The Influence of Profitability, Firm Size, Growth, Liquidity, Asset Tangibility, and Non-Debt Tax Shield on Capital Structure

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Abstract

Capital structure describes the company's financial proportions sourced from long-term debt and own capital as a source of corporate financing. This study aims to determine how the influence of independent variables, namely profitability, company size, company growth, liquidity, tangibility of assets, and non-debt tax shield, on the dependent variable, namely capital structure in property and real estate sector companies listed on the Indonesia Stock Exchange from 2015 to 2022. The method used is a dynamic panel regression analysis model using the Generalized Method of Moments (GMM) estimator with Eviews 12 analysis software. The results state that company size, company growth, liquidity, and tangibility assets partially have a significant positive and negative effect on capital structure. In contrast, profitability and non-debt tax shields partially have no significant impact on capital structure.

Keywords: Capital Structure, Profitability, Firm Size, Growth, Liquidity, Asset Tangibility, and Non-Debt Tax Shield

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Introduction

Capital structure is an essential aspect of corporate finance, the combination of debt and equity a company uses to fund its activities Capital structure is an essential aspect of corporate finance, the combination of debt and equity a company uses to fund its activities (Prabawani, 2018). This financial strategy shapes the company's risk profile; higher debt levels usually magnify financial risk and can deter investors due to increased interest obligations (Permadani, 2021). According to (Fahmi, 2018), capital structure is a comprehensive indicator of the company's financial composition, which describes the ratio between long-term debt and own capital sourced from the company's investment. Balancing these components effectively is essential to maintain economic stability and attractiveness to potential investors.

Companies in the property and real estate sector, as defined by the Minister of Public Housing Regulation no.05/KPTS/BKP4N/1995, aim to develop services by facilitating the development of integrated and dynamic areas. This regulation clarifies that property refers to land and permanent buildings that are the object of ownership and development. Meanwhile, real estate is a business entity that provides, leases, and matures land for industrial needs, such as buildings, road infrastructure, and various other forms of development that are permanent in nature.

In 2021, several companies experienced the DER level, namely PT Summarecon Agung Tbk, which has a DER level of 250.45%, the highest value in property and real estate companies in 2021. However, amidst the highest DER, PT Summarecon Agung Tbk opened a significant increase in net profit of 963.63% on an annual basis to IDR108.54 billion in the first semester of 2021. Next, PT Lippo Karawaci has a DER level of 241.38%. Furthermore, PT Agung Podomoro Land Tbk has a DER level of 238.45%. Moreover, PT Alam Sutera Realty has a DER level of 136.4%. Furthermore, PT Bumi Serpong Damai Tbk recorded a DER of 78.41%. Moreover, PT Pakuwon Jati Tbk has a DER level of 72.25%. Furthermore, PT Sentul City Tbk has a DER level of 71.16%. Moreover, PT Lippo Cikarang Tbk has a DER level of 39.57%. The DER of a company, one of which is in the property and real estate sector, is usually said to be healthy if it is below 1 or 100%. Based on the DER level of companies in 2021 that have a DER below 100%, namely PT Bumi Serpong Damai Tbk, PT Pakuwon Jati Tbk, PT Sentul City Tbk, PΤ Lippo Cikarang Tbk, reported in CNBC Indonesia news (https://cnbcindonesia.com).

Literature Review

Pecking Order Theory (POT)

Pecking Order Theory states that companies prioritize retained earnings and only take debt or issue shares as a last resort. (Hayat, 2018). This theory does not propose a specific target for capital structure because it distinguishes between internal and external capital. Pecking Order Theory suggests that firms utilize internal capital first. Profitable firms may follow this approach, while growing firms may require investment in fixed assets to support operations and expansion. This implies the need to raise additional external capital. Having substantial fixed assets and stable sales may make it easier for the company to raise funds from external sources.

Capital Structure

Capital structure describes the ratio between capital obtained from outside the company and capital owned by the company. Decisions related to capital structure are influenced by the company's operational funding strategy, which includes the use of debt and equity. (Prabawani, 2018). Internal capital, such as share capital, retained earnings, and reserves, are essential to shape the company's capital structure. The higher the capital structure of a company, the higher the risk faced by the company, which in turn can reduce investor interest in investing in the company. (Tapestry, 2021).

