

## Debt and Financial Performance of REITs in Malaysia: A Moderating Effect of Financial Flexibility

*(Pembiayaan Hutang dan Prestasi Kewangan REITs di Malaysia: Kesan Penyederhanaan Keanjalan Kewangan)*

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### ABSTRACT

*The use of debt by REITs entity seems to be a puzzle in numerous REITs literature, as REITs are tax-exempted business entities. The trade-off theory implies that the financing strategy of using debt provides no value in a REIT entity with a marginal tax rate of zero. However, high dividend pay-out requirement has limit REITs' ability to retain its internal earnings, thus require REITs to use debt to undertake its growth strategies. This study aims to investigate the great curiosity about the debt financing decision of REITs in Malaysia (MREITs) at all given no tax shield benefit and to examine the moderating effect of financial flexibility in a relationship between debt financing and the financial performance. Using the unbalanced panel data from all MREITs for the time period between 2005 and 2014, the results of this study are consistent with the pecking order theory in explaining the MREITs debt financing decision but are less supportive of the trade-off theory on tax benefits and agency theory of free cash flow on disciplinary tools. This suggests that MREITs use debt to support the growth needs than tax motives and the high dividend pay-out requirement behaves as a "disciplinary tool," not through the use of debt. The findings also reveal that financial flexibility plays an important role to alter the negative relationship between debt financing and financial performance to positive relationship. This study serves as a useful guide for MREITs' managers in managing financial flexibility as it has important moderating effects on the relationship between debt financing and financial performance.*

*Keywords: REITs; financial flexibility; financial performance; debt; moderating*

### ABSTRAK

*Kajian lepas menyatakan bahawa penggunaan hutang oleh entiti REITs adalah tidak wajar dan kelihatan kabur kerana REITs adalah entiti perniagaan yang mempunyai status pengecualian cukai. Teori Pengimbangan menunjukkan bahawa strategi pembiayaan dengan menggunakan hutang tidak memberikan sebarang penambahan nilai bagi entiti REITs yang mempunyai kadar cukai marginal bernilai sifar. Walau bagaimanapun, keperluan pembayaran dividen yang tinggi sebagaimana yang telah ditetapkan menjadi kekangan terhadap keupayaan REITs untuk mengekalkan pendapatan dalaman dan perlu menggunakan pembiayaan hutang untuk melaksanakan strategi pertumbuhan. Matlamat kajian ini adalah untuk menyelidik faktor penentu pembiayaan hutang oleh entiti REITs yang tidak mempunyai faedah cukai dari penggunaan pembiayaan hutang di Malaysia (MREITs) dan menyelidik kesan penyederhanaan keanjalan kewangan terhadap hubungan antara pembiayaan hutang dan prestasi kewangan. Dengan menggunakan data panel terkumpul tak seimbang daripada kesemua MREITs bagi tempoh dari tahun 2005 hingga 2014, penemuan kajian ini adalah konsisten dengan teori susunan pilihan dalam menjelaskan faktor penentu pembiayaan hutang oleh MREITs, tetapi kurang sokongan diberi oleh teori pengimbangan dan teori agensi. Ini menunjukkan bahawa penggunaan hutang bank adalah untuk membiayai keperluan pertumbuhan, bukan bermotifkan faedah cukai dan pembayaran mandatori dividen yang tinggi adalah bertindak sebagai "alat disiplin," tidak melalui penggunaan hutang. Hasil kajian juga mendapati bahawa keanjalan kewangan menyederhanakan hubungan antara pembiayaan hutang dan prestasi kewangan secara positif. Penemuan yang diperolehi daripada kajian ini menyediakan panduan yang berguna kepada pengurus MREITs untuk mengurus keanjalan kewangan kerana ia memberi kesan yang penting untuk menyederhanakan hubungan antara pembiayaan hutang dan prestasi kewangan.*

*Kata kunci: REITs; keanjalan kewangan; prestasi kewangan; pembiayaan hutang; penyederhanaan*

## INTRODUCTION

“*Financing decisions are a mystery*” (Welch 2004). They have favorable effects in creating and reinventing successes, as well as having detrimental effects that may lead to a firm’s failure; the higher use of debt increases the potential risk of financial distress (Myers & Majluf 1984; Abdullah, Md Rus & Ahmad 2009; Alifiah 2014) and destroys a firm’s future investment opportunity (Diamond & He 2014; Titman, Twite & Sun 2014), especially during the adverse market condition.

