Research Horizon

ISSN: 2808-0696 (p), 2807-9531 (e)

Research Horizon
Volume: 05
Issue: 04
Year: 2025
Page: 1743-1786

Citation:
Aini, P. N., & Sulistiyantoro, D. (2025). Macroeconomic factors, capital structure, and liquidity effects on profitability of IDX property companies with firm size as moderator. *Research Horizon*, *5*(4), 1743-1786.

Article History:
Received: July 29, 2025
Revised: August 25, 2025
Accepted: August 29, 2025
Online since: August 31, 2025

Macroeconomic Factors, Capital Structure, and Liquidity Effects on Profitability of IDX Property Companies with Firm Size as Moderator

Putri Nur Aini[1*], David Sulistiyantoro[1]

[1] Universitas Jenderal Achmad Yani Yogyakarta, Yogyakarta, Indonesia

[*] *Corresponding author: Putri Nur Aini (putrinuraini110802@email.com)*

Abstract

The property sector is a vital pillar of Indonesia's economy its profitability is influenced by both macroeconomic and internal company factors. This study aims to analyze the effects of inflation, interest rates, leverage, and liquidity on the profitability of property companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2024, with firm size as a moderating variable. A quantitative approach was employed, using multiple linear regression analysis and Moderated Regression Analysis (MRA) on secondary data from the financial reports of 10 property firms. The results reveal that Leverage has a significant adverse effect on profitability, indicating that high debt levels reduce profits. Liquidity has a significant positive effect, highlighting the importance of short-term financial stability. Inflation and interest rates have shown no significant impact, likely due to companies' ability to adjust their pricing and diversify their funding sources. Firm size only strengthens the relationship between liquidity and profitability but does not moderate the effects of inflation, interest rates, or leverage. The study concludes that debt management and liquidity are key drivers of profitability for property firms, while macroeconomic factors can be mitigated through adaptive strategies. Practically, companies should optimize capital structure and maintain adequate liquidity, whereas investors should prioritize microeconomic indicators in decision-making.

Keywords

Firm Size, Inflation, Interest Rates, Leverage, Liquidity, Profitability, Property Companies.

1. Introduction

The property sector is a key pillar of the national economy, playing a strategic role in driving economic growth, attracting investment, and generating employment opportunities. According to 2024 data from the Central Statistics Agency, the property and construction sector contributed approximately 10.5% to Indonesia's Gross Domestic Product and employed more than 15 million workers. This industry also has a significant multiplier effect, with every IDR 1 million invested in a property project generating an economic impact of IDR 2.5 million for related sectors such as building materials, architectural services, and banking. Property development companies listed on the Indonesia Stock Exchange (IDX) are an important proxy for the sector's performance, reflecting the broader dynamics of the property industry (Muthohharoh & Pertiwi, 2021).

The property business is fundamentally profit-oriented, with the primary goal of maximizing profits while ensuring the company's long-term operational sustainability (Aulia et al., 2024). To achieve the goal of maintaining and increasing profitability, property development companies must have effective strategies that are adaptable to changing economic conditions. These strategies are not limited to increasing operational activities such as developing new projects, producing more efficiently, or expanding markets, but also encompass effective financial management and data-driven decision-making (Inrawan et al., 2022). This is because the company's primary goal is to maximize and optimize profits (Muthohharoh & Pertiwi, 2021).

Inflation and interest rates are among the macroeconomic indicators that consistently receive attention in financial research, given their significant impact on business performance, including in the property industry (Inrawan et al., 2024). High inflation rates have the potential to reduce business sales volume, which in turn will depress company profitability. This phenomenon occurs due to the declining financial capacity of consumers to purchase products and services as market prices soar. When purchasing power declines, demand for both consumer and investment property products also tends to decline, especially since property is a necessity that requires long-term financial commitments. Furthermore, inflation also drives up the costs of raw materials and construction, thus increasing the operational expenses of property development companies. The results of research conducted by Inrawan et al. (2022) indicate a negative and significant effect of inflation on profitability.