Profitability

Profitability is the ability of a company to achieve profits through various sources such as sales, cash flow, working capital, number of employees, number of branches, and other factors. One way to assess whether a company can generate positive or negative income is to use profitability ratios. (Destari, 2019). Profitability indicates the extent to which a company can generate net income from its operations during a specific period. This indicator is also used to measure how efficient the company is in creating profits from its activities, which is crucial to ensure business continuity and growth (Sari, 2022). (Sari, 2022).

Company Size

Company size is a parameter used to assess the scale of a company based on its total assets. The greater the total assets owned by a company, the greater the size of the company. (Oktavia, 2020).

Companies that have significant assets are also considered to have tremendous growth potential in the long term. In addition, companies with significant total assets are also considered to have a more remarkable ability to generate substantial profits than those with smaller assets (Purwasih, 2020). (Purwasih, 2020). Companies with significant assets can be a strong foundation for businesses to expand their operations, attract investor interest, and increase the company's overall value.

Company Growth

Company growth is an increase or decrease in the total assets the company owns. These assets are used in operational activities, can be an indicator of trust, and provide a positive signal for the company's internal and external parties. (Kusumajaya, 2011). Company growth reflects the company's ability to survive in a competitive environment and is a marker of the company's overall progress. Therefore, both parties inside and outside the company hope that positive developments can encourage healthy company growth (Sedana, 2018). (Sedana, 2018).

Liquidity

Liquidity is the ability of a company to obtain cash or convert assets into money to meet shortterm obligations. (Subramanyam, 2019). According to (Fahmi, 2018), The ability of an organization to meet its short-term financial commitments quickly is known as liquidity. The liquidity ratio is an economic indicator that shows how well a company can pay its financial obligations rapidly. A high level of liquidity indicates that the company can meet its short-term commitments quickly. In contrast, a low level of liquidity suggests that it has more short-term obligations. (Putri, 2021).

Asset Tangibility

A Tangibility Asset is an asset owned by a company that can be used as collateral by creditors to obtain loans. This is one of the assets owned by the company. Included in this category are fixed assets, which are assets that have been used for more than one year or longer. Fixed assets can be solid collateral, so companies with sizable fixed assets tend to receive sizable debt. This helps the company obtain external funds.(Okalesa. Wijaya, 2019).

Non-Debt Tax Shield

The non-debt tax shield is a tax benefit that provides a strong incentive to use debt, especially for companies with high taxable income. The tax benefit of debt can be reduced if it has other tax deductions, such as increased depreciation. Companies with a high level of non-debt tax shield do not need to rely on tax protection on debt interest payments and, therefore, do not need to accumulate large amounts of foreign debt to benefit from this tax benefit. A non-debt tax shield is a strategy that companies often use to optimize their capital structure by taking advantage of tax benefits that are not associated with loan interest. By reducing dependence on debt, businesses can manage financial risks more effectively while maximizing tax benefits. (Wulandari, 2020).

Effect of Profitability on Capital Structure

Profitability reflects the ability of a company to generate profits from its operational and investment activities. *Pecking Order Theory* explains that companies with high profitability are more likely to use internal funds as a funding source. This is due to the availability of sufficient internal funds to support operational activities without relying on debt. High profitability can also reduce the company's need to rely on debt as an additional source of funds, thus changing its overall capital structure. Therefore, the company can reduce dependence on debt because it can use high profits as a source of internal funds sufficient to support growth and development.

H1: Profitability hurts capital structure

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Impact of Company Size on Capital Structure

Company size is a parameter that classifies the scale of a company based on its total assets, stock market value, and total sales. Larger companies tend to use more debt than smaller companies due to the more accessible access to loans that large companies have compared to small companies. Large firms also often have higher leverage levels than small firms, even though their bankruptcy risk tends to be lower. Thus, the capital structure of large companies tends to have a larger proportion of debt as they rely on significant external funding sources.

H2: Firm size has a positive and significant effect on capital structure.

Effect of Company Growth on Capital Structure

Firm growth has a significant impact on its capital structure. The higher the company's growth, the higher the capital structure. This is due to the need for additional capital to accommodate increased sales, such as increased production, investment in fixed assets, and increased promotion and distribution activities. However, as the firm's growth becomes more stable and efficient, these costs can be better managed, including reduced dependence on debt funding. Thus, the capital structure may decrease when firm growth improves, and costs are reduced. However, the relationship between firm growth and capital structure is complex and influenced by various internal and external factors.