Based on the current regulation, REITs, particularly in Malaysia (MREITs), must distribute 90% or more of their income in form of dividends and they are not obligated to pay taxes at the corporate level. Furthermore, the MREITs’ debt ratio is restricted to 50% of its total asset on top of the limited internal funding, leaving them with a maximum of ten percent (10%) of their income to support their investment growth needs. Thus, MREITs are required to rely on external funding to raise fund and preserve liquidity. However, if MREITs choose debt as a source of external funding, there seem to be no incentive to borrow as they are not required to pay taxes at the corporate level. Despite the absence of tax shield benefits, some of the MREITs has already utilized the permitted gearing limits of 50% of total asset value, and this will limit their debt capacity for future new acquisition opportunity. For instance, the debt ratio of MREITs in 2014 ranged between 14% to 55% (Compilation from all MREITs’ annual report 2014). Consequently, REITs with higher debt ratio may harm their financial performance (Chan, Erickson & Wang 2003; Titman et al. 2014).

In this regard, the quest for financial flexibility has become crucial and challenging for REITs (Campbell et al. 2008), and turns out to be an important element of firm’s performance (Arslan-Ayaydin, Florackis & Ozkan 2014), as well as REITs. Moreover, financial flexibility has also been claimed as one of the key factors in financing decision (Graham & Harvey 2001; Bancel & Mittoo 2004; DeAngelo, DeAngelo & Whited 2011; Byoun 2011; Denis & McKeon 2012; Mat Nor et al. 2012).

Previous studies in developed countries demonstrate opposing theories in explaining debt financing behavior in the REIT industry. For instance, some studies concluded that REITs financing decisions follow the pecking order theory (Feng, Ghosh & Sirmans 2007; Morri & Beretta 2008), while Morri and Cristanziani (2009) found that REITs financing decision fully support the trade-off theory, and Ertugrul and Giambona (2010) showed partial support for pecking order theory and trade-off theory. Clark (2010) argued that many previous studies and theoretical models, such as the pecking order and trade-off models, have not been able to explain the companies’ funding decisions in practice, because they overlooked the value of financial flexibility which creates an opportunity to enhance their performances (Arslan-Ayaydin et al. 2014). However, the unique self-regulated framework has put a constraint on REITs to build-up cash in form of retained

earnings (Riddiough & Wu 2009; Hardin et al. 2009), this results in the crucial quest for financial flexibility for REITs (Campbell et al. 2008). REIT’s self-regulatory and its framework are capital intensive in nature, where the high cost of asset acquisition, limited internal earnings retention, slow capital appreciation (Gelter et al. 2007), low volatility in returns (Block 2006; Imperiale 2006; Morri & Beretta 2008) and the cyclicity of the REITs real estate market indicate the greater need for REITs to have financial flexibility<sup>1</sup> for their survival.

Thus, the main objective of this study is to examine debt financing decision among MREITs given the wide range of debt ratio in MREITs. This will further provide ideas on factors that are related to the debt financing decision and the drivers for these decisions. Numerous previous studies on corporate finance claimed that financial flexibility play an important role in financing decisions (see example, Graham & Harvey 2001; Bancel & Mittoo 2004; DeAngelo et al. 2011; Byoun 2011; Denis & McKeon 2012; Mat Nor et al. (2012), This is because financial flexibility allows firms to act, and provide them with staying power, making it an important element of firm’s performance (Arslan-Ayaydin et al. 2014). However, what is not yet to be clear is the role of financial flexibility as a moderating variable in the relationship between debt financing and financial performance. This study predicts that financial flexibility, in the form of lower debt and higher liquidity, has an important role that moderates the relationship between debt financing and financial performance of MREITs. The findings of this study may assist MREITs manager to strategize their debt financing decision through preserving financial flexibility. Studying the moderating effect of financial flexibility on the relationship between debt financing and financial performance may enrich the existing theories on financing decision.

The next section presents a review of the main literature, followed by a discussion on the model of the study, the description of the data, discussion of the result and conclusion.

## LITERATURE REVIEW

### FINANCING DECISION THEORY AND REITs’ BUSINESS FRAMEWORK

One of the focuses of this study is to identify the reason for MREITs’ use of debt financing, despite the no tax shield benefits of borrowing. The interest paid from borrowing would supposedly attract tax relief, and result in the effective financing charges enjoyed by firms. Intuitively, it appears that the prescription under the trade-off theory (Kraus & Litzebnerger 1973) posits that all REITs markets should have a low debt ratio that sees interest payment deduction for tax saving purposes as the principal incentive for a firm to use debt. As reported by Harrison, Ranasian and Seiler (2011), REITs tax-exempt