The effect of leverage and liquidity on profitability demonstrates how a company's funding structure and ability to meet short-term obligations can significantly impact the level of efficiency, stability, and sustainability of its financial performance. Research by Putra and Badjra (2015) found that leverage has a negative and significant effect on profitability, meaning that the higher the debt level, the greater the company's burden, which can reduce its profits. Meanwhile, Nurdiana (2018) shows that liquidity has a significant effect on profitability, where the company's ability to maintain the smooth availability of assets is crucial in meeting its needs.

There is still a lack of recent studies examining how inflation, interest rates, leverage, and liquidity collectively affect the profitability of property companies, as most prior research has either focused on other industries, such as banking and manufacturing, or analyzed these factors separately. This creates a research gap, especially since firm size as a moderating factor has also been largely overlooked in the property sector. The urgency of this study lies in the fact that the property industry plays a vital role in Indonesia's economy, contributing significantly to GDP, employment, and related industries, while also being highly sensitive to macroeconomic fluctuations. With the challenges posed by inflation and interest rate volatility in the 2020–2024 period, it becomes crucial to provide updated empirical evidence that can help property companies, policymakers, and investors design strategies to strengthen profitability and ensure long-term sustainability. This study aims to analyze the effects of inflation, interest rates, leverage, and liquidity on the profitability of property companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2024, with firm size as a moderating variable

2. Literature Review and Hypothesis Development

2.1. Signal Theory

The Signaling Theory, first introduced by Spence (1973), explains how parties with more complete information (informed parties) communicate credible signals to those with limited information (uninformed parties) in order to mitigate problems of information asymmetry and adverse selection. In the corporate context, managers and firms typically possess insider knowledge about the company's financial health, strategic decisions, and future prospects that outside parties such as investors, creditors, and stakeholders do not. To bridge this gap, companies send signals through their actions, disclosures, or financial policies. External parties then interpret these signals as indicators of the firm's performance, credibility, and long-term potential.

Within corporate finance, signaling theory is reflected in various managerial decisions. For instance, the use of short-term debt can serve as a positive signal of managerial confidence and the firm's ability to manage risks effectively, thereby strengthening market trust (Al Hasoon et al., 2025). Similarly, dividend distribution is often viewed as a signal of financial stability and profitability, even under adverse macroeconomic conditions. From a macroeconomic perspective, factors such as inflation, interest rates, liquidity, and leverage shape how these signals are interpreted. High inflation, for example, usually reduces purchasing power and heightens uncertainty. However, when companies maintain consistent dividend payouts or continue expansion strategies during inflationary periods, they send a strong signal to the market that they are resilient and capable of sustaining growth.

The timing and transparency of financial reporting also play a signaling role. Farajzadeh et al. (2025) highlight that in volatile conditions, timely disclosure of financial statements reassures investors and conveys managerial competence. Moreover, leverage and liquidity levels also act as important signals. Dehghan et al. (2024) emphasize that these financial indicators not only affect firms' risk-taking behavior but also influence how stakeholders perceive their stability and reliability. Likewise, Al Hasoon et al. (2025) argues that the strategic use of short-term debt and leverage communicates managers' ability to manage interest rate fluctuations and financial risks. Signaling theory offers a powerful lens for understanding how firms communicate their strength and credibility, particularly in environments characterized by uncertainty, inflation, interest rate fluctuations, and liquidity constraints. Through financial decisions and disclosures, firms attempt to reduce information gaps and enhance trust among stakeholders.