H3: Company growth has a positive and significant effect on capital structure

Effect of Liquidity on Capital Structure

Liquidity is the ability of a company to fulfill its short-term financial obligations smoothly. The company's liquidity level not only impacts investor confidence but also affects the company's ability to obtain external funding sources. Based on the *pecking order theory*, companies with high liquidity tend to prioritize funding through internal capital rather than debt. When the company's liquidity is in good condition, funding options through equity become more favorable than debt. This leads to the tendency for the proportion of debt in a firm's capital structure to be lower in a scenario where liquidity is optimal. Thus, liquidity management affects not only the attractiveness of the company to investors but also the funding strategy chosen to maximize the company's financial health in the long run.

H4: Liquidity has a positive and significant effect on capital structure.

Effect of Tangibility Asset on Capital Structure

The tangibility of assets refers to the proportion of fixed assets in a company's ownership. These assets act as collateral against the company's debt, reducing the risk creditors face in difficult financial situations. Companies that have a more significant amount of tangible assets tend to have easier access to additional loans. *Tangibility assets are* known to have a positive impact on corporate leverage. The higher the value of a company's assets, the greater its ability to obtain debt with lower risk. Although the information available to predict a firm's future profits may be more limited in the case of *tangible* assets, in general, the higher the level of *tangibility of assets, the more significant the* proportion of debt in a firm's capital structure.

H5: Asset tangibility has a positive and significant effect on capital structure.

Effect of Non-Debt Tax Shield on Capital Structure

Non-debt tax shield is a tax reduction unrelated to debt or loan interest that the company must pay. This concept refers to the tax benefits obtained from the depreciation of the company's fixed assets. The higher the depreciation rate applied to the company's fixed assets, the greater the total value of its fixed

assets. This provides an advantage for the company in accessing financing from creditors. Thus, the greater the value of the non-debt tax shield, the higher the proportion of debt in the company's capital structure.

H6: Non-debt tax shield positively and significantly affects capital structure.



Figure 1 Framework of Thought

Research Method

Population is a generalization area of objects with specific numbers and characteristics determined and studied through research. Then a conclusion is drawn (Sugiyono, 2016). The population in this study were property and real estate sector companies listed on the Indonesia Stock Exchange from 2015 to 2022. The sampling technique used in this study was purposive sampling. Purposive sampling is a technique with specific considerations (Sugiyono, 2016). The reason for using the purposive sampling technique is that it is suitable for quantitative research or studies that do not generalize.

	Table 1. Sample Selection Criteria					
No.	Criteria	Total				
1.	Property and real estate sector companies listed on the Indonesia Stock	92				
	Exchange for the period 2015-2022.					
2.	Property and real estate sector companies listed on the Indonesia Stock	(50)				
	Exchange for the period 2015-2022 that are inconsistent in submitting financial					
	reports.					
Number of research sample companies						
Total observation data 2015-2022 (42x8)336						

Source: Data processed by the author (2024)

Based on the sample criteria that have been processed, 336 samples, consisting of 42 *property* and real *estate* sector companies during the 2015-2022 period, meet the requirements for use in this study.

The dependent variable is the variable that is influenced or is the result of the independent variable. The dependent variable in this study is the capital structure. According to (Cashmere, 2019), capital structure can be measured by *Debt to Equity Ratio*, namely:

$$DER = \frac{Total \ Liabilities}{Total \ Equity}$$

Independent variables influence the emergence of dependent variables (Sugiyono, 2019). This study's independent variables are profitability, company size, growth, liquidity, *tangibility*, and *nondebt tax shield*.