status requires it to distribute 90% of its taxable income to shareholders as dividends. Thus, the prescription under the trade-off theory of a tax based motivation of using debt may seem less applicable for REITs business framework. The tax saving benefits on debt interest payments clearly provide more value for firms with high corporate tax rates. In contrast, REITs are tax exempted at the corporate level and inherently, the use of debt may lead to the negative consequences, and expose them to potential bankruptcy costs, for two reasons; first, REITs underlying assets are heavily reliance on real property and its performance will be directly linked to the strong cyclical behaviour of the property market (Chan et al. 2003; Ong et al. 2012). As like other stock markets, periods of high growth followed by significant downturns are also common in the property market. Second, most REITs typically have high levels of fixed operating leverage (Chan et al. 2003), hence, adding financial leverage onto the existing high levels of operating leverage could further reduce the earnings and cash flows of REITs. As pointed out by Howe and Shilling (1988), REITs are not encouraged to use debt because they need to compete with other firms with tax deductible interest payments in the debt market. Furthermore, debt financing by REITs entities would be relatively costly. These arguments naturally lead to the expectation that REITs should maintain a minimal debt level, however, numerous empirical evidence on the REITs' financing decision, tells us that they do not. Many REITs are found to use debt and their debt levels are no less than those used by other industries (see examples, Howe & Shilling 1988; Ghosh, Nag & Sirmans 2001; Feng et al. 2007; Morri & Beretta 2008; Giambona 2014). This indicates the decision to use of debt in the REITs market is not driven by the prescription under trade-off theory that focuses on tax benefits considerations. In this regard, there should be other reasons for REITs to use debt, other than tax motives.

The fundamental constituent in the pecking order theory which was developed by Myers and Majluf (1984) is that the managers of topmost firms prefer to utilize internal funding whenever possible, followed by debt as a second choice and, finally, through the issue of new equity. However, as REITs are obligated by regulations to hold little retained earnings on their balance sheets, REITs use debt to avoid adverse selection cost and negative signaling effects of equity issuance. By using debt instead of equity, the market may interpret the use of debt as a signal of an undervalued share price, as in general, a firm issues equity when the share price is overvalued. Nevertheless, empirical evidence has shown that the use of debt by REITs entities is to facilitate in acquiring new real property and to obtain liquidity flexibility (Campbell et al. 2008; Hardin & Wu 2010). Furthermore, this theory predicts that firms with high profit tend to have lowest debt ratios. The rationale for this is that not because these firms have low target debt ratio, but it is because they have sufficient internal funding to cater their capital needs, thus, they are less reliant on external funding. As Ghosh, Nag and

Sirmans (1997) and Ghosh and Sun (2014) contended, it is the obligation for REITs to pay out most of their earnings as a dividend to shareholders, permits REITs with inadequate financial slacks. In this regard, low free cash flows indicate whether the REITs is generating high or low profit, whenever additional fund is required to support a REITs' growth, REITs has to use external funding (debt financing). This will drive REITs to use high debt ratio (Feng et al. 2007; Morri & Cristanziani 2009). In this light, the external funds raised through debt financing may not indicate that a REIT entity is less profitable, but the use of debt are to expedite in purchasing new real property and to fund their operations. Specifically, the REITs industry may seem to follow the pecking order theory, and based on the argument above, this research postulates that the growth in property investment, profitability, liquidity, internal cash constraint, drives MREITs to use debt financing.

The agency cost theory of free cash flow premise (Jensen & Meckling 1986) indicates that firms with large cash flow have a more crucial requirement "*for the disciplining effect of debt payments to prevent managerial squandering.*" Jensen and Meckling (1986) proposed that the problem of agency costs of external equity can be mitigated through the use of debt financing. The burden of having to make a regular debt payments will reduce the level of cash flow available for the consumption of the managers. However, the effects of the disciplinary role will be less significant if firms have limited or no free cash flow. This can reduce the likelihood for managers to a wasteful expenditure, thus, the pressure for these firms in form of wasteful expenditure is not critical. Moreover, the effect of agency cost as a disciplinary tool may be less important for firms with highly regulated that have strong protection for investors like REITs. This tells us that inherently, the mandated high dividend pay-out will become an integrated disciplinary tool in a REITs (Feng et al. 2007; Ghosh et al. 2012; Ghosh & Sun (2014). Based on the above argument, this research postulates that dividend pay-out acts as a disciplinary tool, as prescribed by the agency theory of free cash flow in the REITs context.

#### DEBT AND FINANCIAL PERFORMANCE

Obviously, the trade-off theory posits that all REITs markets should have a low debt ratio that sees the deductibility of interest payments for tax purposes, as the principal incentive of a firm to use debt. Thus, it is worthwhile to consider that REITs will be at a comparative disadvantage of using debt financing because they have to pay the same interest rate as tax-paying firms (Howe & Shilling 1988; Chan et al. 2003). This incurs higher borrowing cost, which in turn, affects REITs financial performance and the amount available to the shareholders. This indicates that the decision to choose debt as an external financing alternative in REITs entities may detriment a certain amount of future cash flow, while for REITs with a marginal tax rate of zero, the debt financing may substantially increase in the cost of borrowing (Chan et al. 2003; Titman et al.

