



# Managerial ownership and company characteristics as determinants of capital structure

## *A case study of a non-financial company listed on the Indonesia Stock Exchange*

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**Abstract**— *The company's capital structure decision has implications for the company's performance and sustainability in the future. Many factors influence the decision of the capital structure of the company. However, in Indonesia's capital market context, managerial ownership and company-specific characteristics may have a special impact on the company's capital structure decision. This study investigated the effect of managerial ownership and company-specific characteristics on the capital structure of non-financial companies listed on the Indonesia Stock Exchange (IDX). This study used a quantitative approach. Samples were obtained with a purposive sampling method. Sixty-two companies were selected as research samples using the purposive sample method for 2010-2019, bringing 620 observations. Linear regression analysis was used to analyze data with SPSS-26 software. This study shows managerial ownership and profitability negatively and significantly influence capital structure. Company size and sales growth positively and significantly impact the capital structure. However, liquidity did not show a statistically significant effect. These results prove that managerial ownership and company-specific characteristics, i.e., company size, sales growth, and profitability, are essential in determining capital structure decisions as measured by the long-term debt ratio. However, liquidity does not significantly affect the capital structure.*

**Keywords**— *Capital Structure; Managerial ownership; Company Size; Sales Growth; Profitability.*

### I. INTRODUCTION

Since the last decade, capital structure has been one of the most critical subjects in finance, but no theory can explain how to choose the optimal capital structure [1]. Capital structure is the first decision a company must make before starting an investment project [2]. The capital structure is the basis for financing the company's assets and investments through internal funds, debt, and equity. Capital structure decisions sourced from debt reflect optimal debt ratios and rebalance towards optimal positioning [3]. The company needs the capital structure to finance operations and investments and expand the company. When a company wants to carry out business transformation, a capital structure is necessary to ensure that the transformation plan to be carried out can run according to the set target.

Capital structure theory is divided into two most dominant theories: Trade-Off Theory (TOT) and Pecking Order Theory (POT) [4]. TOT aims to balance the costs of bankruptcy and financial difficulties related to using leverage with the tax benefits of using debt and reducing agency costs incurred [5]. POT says a firm's capital needs for growth opportunities prioritize internal sources of financing; when it needs outside funds, companies tend to use debt to issue equity [6].

Capital structure can be calculated by two different approaches: using book value or accounting, called book leverage, and using equity market value, called market leverage [7]. The long-term debt ratio (LTDR) is a proxy of capital structure that is quite popular in finance [1]. LTDR considers that changes in share price have no impact on LTDR [8]. The use of capital structures sourced from LTDR can finance long-term projects. Long-term debt targets indicate that next year's marks are relevant to explaining current debt when the company undergoes gradual changes [2].

The determinants of capital structure are strong pillars that give the organization a competitive advantage [9]. Many factors influence capital structure decision-making in the company. Of these factors, managerial ownership and specific characteristics of the company are the determining factors of capital structure. Managerial ownership affects the capital structure because of differences in the interests of managers as owners with external shareholders. Specific characteristics such as company size (InAset), Sales growth (SG), Asset Structure (SA), Profitability (ROA) and Liquidity (CR) play a role in making corporate debt decisions. An important macroeconomic factor is inflation [10]. The study of the determinants of capital structure has attracted the attention of researchers in finance by type of industry, region, and country [11]–[13]. Research on the determinants of capital structure is carried out with applicable financial theories [1], [11], but research results have not led to consistent findings.

Research conducted on Managerial ownership (MO) is one factor that plays a role in determining the capital structure. Managerial ownership has the power to determine company policies according to the current conditions of the company so that it must position itself well to play a maximum role for the company. Managerial ownership is needed to minimize conflicts due to its role as a shareholder and manager of the company. High managerial ownership will seek lower debt to avoid the risk of bankruptcy and protect the manager's interests.

Indonesia is an interesting case study for capital structure research because companies experienced major obstacles to determining financing options before deregulating Indonesia's financial markets in the 1980s [14]. Studies on the determinants of capital structure in emerging markets, especially in Indonesia, have relatively limited references. Meanwhile, the role of managerial ownership in the context of the Indonesian capital market as a potential determinant is not yet fully understood.