a) Profitability

A company's profitability is a picture to measure how capable the company is of generating profits from the operational processes that have been carried out to ensure the continuity of the company. (Sari, 2022). Profitability can be calculated using *Return On Asset* (ROA). Here is the formula::

$$ROA = \frac{Net \ Profit}{Total \ Assets}$$

b) Company Size

Company size is a size scale seen from the total assets of a company that combines and organizes various resources to produce goods or services that are sold. Company size is measured by the natural logarithm (Ln) of the company's average total assets. (Brigham, 2011). Here is the formula:

c) Company Growth

Company growth is an increase or decrease in the total assets owned by the company. A company's assets are used for the company's operational activities and can increase trust and provide positive signals for outsiders and parties within the company (Kusumajaya, 2011). (Kusumajaya, 2011). Company growth can be measured using total asset growth. The formula used in company growth is:

$$Company \ Growth = \frac{Total \ Assets \ t - Total \ Assets \ t - 1}{Total \ Assets \ t - 1}$$

d) Liquidity

Liquidity is a financial ratio showing the company can pay short-term financial obligations on time. This study will use the current ratio as a calculation for liquidity. The current ratio is a liquidity ratio that measures the company's ability to pay short-term debt obligations that are due immediately when billed. (Kasmir, 2019). Companies with an excellent current ratio can show that their performance is improving. The formula for the current ratio (Current Ratio) is :

 $Current Ratio = \frac{Current Asset}{Current Liabilities}$

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e) Asset Tangibility

Tangibility Asset refers to the proportion of fixed assets in comparison to the current assets of a company. Companies with more fixed assets tend to use more long-term debt because these fixed assets can be used as collateral to obtain debt. (Brigham, 2011). Here is the formula:

$$TANG = \frac{Fixed \ Assets}{Total \ Assets}$$

f) Non-Debt Tax Shield

A nondebt tax shield is a tax deduction that provides a significant incentive for using debt, especially for companies with substantial taxable income. Companies with a high *nondebt on debt* tax shield level do not need to rely on tax protection derived from debt interest payments. Thus, they can take small amounts of debt from external parties to take advantage of this tax incentive. (Wulandari, 2020). Here is the formula:

$$NDTS = \frac{Depreciation}{Total Assets}$$

Result and Discussion

The dependent variable analyzed in this study is capital structure, while the independent variables include profitability, company size, company growth, liquidity, *asset tangibility*, and *nondebt tax shield*. The data comes from *property and real estate* sector companies listed on the Indonesia Stock Exchange during 2015-2022. The sample used was 336 samples. The descriptive statistical results of this analysis have been calculated using Eviews version 12 software.

Table 2. Descriptive Statistics						
Variable	Mean	Maximum	Minimum	Std.Dev		
Capital Structure (Y)	0.609	3.928	-21.058	1.600		
Profitability (X1)	0.024	0.359	-0.375	0.071		
Company Size (X2)	29.108	31.968	24.849	1.503		
Growth (X3)	0.108	3.673	-0.234	0.035		
Liquidity (X4)	3.297	65.592	0.001	5.867		
Tangibility (X5)	0.088	0.704	0.000	0.125		
Non-Debt Tax Shield (X6)	0.052	0.650	-0.048	0.085		

 Table 2. Descriptive Statistics

Source: Data processed by the author (2024)

Capital structure (Y) has the highest value of 3.928, which occurred at PT Maha Properti Indonesia Tbk in 2017. This is because the total liabilities the company owns are IDR 1,746,697,008,000, while the total equity owned is IDR 444,638,559,000. The lowest value is -21.058, which occurred at PT Binakarya Jaya Abadi Tbk in 2021. This condition arose because the total liabilities owned by the company amounted to IDR 3,216,992,692,903, while the total capital deficiency was IDR 152,771,650,320. The variable standard deviation value is 1,600, where the value is greater than the mean value of 0,609. It shows that the capital structure variable has heterogeneous or varied data.

The second variable is profitability, which had the highest value of 0.359 at PT Fortune Mate Indonesia Tbk in 2016. A net profit of Rp276,909,152,732 causes this condition, while total assets amounted to Rp771,547,611,433. The lowest value is -0.375, and it was owned by PT Lippo Cikarang Tbk in 2020 with a net profit of -Rp3,646,386,000,000, while total assets amounted to Rp9,719,570,000,000. The variable standard deviation value is 0.071, more significant than the mean

value of 0.024. This shows that the capital structure variable has heterogeneous or varied data.

The third variable, company size, has the highest value of 31,968, which occurred at PT Metro Realty Tbk in 2019—total assets of Rp76,461,609,634,000 cause this condition. The lowest value is 24,849, owned by PT Metro Realty Tbk in 2022, with total assets of Rp61,883,551,310. The variable standard deviation value is 1,503, lower than the mean value of 29,108. This shows that the capital structure variable has homogeneous or grouped data.