2014). Previous studies on REITs such as Oppenheimer (2000) and Titman et al. (2014) argued that the use of high debt by REITs entity has led to a substantial reduction in the dividend pay-out ratio and interest coverage ratios. In this regard, higher debts contribute to higher exposure to financial distress and subsequently enlarging the REITs' share price decline, especially during a financial crisis.

#### FINANCIAL FLEXIBILITY AND FINANCIAL PERFORMANCE

In general terms, financial flexibility is typically denoted as the accumulation of cash volume that firms hold over time. Thus, firms have financial flexibility if, during times of need, it has options for obtaining cash (liquidity) and thereby, avoiding a payment default. Firms that are financially flexible are characterized by having high cash levels and/or low debt ratios (Lie 2005), this shows that the accumulation of cash can develop potential sources of firm's financial flexibility (DeAngelon et al. 2007). Duchin et al. (2010) hypothesized that "*excess in cash holding enable firms to be more financially flexible,*" especially during the crisis as it allows firms to fund their investment growth and to prevent financial distress and default, meanwhile, Arslan et al. (2010, 2014) indicated that compared to adopting a conservative leverage policy which is regarded as the primary elements that promote firms to attain their financial flexibility, holding substantial cash balances does not certainly build up the firm's financial flexibility. Moreover, while it might be difficult to observe and quantify financial flexibility (Bancel & Mittoo 2011), most researchers have shown financial flexibility could be attained through having higher cash level and lower debt ratios. As such, this study uses the aforementioned definition of financial flexibility as the which consists of both debt and liquidity level; this definition is similar to Lie (2005) and Arslan-Ayaydin et al. (2010, 2014) which defined financial flexibility as having high cash levels and/or low debt ratios.

The importance of financial flexibility in financing choice had emerged in surveys by Graham and Harvey (2001) and Bancel and Mittoo (2004) that came out with similar findings that specify financial flexibility as the key issue in determining the financing choice. This implies that in practice, the managers do not think only in term of trade-off or a pecking order in financing decision. Rather, they are concerned with how their financing decisions will influence the practical issues that they must deal with when managing the business. A study carried out by DeAngelo and DeAngelo (2007) also found that although financial flexibility has its own importance, even though the financing decision is governed by the traditional variables, and explanatory theories, like the trade-off theory and pecking order theory. Accordingly, companies can seek financial flexibility by using both debt and liquidity levels. Consistent with the notions in DeAngelo and DeAngelo (2007), Clark (2010) also claimed that previous empirical study and the traditional theory of financing decision (pecking order or trade-off theory)

are unable to explain the funding decisions in practice because they do not take into account the management concern for financial flexibility. Clark found that there is a negative relationship between the marginal value of financial flexibility and leverage. The traditional variables for financing decision seem to be less significant compared financial flexibility when making financing choices. The importance of the financial flexibility in financing decision has also been exemplified in a later study by DeAngelo et al. (2011), Byoun (2011), Denis and McKeon (2012).

Marchica and Mura (2010), provided an evidence that companies that manage their conservative debt policy will have higher tendency to maintain higher financial flexibility. Thus, they will have more ability to take any opportunity to take in future investments. This view is consistent with the earlier study by Acharya, Almeida and Campello (2007) that highlighted while higher cash holding is observed to protect firms' income shortfalls to undertake future investment opportunities, however, having a lower debt ratio indeed has an important role in optimizing the firms' future investment growth. Similarly, Arslan-Ayaydin et al. (2014), also indicated that companies with substantial cash and adopt leverage policy conservatively will have better performance as they are able to take investment opportunity when the time of needs. As such, firms that have financial flexibility are seen to be in a superior position as financial flexibility can create opportunities for firms to act and in turn, provide them with more staying power (Childs, Mauer & Ott 2005; DeAngelo & DeAngelo 2007; Gamba & Triantis 2008; Byoun 2011; Arslan-Ayaydin et al. 2010, 2014). This, becomes a key factor for firm performance (Gamba & Triantis 2008; Marchica & Mura 2010; Arslan-Ayaydin et al. 2014).

Overall, the evidence presented in this section suggests that financial flexibility acts as an essential element in financing decision and has some influence on firm financial performance. This is because a firm with substantial financial flexibility will be able to take more future investment opportunities when they arise. Thus, it is logical to predict that the financial flexibility serves to moderate the relationships between debt financing and financial performance because a higher level of financial flexibility allows firms to fund their investment growth and prevent financial distress and default (Duchin, Ozbas & Sensoy 2010). This study attempts to observe whether the magnitude or the direction of the relationship between debt and financial performance change with the presence of financial flexibility in the MREITs context.

