager is maximizing shareholders' wealth while trying to achieve optimum capital structure. Having too much of debts could increase the firm's risk level while it might help to take up good investment opportunities and bring in positive cash flow in future. On the other hand, holding low leverage level to maintain lower liquidity risk might cause the firm to sacrifice any great investment opportunity. This causing underinvestment and agency problem between the firm's managers and shareholders. Thus, various issues and factors need to be considered while deciding on a firm's capital structure and financing decisions. Firms debt maturity structure can affect the liquidity risk in a firm as well as the firm's borrowing power. Having too much short term debts will reduce the firm's borrowing power and causing a higher liquidity risk, whereby firm's managers need to ensure they have enough cash flow for debt repayments while the debt is due for payment in short term. Long term debts could reduce the liquidity risk but causing a higher cost to the firm. Thus, this study is to investigate the firms' capital structure while focusing on the impact of debt maturity on firm's leverage level together with other factors. Results indicated that firms in Malaysia are following pecking order theory whereby firms prefer to use internal funds compare to debts. The firms' debt maturity structure, tax shields, investment activities and firms size was found with significant positive impact on firms' leverage level. Conversely, firms' profitability, dividend payout ratio and economics conditions were found with significant negative impact on the firms' debt level. This paper provides a better understanding on the Malaysian firms' capital structure and guiding the firms' manager in managing firms' debt level and avoiding bankruptcy.

**Keywords:** Capital Structure, Debt Maturity Structure, Leverage, Equity, Financing, Tradeoff Theory, Pecking Order Theory.

### INTRODUCTION

The firms' objective is to maximize shareholders' wealth. Firms' managers always try to achieve an optimum capital structure where the combination of debts and equity are at the right proportion for the best outcome. Modigliani and Miller's [1] research argued that firm's financing and investment decisions are independent as market are frictionless. However, various issues and factors always a concern by the managers in making financing and investment decision. Those issues are such as how to obtain, achieve and maintain the optimum capital structure since the market is changing with many internal and external factors affecting the allocation of debt and equity. After considering various factors, managers came out with a target optimal capital structure, which will be used as a guide for raising funds in the near future. Target might change over time as conditions varies over time. Firms setting the target debt-to-value ratio and gradually moving towards it; believing that optimum capital structure can help in maximizing firms' value while minimizing risk and cost of capital.

Many researchers did not agree with MM Theory, as they believed the market is imperfect. Modigliani and Miller [2] were then came out the tradeoff theory, whereby firms preferred to issues debts up to the maximum amount they can. The interest charged on debts are tax-deductible expenses which helps to reduce the firms tax expenses as well as increases the firms value at the same time. Levered firm can enjoy higher firm value with tax shield compare with unlevered firm. It was believed to be able to reduce the cost of financial distress such as cost of bankruptcy or reorganization, and agency cost while increasing the firms' value. On the other hand, under pecking order theory, Myers

[3] claimed that firms preferred to use their internal financial resources first. When there are no internal financing resources available, issuing new debts will be considered and new equity will be the last resource. This is because too much equity can cause free cash flow and conflicts of interest between the managers and shareholders.

When firms need fund for business investment, equity and debts are the two major financing resources. Managers can issue new equity to the market or otherwise, they also can issue additional debt in the form of long term or short term loan, corporate bond or debentures instrument and so on. There are many factors that affect the decisions of the choice of debt, equity or combination of both to obtain funds. When firms decided on the use of debt financing, they are reallocating some expected future cash flows away from shareholders in exchange for current cash inflow. The managers' objectives are the same which is to maximize the firms' value and create wealth to the shareholders in the future. However, shareholders would require a higher rate of return as increases in the firms' risk of investment. Thus, the debt financing is always an important issue to be studied and discussed by researchers. Myers [4] stated that: "... There is no universal theory of capital structure, and no reason to expect one. There are useful conditional theories, however... Each factor could be dominant for some firms or in some circumstances, yet unimportant elsewhere". Thus, previous empirical research results may not be applicable to all countries around the world or it may show a different implication.

