

## THE EFFECT OF PROFITABILITY, LIQUIDITY, AND ASSET TANGIBILITY ON CAPITAL STRUCTURE IN PROPERTY AND REAL ESTATE COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE IN 2017-2023



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### Abstract

This research investigates the impact of asset tangibility, liquidity, and profitability on the capital structure of property and real estate companies listed on the Indonesia Stock Exchange during the 2017–2023 period. These variables were selected due to their central relevance to financial decision-making under the framework of the pecking order and trade-off theories, and their heightened importance amid economic uncertainty such as the COVID-19 pandemic. Asset tangibility represents collateral capacity, liquidity reflects short-term financial flexibility, and profitability indicates internal financing ability all of which are critical under crisis conditions. Utilizing a quantitative approach, the study applies dynamic panel data analysis through the Generalized Method of Moments (GMM) to estimate the regression model. The sample consists of 294 firm-year observations from 42 purposively selected firms over seven years. Statistical analysis reveals that while the three variables jointly have a significant effect on capital structure, only profitability exerts a significant positive impact individually. In contrast, asset tangibility and liquidity show no significant influence when assessed independently. This study contributes new empirical insights into capital structure determinants in Indonesia's property sector, especially within the context of emerging market volatility and global disruptions, offering a foundation for future research incorporating additional firm-specific or macroeconomic variables.

**Keywords:** Asset Tangibility, Capital Structure, Generalized Method of Moments (GMM), Liquidity, Profitability

## INTRODUCTION

The Indonesia Stock Exchange (IDX) functions as a capital market platform that enables companies and institutions to obtain funding by offering shares or other securities to the public, in accordance with Capital Market Law regulations. The Indonesia Stock Exchange (IDX) classifies its listed companies into 11 industrial sectors, including healthcare, basic materials, financials, transportation and logistics, technology, consumer non-cyclicals, industrials, energy, consumer cyclicals, infrastructure, and property and real estate. This study concentrates on the property and real estate sector, specifically targeting firms listed on the IDX from 2017 to 2023. The entities under this classification are engaged in developing permanent infrastructure and integrated area projects. The term "property" typically refers to land and buildings either owned or leased, whereas "real estate" pertains to land development for both commercial and industrial functions. As of 2024, the IDX recorded 92 publicly traded companies operating in this sector. The property and real estate industry holds strategic importance in the Indonesian economy, contributing 9.43% to the construction GDP and 2.40% to the real estate GDP during the second quarter of 2023 (ekon.go.id). However, data from BPS reveals a downward trend in real estate GDP, declining from 3.6% in 2017 to 1.43% in 2023, with several fluctuations in between. Alongside CNBC Indonesia's reports on stagnant property prices, these indicators suggest that the global property market has yet to fully recover, motivating a deeper examination of this sector.

As firms expand within the market, they require substantial capital for growth and increasing revenues. Therefore, maintaining an efficient capital structure becomes essential, as financial management strategically determines the optimal balance of debt and equity to sustain corporate performance. The capital structure, which combines debt and equity financing, considerably influences a company's financial status (Hendi & Susanti, 2021), with long-term capital sources forming its foundation (Windijarto & Andiya, 2021). Creditors face higher risks when a company's liabilities increase, making prudent decision-making vital because each funding type entails different costs, risks, and maturity profiles (Kresno Wibowo et al., 2021). Two dominant frameworks used to interpret capital structure decisions are the Trade-Off Theory and the Pecking Order Theory. Originally introduced by Myers (1977), the Trade-Off Theory posits that leveraging enhances a company's performance up to a certain optimal threshold, where the marginal benefits of debt such as tax shields are counterbalanced by its associated costs (Hendi & Susanti, 2021; Wardoyo & Andani, 2024). Conversely, the Pecking Order Theory, formulated by Myers and Majluf (1984), proposes a financing hierarchy in which firms exhibit a preference for internal capital first, followed by debt, and only resort to issuing equity as a last measure (Fitriyani & Kristanti, 2023; Wardoyo & Andani, 2024). A widely accepted proxy for assessing a firm's leverage is the Debt to Equity Ratio (DER), which indicates the proportion of debt used relative to shareholders' equity (Wardoyo & Andani, 2024). Generally, a higher DER signals increased financial risk (Kristanti & Rahayu, 2018). In the property and real estate industry, DER exhibited notable volatility over the 2017–2023 period reaching a peak of 1.562 in 2021, declining to 1.012 in 2022, and showing a slight rebound in 2023. The sector also faced pressures from the weakening Indonesian rupiah (kontan.co.id; detikFinance.com), which

increased foreign currency debt burdens and raw material costs, causing firms to rely more on debt to stabilize operations.