#### DATA AND METHODOLOGY

This study examined the dataset, which consists of financial information/accounting data of all sixteen (16) MREITs publicly traded in Bursa Malaysia for the ten (10) years period from January 2005 to December 2014. As the number of MREITs is relatively small, the study

makes an effort to cover all of the registered MREITs. The study time span is between 2005 and 2014 since MREITs was only introduced in 2005. This covers the full period since the establishment of REITs in Malaysia until the recent year of 2014. The data in this study is based on secondary data which are available from the annual report of each MREITs as published in the Bursa Malaysia and Datastream International.

#### THE MODEL

In this study, the potential effect of financial flexibility is integrated as the *moderator* on the relationship between debt financing and financial performance. Thus, there are two models analyzed firstly, debt and its drivers and, secondly, the moderating effect of financial flexibility on the relationship between debt financing and performance. It must be emphasized that most of these variables are scaled by the total net assets or total assets value, except for size and dummy variables for property “focused” and “diversified,” following Hardin et al. (2011) and the justification by Sufi (2009). Consequently, the following models were analyzed;

#### MODEL 1: DEBT FINANCING DECISION

In model 1, equations (1) are used to examine the relationship between the driving factors and bank debt financing of MREITs. This equation was tested using a pooled estimated generalized least squares (EGLS) method for cross-section heterogeneity. This study used the term “debt” or ‘bank debt’ as interest bearing debt and does not include non-interest bearing liabilities such as accruals and trade credit (accounts payable) in the analysis.<sup>2</sup> The bank debt includes fixed term loan, revolving credit, and commercial paper. The financial liabilities that MREITs may have were excluded, such as loans from subsidiaries or parent companies, hence, the bank debt ( $Debt^{ma}$ ) is measured as total debt scaled by total net assets (*total assets minus cash*). Model 1, equations (1) is presented:

$$Debt_{i,t}^{ma} = \beta_0 + \beta_1 Growth_{i,t} + \beta_2 NP_{i,t} + \beta_3 RE_{i,t} + \beta_4 LIQ_{i,t} + \beta_5 Div_{i,t} + \beta_j Controls_{i,t} + \varepsilon_{i,t} \quad (1)$$

Where,  $Debt^{ma}$  are the dependent variable, while the independent variables are growth in invested property (Growth), profitability (NP), internal cash constraints (RE), liquidity (LIQ), and dividend pay-out (Div). Based on Morri and Beretta (2008), Campbell et al. (2008), Ertugrul and Giambona (2010), this study measured MREITs’ (Growth) as *an annual percentage changes in the total market value of property investment*; Profitability was measured by *Fund from operation (FFO) divided by total rental income*. Furthermore, this study used FFO instead of earnings before interest and tax (EBIT) or earning after tax (EAT), because most of the REITs studies have used FFO rather than EBIT or EAT as the key indicator of REITs’

operating profit. In this light, FFO provides more useful information operating performance measure than net income for the REITs industry (Harrison et al. 2011). Some relevant studies which examined the relative quality of FFO are Ghosh et al. (2010), Hardin et al. (2011), Harrison et al. (2011), Hill, Kelly and Hardin (2012), Titman et al. (2014), Ghosh and Sun (2014).

Moreover, motivated by Feng et al. (2007) and Arslan-Ayaydin et al. (2014), this study has used the newly retained earnings (retained earnings for the current year) to measure the internal cash constraints (RE) of MREITs and based on Campbell et al. (2008) the liquidity was measured by *the ratio of cash and cash equivalent to total net assets*. The dividend pay-out is specified as a *total annual dividend pay-out scaled by the total net asset*.

This study also incorporated control variables which are signified as Controls. These control variables include MREITs size, cash flow volatility, financial flexibility and property type investment strategy (focused and diversified), which was reported in previous studies to have an impact on REITs and non-REITs financing decisions. This study used the *log of total assets* as a measure for MREITs’ size while the cash flow volatility was measured by *the standard deviation of funds from operations (FFO) scaled by the total net asset over the year*. In addition, this study used the definition of financial flexibility as the above definition which consists of both debt and liquidity level. This definition is similar to Lie (2005) and Arslan-Ayaydin et al. (2010, 2014) which defined financial flexibility as having high cash levels and/or low debt ratios. Thus, in this study, debt financing together, with cash reserves/liquidity, contribute to financial flexibility. To quantify financial flexibility, we created an index by multiplying the ranks of cash reserves/liquidity and debt financing. REITs property type investment strategy, which is “focused” on specific property type or “diversified” in various property type, and is believed to have a different effect on the debt financing decision (Capozza & Seguin 1998; Morri & Beretta 2008; Ertugrul & Giambona 2010). In this light, it is believed that REITs focused in retail and office segment may have more stable rental income (Harrison et al. 2011) compared to REITs focused on the hospitality (hotel) segment. It is also viewed that “diversified” REITs may have lower collateral assets value, hence, tend to use less debt (Morri & Beretta 2008). This study also considered Benefield, Anderson and Zumpano (2009) which used the thresholds of 75% of MREITs investment in one property as a criterion for “Focused” property type investment strategy. The measure of property type investment strategy is a binary variable, which equals to zero (“0”) if the MREITs owns more than 75% of its property assets value concentrated in one property type that classified as “Focused” and equal one (“1”) if otherwise, that classified as “diversified.” The cross section of MREITs is denoted as *i*, while *t* represents the time.