2.2. The Determinants of Profitability

According to Brigham and Houston (2020), profitability is considered one of the key indicators for evaluating the extent to which management effectively utilizes company resources to generate profits. Several factors can impact profitability, both for the company and the broader macroeconomic environment. Some of these factors include inflation, interest rates, leverage, and liquidity. Inflation is a condition characterized by a widespread and sustained increase in prices across an economy (Inrawan et al., 2024). Based on signaling theory, which emphasizes the importance of information released by companies for investors, inflation is an economic phenomenon that indicates a sustained increase in general price levels. Signaling theory suggests that if inflation occurs in a developing country, it will lead to long-term changes in economic and social development.

Inrawan et al. (2022) suggests that inflation has a negative impact on profitability. Research conducted by Fialis (2021) suggests that inflation hurts profitability. These results align with research conducted by Artikanaya (2024), which suggests that inflation hurts profitability. According to Inrawan et al. (2024), interest rates can be defined as the cost incurred as a result of borrowing funds or the price that must be paid to obtain the right to use a certain amount of money for a specified period. According to signaling theory in the Financial Economics literature, which has extensively discussed the impact of changes in the discount rate (cost of capital), high interest rates will also increase the cost of capital borne by companies.

Inrawan et al. (2022) found that interest rates have a negative and significant effect on profitability. This finding aligns with research conducted by Putri et al. (2024), which found that interest rates hurt profitability. Leverage is a term used to describe a company's debt and is measured by dividing the total debt ratio by the total equity (Daruwala, 2023). From a signaling theory perspective, a company's decision to use leverage can be interpreted as a signal to investors about its financial health. Companies with high levels of leverage indicate significant financial risk, which can negatively impact their financial performance. Research conducted by Afrianti and Purwaningsih (2022) found that leverage hurts profitability. This finding is supported by Anisa and Febyansyah (2024), who stated that leverage hurts profitability.

Liquidity itself refers to the extent to which assets can be quickly and easily converted into cash without experiencing a significant decrease in value (Suwitho & Putri, 2020). In signaling theory, this condition can be interpreted as a signal that the company is efficiently managed and has good growth prospects, potentially increasing the company's value in the eyes of investors. Research conducted by Simatupang et al. (2022) found that liquidity has a positive effect on profitability. This research is supported by Raflie and Ikhsan (2024), who stated that liquidity has a positive effect on profitability.

H1: Inflation has a significant negative impact on profitability.
H2: Interest rates has a significant negative impact on profitability.
H3: Leverage has a significant negative impact on profitability.
H4: Liquidity has a significantly positive impact on profitability.

2.3 Company Size as a Moderating Variable

Company size is an indicator that reflects the scale of a company's operations, which can be measured using variables such as market capitalization, total assets, and total sales (Ningrum & Pertiwi, 2025). According to signaling theory, firm size can moderate the effect of inflation on profitability by emphasizing the uniformity of market responses to inflationary pressures. In this context, both large and small firms in the property sector send similar adaptation signals to the market when facing inflation, such as adjusting property prices, increasing policy transparency, and improving access to technology (Nugrahaeni & Nugraeni, 2024). Signaling theory explains that when adaptation signals (such as pricing policies or supply chain management) become industry standards, firm size strengthens its differentiating power as a moderator. Research by Saputra et al. (2024) and Yulianti and Suharto (2025), suggests that firm size can moderate the effect of inflation on profitability.

According to signaling theory, firm size can moderate the effect of interest rates on profitability by emphasizing the role of information asymmetry and signal credibility in the property market. Large firms tend to have a more substantial capacity to send credible financial signals to investors and creditors when facing interest rate increases, through access to alternative funding, stable dividend policies, and transparent financial reporting (Fialis, 2021). The results of research conducted by Artikanaya (2024) and Saputra et al. (2024) suggest that interest rates, moderated by company size, have a statistically significant and negative impact on profitability.

The relationship between leverage and profitability is non-linear. Optimal leverage can increase profitability through tax shields and business expansion; however, excessive leverage will decrease profitability due to high interest expenses and increased financial risk (Simatupang et al., 2022). Setiawan and Suwaidi (2022) and Ramadhani et al. (2025) suggests that company size moderates and controls the relationship between leverage and profitability.

