Determinants of Capital Structure: Evidence from Indonesian Property and Real Estate Firms

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Abstract: *This study investigates the determinants of capital structure in property and real estate firms listed on the Indonesia Stock Exchange over the 2022–2024 period. Specifically, it examines the effects of profitability, liquidity, asset structure, and taxation on firms' capital structure decisions. A quantitative approach was employed using purposive sampling, resulting in a final sample of 19 firms with 52 observations after outlier removal. Secondary data were obtained from annual financial statements and analyzed using multiple linear regression. The results reveal that profitability, liquidity, and asset structure do not have a significant effect on capital structure. In contrast, taxation has a positive and significant effect, indicating that firms tend to increase leverage to benefit from tax shield advantages. These findings suggest that external factors, particularly taxation, play a more prominent role than internal financial characteristics in determining capital structure in the Indonesian property and real estate sector.*

INTRODUCTION

Capital structure is a fundamental aspect of corporate financial management, reflecting a company's decisions regarding the combination of debt and equity to finance its operations. The right capital structure decision is crucial because it can impact a company's value and the level of financial risk it faces. In financial theory, various approaches, such as trade-off theory, pecking order theory, and Modigliani-Miller theory, are used to explain how companies determine their optimal capital structure (Pamungkas et al., 2024).

In the context of a developing country like Indonesia, capital structure decisions have different characteristics compared to those in developed countries. This is due to limited access to external funding, capital market inefficiencies, and information asymmetry between management and investors. Companies in Indonesia tend to be more cautious in using long-term debt due to considerations of economic risks and fluctuations in financial market conditions. (Badri, 2022). The property and real estate sector is one of the sectors with high capital requirements due to its capital-intensive and long-term oriented nature. Companies in this sector require significant funding sources to finance development projects, making capital structure decisions crucial for maintaining the sustainability of company operations. (Arigawati, 2025).

Various internal company factors, such as profitability, liquidity, and asset structure, are often considered important determinants of capital structure decisions. Companies with high profitability tend to use internal funds for financing, in accordance with the pecking order theory, while companies with high liquidity have a better ability to meet short-term obligations without relying on debt. Furthermore, an asset structure dominated by fixed assets can serve as collateral for obtaining loans, potentially affecting a company's leverage level (Kumar et al., 2024) .

In addition to internal factors, taxes are also an important external factor in capital structure decisions. Using debt offers the benefit of tax savings through an interest tax shield, thus encouraging companies to increase the use of debt in their capital structure. (Sudarmika & Sudirman, 2015) .

However, previous research has shown inconsistencies regarding the influence of these variables on capital structure. Research conducted by Badri (2022) and Hariyanti (2023) found that liquidity and asset structure influence capital structure in Indonesian companies. Meanwhile, research by Geofanny & Fitra (2024) found different results, namely that profitability has no significant effect on capital structure, while taxes and asset structure have a more consistent influence. This inconsistency of results indicates that the determinants of capital structure remain a relevant issue for further research, particularly in the property and real estate sector in Indonesia. Based on this, this study aims to analyze the effect of profitability, liquidity, asset structure, and taxes on capital structure in property and real estate companies listed on the Indonesia Stock Exchange for the period 2022–2024 .

Hypothesis Development

The Effect of Profitability on Capital Structure

Higher profits reduce a company's tendency to use foreign capital. This is because using foreign capital reduces profits due to the need to repay debt obligations. Companies with high profitability will use internal funds to meet their needs, eliminating the need for external financing and lowering debt levels, as explained in the pecking order theory. Based on the theory, profitability influences changes in capital structure, as supported by Rahmadianti's research. & Yuliandi (2020) , Arini & Wiagustini (2017) found that profitability results have an effect on capital structure , so the hypothesis in this study is:
H_1 : Profitability Affects Capital Structure

The Effect of Liquidity on Capital Structure

Liquidity reflects a company's ability to meet short-term obligations using its current assets. Companies with high liquidity demonstrate healthier financial conditions, thus tending to be able to finance their operations without relying on external funding. Based on *the pecking order theory* , companies will prioritize the use of internal funds over debt, so the higher the liquidity, the lower the use of debt in the capital structure is expected to be. (Putu et al., 2018) . Primanatara Research & Dewi (2016) found that liquidity influences capital structure . Based on this description, the hypothesis in this study is:
H_2 : Liquidity has an effect on capital structure.