MODEL 2: DEBT AND FINANCIAL PERFORMANCE  
(MODERATED BY FINANCIAL FLEXIBILITY)

Model 2 uses equation (2) to analyze the moderating effect of financial flexibility on the relationship between debt and financial flexibility.

$$\begin{aligned} \text{Financial Performance}_{i,t} = & \beta_0 + \beta_1 \text{Debt}_{i,t}^{ma} \\ & + \beta_2 (\text{FF}_{i,t} \cdot \text{Debt}_{i,t}^{ma}) \\ & + \beta_j \text{Controls}_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (2)$$

The financial performance is measured by Fund from operation (FFO) divided by total rental income, represents net profit margin (NP). This study also use return on invested assets after interest payment (ROIA<sup>ai</sup>) to measure financial performance. ROIA<sup>ai</sup> is measured by FFO after interest divided by total net assets. Meanwhile, FF refers to financial flexibility, where FF, Debt<sup>ma</sup> is the interaction variable generated by multiplication of independent variable which is total debt and moderating variable that is financial flexibility. This equation assumes that financial flexibility has a moderating effect on the dependent variable (financial performance) is through its interaction with independent variable (debt). This equation was tested using the WarpPLS 5.0 software developed by Kock (2015) to estimate the equation. The decision to estimate the moderating model using Warp Partial Least Squares (WarpPLS) is justified by the following reasons: first, unlike multiple regression analysis, the Partial Least Squares (PLS) analysis (which was conducted through WarpPLS) allows this study to analyze the interaction of non-normally distributed variables and accept the small sample size which is applicable to this study (Chin, Marcolin & Newstead 2003; Henseler, Ringle & Sinkovics

2009; Kock 2010). Moreover, WarpPLS application is capable of performing PLS path analysis that able to analyze the linear and non-linear relationship between the variables with the shape of “U and “S” curve (Kock 2010, 2015). This capability is so far have not been taken into consideration in both PLS based and Covariance-based SEM software (Kock 2010, 2015). Second, in order to test the effect of moderating, PLS analysis is claimed to be more appropriate than others statistical approach (Pavlou & Sawy 2006; Limayem, Hirt & Cheung 2007; Henseler & Fassott 2010). Interestingly, WarpPLS application is advantageous as it allows the direct estimation of moderating analysis, thus, any manual calculation is not required to estimate the moderating effect. Furthermore, WarpPLS is equipped with the measures to assess the attribute of the model, for instance, the p-values, multicollinearity and powerful ten goodness-of-fit indices (Kock 2010, 2015). This leads to the more accurate and transparent interpretation of the moderating effects.

This study also incorporated several control variables, which are reported in previous studies as having an impact on REITs and non-REITs financial performance. These control variables include MREITs’ size, liquidity and property type investment strategy.

#### ANALYSES AND RESULTS

Table 1 presents the results of the pooled estimated generalized least squares (EGLS) with corrected for cross-sectional weights for heteroscedasticity regression analysis for Model 1, which regresses the total debt as dependent variables on the hypothesized explanatory variables.

TABLE 1. Regression result for Model 1 – Equations 1

$$\text{Debt}_{i,t}^{ma} = \beta_0 + \beta_1 \text{Growth}_{i,t} + \beta_2 \text{NP}_{i,t} + \beta_3 \text{RE}_{i,t} + \beta_4 \text{LIQ}_{i,t} + \beta_5 \text{Div}_{i,t} + \beta_j \text{Controls}_{i,t} + \varepsilon_{i,t}$$

Variable	Coefficient	t-Statistic
Growth in invested asset (Growth)	0.038992**	1.989188
Internal cash constraint (RE)	-0.427340***	-2.732953
Profitability (NP)	-0.351084***	-5.451944
Liquidity (LIQ)	0.378214***	8.755345
Dividend pay-out (Div)	-1.957561***	-3.105054
Size	1.439482**	2.042138
Cash Flow Volatility (CFVol)	-1.471060	-1.658377
Financial Flexibility (FF)	-0.223823***	-8.119626
Property type Investment strategy (“Focused”)	3.141122**	2.526156
R-squared	0.735661	
F-statistic	29.06715***	

Note: \*\*\*, \*\* and \* indicate significance at the 1, 5 and 10% level, respectively