The relationship between liquidity and profitability follows a trade-off pattern. Adequate liquidity is necessary to ensure operational continuity, but excessive liquidity can reduce profitability due to the opportunity cost of idle funds (Suwitho & Putri, 2020). The hypothesis regarding the moderating effect of company size on liquidity on profitability can be linked to signaling theory, which explains how companies convey information to external parties, including investors and creditors, through various financial indicators. According to this theory, liquidity can serve as a signal about a company's financial health. Companies with high liquidity tend to be perceived as more stable and capable of meeting short-term obligations, thereby increasing investor confidence and potentially boosting profitability (Afrianti & Purwaningsih, 2022). Some research indicates that firm size moderates the relationship between liquidity and profitability (Setiawan & Suwaidi, 2022; Ramadhani et al., 2025)

H5: Company size moderates the effect of inflation on profitability.
H6: Company size moderates the effect of interest rates on profitability.
H7: Company size moderates the effect of leverage on profitability.
H8: Company size moderates the effect of liquidity on profitability.

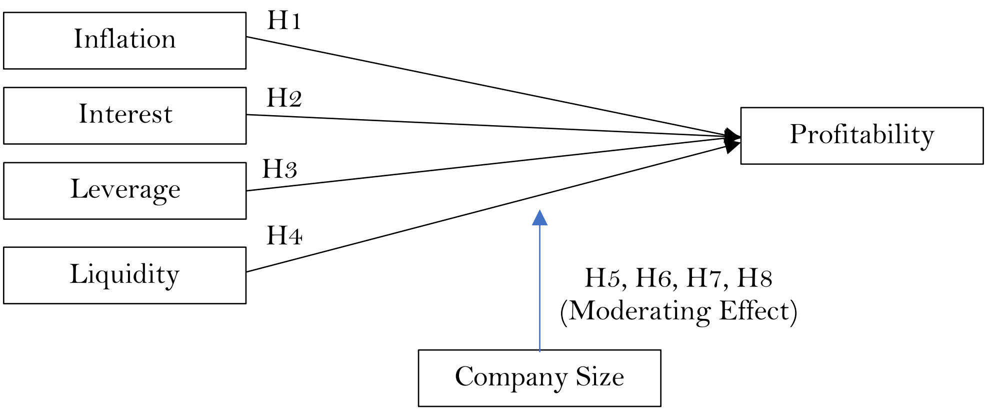

Figure 1. Research Framework

Figure 1 illustrates that this research framework is based on the concept that both macroeconomic factors and company-specific conditions influence the profitability of property companies listed on the IDX. Inflation and interest rates are expected to have a negative impact, as they reduce purchasing power and increase financing and operational costs. Similarly, higher leverage is anticipated to lower profitability due to greater financial burdens, while stronger liquidity is expected to support profitability by providing flexibility in meeting obligations and funding operations. Beyond these direct effects, company size is considered a moderating factor, assumed to strengthen the relationship between these variables and profitability, as larger firms typically have more resources, bargaining power, and resilience to withstand external pressures compared to smaller firms.

3. Methods

This study employs a quantitative approach grounded in the principles of positivism. The causal associative method aims to uncover causal relationships between variables, where the independent variable serves as a determining factor for the dependent variable. This study used secondary data from the official IDX website and the official websites of property companies, including the annual financial reports of property companies listed on the Indonesia Stock Exchange (IDX) for the years 2020-2024. The study was conducted in 2025. The population of this study was 94 companies. A portion of the population taken to represent the object is called a sample. A sample is a representation of a portion of the population that reflects its main characteristics. This study employed a purposive sampling technique. The results of the sample determination described above yielded 14 property companies that met the sample criteria. Each property company was monitored for five years, resulting in a total of 65 financial reports used in this study. This technique encompasses various approaches, including surveys, interviews, observations, experiments, and data collection from documentary sources, with a focus on ensuring data validity, reliability, and accuracy to yield reliable research results. This study employed a documentary method in data collection, utilizing secondary data sources, including the annual financial reports of property companies listed on the Indonesia Stock Exchange (IDX), for the period 2020-2024, for analysis purposes. The data analysis methods employed in this study included descriptive statistics, classical assumption tests, and hypothesis testing. Data analysis was conducted using Microsoft Excel and SPSS (Statistical Package for the Social Sciences). Microsoft Excel was used to collect data from each variable for input into SPSS.