Debt maturity structure of the firms can affect the firms' borrowing power and firms' capability to pay back. The time period of debt agreement is important as firms have to forecast their ability of meeting the debts repayment in the future. For example, if the return of investment project can be generated in near future or there are enough free cash flow in near future; firms may consider short term borrowing as there is cost lower cost of debt compare to long term debts. The firms need to ensure that they have sufficient fund to pay back when the debt matured. Thus, the short term or long term debts maturity is important for firms' current and future investment decision and growth.

Firms tighten up by debt with longer maturity always opt to reduce the amount of new debt to be issues especially when they are already holding high level of debts. In fact, these firms will be charged with higher interest rate if they need to issue new debt due their high default risk. This increases the cost of debt as higher interest rate will be charged on the risky firms. Consequently, underinvestment problem may occur if firms are unable to issue new debt for financing new investment activities. These firms can only issue new debts if they adjust their debt maturity structure. Thus, lowering leverage level and holding short term debt were predicted to increase firms' investment activities.

Most of the countries in South East Asia and Asia Pacific was badly impacted by financial crisis in year 1997 and 2007. Due to the economy growth before crisis, firms were actively getting short term loan for good investment projects with the expectation of paying back the debts with incoming return from investment. However, this lead to overinvestment and high liquidity risk. These firms also unable to roll over their debts for longer maturity due to high default risk [5]. Short term debt is riskier and can create a larger debt overhang problems compared to the long term debt in the firms. Those firms which were unable to survive ended up with liquidation or buy over by others firms. These lead to high retrenchment and unemployment rate in the country. The equity markets in countries like Malaysia, Indonesia, Philippines tumbled as their currency plunged [6]. This shows that firms sustainability depends a lot on the of the firms' capital structure as well as the firms' debt maturity structure.

Although the debt and equity choice is commonly known as affected by the firm's characteristics, the empirical evidence is mixed and unclear. Limited studies have done on countries out of US or major developed countries. There are only a few papers analyzing international data from developing countries [7, 8]. Clark, Francis and Hassan [9] have studied on the speed of target capital adjustment in various develop and developing countries. They found some significant differences between developed and developing countries such as legal, institutional and other country level factors. There are higher expected bankruptcy costs, managerial agency costs and tax rates in developing countries. These are associated with adjustment speed and needs for financing purposes. Strong shareholder and creditor rights were found to be allied with faster adjustment speed in developing countries. Clark, Francis and Hassan [9] found negative impact of financial market development and tax rates in the developed countries. However, these factors were found to be positively affected the adjustment speed in developing counties.

The capital structure puzzle is always a complex issue with the different results found. Ooko [10] who critically looks into all the past researches and concluded that many researchers reported conflicting results and suggested that further investigation need to be done. Moreover, it is very likely that the patterns of firms' capital structure had changed over the years and decades. Raja and Zingales [8] found that the past research results done in developed countries are important in the study of others countries as well. These good understanding and literature on the relevant issues is required to identify the fundamental determinants of capital structure. Thus, it is crucial to examine the changes over time.

There are limited literature on the determinants of capital structure and the impact of debt maturity in Malaysia. This study was believed to be able to contribute into the literature and a clearer insight of the listed firms in Malaysia. The finding from this paper can provide firms’ managers, policy makers, investors and even the regulations makers an overview of the debts and equity structure of the countries’ listed companies. Furthermore, the firms’ managers can also compare themselves with the others firms/competitors in the industries to have a better financial management and avoid firms going for liquidation. If there is any over debts to equity ratios or abnormal debt maturity structure, managers may need to be cautions and necessary actions need to be taken. The investors can also gain more insights about debts structure and the effects on investment decisions in the particular industries. This can give them additional information for consideration before invest into the related industries or firms. For regulations makers, government or any related institution, they may make changes on the current regulations as to control of the debts market here as to avoid financial distress or high bankruptcy rate in the future especially when there is any crisis happened.