The fourth variable is company growth, with the highest value of 3,673 at PT Maha Properti Indonesia Tbk in 2016. This condition is caused by total assets in 2016 amounting to Rp301,047,993,000; in 2015, total assets amounted to Rp1,406,787,102,000. The lowest value is -0.234, owned by PT Star Pacific Tbk in 2019, with total assets in 2019 amounting to Rp1,004,419,000,000, while in 2018, total assets amounted to Rp1,311,731,000,000. The variable standard deviation value is 0.035, lower than the mean value of 0.108. This shows that the capital structure variable has homogeneous or grouped data.

The fifth variable is liquidity, which has the highest value of 65,592, which occurred at PT Star Pacific in 2022. Total current assets of Rp818,135,000,000 cause this condition, while total short-term debt is Rp12,473,000,000. The lowest value is 0.001, owned by PT Intiland Development in 2017, with total current assets of Rp3,606,927,938, while its total short-term debt amounted to Rp4,103,191,556,657. The variable standard deviation value is 5.856, where the value is greater than the mean value of 3.296. This shows that the capital structure variable has heterogeneous or varied data.

The sixth variable is tangibility, which had the highest value of 0.704 at PT Roda Vivatex Tbk in 2015. Total fixed assets of Rp1,318,804,847,349 cause this condition, while total assets amounted to Rp.1,872,158,609,529. The lowest value is 0.000, owned by PT Metro Realty Tbk in 2020, with total fixed assets of IDR33,494,835,394, while total assets amounted to IDR72,921,362,051,000. The variable standard deviation value is 0.125, where the value is greater than the mean value of 0.088. This shows that the capital structure variable has heterogeneous or varied data.

The seventh variable, the nondebt tax shield, has the highest value of 0.650 at PT Indonesia Prima Property Tbk in 2017. Total assets of IDR 4,242,934,699,631 cause this condition, while the depreciation value is IDR 277,622,589,332. The lowest value is -0.048, owned by PT Metropolitan Land Tbk in 2020, with total assets of Rp5,932,483,000,000, while the depreciation value is -Rp282,670,000,000. The variable standard deviation value is 0.085, more significant than the mean value of 0.052. This shows that the capital structure variable has heterogeneous or varied data.

Table 3. Variable Instrumental Test					
Cross-section fixeed (first diffe	rences)				
Mean dependent var	-0.040794	S.D. dependent var	1.363037		
S.E. of regression	1.966514	Sum squared resid	947.4584		
J-statistic	14.62745	Instrument rank	27		
Prob(J-statistic)	0.797313				

Variable Instrumental Test (IV)

Source: Eviews 12 Output Results (2024)

Based on the *instrumental variable* test (IV) results, the Prob (J-statistic) value is 0.7977313, which is greater than 0.05. This *condition* means that there is a *condition of moments*, or in other words, the instrument used is valid.

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Autocorrel	lation	Test
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]	Fable 4. Autocorrelation	Test	
Test order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-0.342529	-91.364953	266.736376	0.7320
AR(2)	-1.357274	-213.831400	157.544801	0.1747

Source: Eviews 12 Output Results (2024)

The autocorrelation test results show that AR(1) and AR(2) are significant. The probability value of AR(1) is 0.7320, and AR(2) is 0.1747, which means greater than 0.05. Thus, it shows no autocorrelation symptoms until this study, and the GMM estimation is consistent. Multicollinearity Test

Table 5. Multicollinearity Test							
	DER	PROF	SIZE	GROWTH	LIQ	TANG	NDTS
DER	1.000000	-0.043939	0.116460	0.000463	-0.061315	0.018255	-0.013360
PROF	-0.043939	1.000000	0.118068	-0.104305	0.045338	0.080453	-0.126763
SIZE	0.116460	0.118068	1.000000	0.101430	-0.167410	-0.040352	-0.195032
GROWTH	0.000463	-0.104305	0.101430	1.000000	-0.016729	-0.038153	-0.034318
LIQ	-0.061315	0.045338	-0.167410	-0.016729	1.000000	-0.062283	0.038380
TANG	0.018255	0.080453	-0.040352	-0.038153	-0.062283	1.000000	0.603264
NDTS	-0.013360	-0.126763	-0.195032	-0.034318	0.038380	0.603264	1.000000
G	12 O	1 (202.4)					

Source: Eviews 12 Output Results (2024)

The coefficient value of each independent variable in this study is below 0.90, meaning there are no multicollinearity symptoms between the independent variables, so the data used in this study have met the assumption test requirements.