4. Results

Table 1 shows the descriptive analysis of all variables. The profitability variable (Y), measured using ROA, shows considerable variation. A minimum value of -3.75 indicates that several companies have relatively low financial performance in generating profits. Thus, although most companies demonstrate good performance, there are several companies with low returns on assets, indicating heterogeneity (diversity) in asset management performance among these companies. The inflation variable (X1), measured using the CPI, shows extreme fluctuations (a standard deviation of 93.136269, which nearly equals the mean), indicating that the study period encompasses both stable periods and periods of high inflation. The maximum value of 294,650 may represent a specific period of economic crisis. The interest rate variable (X2), measured using the SBI interest rate, shows quite variable results but tends to be at a moderate level (approaching 5%). The standard deviation of 1.108560 indicates relatively stable interest rate movements. The leverage variable (X3), measured using the DER, indicates that the debt-to-equity ratio varies significantly, with some companies being very conservative (minimum 0.143) and others being aggressive in borrowing (maximum 2.927). The mean value of 0.91963 indicates that, on average, companies have debt nearly equal to equity. The liquidity variable (X4), measured using the CR, shows extreme variation, with some companies being nearly illiquid (0.257) while others are highly liquid (10.526). The mean value of 3.33078 is above the industry standard (usually 2), indicating that the property companies in the sample generally maintain high liquidity. The company size variable (Z), which is measured using total assets, shows that the companies in the sample are relatively homogeneous in size (standard deviation is only 0.718130) with minimum-maximum differences that are not too extreme.

Table 1. Descriptive Statistics

Variable	N	Min	Max	Mean	Std. Deviation
Profitability	65	-0.375	0.348	-.02529	0.089566

Inflation	65	47.370	294.650	115.04800	93.136269
Interest Rate	65	3.500	6.000	4.95000	1.108560
Leverage	65	0.143	2.927	-.91963	0.653042
Liquidity	65	0.257	10.526	3.33078	2.435492
Company Size	65	29.394	31.616	30.35134	0.718130

Table 2. Normality Test

Test	Value
Test Statistic	0.097
Asymp. Sig (2-tailed)	0.200

Normality tests were conducted to determine whether the research data were normally distributed. If the significance value is more than 0.05, then the data is declared to be normally distributed. Based on Table 2, the significance value obtained is 0.200 > 0.05, so it is concluded that the data is normally distributed.

Table 3. Multicollinearity Test

Variable	Tolerance	VIF
Inflation	0.755	1.324
Interest Rate	0.859	1.165
Leverage	0.493	2.028
Liquidity	0.455	2.199
Company Size	0.726	1.378

The multicollinearity test was used to find out if there was a strong relationship between independent variables in the regression model. A good model should be free of the symptoms of multicollinearity. The indicators used are tolerance and VIF values. The data is declared free of multicollinearity if the Tolerance value is > 0.1 and the VIF value is < 10. According to Table 3, the tolerance value for all variables is > 0.10 with VIF < 10, so it is concluded that multicollinearity does not occur.

Table 4. Runs Test

Test	Unstandardized Residual Value
Test Value	-0.00093
Cases < Test Value	25
Cases >= Test Value	25
Total Cases	50
Number of Runs	26
Z	0.000
Asymp. Sig. (2-tailed)	1.000

Run tests are used to see whether the research data is random or not. The random data showed that the residual in the regression model did not have a specific pattern, so the model was considered valid. The decision-making criterion is that if the significance value > 0.05, it can be said to meet the run test. According to Table 4, the significance value is 1,000 > 0.05, so it is concluded that there is no autocorrelation.