**RESEARCH METHODOLOGY**

Quantitative research method is used in this paper and data collected from the online database resources such as DataStream, companies’ website and the companies’ audited annual report. Listed companies in Malaysia was chosen to be investigated here. There are a total of 334 listed companies selected from the Malaysia stock market. The study period starting from year 2000 to year 2014 with a total of 4834 observations. This paper adopted Panel data analysis approach by using Stata to run the related analysis. Due to the differences in debt-equity ratio, accounting categories and operating activities, financial companies are excluded from the sample selection. Besides, these financial companies have a very different combination of debt and equity level; as well as unusual cash flow compare to others companies. This approach is similar to Rajan and Zingales [8] where financial companies are excluded from the sample size. A long list of variables will be used in this analysis to identify the explanatory variables of capital structure. Table-1 shows the variables used in this study with the proxies and measurements.

**Table-1: Variables used in the Panel Data Analysis**

Variables	Proxies	Measurements
Leverage	Debt ratio (L)	Total liabilities / equity
Debt maturity	Debt maturity (DM)	Long term debt / equity
Profitability	Return on assets (ROA)	Earnings before interest, taxes and depreciation / Total assets
Firm size	Total asset (TA)	Natural logarithm of the total assets
Growth opportunity	Market to book ratio (PB)	Price / Book value
Nature of assets	Tangibility (TANG)	Net value of property, plant and equipment / Total assets
Taxes shields	Taxes shields (TS)	(Net-operating loss carry forward + Depreciation + Interest expense) / Total assets
Dividend policy	Dividend payout ratio (DIV)	Dividend per share / earning per share
Cash flow	Cash flow (CF)	Operating profit before tax, interest, and preference dividends + depreciation of fixed assets / capital stock
Cost of debt	Interest expense (COD)	Interest expenses of the year
Investment decision	Investment Activities (INV)	Investments in fixed assets / Capital stock
Macroeconomic conditions	Consumer price index (CPI)	Consumer price index
Stock market conditions	FBM KLCI (Malaysia) and ASX (Australia)	Log of FBM KLCI (Malaysia) and log ASX (Australia)
Macroeconomic conditions	GDP (GDP)	Log of real gross domestic product
Macroeconomic conditions	Money supply (MS)	Log of money supply

**Determinants of Factors Affecting Firms’ Leverage Level**

Many researches had been done on the capital structure issue. However, due to the complexity and numerous observations, only some explanatory variables are selected to be in the capital structure model. Thus, those researches done are following the selected variables and omitted some others possible variables which could be applicable in the model in different market or countries [11]. This leads to specification bias and has unsatisfactory explanatory power in the model. Therefore, this study will first investigate the significant variables from the long list of possible variables to obtain unbiased and efficient estimators. The firms’ leverage is regressed against the list of explanatory variables in the regression model which form as followed:

$$L_{i,t} = \alpha_i + \beta_k ROA_{i,t} + \beta_k PB_{i,t} + \beta_k TANG_{i,t} + \beta_k TS_{i,t} + \beta_k DIV_{i,t} + \beta_k CF_{i,t} + \beta_k COD_{i,t} + \beta_k DM_{i,t} + \beta_k INV_{i,t} + \beta_k TA_{i,t} + \beta_k ECO_{i,t} + \epsilon_{i,t}$$