Various studies have explored capital structure determinants both globally and within Indonesia. Numerous Indonesian researchers have explored various determinants of firm financial decisions. For instance, Wardoyo and Andani (2024) evaluated how profitability, leverage, asset composition, and company scale influence financial outcomes. In another study, Hendi and Susanti (2021) assessed the role of corporate tax obligations, non-debt tax shields, potential investment returns, revenue expansion, and profitability. Similarly, Gusni et al. (2020) investigated elements such as liquidity, growth potential, asset tangibility, non-debt tax shields, and operational risk. Amin (2023) concentrated on firm expansion, asset accumulation, profit generation, and business-related risk factors. Albart et al. (2020) focused their analysis on profitability, corporate size, tangibility, and the presence of non-debt tax shields.

On a global scale, empirical evidence also varies. Kebede (2024) considered a broader macroeconomic framework involving asset tangibility, non-debt tax protections, firm growth, interest rate trends, GDP fluctuations, return on assets, liquidity metrics, risk exposure, and inflation rates. Rehan et al. (2024) incorporated liquidity, ROA, GDP, ROE, tangibility, firm growth, firm size, and capital adequacy ratios into their model. Meanwhile, Khan et al. (2023) looked into how profitability, bank size, asset tangibility, earnings unpredictability, and growth opportunities influence capital structures. Research by Sisodia and Maheshwari (2023) examined liquidity, non-debt tax advantages, risk exposure, company size, growth, profitability, and asset allocation. Abdullah et al. (2022) analyzed ROA, tangibility, liquidity, firm expansion, and the development of financial markets.

Despite the extensive research, findings often show inconsistencies particularly concerning the influence of profitability, liquidity, and tangibility on capital structure. Profitability, which reflects a company's capability to generate net income (Suharsono & Setiadi, 2020), is typically associated with effective operational performance and favorable future projections (Noviani et al., 2019). Companies with abundant internal funds tend to prefer financing internally rather than resorting to external debt (Febriani & Kristanti, 2019). Yet, while Wardoyo & Andani (2024) identified a positive effect of profitability on capital structure, Sisodia & Maheshwari (2023) found no significant impact. Liquidity, the ability to fulfill short-term liabilities, is believed to lessen reliance on external funding when high (Sri Hartati & Mukhibad, 2018; M. N. Abdullah et al., 2022). Contradictory results exist as Rehan et al. (2024) observed a positive effect of liquidity on capital structure, but Sisodia & Maheshwari (2023) did not find a significant relationship.

Asset tangibility, which refers to fixed assets usable as loan collateral, often facilitates greater debt acquisition when internal financing is insufficient (Muhammad & Mukhibad, 2021). The proportion between current and fixed assets serves as the basis for evaluating this variable. Notably, scholarly investigations have produced divergent outcomes; for instance, Kebede (2024) identified a statistically significant and positive association between asset tangibility and capital structure. Conversely, findings by M. N. Abdullah et al. (2022) indicated a significant but inverse relationship. In light of these contradictory results concerning asset tangibility, profitability, and liquidity, the present study seeks to analyze how these factors influence capital structure specifically within the context of property and

real estate firms listed on the Indonesia Stock Exchange for the period spanning 2017 to 2023.