This study examines the role of managerial ownership and specific characteristics of companies as determinants of capital structure by taking case studies on non-financial companies that have managerial ownership and are listed on the IDX.

## II. LITERATURE REVIEW

### A. *Managerial ownership and capital structure*

Making decisions regarding the capital structure is one of the responsibilities of managerial ownership. Managerial ownership can be expanded to lower debt levels, avoid finance costs, and reduce the risk of bankruptcy [15]. On the one hand, capital structure decisions derived from debt increase the risk to managerial ownership due to the obligation to pay creditors. The increased risk that a company faces if it increases long-term debt makes ownership try to reduce LTDR when its shareholding increases. The risk of failure to pay obligations will have implications for him as the company's owner, especially if his shareholding is dominant.

Consequently, increasing managerial ownership will generally reduce the debt-based capital structure. Previous research has shown that the higher the proportion of managerial ownership in a company, the lower the LTDR structure [16], [17]. From this explanation, the following hypothesis is proposed:

H1: If the level of managerial ownership increases, the capital structure measured by LTDR will decrease.

### B. *Company Size and Capital Structure*

Company size is a scale used to determine the size of the company. According to TOT, firm size has a positive relationship with capital structure as a signal that debt is the primary source of capital structure in large companies [18]. According to POT, asymmetric information makes the linkages between size and capital structure uncertain [19]. More considerable assets as collateral, more significant income potential, and diversification power make the risk of failure of large companies to pay debt smaller [20]. Higher debt capacity makes the leverage of large companies tend to be higher [13]. So it is more trusted by creditors. Research shows that company size positively affects LTDR [20], [21]. Therefore, the following hypothesis is proposed:

H2: If firm size increases, the capital structure measured by LTDR will increase.

### C. *Sales Growth and Capital Structure*

Corporate growth is the process by which an organization pursues a market opportunity and the acquisition and accumulation of resources necessary to exploit that opportunity (Dosi et al., 2019). Sales growth is a process of company development regarding changes in company revenue. Sales growth is one of the factors to consider in determining the company's capital structure. Higher sales growth tends to encourage a higher capital structure to finance corporate investments due to growth. According to the POT, companies experiencing high growth prioritize debt over equity for their investment costs [15], [23]. Previous research shows increased sales growth positively impact LTDR [24], [25]. From this explanation, the following hypothesis is proposed:

H3: If sales growth increases, the capital structure measured by LTDR will increase.

### D. *Profitability and Capital Structure*

Profitability is a financial benefit when revenues exceed the company's expenses to maintain business activities. According to the POT, profitability is inverse to the company's leverage [26]. This may be because a profitable company may have more significant internal financial resources to finance its operations, thus less dependent on debt. As a result, more profitable businesses typically have a lower percentage of debt in their capital structure. Profitability negatively affects capital structure as measured by LTDR [27]. Thus, the following hypothesis was proposed:

H4: If profitability increases, then the capital structure measured by LTDR will decrease.

### E. *Asset Structure and Capital Structure*

Asset structure is the ratio of tangible assets to total assets of a company. The asset structure serves as collateral that protects creditors against losses resulting from conflicts between them and shareholders. According to the TOT, the larger the asset structure of the company, the more leverage the company increases [28]. Asset structures can be used as collateral for loans, are cheaper to monitor, and are often preferred by lenders [29]. The higher the asset structure of a company, the more debt it can take on in the capital structure [30]. Previous research said asset structure had a positive and significant effect on LTDR [1], [27]

H5: If asset structure improves, then the capital structure measured by LTDR increases.

### F. *Liquidity and Capital Structure*

The POT suggests that companies with high liquidity must use their funds for investment rather than external financing [31]. A sufficient liquid device will be able to finance future investments with less dependence on external sources and will prefer funding from internal sources of funds [32]. Companies with high liquidity indicate increased cash flow to utilize these funds to pay off the company's maturing short-term debt. High liquidity in the company can increase creditors' confidence to lend capital structures

sourced from LTDR. Thus, it is expected to be a positive relationship between liquidity and LTDR. Research by [1] shows a positive relationship between Liquidity and LTDR. Therefore, the following hypothesis is proposed:  
H6: If liquidity increases, the capital structure measured by LTDR increases.