The study on Model 1 has shown several findings. First, the study found that growth is positively related to the total debt and this implies that the high mandated

dividend pay-out requirement has limit MREITs’ ability to accumulate internal earnings, leading them to use debt to finance their growth needs. This is reflected through the

negative relationship between internal cash constraints and total debt which indicates that lower internal cash constraints result in higher use of debt. This finding is consistent with the prescription under the pecking order theory that debt is preferable to equity when firms have insufficient retained earnings to fund upcoming investments. The second finding is that there is a negative relationship between profitability and total debt which implies that MREITs with high profit would use internal funds available to support their funding needs consistent with the pecking order theory. The third finding shows a positive relationship between liquidity and total debt. This finding could be explained through two different perspectives, first, from the theoretical perspective; the positive relationship is consistent with the trade-off theory which perceives that MREITs with high liquidity tend to use higher debt as they have more capacity to fulfil their debt obligation. Second, from the practical and empirical perspective, this positive relationship is justified as bank debt is used to increase the liquidity of MREITs, where debt acts as a “buffer” and an alternative for liquidity (Riddiough & Wu 2009; Hardin et al. 2011; DeAngelo et al. 2011; Denis & McKeon 2012; Ghosh & Sun 2014).

On the other hand, the study also found a negative relationship between dividend pay-out and total debt suggests that MREITs do not use debt to pay for the dividend. The finding also implies that MREITs that pay higher dividends will use relatively lower debt. This may be due to the lower use of debt associated with the lower of interest expenses, leading to the higher amount available to

shareholders. This evidence suggests that dividend pay-out plays a disciplinary role in REITs industry. Furthermore, Size and investment strategies related to property type (“focused” and “diversified”) are found to have a positive relationship with debt. This is consistent with most of the previous empirical studies in REITs and non-REITs which showed that bigger firms or REITs would have higher capacities to use more debt. This finding is also consistent with Morri and Berrata (2008) that “Focused” MREITs have a relatively positive relationship with debt, which implied that “Focused” REITs may have higher collateral assets value, and consequently, have the more tendency to use more debt. Besides that, as expected, MREITs with high financial flexibility, is negatively related to debt. This implies that the higher financial flexibility will use lower debt. In other word, higher use of debt will reduce the MREITs’ financial flexibility. This finding is consistent with Clark (2010) who also found a negative relationship between financial flexibility and debt. Lastly, the study found no relation between cash flow volatility and MREITs’ debt financing. This suggests that in the MREITs context with extensive tangible assets in the form of real property, the capacity to use debt financing is guaranteed by the greater collateralized asset values owned by MREITs that outweighs the cash flow volatility consideration.

The results for Model 2 which illustrates the moderating effect of financial flexibility on the relationship between debt and financial performance is given in Table 2 below:

TABLE 2. Moderating Effect of Financial Flexibility on the relationship between Debt and Financial Performance – Model 2, Equation 2

$$Financial\ Performance_{i,t} = \beta_0 + \beta_1 Debt_{i,t}^{na} + \beta_2 (FF_{i,t} \cdot Debt_{i,t}^{na}) + \beta_j Controls_{i,t} + \varepsilon_{i,t}$$

	NP	ROIA <sup>ai</sup>
Debt <sup>na</sup>	-0.242*** (0.0003)	-0.069 (0.223)
Financial flexibility*Total debt	0.363*** (0.0001)	0.392*** (0.0001)
Size	-0.013 (0.444)	0.028 (0.379)
Liquidity	0.575*** (0.0001)	0.326*** (0.0001)
Property type investment strategy (“Focused”)	0.034 (0.356)	-0.016 (0.429)
R-squared	0.643	0.336
VIF	1.226	1.235

Note: \*\*\*, \*\* and \* indicate significance at the 1, 5 and 10% level, respectively, the number in (parentheses) are the p-value. The model fitness of the model is based on the following model fit and quality index and the model in this study meet the criteria of Model fit and quality indices which are: Average path coefficient (APC) = 0.245, P = 0.001, Average R-squared (ARS) = 0.643, P < 0.001, Average adjusted R-squared (AARS) = 0.627, P < 0.001, Average block VIF (AVIF) = 1.226, acceptable if <= 5, ideally <= 3.3, Average full collinearity VIF (AFVIF) = 1.997, acceptable if <= 5, ideally <= 3.3, Tenenhaus GoF (GoF) = 0.802, small >= 0.1, medium >= 0.25, large >= 0.36, Simpson’s paradox ratio (SPR) = 0.800, acceptable if >= 0.7, ideally = 1, R-squared contribution ratio (RSCR) = 0.999, acceptable if >= 0.9, ideally = 1, Statistical suppression ratio (SSR) = 1.000, acceptable if >= 0.7