For  $i = 1, 2, 3, \dots, N$   
 $t = 1, 2, 3, \dots, T$

Where,

$L_{i,t}$  = leverage level of firm  $i$  at time  $t$ ,  
 $ROA_{i,t}$  = return on assets of firm  $i$  at time  $t$ ,  
 $PB_{i,t}$  = market to book ratio of firm  $i$  at time  $t$ ,  
 $TANG_{i,t}$  = asset tangibility of firm  $i$  at time  $t$ ,  
 $TS_{i,t}$  = taxes shields of firm  $i$  at time  $t$ ,  
 $DIV_{i,t}$  = dividend payout ratio of firm  $i$  at time  $t$ ,  
 $CF_{i,t}$  = cash flow of firm  $i$  at time  $t$ ,  
 $COD_{i,t}$  = interest expense of firm  $i$  at time  $t$ ,  
 $DM_{i,t}$  = debt maturity structure of firm  $i$  at time  $t$ ,  
 $INV_{i,t}$  = investment activities of firm  $i$  at time  $t$ ,  
 $TA_{i,t}$  = total asset of firm  $i$  at time  $t$ ,  
 $ECO_{i,t}$  = economic variable of country  $i$  at time  $t$ ,  
 $\beta_k$  = coefficient of the regression equation, and  
 $\epsilon_{i,t}$  = error term of the firms  $i$  at time  $t$ .

## RESULTS AND DISCUSSION

There are 334 listed companies selected as in the Malaysia sample size. The companies were selected based on the availability of companies' data from year 2000 to year 2014. The final sample consists of 4,833 firm-year observations. The outliers were winsorized from the data to prevent misleading results.

Table-2 shows the correlation among all the variables used in the regression model. As expected, the four economic variables measuring the market condition are highly correlated. KLCI, GDP and MS values have been converted to log data as they are large numbers. The CPI, KLCI, GDP, and MS have been used separately as one of the independent variables in the panel data analysis model to ensure no multi-collinearity issues. Other than the economic variables, the highest correlation here is between cash flow and return on asset at 0.7499 followed by 0.6088 between total asset and cost of debt. There is no strong correlation of more than 0.9 among all the variables. Overall, there is no high correlation and multi-collinearity should not be happened in this study. However, variance inflation factor (VIF) will be tested later to ensure no multi-collinearity problem in the models.

Table-3 shows the results from the pool OLS, random effect and fixed effect models on the determinants of factors affecting firms' leverage level. Pool OLS and VIF was first tested and result shows there is no multi-collinearity problem with a mean VIF at 1.66 (<5). Then both random effect and fixed effect models were tested. Breusch-Pagan Lagrange multiplier (LM) result shows that the random effect is preferred with a large chi-squared of 2119.79 (p-value = 0.000) compared to pool OLS. Hausman test result shows at 72.33 (p-value = 0.000) and suggested to reject the null hypothesis that the differences in coefficients are not systematic. Thus, the fixed effect model is accepted with F-test of 43.62 (p-value = 0.000). The regression model is significant with  $R^2$  value of 0.6922. This implies that 69.22% of the variance in firms' leverage level can be explained by the independent variables. The standard error estimates are robust to disturbances of heteroscedasticity and autocorrelation.

Firms' debt maturity shows significant positive relationship with leverage level at a coefficient of 0.7952 and p-value of 0.000 (t-value = 11.90). This indicated that firms with high short term debts facing higher liquidity risk and tend to reduce their debt level to reduce their risk. These finding supported Diamond's [12] and Johnson's [13] argument where firms with more long term debts are tend to have higher leverage level. This is because these firms have lower liquidity risk in short term and they are able to pay back for the debt in longer time period [14, 15]. Thus, these firms do not have the intention to reduce their debt. Big firms with huge amount of assets have low bankruptcy problem since the assets can be liquidized for cash. The result shows that firms' size has significant positive impact on the firms' debt level with coefficient of 13.6454 at p-value equals to 0.000. These firms tend to have higher debt as there is lower default risk in the firms [16, 17].