The Influence of Asset Structure on Capital Structure

Asset structure describes the composition of a company's assets, specifically the ratio of fixed assets to current assets. Companies with a larger proportion of fixed assets tend to have easier access to external funding because these assets can be used as collateral for loans. According to trade-off theory, this should increase the use of debt in the capital structure. However, empirical

research shows varying results regarding the effect of asset structure on capital structure. Research by Putu et al. (2018) found that asset structure had no significant effect on capital structure, in line with the results of Muslimah's research. & Masitoh (2020) This indicates that companies do not always consider fixed assets as a primary factor in financing decisions. Based on this description, the hypothesis proposed in this study is :
H_3 : Asset structure influences capital structure.

The Effect of Taxes on Capital Structure

Companies can benefit from using debt, namely the interest as part of a tax relief (Brigham and Houston, 2011). This indicates that taxes influence capital structure, according to Primanatara's research. & Dewi (2016) , Rahmadianti & Yuliandi (2020) stated that taxes have a significant effect on capital structure.
H_4 : Taxes Affect Capital Structure

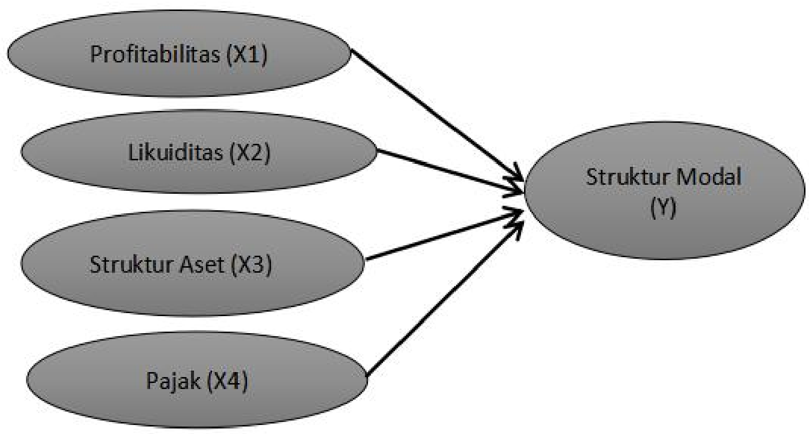

Figure 1. Conceptual Framework

LITERATURE REVIEW

Profitability

Profitability refers to a company's ability to generate profit from its operations. The level of profitability significantly influences managerial decisions regarding external funding and the allocation of funds within daily operations, as every operational activity requires capital. Cash generated from profitability affects the amount of external debt or equity financing needed for operational purposes. Additionally, the profit level a company can achieve also impacts its capital structure (Simangunsong, 2023).

Liquidity

Liquidity measures a company's ability to meet its short-term obligations using its current assets. The higher a company's liquidity ratio, the greater its ability to pay off liabilities, and vice versa. Companies with high liquidity are generally less likely to rely on debt financing (Dian, 2015).

Asset Structure

Asset structure reflects the proportion of assets that can serve as collateral (collateral value of assets) (Salsabila, 2023). It is measured by dividing fixed assets by total assets. A higher proportion of fixed assets relative to total assets provides a company with stronger collateral for securing debt. Therefore, firms with substantial fixed assets tend to use larger amounts of debt financing.

Taxes

Taxes are mandatory contributions imposed by the government on individuals and companies without direct compensation, used to finance government expenditures. Taxes are a key external factor influencing a company's capital structure. One major impact of taxes on capital structure is through the tax shield benefit of debt—where interest payments on loans are deductible from taxable income, thereby reducing the company's overall tax burden (Apriliandia et al., 2025).

Capital Structure

Capital structure refers to the mix of long-term and short-term debt and equity used to finance a company's operations (Salsabila, 2023). It reflects the relative proportions of funding sources used for long-term financing, particularly in relation to investment needs. Internal financing comes from sources such as equity capital, retained earnings, and reserves. External financing, on the other hand, comes from debt financing (debt capital).