III. RESEARCH METHODS

A. Samples and Data

The sample of this study consisted of 62 non-financial companies listed on the IDX selected from 370 companies for the period 2010-2019. The population is 370 companies, of which the number of companies issued financial reports during the study period was 276 companies. Using purposive sample techniques, the sample companies were 62, with 620 observations.

B. Variable measurement

The independent variable consists of:

- a) Managerial Ownership (MO)= the number of shares owned by directors and officials/number of outstanding shares [33]. (1)
- b) Company size = natural logarithm of total asset [20]. (2)
- c) Sales Growth (SG)=  $\left(\frac{Sales_t - Sales_{t-1}}{Sales_{t-1}}\right) \times 100\%$  [34]. (3)
- d) Asset structure (SA)=fixed assets/ total assets [20]. (4)
- e) Profitability by proxy Return on Asset (ROA)= Earning Before Interest and Tax (EBIT)/Total Assets [27]. (5)
- f) Liquidity by proxy Current Ratio (CR)= Current Asset/Current Liability [20].; (6)

The dependent variable:

Capital Structure by proxy LTDR=Long-Term Loans+other long term liabilities/Total Assets [35], [36]. (7)

Data Analysis

Descriptive and inferential statistics were used in the data analysis process for this investigation. Inferential analysis is performed by multiple linear regression analysis. Multicollinearity detection refers to the correlation coefficient value between independent variables < 0.80. Violations of autocorrelation and heteroscedasticity and heteroscedasticity are resolved by the Standard Error Heteroscedasticity method and Autocorrelation Consistent (HAC) or the Newey-West Standard Error [37]. Hypothesis testing is carried out by two-way testing with a level of significance  $\alpha=5\%$  (0.05). Model Regression of the influence of managerial ownership and specific characteristics of the company are as follows:

$$LTDR = \beta_0 + \beta_1 MO + \beta_2 LnAset + \beta_3 SG + \beta_4 SA + \beta_5 ROA + \beta_6 CR + \epsilon \tag{8}$$

IV. RESULTS AND ANALYSIS

A. Statistical Descriptif

TABLE 1. DESCRIPTIVE STATISTICS

Information	MO (%)	LnAset	SG	SA	ROA	CR	LTDR
Mean	9.76	28.34	13.7	0.32	4.06	2.27	0.16
Median	3.14	28.26	7.8	0.29	3.49	1.45	0.12
Standard Deviation	17.24	1.78	50.03	0.21	8.20	3.83	0.13
Minimum	0.001	24.46	-98.42	0.00	-43.63	0.09	0.00
Maximum	89.44	33.49	663.8	0.92	46.50	75.40	0.73
N	620	620	620	620	620	620	620

Source: Secondary data processed with SPSS 26

Table 1 shows the descriptive statistics of this study's independent and non-free variables. Descriptive statistics show the mean, median, standard deviation, minimum and maximum values. The mean of MO was 9.76%, with a median of 3.14%. On a consecutive basis, the mean and median values for LnAset were 16.21 and 21.35; SG was 13.7 and 7.8; asset structure was 0.32 and 0.29; ROA was 4.06 and 3.49; CR was 2.27 and 1.45. The mean of the capital structure measured by LTDR is 0.16, and the median is 0.12. The standard deviation value of MO is 17.24, LnAsset is 1.78, SG is 50.03, next SA is 0.21, ROA is 8.20, CR is 3.83, and LTDR is 0.13. This value shows the level of diversity of the variables studied. The higher the standard deviation value indicates the higher the level of various variables studied.

This value provides information that the LTDR of non-financial companies on the IDX with managerial ownership tends to be smaller; in other words, the capital structure sourced from long-term debt tends to be lower than short-term debt. The data also shows that the largest range occurs in sales growth. ROA has a good mean value, the same thing as liquidity.

### B. Correlation Matrix

Table 2. shows the value of the correlation coefficient between research variables. The multicollinearity test between independent variables in this study showed that the value of the correlation coefficient between the independent variables was entirely below 0.08, thus fulfilling the assumption of non-multicollinearity. Therefore, there was no interference between independent variables in this study.