Dynamic Panel Data Regression Test

Table 6. Dynamic Panel Data Regression Test						
Coefficient	Std. Error	t-Statistic	Prob.			
0.043864	0.023201	1.890590	0.0658			
1.043849	0.998636	1.045275	0.3020			
-0.650974	0.118026	-5.515497	0.0000			
0.006173	0.001750	3.526601	0.0004			
-0.102200	0.023285	-4.389065	0.0000			
15.325070	2.885059	5.311874	0.0000			
3.829324	3.775142	1.014352	0.3164			
	Effects specification					
rst differences)						
-0.040794	S.D. dependent var		1.363037			
1.966514	Sum squared resid		947.4584			
14.62745	Instrument rank		27			
0.797313						
	Coefficient 0.043864 1.043849 -0.650974 0.006173 -0.102200 15.325070 3.829324 rst differences) -0.040794 1.966514 14.62745	Coefficient Std. Error 0.043864 0.023201 1.043849 0.998636 -0.650974 0.118026 0.006173 0.001750 -0.102200 0.023285 15.325070 2.885059 3.829324 3.775142 Effects specification rst differences) -0.040794 -0.040794 S.D. dependent var 1.966514 Sum squared resid 14.62745 Instrument rank	Coefficient Std. Error t-Statistic 0.043864 0.023201 1.890590 1.043849 0.998636 1.045275 -0.650974 0.118026 -5.515497 0.006173 0.001750 3.526601 -0.102200 0.023285 -4.389065 15.325070 2.885059 5.311874 3.829324 3.775142 1.014352 Effects specification Effects specification rst differences) -0.040794 S.D. dependent var 1.966514 Sum squared resid 14.62745 Instrument rank			

Source: Eviews 12 Output Results (2024)

Based on the results of testing the dynamic panel data regression equation, the generalized method of moment (GMM) estimation is as follows:

 $Lev_{i,t} = 0.043864 + 1.043849PROF - 0.650974SIZE + 0.006173GROWTH - 0.102200LIQ + 0.006173GROWTH - 0.0$ 15.32507TANG + 3.829324NDTS + *µit*

The explanation of the regression equation can be explained as follows:

- 1. The value of DER(-1) of 0.43864 means that if all independent variables, namely profitability (PROF), company size (SIZE), company growth (GROWTH), liquidity (LIQ), *asset tangibility* (TANG), and *nondebt tax shield* (NDTS) are zero, then the value of the dependent variable, namely capital structure or DER is 0.043864 units.
- 2. The coefficient value of the profitability variable (PROF) is 1.043849. This value indicates that if the value of profitability (PROF) increases by one unit and the other variables are constant, the value of the dependent variable mode structure will increase by 1.043849 units.
- 3. The coefficient value of the firm size variable (SIZE) is -0.650974. This value indicates that if the firm size (SIZE) increases by one unit and the other variables are constant, the dependent variable capital structure will decrease by 0.650974 units.
- 4. The coefficient value of the company growth variable (GROWTH) is 0.006173. This value indicates that if the value of company growth (GROWTH) increases by one unit, other variables will be constant. The value of the dependent variable mode structure will increase by 0.006173 units.
- 5. The coefficient value of the liquidity variable (LIQ) is -0.102200. This value indicates that if the value of liquidity (LIQ) increases by one unit and other variables are constant, the value of the dependent variable capital structure will decrease by 0.102200 units.
- 6. The coefficient value of the asset tangibility variable (TANG) is 15.32507. This value indicates that if the value of the asset tangibility (TANG) increases by one unit and the other variables are constant, the value of the dependent variable mode structure will increase by 15.32507 units.
- 7. The coefficient value of the nondebt tax shield (NDTS) variable is 3.829324. This value indicates that if the value of the nondebt tax shield (NDTS) increases by one unit and the other variables are constant, the value of the dependent variable mode structure will increase by 3.829324 units.