METHOD

This study uses a quantitative approach with a causality study aimed at examining the influence of profitability, liquidity, asset structure, and taxes on capital structure. The data used is secondary data obtained from the company's annual financial reports. The data collection method used non-participant observation by observing published data. The population in this study were property and real estate sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2022-2024 . The sample was selected using a purposive sampling technique based on certain criteria, namely companies that are consistently listed, publish complete financial reports, and do not experience losses during the study period. The data analysis method used is multiple linear regression to test the influence of independent variables on dependent variables both simultaneously and partially.

RESULT AND DISCUSSION

Descriptive Statistical Analysis

sample consisted of 19 property and real estate companies listed on the Indonesia Stock Exchange during the 2022–2024 period, resulting in a total of 57 initial observations (19 companies × 3 years). However, after outlier testing, several extreme data points did not meet the analysis criteria and had to be removed from the research sample. Therefore, the final number of observations used in the analysis was 52. A summary of the descriptive statistics can be seen in Table 1 .

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Profitability (X1)	52	.00977	14.53371	4.4415023	3.71427336
Liquidity (X2)	52	.00307	.16647	.0505472	.03904501
Asset Structure (X3)	52	23.07856	31.73965	28.1135141	2.62307229

Tax (X4)	52	.00000	.57500	.1246769	.14985842
Capital Structure (Y)	52	.08566	1.74305	.6916520	.48653940
Valid N (listwise)	52				

Based on Table 1, the number of data used in this study was 52 samples that met the research criteria. The profitability variable (X1) had a minimum value of 0.00977 and a maximum value of 14.53371 with an average of 4.4415023 and a standard deviation of 3.71427336. This indicates that the level of profitability of property and real estate companies during the study period tended to vary with a fairly high data distribution.

The liquidity variable (X2) has a minimum value of 0.00307 and a maximum of 0.16647 with an average value of 0.0505472 and a standard deviation of 0.03904501. A standard deviation value that is smaller than the average indicates that the liquidity data is relatively homogeneous and does not have large deviations.

The asset structure variable (X3) has a minimum value of 23.07856 and a maximum of 31.73965 with an average value of 28.1135141 and a standard deviation of 2.62307229. This shows that most companies have a relatively high proportion of fixed assets and do not vary much.

The tax variable (X4) has a minimum value of 0.00000 and a maximum of 0.57500 with an average of 0.1246769 and a standard deviation of 0.14985842. A standard deviation value greater than the average indicates that there is quite high variation in the tax burden between companies.

The capital structure variable (Y) has a minimum value of 0.08566 and a maximum of 1.74305 with an average value of 0.6916520 and a standard deviation of 0.48653940. This indicates that the level of debt use in the company's capital structure varies quite widely among the sample companies.

Overall, the results of descriptive statistics show that the research data has good enough variation to be used for further analysis.

Classical Assumption Test

Table 2. Classical Assumption Test Results

Variables	Normality	Multicollinearity		Heteroscedasticity	Autocorrelation
		Tolerance	*VIF*		
Profitability (X1)	0.201	0.137	7,295	0.696	1,985
Liquidity (X2)		0.153	6,556	0.316	
Asset Structure (X3)		0.830	1,205	0.779	

Tax (X4)		0.695	1,439	0.923	

Based on Table 2 , it is known that the results of the normality test using the *Kolmogorov-Smirnov method* are significant at 0.201 > 0.05. The results of the multicollinearity test show that the independent variable has a *tolerance value* above 0.1 and *a VIF* of less than 10. The results of the autocorrelation test with *Durbin-Watson* are worth 1.984 through the equation DU < DW < 4-DU (1.7223 < 1.985 < 4-1.7223). The results of the heteroscedasticity test with the Glejser test show that the independent variable has a significant value greater than 0.05. Based on the results obtained, it can be concluded that the research data has passed the classical assumption test.