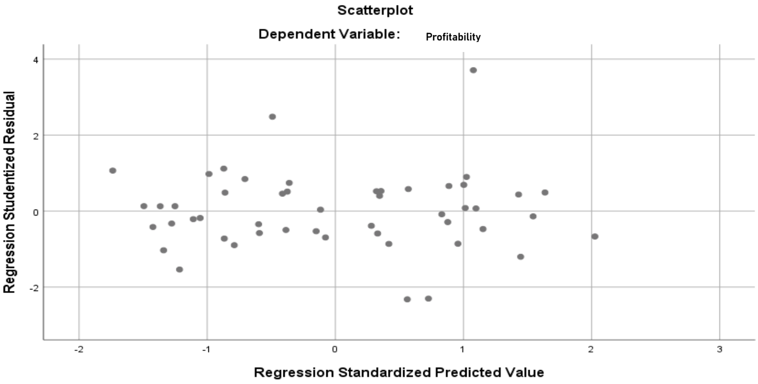

Figure 2. Scatter Plot for Heteroscedasticity Test

The heteroscedasticity test was performed to see if there was a residual variance imbalance in the regression model. In the form of a scatterplot diagram, the symptoms of heteroscedasticity are evident when the residual points form a specific pattern. The data is said to be heteroscedasticity-free if the dots are spread randomly. According to Figure 2, it is evident that there is no clear pattern, and the points are spread above and below the y-axis value of 0, indicating that heteroscedasticity does not occur.

Table 5. Multiple Linear Regression Analysis Test Results

Variable	B	Std. Error	Std Coef. Beta	T-Statistic	Sig.
Constanta	0.014	0.011		1.201	0.236
Inflation	6.788E-7	0.000	0.003	0.028	0.978
Interest Rate	0.002	0.002	0.119	1.155	0.254
Leverage	-0.010	0.004	-0.328	-2.518	0.015
Liquidity	0.005	0.001	0.453	3.139	0.003

Based on the results of the multiple linear regression analysis in Table 5, the research regression equation is as follows:

$$Y = 0.014 + 0.00000006788\ X1 + 0.002\ X2 - 0.010\ X3 + 0.005\ X4 + e$$

The direction of measurement for variables Inflation (X1), Interest rate (X2), and Liquidity (X4) is positive, while Leverage (X3) has a negative direction of influence. The multiple linear regression equation above explains that A constant value of 0.014 means that if variables X1, X2, X3, and X4 are held constant, then Y has a value of 0.014. The regression coefficient for Inflation (X1) is positive, at 6.79 × 10^ (-7). This means that if there is an increase in variable X1, while all other variables are held constant, variable Y will increase by 6.79 × 10^ (-7). The regression coefficient of the Interest Rate (X2) is 0.002. This means that if there is an increase in variable X2, while all other variables are held constant, then variable Y will increase by 0.002. The regression coefficient of Leverage X3 is -0.01. This means that if there is an increase in variable X3, while all other variables are held constant, then variable Y will decrease by 0.01. The regression coefficient of Liquidity X4 is 0.005. This means that if there is an increase in variable X4, while other variables are held constant, then variable Y will increase by 0.005.

Based on Table 5, the results of the hypothesis testing are presented below. The inflation (X1) variable has a t-value of 0.028, with a significance level of 0.978, which is greater than 0.05; thus, H1 is rejected. The interest rate (X2) variable has a t-value of 1.155 with a significance level of 0.254, which is greater than 0.05; thus, H2 is rejected. The leverage (X3) variable has a t-value of -2.518 with a significance level of 0.015, thus concluding that H3 is accepted. The liquidity (X4) variable has a t-value of 3.139 with a significance level of 0.003, thus concluding that H4 is accepted.