**Table-2: Correlation among all the variables for Malaysian sample firms**

	Debt ratio	Return on asset	Price per book value	Tangibility	Taxes shields	Dividend payout ratio	Cash flow	Cost of debt	Debt maturity	Investment	Total asset	CPI	KLCI	GDP	MS
Debt ratio	1.0000														
Return on asset	-0.1572	1.0000													
Price per book value	-0.0213	0.2641	1.0000												
Tangibility	0.0656	-0.1232	-0.1224	1.0000											
Tax shields	0.2736	-0.1529	0.0664	0.3723	1.0000										
Dividend payout ratio	-0.1744	0.2508	0.1769	-0.0504	-0.0913	1.0000									
Cash flow	0.0859	0.7499	0.2528	-0.0470	0.1165	0.1829	1.0000								
Cost of debt	0.2411	0.0249	0.0403	0.0175	0.0296	-0.0331	0.0998	1.0000							
Debt maturity	0.5982	-0.0679	0.0718	0.0836	0.1250	-0.1212	0.1127	0.3318	1.0000						
Investment	0.1688	0.1059	0.1666	0.1999	0.2808	0.0554	0.2299	0.0584	0.1320	1.0000					
Total asset	0.1435	0.2165	0.1031	0.0190	-0.2237	0.1396	0.1815	0.6088	0.2697	0.1169	1.0000				
CPI	-0.0836	0.0412	-0.0900	-0.1908	-0.1643	-0.0108	0.0014	-0.0340	-0.0780	-0.0484	0.0347	1.0000			
KLCI	-0.0747	0.0507	-0.0434	-0.1740	-0.1497	-0.0022	0.0117	-0.0323	-0.0711	-0.0473	0.0369	0.8922	1.0000		
GDP	-0.0717	0.0396	-0.0981	-0.1992	-0.1612	-0.0082	0.0073	-0.0435	-0.0729	-0.0477	0.0243	0.9813	0.8864	1.0000	
MS	-0.0740	0.0421	-0.0935	-0.1952	-0.1620	-0.0091	0.0068	-0.0399	-0.0738	-0.0471	0.0297	0.9868	0.9168	0.9936	1.0000

**Table-3: Factors affecting firms leverage level in Malaysia from year 2000 to year 2014**

Variable	Pooled OLS	Random Effect Model	Fixed Effect Model
Return on asset	-1.9545 [-10.03] (0.000)*	-1.2223 [-6.88] (0.000)*	-0.9762 [-2.49] (0.013)**
Debt maturity	0.9108 [36.77] (0.000)*	0.8402 [34.99] (0.000)*	0.7952 [11.90] (0.000)*
Price per book value	-6.1600 [-5.48] (0.000)*	-3.0085 [-2.40] (0.017)**	-2.0443 [-0.82] (0.412)
Tangibility	-0.2944 [-6.74] (0.000)*	-0.1305 [-2.50] (0.012)**	-0.0515 [-0.53] (0.597)
Tax shields	4.7171 [11.76] (0.000)*	5.3329 [11.62] (0.000)*	5.4914 [6.90] (0.000)*
Dividend payout ratio	-0.1352 [-5.79] (0.000)*	-0.0805 [-3.65] (0.003)*	-0.0622 [-2.75] (0.006)*
Cash flow	0.6213 [7.97] (0.000)*	0.2859 [4.12] (0.000)*	0.1936 [1.09] (0.276)
Cost of debt	0.0180 [0.46] (0.643)	0.0233 [0.51] (0.607)	-0.0022 [-0.01] (0.989)
Investment activities	0.4970 [4.27] (0.000)*	0.3691 [3.42] (0.001)*	0.3175 [2.38] (0.018)**
Total asset	3.2747 [4.00] (0.000)*	6.2541 [4.98] (0.000)*	13.6454 [3.95] (0.000)*
GDP	-3.8523 [-1.74] (0.081)***	-5.9730 [-3.12] (0.002)*	-9.6226 [-2.92] (0.004)*
Constant	62.1361 [2.07] (0.039)**	65.0681 [2.51] (0.012)**	66.1638 [1.69] (0.092)***
F-test (model)	254.88 (0.000)*	2139.27 (0.000)*	43.62 (0.000)*
R <sup>2</sup>	0.4390	0.4250	0.6922
Adjusted R <sup>2</sup>	0.4373		0.6602
Number of observation	3595	3595	3595

Pooled OLS, Random effect and Fixed effect model has been ran using debt ratio as the dependent variable and other variables as independent variables.

t-values are in square brackets; P-values are in parentheses.