Multiple Linear Regression Analysis

Table 3. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.786	.564		1,395	.170
Profitability (X1)	-.002	.032	-.016	-.065	.949
Liquidity (X2)	-2,742	2,898	-.220	-.946	.349
Asset Structure (X3)	-.008	.018	-.041	-.411	.683
Tax (X4)	2,143	.354	.660	6,060	.000
R	.78 4				
R Square	.613				
Adjusted R Square	.57 8				

Coefficient of Determination Test (R Square)

The coefficient of determination (R Square) of 0.613 indicates that 61.3% of the variation in capital structure can be explained by profitability, liquidity, asset structure, and taxes. The remaining 38.7% is influenced by variables outside the research model. The Adjusted R Square of 0.578 indicates that the model used in this study has a fairly good ability to explain the dependent variable.

t-test

Based on Table 3 , it is known that profitability has a significance value of 0.949 > 0.05 , this indicates that profitability does not affect capital structure, so H1 is rejected. Liquidity has a significance value of 0.349 > 0.05 , this is shows that liquidity has no effect on capital structure, so H2 is rejected. Asset structure has a significance value of 0.683 > 0.05 , meaning that asset structure has no effect on capital structure, so H3 is rejected. Tax has a significance value of 0.000 < 0.05 , this indicates that taxes have an effect on capital structure, so H4 is accepted.

Discussion

The Effect of Profitability on Capital Structure

Based on the test results, profitability has no effect on capital structure in property and real estate companies. This condition indicates that the size of a company's profits is not a basis for determining capital structure, as companies determine their capital structure based on the benefits and costs of capital from using debt to support operational activities. However, because profitability is one of the factors that assesses a company's current condition and indicates its future progress or development, profitability cannot be completely ignored by companies. The results of this study align with the results of research conducted by Hamzah (2021) , Andika and Sedana (2019), and Sudarmika (2019). & Sudirman (2015) which states that profitability does not affect capital structure.

The Effect of Liquidity on Capital Structure

Based on the test results, the liquidity variable did not affect the capital structure of property and real estate companies during the period 2022–2024 . This indicates that the company's ability to meet short-term obligations is not a major factor in determining capital structure policy.

In theory, companies with high liquidity tend to use internal funds rather than debt. However, the results of this study do not support this theory. This situation may be due to the nature of the property and real estate industry, which requires large amounts of long-term funding, forcing companies to continue relying on debt despite having high liquidity. Furthermore, liquidity reflects short-term financial conditions, while capital structure is a long-term decision. Therefore, liquidity is not always the primary consideration in determining capital structure. The results of this study align with research by Primanatara & Dewi (2016) and Qosidah & Romadhon (2021) found that liquidity does not have a significant effect on capital structure.

The Influence of Asset Structure on Capital Structure

Based on the test results, the asset structure variable did not affect the capital structure of property and real estate companies in the period 2022–2024 . This indicates that the size of the proportion of fixed assets owned by the company is not a primary consideration in determining capital structure policy.

In theory, companies with a high proportion of fixed assets tend to have easier access to loans because these assets can be used as collateral. This is in line with *the trade-off theory* , which states that companies with high tangible assets tend to use greater amounts of debt. However, the results of this study do not support this theory. This situation may be due to the characteristics of property and real estate companies, which generally already have substantial fixed assets, so variations in asset structure between companies are less significant in influencing financing decisions. Furthermore, companies tend to be more cautious in using long-term debt due to the potential financial risks involved.

The results of this study are in line with research by Putu et al. (2018) as well as Muslimah & Masitoh (2020) stated that asset structure does not affect the financial structure. This shows that in practice, capital structure decisions are not solely determined by asset security but are also influenced by other factors such as management policies, market conditions, and the company's risk management strategy.

The ***Effect of Taxes on Capital Structure***

Test results show that taxes have a positive and significant effect on capital structure. This means that the higher the tax burden a company bears, the higher the use of debt in its capital structure.

This situation occurs because companies use debt as a means to reduce their tax burden through interest costs (a tax shield). Therefore, companies tend to increase their use of debt to optimize their capital structure. In the property and real estate sector, significant funding needs encourage companies to utilize debt as a source of financing and for tax efficiency. This research aligns with research by Rahmadianti & Yuliandi (2020). as well as Sudarmika & Sudirman (2015) found that taxes have a positive effect on a company's capital structure.

CONCLUSION

Based on the research results and discussions conducted, it can be concluded that the variables of profitability, liquidity, and asset structure do not affect the capital structure of property and real estate companies listed on the Indonesia Stock Exchange for the period 2022–2024 . This indicates that these three variables are not the main factors considered by companies in determining capital structure policies.
Meanwhile, the tax variable has been shown to have a positive and significant impact on capital structure. This indicates that companies tend to utilize debt as a means of obtaining tax shields, thereby increasing the use of debt in their capital structure.

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