## **REVIEW OF LITERATURE**

### **Financial Statements and Capital Structure**

Financial statements are documents that provide detailed financial information about an organization for a particular time frame (Fitriana, 2024). They offer insights into a company's financial health and operational results, serving as essential tools for stakeholders to evaluate its financial status and performance (Hidayat, 2018). Astuti et al. (2021) state that financial statements primarily aim to present categorized totals of assets, liabilities, equity, income, and expenses, as well as to disclose changes in financial position and managerial performance (Kristanti & Rahayu, 2018). The capital structure of a company represents the mix of debt and equity financing sourced internally and externally to support business activities (Anastasia & Lorenza, 2019). It embodies the long-term financial planning and associated risk profile of the company (Kresno Wibowo et al., 2021), which plays a key role in balancing potential risks and returns (Putri & Willim, 2024). An increased reliance on debt may indicate higher financial risk, which can deter investors (Permadani et al., 2021). The composition of capital structure includes foreign capital categorized by debt maturity periods—short-term (up to 1 year), medium-term (1 to 10 years), and long-term (over 10 years)—commonly utilized for business expansion. Equity capital comprises investments from owners or shareholders, including various types of stock such as common, preferred, and cumulative preferred shares, as well as reserves for expansion, working capital, exchange rate adjustments, and general reserves, alongside retained earnings that remain unallocated.

### **Capital Structure Theories**

Modigliani and Miller (1963) revised their earlier 1958 proposition by asserting that capital structure does affect firm value when taxes are taken into account. Their later model demonstrated that companies utilizing debt financing generally possess higher value compared to those that do not. The Trade-Off Theory (Sri Hartati & Mukhibad, 2018; Sumani et al., 2020) argues that firms should seek to optimize their debt levels to maximize firm value, balancing the tax advantages provided by debt against the costs associated with potential bankruptcy and conflicts of interest between managers, shareholders, and creditors. This theory emphasizes that the optimal capital structure results from weighing the benefits of tax shields against the costs stemming from agency problems. Meanwhile, the Pecking Order Theory (Myers & Majluf, 1984; Putri & Willim, 2024) suggests that firms have a preferred sequence for financing sources, prioritizing internal funds first, followed by debt, and lastly issuing new equity, driven by variations in financing costs and asymmetric information. Finally, Signaling Theory (Kresno Wibowo et al., 2021) focuses on how managerial decisions act as indicators to investors regarding the company's future outlook, based on the premise that managers possess more accurate and superior information than outside investors, thereby influencing investment choices.

### **Hypothesis Development**

#### **The Influence of Profitability on Capital Structure**

The capacity of a firm to produce earnings is embodied in its profitability, with greater profitability signifying superior efficiency in operations. When a company exhibits

high profitability ratios, it indicates optimal utilization of resources such as assets, capital, or revenue streams to yield income. Drawing from the Pecking Order Theory, organizations that achieve substantial profits are inclined to prioritize internal sources specifically retained earnings over external borrowing to meet their financing needs. As a result, such firms generally exhibit a lower reliance on debt financing, which manifests in a reduced debt proportion within their capital structure. This theoretical expectation that profitability negatively correlates with capital structure—is empirically supported by research conducted by Khan et al. (2023) and Amin (2023).

### **The Influence of Liquidity on Capital Structure**

A firm's ability to fulfill its short-term liabilities defines its liquidity. According to the Pecking Order Theory, businesses possessing strong liquidity levels tend to minimize their dependence on external debt. When liquidity is high, equity financing becomes a more favorable option compared to borrowing, thereby reducing the share of debt within the company's capital mix. Consequently, firms with ample liquid assets generally require less external capital. This rationale underpins the proposition that liquidity has a negative association with capital structure, a relationship corroborated by earlier findings from Gusni et al. (2020) and Sisodia & Maheshwari (2023).

### **The Influence of Asset Tangibility on Capital Structure**

The proportion of fixed assets to total assets, known as asset tangibility, indicates how a company allocates its funds among its assets. According to the Trade-Off Theory, a positive relationship exists between asset tangibility and capital structure. Companies possessing greater asset tangibility tend to have easier access to debt financing because their tangible assets can serve as collateral, reducing the need to disclose future profitability. As a result, firms with higher asset tangibility generally show increased debt ratios within their capital structures. This positive correlation has been supported by previous studies, such as those conducted by Rehan et al. (2024) and Sihombing & Kristanti (2024).