	Table 7. Wald Tes	t	
Test Statistic	Value	df	Probability
F-statistic	19.92985	(6, 245)	0.0000
Chi-square	119.5791	6	0.0000

Wald Test (Simultaneous)

Source: Eviews 12 Output Results (2024)

Based on the *Chi-square value of* 119.5791 and a *probability* value of 0.0000. This shows that the *p-value is* lower than 0.05, so H0 is rejected. Based on the Wald test, it can be concluded that the independent variables, namely profitability (PROF), company size (SIZE), company growth (GROWTH), liquidity (LIQ), *asset tangibility* (TANG), and *nondebt tax shield* (NDTS) simultaneously affect the dependent variable and the GMM estimation model is by the research data.

Partial Test (T Test)

Table 8. t- Test							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
DER(-1)	0.043864	0.023201	1.890590	0.0658			
PROF	1.043849	0.998636	1.045275	0.3020			
SIZE	-0.650974	0.118026	-5.515497	0.0000			
GROWTH	0.006173	0.001750	3.526601	0.0011			
LIQ	-0.102200	0.023285	-4.389065	0.0000			
TANG	15.325070	2.885059	5.311874	0.0000			
NDTS	3.829324	3.775142	1.014352	0.3164			

Source: Eviews 12 Output Results (2024)

Based on the partial test results in Table 4.14, the following results are obtained:

- 1. The relationship between profitability (PROF) and the capital structure variable has a probability value of 0.3020, which is more significant than the significance value of 0.05. The result shows that profitability (PROF) does not affect capital structure.
- 2. The relationship between firm size variable (SIZE) and capital structure variable has a probability value of 0.0000, smaller than the significance value of 0.05. The result shows that firm size (SIZE) significantly negatively affects capital structure.
- 3. The relationship between the firm growth variable (GROWTH) and the capital structure variable has a probability value of 0.0011, smaller than the significance value of 0.05. The result shows that firm growth (GROWTH) significantly affects capital structure.
- 4. The relationship between the liquidity variable (LIQ) and the capital structure variable has a probability value of 0.0001, which is smaller than the significance value of 0.05. The result shows that liquidity (LIQ) significantly negatively affects capital structure.
- 5. The relationship between *the asset tangibility* variable (TANG) and the capital structure variable has a probability value of 0.0000, smaller than the significance value of 0.05. These results indicate that *asset tangibility* (TANG) significantly affects capital structure.
- 6. The relationship between *the nondebt tax shield* (NDTS) and the capital structure variable has a probability value of 0.3164, which is more significant than the significance value of 0.05. The result shows that *the nondebt tax shield* (NDTS) does not affect capital structure.

Discussion

Effect of Profitability on Capital Structure

The effect of profitability on capital structure has a probability value of 0.3020 with a coefficient of 1.043849. The probability value is greater than the significance level of 0.05. This condition indicates that the profitability variable does not affect capital structure. This is not by the research hypothesis. The variable profitability data shows that the profitability level of *the property* and *real estate* sector is very different for each company. This condition causes the profitability variable not to predict the amount of capital structure in this sector. Companies with high profitability levels tend to have adequate internal funds, so the company will use internal funds first for its operational activities. Based on these results, it is not by the research hypothesis that profitability has no effect on capital structure and is not in line with some of the results of previous studies that have a negative influence between profitability and capital structure, including (Akbar, 2023) and (Lyubov, 2021).

Effect of Company Size on Capital Structure

The effect of firm growth on capital structure has a probability value of 0.0000 with a coefficient value of -0.006173. Based on the acquisition value, H α 3 is accepted, which means that the company growth variable positively affects the capital structure. This means that the company growth variable contained in the *property* and *real estate* sector companies listed on the Indonesia Stock Exchange in 2015-2022 affects the company in determining its capital structure. Large companies have a higher level of debt than small and medium-sized companies, and the bankruptcy rate of large companies is also high, so large companies are more likely to receive loans than small and medium-sized companies, so large companies bear more debt than small companies and medium-sized companies. Based on these results, the research hypothesis, namely that company size has a significant negative effect on capital structure, is not in accordance with some previous research results, which have a positive influence on company size and capital structure, including Akbar (2023) and Lyubov (2021).