\*, \*\*, and \*\*\* denote statistical significance at 1%, 5% and 10% levels, respectively.

The fixed effect model indicated a statistically significant but negative relationship between firms' return on asset and debt ratio. The coefficient for return on asset is -0.9762 with a p-value of 0.013. This shows that the Malaysian firms are following the pecking order theory where firms with higher profitability would have a lower debt level. The result supported Titman and Wessels [18] findings where firms' earnings could contribute to internal fund and reducing the companies' leverage by debt repayment or not creating new debts. Profitable firms are normally with lower financial constraint. These firms would prefer less leveraged and using their internal fund for any firms' investment and dividend payment [19-21].

**Table-4: Factors affecting firms leverage level using different macroeconomic variables from year 2000 to year 2014.**

Variable	GDP	CPI	KLCI	MS
Return on asset	-0.9762 [-2.49] (0.013)**	-0.9636 [-2.47] (0.014)**	-0.9650 [-2.47] (0.014)**	-0.9710 [-2.48] (0.014)**
Debt maturity	0.7952 [11.90] (0.000)*	0.7908 [11.81] (0.000)*	0.7946 [11.86] (0.000)*	0.7942 [11.88] (0.000)*
Price per book value	-2.0443 [-0.82] (0.412)	-2.0430 [-0.82] (0.411)	-1.3879 [-0.56] (0.576)	-2.0057 [-0.81] (0.420)
Tangibility	-0.0515 [-0.53] (0.597)	-0.0578 [-0.60] (0.551)	-0.0410 [-0.42] (0.672)	-0.0522 [-0.54] (0.592)
Tax shields	5.4914 [6.90] (0.000)*	5.4157 [6.84] (0.000)*	5.5246 [6.93] (0.000)*	5.4776 [6.89] (0.000)*
Dividend payout ratio	-0.0622 [-2.75] (0.006)*	-0.0631 [-2.79] (0.006)*	-0.0621 [-2.73] (0.007)*	-0.0625 [-2.76] (0.006)*
Cash flow	0.1936 [1.09] (0.276)	0.1861 [1.06] (0.291)	0.1897 [1.07] (0.283)	0.1915 [1.08] (0.280)
Cost of debt	-0.0022 [-0.01] (0.989)	0.0001 [0.00] (0.999)	-0.0009 [-0.01] (0.995)	-0.0020 [0.01] (0.990)
Investment activities	0.3175 [2.38] (0.018)**	0.3161 [2.38] (0.018)**	0.3082 [2.31] (0.022)**	0.3170 [2.38] (0.018)**
Total asset	13.6454 [3.95] (0.000)*	14.2241 [4.09] (0.000)*	13.3668 [3.96] (0.000)*	13.7873 [3.98] (0.000)*
GDP	-9.6226 [-2.92] (0.004)*			
CPI		-0.4605 [-3.43] (0.007)*		
KLCI			-9.9014 [-3.07] (0.002)*	
MS				-7.5789 [-2.99] (0.003)*
Constant	66.1638 [1.69] (0.092)***	-21.8874 [-1.17] (0.245)	7.9213 [0.35] (0.7295)	39.6192 [1.29] (0.1995)
F-test (model)	43.62 (0.000)*	44.21 (0.000)*	44.99 (0.000)*	43.79 (0.000)*
R <sup>2</sup>	0.6922	0.6931	0.6923	0.6924
Adjusted R <sup>2</sup>	0.6602	0.6611	0.6603	0.6604
Number of observation	3595	3595	3595	3595

t-values are in square brackets; P-values are in parentheses.