## **RESEARCH METHOD**

According to Radjab and Jam'an (2017), research is defined as a systematic sequence of scientific activities aimed at solving problems using empirical and rational approaches. This study applies a descriptive quantitative approach to examine the effects of profitability, liquidity, and asset tangibility on the capital structure of property and real estate companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. Capital structure is measured as the dependent variable by the Debt to Equity Ratio (DER), while the independent variables include profitability, represented by Return on Assets (ROA); liquidity, indicated by the Current Ratio (CR); and asset tangibility, calculated as the proportion of fixed assets to total assets, with all variables expressed as ratios. Employing panel data that combines cross-sectional and time-series observations, the research minimizes intervention by observing natural phenomena, consistent with Indrawati's (2015) explanation. Data collection followed the procedures established by Sekaran and Roger (2017), and the analysis, including hypothesis testing, was conducted using EViews 12 software to assess the relationships among variables. The study's population consisted of all IDX-listed property and real estate firms from 2017 to 2023, with purposive sampling yielding 55 companies and 301 firm-year observations after confirming the availability of

consistent financial records. Secondary data were sourced from IDX official publications, IDNfinancials, and company websites within the targeted sectors. To address issues of simultaneity and endogeneity inherent in dynamic panel data, the Generalized Method of Moments (GMM) estimator was utilized. The model's reliability and validity were confirmed through the Sargan test for instrument relevance, Arellano-Bond tests for autocorrelation, and correlation analysis to detect multicollinearity. Finally, the hypotheses concerning the impact of profitability, liquidity, and asset tangibility on capital structure were tested using Wald and t-statistics at a 5% significance level, providing a thorough examination of the determinants influencing leverage.

## RESULTS AND DISCUSSION

This chapter presents both descriptive and quantitative interpretations of the analyzed model. The analysis follows the model estimation process applied in this research. The data used in this study were sourced from audited financial statements available on the official websites of the respective companies and the Indonesia Stock Exchange. The chapter will detail the data processing outcomes and examine the relationships between independent and dependent variables by employing descriptive statistics and dynamic panel data regression using the Generalized Method of Moments (GMM) estimator.

### Descriptive Statistical Analysis

**Table 1.**  
**Results of Descriptive Statistical Analysis**

Variable	Mean	Maximum	Minimum	Std.Dev
Capital Structure (Y)	1.064	21.057	0.012	1.967
Profitability (X1)	0.014	0.428	-0.208	0.062
Liquidity (X2)	3.332	65.592	0.027	6.007
Asset Tangibility (X3)	0.631	1.296	0.099	0.230

This study's dataset was processed and prepared by the author in 2025

Over the span of seven years, Table 1 illustrates the descriptive statistics for four variables. The Debt to Equity Ratio (DER), representing capital structure, recorded its peak at 21.057 by PT Binakarya Jaya Abadi Tbk in 2021, while the lowest value, 0.012, was observed for PT Star Pacific Tbk in the same year. With a standard deviation of 1.967, which exceeds its mean value of 1.064, the data suggests considerable dispersion in capital structure across firms. Profitability (PROF), the second variable, ranged from a high of 0.428 achieved by PT Pudjiadi Prestige Tbk in 2022 to a low of -0.208 by PT Star Pacific Tbk in 2017. Its standard deviation of 0.062 surpasses the mean of 0.014, indicating substantial variability. The liquidity variable (LIQUID) exhibited values between 0.027, reported by PT Maha Properti Indonesia Tbk in 2023, and 65.592, observed for PT Star Pacific Tbk in 2022. A high standard deviation of 6.007, relative to the mean of 3.332, reflects diverse liquidity positions. In contrast, asset tangibility (TANG) appeared more consistent, with a maximum of 1.296 posted by PT Modernland Realty Tbk in 2021 and a minimum of 0.099 by PT

Binakarya Jaya Abadi Tbk in 2023. The standard deviation of 0.230, being lower than the average of 0.631, indicates relatively low variability in this metric.