Effect of Company Growth on Capital Structure

The influence of firm growth on capital structure has a probability value of 0.0011 with a

coefficient value of 0.006173. Based on the acquisition value, H α 4is accepted, which means that the company growth variable positively affects the capital structure. This means that the company growth variable contained in the *property* and *real estate* sector companies listed on the Indonesia Stock Exchange in 2015-2022 affects the company in determining its capital structure. The greater the company's growth, the greater the capital structure tends to be. Therefore, the need for additional capital will correspond to sales, such as production, additional fixed assets, and sales, such as advertising and distribution. However, as firms grow better and become more stable, they can minimize these costs by reducing their reliance on equity debt. Therefore, if a firm's growth increases and it can reduce costs, its capital structure may decrease. Based on these results, the research hypothesis that company growth positively affects capital structure is supported. This aligns with some previous research results, including Shaik (2022) and Usman (2021), which have positively influenced company growth and capital structure.

Effect of Liquidity on Capital Structure

The effect of liquidity on capital structure has a probability value of 0.0001 with a coefficient value of -0.006173. Based on the acquisition value, H α 5is accepted, which means that the liquidity variable positively affects capital structure. This means that the liquidity variable in the *property* and real *estate* sector companies listed on the Indonesia Stock Exchange in 2015-2022 affects the company's ability to determine its capital structure. A company's liquidity can affect investor confidence and the external funding of a company. According to *the pecking order theory*, companies with higher liquidity tend to use less debt. High liquidity makes equity more attractive than debt, reducing the proportion of debt in the capital structure. Based on these results, the research hypothesis that company growth hurts capital structure is not supported by previous research results showing a positive influence between company growth and capital structure, including (Rehan, 2023) and (Shaik, 2022).

Effect of Tangibility Asset on Capital Structure

The effect of asset *tangibility* on capital structure has a probability value of 0.0000 with a coefficient value of 15.32507. Based on the acquisition value, H α 6 is accepted, which means that the *asset tangibility* variable contained in *property* and *real estate* companies listed on the Indonesia Stock Exchange in 2015-2022 affects the company in determining its capital structure. Company assets protect debt payments so that creditors can use these assets as collateral in the event of financial difficulties. Companies with more physical assets tend to receive more loans. *Asset tangibility* has a positive impact on leverage. The higher the value of a company's assets, the greater its ability to obtain secure debt and the less information is available to predict the company's future profits. Based on these results, the research hypothesis that asset tangibility has a positive influence between asset tangibility and capital structure, including (Lyubov, 2021) and (Prakash, 2022).

Effect of Non-Debt Tax Shield on Capital Structure

The effect of a non-debt tax shield on capital structure has a probability value of 0.3164 with a coefficient value of 3.829324. The probability value is greater than the significance level of 0.05. This condition means that the non-debt tax shield variable does not affect the capital structure of property and real estate sector companies listed on the Indonesia Stock Exchange in 2015-2022. This is not by the research hypothesis. The higher the company's depreciation expense, the greater its fixed assets, so it provides an advantage in obtaining financing from creditors. Therefore, as the value of debt-free tax protection increases, the proportion of debt in the capital structure also increases. These results are in accordance with the research hypothesis that non-debt tax shield has a positive effect on capital structure and in line with some previous research results that have a positive influence on company size and capital

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structure, including Lyubov (2021) and Prakash (2022).

Conclusion

Based on the results of hypothesis testing and the discussion presented, the research on the effect of profitability, company size, company growth, liquidity, tangibility, and non-debt tax shield on capital structure in property and real estate sector companies listed on the Indonesia Stock Exchange from 2015 to 2022, concludes that profitability (PROF) does not affect capital structure. Firm size (SIZE) significantly negatively affects capital structure, while company growth (GROWTH) has a significant positive impact. Liquidity (LIQ) has a significant negative effect, and asset tangibility (TANG) has a considerable positive impact on capital structure. The non-debt tax shield (NDTS) does not affect capital structure. Based on these findings, several suggestions are offered for future research to improve the scope and quality of studies. Future research should consider using different research objects to broaden the scope. Academic research could employ various methods in the research process and sample selection. For property and real estate companies, it is recommended that in making capital structure decisions, attention should be given to the growth rate and company size to maximize company value, which would subsequently impact investor interest positively. These recommendations aim to enhance the understanding and application of capital structure decisions in the property and real estate sector.

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