The result indicates that the higher the financial flexibility, the greater the relationship between debt and financial performance which was measured by net profit margin and ROIA<sup>ai</sup>. Interestingly, total debt, without the interaction of financial flexibility, the net profit margin and ROIA<sup>ai</sup> shows a negative relationship, which is consistent with the empirical study by Oppenheimer (2000) and Titman et al. (2014), that indicated that the use of debt for firms with zero marginal tax benefit have the higher tendency to erode their profitability, compared to the use of debt in firms with tax shield benefit. However, for MREITs with higher financial flexibility, the use of debt financing will improve their financial performance. This result provides the focal insight that indicates the importance of financial flexibility in the relationship between debt and financial performance where the negative relationship between debt financing and financial performance is only evident for MREITs with lower financial flexibility, and not otherwise. This finding confirms that financial flexibility has the moderating effect on the relationship between debt financing and financial performance by changing the direction of the relationship from a negative relationship to positive relationship when financial flexibility interacts with debt in the relationship between debt and financial performance.

Furthermore, there are two additional remarks found in this study with regard to the control variables of the moderation effect of financial flexibility on the debt-financial performance relationship. First, liquidity is revealed to have a positive relationship with financial performance. This indicates that liquidity plays important roles on the financial performance of MREITs. This is consistent with the wisdom that liquidity translates to the firm's profitability. It is also established in the literature that high liquidity increase profitability. The rationale is that firms or specifically MREITs with greater liquidity will have less reliance on debt to meet the operational needs. Using internal cash to meet the operational needs for business entities with tax-exempt status like REITs will enlarge the profit than using debt (Howe & Shilling 1988; Chan et al. 2003; Eljelly 2004). Second, size and investment strategies related property type ("focused" or "diversified") have no relation to the MREITs financial performance. This result is inconsistent with the conventional wisdom that indicates bigger firms may have higher financial performance compared to smaller firms as bigger firms are perceived to have greater market power and could gain higher efficiency (Lee 2009). Similarly, this result does not support the findings of Benefield et al. (2009) who suggest that the "diversified" REITs, with diversifying the property type or geographical location of their investment, would outperform focused REITs. On the other hand, this study's result seems to support the findings of an earlier study by Gyourko and Nelling (1996) that indicated that the diversification of investments, particularly in property types and geographical locations, does not relate to REITs' performance.

In summary, these results confirm that higher use of debt reduced the financial performance and financial flexibility has a moderating effect on the relationship between debt and financial performance in MREITs. This is consistent with the results of previous research, including Bates, Kahle and Stulz (2009); Gamba and Triantis (2008); Marchica and Mura (2010); Arslan-Ayaydin et al. (2014) suggests that financial flexibility is an essential element of firm performance and an effective mechanism to mitigate financial distress and default.

## CONCLUSION

The major purpose of this study is to examine the debt financing decision for MREITs and whether the financial flexibility moderates the relationship between debt financing and financial performance of MREITs. The result highlights an important insight that financial flexibility is able to alter the negative relationship between debt and financial performance of MREITs. By preserving financial flexibility, MREITs are able to mitigate the downside effect of debt on its financial performance. MREITs' financial position should create staying power in the face of economic downturn and ready to take advantage of new profitable investment opportunities when it arises as a result of easy access to funds. Hence, MREITs' managers need to carefully strategize their debt financial decision and wisely maintain adequate financial flexibility to sustain their business operation and financial performance. Equally important, this study has integrated two streams of research, namely research on financing decision (debt) and research on liquidity to form financial flexibility. These two streams have often been studied separately (Arslan-Ayaydin et al. 2014). This study produced results which enhance the findings of earlier studies with regard to the relationship between debt and financial performance. The findings add to the theoretical knowledge that financial flexibility not only plays a role as a key element in determining the debt financing and firm performance as widely claimed in the previous literatures, but it has now become clear that financial flexibility also has a moderating effect on those relationships, particularly in the REITs context. Furthermore, this study also extends the empirical evidence by Oppenheimer (2000) and Titman et al. (2014) by providing a new insight that negative effect of debt financing on the financial performance in REITs entity is moderated with the present of financial flexibility. Overall, this study's result is consistent with the pecking order theory in explaining the MREITs debt financing decision and less support for trade-off theory and agency theory of free cash flow. Our result supports the notion by Morri and Beretta (2008), "*REITs operate in a peculiar sector and their financing decisions are affected by the same factors as other public non-real estate firms, but their impact on financing decision is different.*"



## ENDNOTES

- <sup>1</sup> Firms operating in less stable industries are expected to have a greater need for financial flexibility than those operating in less volatile industries (Killi, Rapp & Schmid 2011).
- <sup>2</sup> (Welch 2011) contended that the fundamental flaw in leverage ratio measurement (total debt to total asset ratio) is that it include non-interest bearing liabilities for the total debt value as it treat interest bearing debt and non-interest bearing debt alike.

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