### Capital Structure

**Table 2.**  
**Descriptive Statistical Test of Capital Structure**

Description	2017	2018	2019	2020	2021	2022	2023
Mean	1.267	0.790	0.740	1.058	1.575	1.009	1.014
Maximum	13.746	3.094	2.983	10.256	21.058	9.841	8.839
Minimum	0.057	0.066	0.055	0.044	0.013	0.013	0.020
Std. Dev	8.305	5.046	4.732	6.898	10.631	6.587	6.602

This study’s dataset was processed and prepared by the author in 2025

The descriptive statistics for the capital structure variable from 2017 to 2023 reveal substantial variability across the years. In 2017, the capital structure values ranged from a low of 0.057 to a high of 13.746, with a standard deviation of 8.305, which notably exceeded the mean of 1.267, indicating pronounced data dispersion. This trend of heterogeneity persisted in 2018, where the minimum and maximum values were 0.066 and 3.094 respectively, accompanied by a standard deviation of 5.046 that was higher than the average of 0.790. The following years showed similar patterns: 2019 exhibited values between 0.055 and 2.983 with a standard deviation of 4.732 surpassing the mean of 0.740; 2020 ranged from 0.044 to 10.256 with a standard deviation of 6.892 greater than the mean of 1.058; 2021’s spread was from 0.013 to 21.058, with a standard deviation of 10.631 exceeding the mean of 1.575; 2022 had values between 0.013 and 9.841 alongside a standard deviation of 6.587 that surpassed the mean of 1.009; and finally, 2023 recorded a minimum of 0.020 and maximum of 8.839, with a standard deviation of 6.602 above the mean of 1.014. Collectively, these findings consistently demonstrate that the capital structure data exhibited significant heterogeneity throughout the examined period.

### Profitability

**Table 3.**  
**Descriptive Statistical Test of Profitability**

Description	2017	2018	2019	2020	2021	2022	2023
Mean	0.031	0.026	0.017	-0.018	0.017	0.016	0.014
Maximum	0.187	0.145	0.260	0.088	0.277	0.428	0.189
Minimum	-0.209	-0.092	-0.106	-0.186	-0.066	-0.112	-0.132
Std. Dev	0.064	0.047	0.060	0.055	0.066	0.079	0.055

This study’s dataset was processed and prepared by the author in 2025

The descriptive statistics for profitability from 2017 to 2023 reveal consistent variability across the years. In 2017, profitability values fluctuated between a minimum of -0.209 and a maximum of 0.187, accompanied by a standard deviation of 0.064, which notably

exceeded the average of 0.031, indicating significant data dispersion. The following year, 2018, showed a similar pattern, with values ranging from -0.092 to 0.145 and a standard deviation of 0.047, surpassing the mean of 0.026, further reflecting heterogeneity. This trend continued in 2019, where profitability varied between -0.106 and 0.260, with a standard deviation of 0.060 exceeding the mean of 0.017. In 2020, the data ranged from -0.186 to 0.088, the standard deviation of 0.055 was again higher than the mean, which had dipped to -0.018, signifying ongoing diversity in the data. The year 2021 presented a maximum profitability of 0.277 and a minimum of -0.066, with a standard deviation of 0.066 above the mean of 0.017, reinforcing the presence of variability. This pattern persisted in 2022, where profitability values extended from -0.112 up to 0.428, and a standard deviation of 0.079 outpaced the mean of 0.016, indicating substantial fluctuations. Lastly, 2023 showed a range between -0.132 and 0.189, with a standard deviation of 0.055 higher than the average of 0.014, confirming that profitability figures throughout this seven-year period consistently exhibited heterogeneity and variability.

### Liquidity

**Table 4.**  
**Descriptive Statistical Test of Liquidity**

Description	2017	2018	2019	2020	2021	2022	2023
Mean	2.728	2.799	3.201	2.799	4.189	4.321	3.291
Maximum	11.958	8.421	24.882	14.471	65.252	65.592	23.663
Minimum	0.331	0.331	0.179	0.254	0.147	0.101	0.027
Std. Dev	2.708	2.118	4.042	2.891	9.909	10.011	4.503