Table 6. Moderated Regression Analysis Result

Interaction Variables	Sig.	Information
Inflation * Company Size (X1*Z)	0.675	H5 Rejected
Interest Rate * Company Size (X2*Z)	0.086	H6 Rejected
Leverage * Company Size (X3*Z)	0.852	H7 Rejected
Liquidity*Company Size (X4*Z)	0.044	H8 Accepted

Based on Table 6, it is evident that the significant value for the interaction of inflation variables with company size (X1*Z) is 0.675, which is greater than 0.05. Therefore, H5 is rejected, indicating that company size cannot moderate the effect of inflation on profitability. Meanwhile, the interaction of the interest rate variable with company size (X2*Z) showed a significant value of 0.086 > 0.05, so H6 was rejected, indicating that company size could not moderate the effect of interest rate on profitability. The significant value of the interaction variable (X3*Z) is 0.852 > 0.05, so H7 is rejected in the sense that company size cannot moderate the effect of leverage on profitability. On the other hand, the significance value of the liquidity variable with company size (X4*Z) shows the number 0.044 < 0.05, then H8 is accepted in the sense that company size can strengthen the effect of liquidity on profitability.

Table 7. R Square Result

Test	Value
R	0.777
R Square	0.604
Adjusted R Square	0.527
Std. Error of the Estimate	0.01406

According to Table 7, the adjusted R-squared value is 0.527. It means that variables X1, X2, X3, X4, Z, X1*Z, X2*Z, X3*Z, X4*Z explain the profitability variable by 52.7%. While the remaining 47.3% is explained by other variables not studied.

5. Discussion

The results indicate that inflation had no significant impact on the profitability of property companies listed on the IDX between 2020 and 2024, with a coefficient of 0.028 and a significance value of 0.978 (p> 0.05), thereby rejecting H1. This finding suggests that fluctuations in inflation do not directly impact profitability, as the property sector's long-term operating cycle and price adjustment mechanisms allow companies to anticipate rising costs and maintain stable margins (Rahmadani, 2020; Inrawan et al., 2024). Similarly, several studies also reported that inflation does not significantly influence profitability in property companies (Suriani et al., 2019; Rahmadani, 2020; Khotijah et al., 2020; Inrawan et al., 2024; Nugrahaeni & Nugraeni, 2024; Putri et al., 2024).

The results indicate that interest rates had no significant effect on the profitability of property companies listed on the IDX from 2020 to 2024, with a coefficient of 1.155 and a significance value of 0.254 (>0.05), leading to the rejection of H2. This finding is consistent with prior studies that have shown interest rates do not affect profitability in the property sector (Khotijah et al., 2020; Fialis, 2021; Nugraha & Manda, 2021). The property industry's long-term, project-based nature means that the impact of interest rate fluctuations tends to emerge gradually over time. Companies often mitigate financing risks through unconventional funding, debt issuance, or strategic partnerships. In addition, gradual price adjustments and flexible payment schemes help absorb the pressure of high-interest costs, allowing firms to maintain stable profit margins (Inrawan et al., 2024).

The results indicate that leverage had a significant negative impact on the profitability of property companies listed on the IDX from 2020 to 2024, with a coefficient of −2.518 and a significance value of 0.015 (<0.05), thereby supporting H3. This finding is consistent with previous studies that also found leverage to reduce profitability in the property sector (Afrianti & Purwaningsih, 2022; Ramli & Yusnaini, 2022; Anisa & Febyansyah, 2024; Saputra & Ardiles, 2024; Aulia et al., 2024). High debt levels signal weaker financial health, especially in the context of rising interest rates from 2022 to 2024, which heightened investors concerns about firms' ability to manage their obligations. In line with signaling theory, these results highlight how capital structure decisions not only influence financial outcomes but also shape market perceptions of a company's quality and long-term prospects.