\*, \*\*, and \*\*\* denote statistical significance at 1%, 5% and 10% levels, respectively.

Both firms' tax shield and investment activities was found to be significantly affecting the firms leverage level with coefficient of 5.4914 (p-value = 0.00) and 0.3175 (p-value = 0.018) respectively. Firms are taking the advantages of higher interest tax shield value by increasing their leverage level [2]. These firms enjoy the benefit of lower tax payment

if they need to pay interest on debts in the firms. On the other hand, the result also shows that increase in investment activities causes higher firms' leverage level whereby the Malaysian companies are financing their investment activities using external funds while inadequate internal funds available. With the high tax shield and high investment activities, Malaysian firms are taking the opportunity of tax reduction benefit while financing their investment activities using debts.

Firms' dividend payout was found with significant negative relationship with firms' debt ratio, reporting a coefficient of -0.0622 and p-value of 0.006 with t-value at -2.75. According to the pecking order theory, firms prefer to use internal funds compare to external funds. Thus, the result shows the tendency of Malaysian firms are not using external funds but internal funds for dividend payment. The GDP was found to have significant negative impact on the firms' leverage and carries a coefficient at -9.6226 and p-value at 0.004. When a unit increases in the GDP, the firms leverage level will decrease 9.6226 unit. Firms are performing well during economic growth and internal funds was generated from their business operation. Thus, the Malaysian firms are following pecking order theory whereby internal funds generated during growth period are used for debts repayment or new investment opportunities without obtaining new debts.

Some argument show that firms will reduce their leverage level while the cost of debt is too high. However, the result here doesn't show this. The cost of debt was found no significant relationship with the firms' leverage. This can be explained that Malaysian firms leverage is depending more on their firm size, debt maturity and availability of internal fund as well as the investment opportunity. When a firm has strong reason of acquiring new debts for good investment or return in future, high cost of debt will not stop the firm in issuing new debts. Furthermore, no significant relationship was found between debt ration with market to book ratio. This outcome supported Titman and Wessels [18] finding whereby no significant impact from firms' growth opportunity to the firm's debt level.

According to Clark, Francis, and Hasan [9], country level factors like country growth rate and others have a significant impact on firm's capital structure decision. Table 4 has subsequently displayed the fixed effect results of factors affecting firm's leverage level using different economic variables, namely CPI, KLCI, GDP and MS. The results have shown that all the four economic variables have significant negative relationship with the firm's leverage level, whereas all the four models have yielded almost identical results. This has indicated that Malaysian firms are following the pecking order theory; whereby internal funds are utilized for their businesses when the market is strong. Similarly, the debt maturity was found with significant positive impact on the firms' debt level across all the different economic variables used in the four models. This concluded that firms with more long term debts tends to borrow more due to the lower liquidity risk and default risk in short term.

## CONCLUSION

This study found that Malaysian firms are following the pecking order theory where profitable firms would have lower debts as internal funds is used first before obtaining new debts. High investment can cause higher leverage in the firms. This is understandable where firms increase their debt in order to fund for investment activities. Firms with more short term debts tend to have lower leverage level. This is because these firms are facing higher liquidity risk and less borrowing power. Thus, these firms are unable to issue more debts or trying to keep lower debt level to avoid default risk. Firms' debt maturity structure decision is important as bankruptcy could happen if the firm unable to pay back on maturity. Firm size does affects the firm leverage level as larger firm size reflected a stronger ability in paying back the debts. Macroeconomic variables provide the same negative impact on the firms' leverage level. This is because business operations are able to generate more internal funds during economic growth. With the strong impact of debt maturity structure found here, using a more details debt maturity structure in future study is recommended here. This paper only considers the total long term debts in firm's financial statement which is the total debts with maturity longer than one year. The future study could use a more details debt maturity term period by segregating long term debts into 2 years, 4 years, 5 years and so on in the investigation for a better understanding on the topic.

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