TABLE 2. CORRELATION MATRIX BETWEEN VARIABLE

	<i>LnAset</i>	<i>SG</i>	<i>SA</i>	<i>ROA</i>	<i>CR</i>	<i>MO</i>	<i>LTDR</i>
<i>LnAset</i>	1	0.024	-0.095*	0.156*	-0.200*	-0.116*	0.331*
<i>SG</i>		1	-0.016	0.190*	-0.026	0.056	0.062
<i>SA</i>			1	-0.207*	-0.211*	-0.063	0.365*
<i>ROA</i>				1	0.023	-0.089*	-0.220*
<i>CR</i>					1	0.119*	-0.204*
<i>MO</i>						1	-0.183*
<i>LTDR</i>							1

Source: Secondary data processed with SPSS 26  
\*) Significant correlation at 0.05 level

TABLE 3. MULTIPLE LINEAR REGRESSION ANALYSIS WITH THE HAC METHOD

Model	Dependent: <i>LTDR</i>				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	NW- SE	Beta		
<i>(Konstan)</i>	<b>-0.6557</b>	<b>0.0916</b>		<b>-7.162</b>	<b>0.000*</b>
<i>MO</i>	<b>-0.0011</b>	<b>0.0003</b>	<b>-0.142</b>	<b>-4.107</b>	<b>0.000*</b>
<i>LnAset</i>	<b>0.0273</b>	<b>0.0033</b>	<b>0.375</b>	<b>8.254</b>	<b>0.000*</b>
<i>SG</i>	<b>0.0003</b>	<b>0.0001</b>	<b>0.112</b>	<b>3.586</b>	<b>0.004*</b>
<i>SA</i>	<b>0.2116</b>	<b>0.0289</b>	<b>0.337</b>	<b>7.322</b>	<b>0.000*</b>
<i>ROA</i>	<b>-0.0038</b>	<b>0.0007</b>	<b>-0.242</b>	<b>-5.543</b>	<b>0.000*</b>
<i>CR</i>	<b>-0.0011</b>	<b>0.0006</b>	<b>-0.033</b>	<b>-1.773</b>	<b>0.0767</b>
<i>Rsquare</i>	<b>33.99%</b>				
<i>F</i>	<b>40.855</b>				
<i>Sig.</i>	<b>0.000</b>				

Source: Secondary data processed with SPSS 26  
\*) Significant on  $\alpha=0.05$

$$\begin{aligned} \text{LTDR} = & -0.6557 - 0.0011(\text{MO}) + 0.0273(\text{LnAset}) \\ & + 0.0003(\text{SG}) + 0.2116(\text{SA}) \\ & - 0.0038(\text{ROA}) - 0.0011(\text{CR}) + \varepsilon \end{aligned}$$

Table 3. shows multiple linear regression models with the HAC method. This study proves that managerial ownership has a negative and significant effect on LTDR ( $\beta_1 = -0.0011$ ; sig.=0.000), so H1 is accepted. LTDR is positively and significantly influenced by company size ( $\beta_2 = 0.0273$ ; sig.=0.000), so H2 is accepted. There is a positive and significant influence on sales growth on LTDR ( $\beta_3 = 0.0003$ ; sig.=0.0004), so H3 is accepted. The effect of Asset Structure on LTDR is positive and significant ( $\beta_4 = 0.2116$ ; sig.=0.000), so H4 is accepted. The effect of profitability on LTDR is positive and significant ( $\beta_5 = -0.0038$ ; sig.=0.000), so that H5 is accepted. The effect of liquidity on LTDR is negative but not statistically significant ( $\beta_6 = -0.0011$ ; sig.=0.0767), so that H6 is rejected.

## V. DISCUSSION

This study analyzes the effect of managerial ownership and company-specific characteristics on capital structure as measured by LTDR. The results showed that managerial ownership negatively and significantly affects LTDR, so if managerial ownership is

increasingly dominant, the company's LTDR will decrease. These results are consistent with previous research that states managerial ownership is inversely and significantly related to LTDR [16], [21]. This means that long-term debt tends to decline as managerial ownership increases. Managerial ownership is one of the factors that can determine the choice of capital structure, mainly when managerial ownership is rooted in the company. Dominant ownership in a company tends to reduce the level of debt in the capital structure because the risk of default on debt obligations will directly impact its wealth.