This study's dataset was processed and prepared by the author in 2025

Table 4 presents the descriptive statistics for liquidity from 2017 to 2023, revealing a shift in data dispersion over the years. In 2017, liquidity values ranged from a minimum of 0.331 to a maximum of 11.958, with a standard deviation of 2.708, which was slightly lower than the mean of 2.728, suggesting relatively homogeneous data. Similarly, in 2018, the liquidity values varied between 0.331 and 8.421, and the standard deviation of 2.118 remained below the mean of 2.799, indicating data consistency. Starting in 2019, however, liquidity measurements became more variable and dispersed: the minimum value dropped to 0.179 while the maximum surged to 24.882, accompanied by a standard deviation of 4.042 that exceeded the mean of 3.201. This trend continued in 2020 with liquidity ranging from 0.254 to 14.471 and a standard deviation of 2.891, surpassing the mean of 2.799. The year 2021 saw an even wider spread, with liquidity spanning from 0.147 to an extreme 65.252 and a notably high standard deviation of 9.909, well above the mean of 4.189. In 2022, the range extended further, reaching a maximum of 65.592 and a standard deviation of 10.011 that was greater than the mean of 4.321. Finally, 2023 liquidity values fluctuated between 0.027 and 23.663, with a standard deviation of 4.503 exceeding the mean of 3.291. Overall, these findings illustrate that liquidity data from 2019 onward exhibit greater heterogeneity and dispersion compared to previous years.

## Asset Tangibility

**Table 5.**  
**Descriptive Statistical Test of Asset Tangibility**

Description	2017	2018	2019	2020	2021	2022	2023
Mean	0.614	0.624	0.621	0.627	0.650	0.639	0.642
Maximum	1.000	1.000	0.963	0.989	1.296	1.040	0.993
Minimum	0.166	0.124	0.113	0.111	0.114	0.117	0.100
Std. Dev	0.230	0.226	0.235	0.240	0.240	0.230	0.224

This study's dataset was processed and prepared by the author in 2025

On the table 5, the highest values ranged from 0.993 to 1.296 across the years 2017 to 2023, while the lowest values ranged from 0.100 to 0.166 within the same period. The standard deviations for each year, ranging between 0.224 and 0.240, were consistently lower than their respective means, which varied from 0.614 to 0.650. This indicates that the asset tangibility data over these years is relatively homogeneous and clustered around the mean, reflecting limited dispersion within the dataset.

## Instrumental Variable (IV) Test

**Table 6.**  
**Instrumental Variable (IV) Test**

Cross-section Fixed (first differences)			
Mean dependent var	0,044653	S.D dependent var	1,695851
S.E of regression	1,696451	Sum squared resid	592,8572
J-statistic	20,29633	Instrument rank	18
Prob(J-statistic)	0,121072		

Source: Output Results from Eviews 12 (2025)

Table 6 presents the results of the instrument variable test, revealing a probability value of 0.121, which exceeds the 0.05 threshold. This outcome suggests that the moment conditions are satisfied, meaning the instruments applied are valid.

## Arellano-Bond Autocorrelation Test

**Table 7.**  
**Arellano Bond Autocorrelation Test**

Test Order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-1.350992	-101.717000	75.290618	0,1767
AR(2)	-1.227850	-118.668377	96.674295	0,2195

Source: Eviews 12 Output Results (2025)

According to the results of the autocorrelation test shown in Table 7, the values for AR(1) and AR(2) are not statistically significant. Since the probability values for AR(1) at 0.1767 and AR(2) at 0.2195 both exceed the 0.05 threshold, it can be concluded that this study's sample does not exhibit autocorrelation issues, confirming the consistency of the GMM estimation.

### Multicollinearity Test

**Table 8.**  
**Outcome of the Multicollinearity Examination**

	DER	PROF	LIQUID	TANG
DER	1	-0.0777	-0.1140	-0.3262
PROF	-0.777	1	0.1626	-0.0552
LIQUID	-0.1140	0.1626	1	-0.3083
TANG	-0.3262	-0.0552	-0.3083	1

Source: Eviews 12 Output Results (2025)

Referring to Table 8, the correlation coefficients among the three independent variables do not exceed 0.8 (80%). This indicates that multicollinearity is not present in the model utilized.