Company size positively and significantly impacts capital structure as measured by LTDR. This result aligns with previous research stating that company size wholly and substantially affects LTDR [20], [23]. This finding shows that the larger the company's size, the higher the LTDR. These results support the trade-off theory, which says that the company's size is directly proportional to the capital structure sourced from debt. The TOT says that by increasing debt, the company will gain tax benefits as a reduction in the company's interest expense. On the other hand, the various advantages that large companies have, such as more considerable assets, diversification capabilities, better transparency, and asymmetric more minor information, make creditors more trusting when the company applies for debt.

Sales growth has a positive and significant effect on the capital structure measured by LTDR. This means that if there is an increase in sales growth, the company will further increase LTDR. This finding is consistent with previous research, which showed sales growth positively and significantly influenced LTDR [24]. Increased sales growth signals growing potential profits that the company will obtain from funds from selling products or services. When the company succeeds in increasing profits from the results of growing sales, management will try to develop through investment decisions set by the company. The initial stage carried out is to use profits to finance investment. Debt becomes the next alternative when insufficient internal funds are used so that the company will minimize the use of equity. The research also supports the POT, in which high-growth companies rely more on external funds in debt than equity to finance projects [15], [32].

The asset structure has a positive and significant effect on the capital structure measured by LTDR, which means that the higher the company's asset structure, the higher the company's LTDR will increase. This finding aligns with previous research that said asset structure positively increased LTDR [1], [10], [27]. The ease of monitoring makes asset structures often used as loan collateral and is one of the primary considerations for lenders [29]. By using assets as collateral, the company's chances of getting a loan worth the amount of assets will increase. The higher ratio of tangible assets to overall company assets signals high tangible assets owned by the company. A more significant proportion of tangible assets in the company is expected to increase the confidence of lenders to lend to the company.

Profitability, as measured by ROA, has a negative and significant effect on the capital structure measured by LTDR, so when ROA increases, the company's LTDR will decrease. These results align with previous research, where ROA negatively and significantly affected LTDR [10], [27]. Increasing ROA will increase the availability of the company's cash funds so that it can be used as a capital structure for its operations and investments. Thus, when these profits increase, the company's need for debt tends to decrease due to cash.

Liquidity, as measured by the current ratio, has a negative but insignificant effect on the capital structure measured by LTDR. So, LTDR tends to decrease when liquidity increases, although not statistically significant. Previous research has shown that liquidity does not significantly reduce a company's LTDR [27]. This result means that the company's liquidity is not an essential consideration for management when deciding on the capital structure sourced from LTDR. High levels of liquidity limit a company's ability to commit to a particular cause of action, thereby limiting outside lending (Wellalage & Locke, 2013). Consequently, there is expected to be an inverse relationship between liquidity and LTDR.

## VI. CONCLUSION

The results of this study show that managerial ownership has a significant effect on capital structure. The involvement of managerial ownership will make it easier for management to make choices of company capital structure for the company's business strategy and transformation that requires funds as an investment, especially capital structure decisions sourced from long-term debt. Company size and sales growth have a positive and significant effect on the capital structure as measured by LTDR. As measured by ROA, profitability negatively and significantly affects the capital structure measured by LTDR. Liquidity has a negative but not statistically significant effect on the capital structure measured by LTDR.

## VII. IMPLICATIONS AND LIMITATIONS OF THE STUDY

This finding implies that managerial ownership plays an essential strategic role in capital structure decisions of both large and small businesses. Lenders trust large companies more, and their sales growth increases when going to lend. Companies with greater profits will reduce their borrowing to creditors, but the high liquidity that the company has does not guarantee that the company will reduce debt. Investors in the Indonesian capital market need to pay attention to the level of managerial ownership in large and small companies before investing, especially when companies are expanding and transforming their businesses.

This study has limitations because non-financial companies with several sectors with different product specifications are combined into one. The research period is ten years; so it is not possible to generalize the findings to the circumstances since the establishment of the IDX. The research period did not include 2020 to 2022, namely the COVID-19 pandemic period, because the

capital market situation differed significantly from the research period. Thus, this research only focuses on examining the role of managerial ownership and company characteristics before the Covid-19 pandemic occurred, and does not cover the period during and after the pandemic.

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