### Dynamic Panel Data Regression Results

**Table 9.**  
**Generalized Method of Moments (GMM) Test**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER(-1)	-0.1098	0.0036	-30.3369	0.0000
PROF	6.8196	0.5591	12.1263	0.0000
LIQUID	0.0143	0.0351	0.4090	0.6846
TANG	-1.0332	0.8149	-1.2678	0.2120

Source: Eviews 12 Output Results (2025)

The dynamic panel data regression model estimated via the Generalized Method of Moments (GMM) can be expressed as follows:  $Levi_t = -0.109850 + 6.819623 PROF + 0.014379 LIQUID - 1.033247 TANG + \mu_{it}$ . In this equation,  $Levi_t$  denotes leverage, measured by the Debt to Equity Ratio (DER), PROF stands for profitability, LIQUID represents liquidity, and TANG indicates asset tangibility. The intercept of -0.109850 suggests that if all independent variables—profitability, liquidity, and asset tangibility—are equal to zero, the leverage (DER) would be -0.109850. Holding other factors constant, an increase of one unit in profitability (PROF) corresponds to a rise of 6.819623 units in leverage. Likewise, leverage increases by 0.014379 for every additional unit of liquidity (LIQUID). Conversely, asset tangibility (TANG) shows a negative relationship, where a one-unit increment leads to a decrease in leverage by 1.033247 units, assuming all else remains equal.

**Hypothesis Testing**  
**Wald Test (Simultaneous)**

**Table 10.**  
**Wald Test**

Test Statistic	Value	df	Probability
t-statistic	-30.3369	206	0.0000
F-statistic	920.3294	(1,206)	0.0000
Chi-square	920.3294	1	0.0000

Source: Eviews 12 Output Results (2025)

Table 10 shows a Chi-square statistic of 920.3294 with a p-value of 0.0000. Since the p-value is below the 0.05 significance level, the null hypothesis (H0) is rejected. The Wald test results indicate that profitability (PROF), liquidity (LIQUID), and asset tangibility (TANG) jointly exert a significant influence on the dependent variable. Therefore, the GMM estimation model fits the research data well.

**t-Test (Partial)**

**Table 11**  
**t-Test (Partial)**

Variable	Coefficient	Std. Error	t-Statistic	Prob
DER(-1)	-0,1098	0,0036	-30,3369	0,0000
PROF	6,8196	0,5591	12,1963	0,0000
LIQUID	0,1437	0,0351	0,4090	0,6846
TANG	-1,0332	0,8149	-1,2678	0,2120

Source: Eviews 12 Output Results (2025)

Table 10's partial test results reveal that profitability (PROF) significantly influences capital structure (DER) positively, as evidenced by a p-value of 0.0000, which is below the 0.05 significance level; therefore, H01 is rejected. Conversely, liquidity (LIQUID) and asset tangibility (TANG) do not have a significant effect on capital structure, since their p-values are 0.6846 and 0.2120 respectively both above the 0.05 threshold leading to the acceptance of H02 and H03, confirming these variables do not impact capital structure.

**The Influence of Profitability on a Firm’s Capital Structure**

From the results shown in Table 10, profitability significantly impacts capital structure, as indicated by a probability value of 0.0000 and a coefficient of 6.819623. Therefore, H01 is rejected, confirming that profitability positively influences the capital structure. This suggests that for companies in the property and real estate sector listed on the Indonesia Stock Exchange between 2017 and 2023, profitability plays a crucial role in shaping their capital structure decisions.

**Table 12.**  
**The Connection Between Profitability and a Firm’s Capital Structure**

ROA	Capital Structure				Amount
	<1.065		>1.065		
	Amount	%	Amount	%	
<0.015	117	40%	49	17%	166
>0.015	99	34%	29	10%	128
Total	216		78		294

This study’s dataset was processed and prepared by the author in 2025

According to Table 12, among 117 samples (40%), companies with profitability below the average tend to exhibit a capital structure that is also below average. Similarly, 99 samples (34%) show that firms with above-average profitability still mostly have below-average capital structures. This suggests that, regardless of whether profitability is high or low, most companies maintain a capital structure below the average level. The descriptive analysis supports the research finding that profitability has a positive effect on capital structure. Profitability, which indicates a company’s capacity to generate earnings from its assets and funding sources such as sales, cash flow, and equity, often influences financing preferences. Firms with higher profitability tend to favor internal financing, like retained earnings, rather than relying on external debt to finance investments and operations. The results of the analysis demonstrate a positive correlation: as profitability increases, so does the capital structure. This finding contrasts with previous research by Khan et al. (2023) and Amin (2023), who found profitability to negatively affect capital structure.

**Effect of Liquidity on Capital Structure**

The results presented in Table 10 reveal that liquidity’s impact on capital structure is not significant. With a coefficient of 0.014379 and a probability value of 0.6846, which exceeds the 0.05 significance threshold, liquidity does not significantly influence the capital structure of property and real estate firms listed on the Indonesia Stock Exchange during 2017–2023. Therefore, the hypothesis proposing a significant effect of liquidity on capital structure is not supported by these findings.

**Table 13.**  
**The Connection Between Liquidity and Capital Structure**

Liquid	Capital Structure				Amount
	<1.065		>1.065		
	Amount	%	Amount	%	
<3.333	143	49%	75	26%	218
>3.333	73	25%	3	1%	76
Total	216		78		294

This study’s dataset was processed and prepared by the author in 2025

Table 13, below-average liquidity is most associated with below-average capital structure in 143 samples (49%), while above-average liquidity is predominantly linked to below-average capital structure in 73 samples (25%). The analysis presented here indicates that liquidity does not significantly influence the capital structure. Companies exhibiting high liquidity tend to possess a strong capacity to fulfill their short-term liabilities, reflecting sound financial conditions. According to the pecking order theory, firms prioritize using internal funds for investment activities and only seek external financing when internal resources fall short. These findings oppose the initial hypothesis that liquidity negatively affects capital structure and contrast with earlier research by Sisodia & Maheshwari (2023) and Gusni et al. (2020), which reported a negative relationship between liquidity and capital structure.

### The Influence of Asset Tangibility on Capital Structure

Table 10's test results show that asset tangibility has a coefficient of -1.033247 and a probability value of 0.2120, which exceeds the 0.05 significance threshold. This suggests that, for property and real estate firms listed on the Indonesia Stock Exchange between 2017 and 2023, asset tangibility does not have a significant impact on capital structure. Consequently, this finding contradicts the initial research hypothesis.

**Table 14.**  
**The Connection Between Asset Tangibility and Capital Structure**

TANG	Capital Structure				Amount
	<1.065		>1.065		
	Amount	%	Amount	%	
<0.631	99	34%	48	16%	147
>0.631	117	40%	30	10%	147
Total	216		78		294

This study's dataset was processed and prepared by the author in 2025

Table 14 reveals that, among 99 samples (34%), companies with asset tangibility below the average tend to have a capital structure also below the average. Similarly, 117 samples (40%) with above-average asset tangibility predominantly maintain a capital structure below the average. This pattern implies that most firms prefer to keep their capital structure low regardless of the level of asset tangibility they possess. These descriptive results stand in contrast to the study's main finding, which shows no significant impact of asset tangibility on capital structure. Contrary to the hypothesis predicting a positive influence, companies with substantial tangible assets do not necessarily increase their debt usage. This observation aligns with the pecking order theory, which argues that firms rich in tangible assets tend to finance themselves through internal funds rather than external debt. Additionally, these results differ from previous research by Rehan et al. (2024) and Sihombing & Kristanti (2024), who identified a negative correlation between asset tangibility (or liquidity) and capital structure.

## CONCLUSION

This study aims to examine the influence of profitability, liquidity, and asset tangibility on capital structure in property and real estate companies listed on the Indonesia stock exchange during 2017–2023, both simultaneously and partially, using a dynamic panel data regression model with the generalized method of moments (GMM) on 294 observations from 42 companies over seven years. Descriptive analysis shows that the capital structure, profitability, and liquidity variables exhibit heterogeneous data, while asset tangibility is more homogeneous. The Wald test results indicate that all independent variables jointly influence capital structure. Partially, profitability has a significant positive effect on capital structure, whereas liquidity and asset tangibility show no significant effect. Theoretically, future researchers are encouraged to expand the scope by using different objects, methods, periods, or variables. Practically, property and real estate firms should consider company growth and size when making capital structure decisions to enhance firm value and attract investors. Investors are advised to invest in companies with high asset tangibility, as it indicates greater financial stability.

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