The results indicate that liquidity has a significant positive effect on the profitability of property companies listed on the IDX from 2020 to 2024, with a coefficient of 3.139 and a significance value of 0.003 (<0.05), thereby supporting H4. This finding aligns with previous studies that have also reported a positive relationship between liquidity and profitability in the property sector (Kusumawati, 2021; Simatupang et al., 2022; Afrianti & Purwaningsih, 2022; Setiawan & Suwaidi, 2022; Aulia et al., 2024; Anisa & Febyansyah, 2024). Strong liquidity reflects effective management of current assets, enabling property companies to operate smoothly, finance investments, and meet short-term obligations without disruption. This stability not only prevents operational risks associated with cash shortages but also provides a solid foundation for sustaining profitability and supporting long-term growth (Inrawan et al., 2024).

The MRA test results in model 2 (X1*Z) show a significance value of 0.675 (>0.05), indicating that company size does not moderate the effect of inflation on the profitability of property companies listed on the IDX, thus rejecting H5. This suggests that even larger firms remain vulnerable to inflationary pressures, as rising material costs, wages, and loan interest rates impact profitability regardless of scale. Given the property industry's capital-intensive and long-term nature, profitability is more strongly driven by market demand and government policy than by company size alone. As a result, the systemic effects of inflation may be too dominant to be offset by firm size, which is consistent with the findings of Asmeri et al. (2022) and Putri et al. (2024).

The MRA test results in model 2 (X2*Z) yield a significance value of 0.086 (>0.05), indicating that company size does not moderate the effect of interest rates on the profitability of property companies listed on the IDX, thus rejecting H6. This indicates that the property sector's high sensitivity to interest rates makes the impact systemic, affecting both large and small firms equally, as rising interest rates raise capital costs and weaken consumer purchasing power, thereby reducing demand and margins (Saputra et al., 2024). In line with signaling theory, company size fails to act as a mitigating signal, as market attention is more focused on macroeconomic risks than on firm scale. These findings are consistent with those of Asmeri et al. (2022) and Putri et al. (2024), both of which conclude that company size does not moderate the relationship between interest rates and profitability.

The MRA test results for model 2 (X3*Z) show a significance value of 0.852 (>0.05), indicating that company size does not moderate the effect of leverage on the profitability of property companies listed on the IDX, thus rejecting H7. From the perspective of signaling theory, leverage acts as a strong negative signal of financial risk, particularly in the property sector, which is highly sensitive to economic cycles (Inrawan et al., 2024). In this case, firm size is insufficient to offset the market's negative perception of high debt levels, as signals from capital structure tend to be more influential than firm scale in shaping investors' views of profitability (Aulia et al., 2024). These findings are consistent with prior research, which shows that company size cannot moderate the relationship between leverage and profitability in property companies (Kriswanto & Munandar, 2022; Mawarni, 2025; Ningrum & Pertiwi, 2025).

The MRA test results for model 2 (X4*Z) show a significance value of 0.044 (<0.05), indicating that company size moderates the effect of liquidity on the profitability of property companies listed on the IDX, thus accepting H8. In model 1, liquidity had a positive and significant effect, and with the moderating role of company size, this effect was further strengthened. Larger firms generally enjoy better access to funding and more efficient cash management, enabling them to channel liquidity into strategic investments and project development, which boosts profitability (Nuraini & Suwaidi, 2022). Their broader operational scale also allows more effective use of liquidity through diversification and stronger bargaining power with suppliers and buyers, creating synergies that enhance performance (Kriswanto & Munandar, 2022). These findings are consistent with those of Setiawan and Suwaidi (2022), Ramadhani et al. (2025), and Ningrum and Pertiwi (2025), who also found that company size can moderate the relationship between liquidity and profitability.

6. Conclusion

The findings reveal that neither inflation nor interest rates have a significant impact on profitability, indicating that these hypotheses were rejected. In contrast, leverage was found to have a significant negative impact on profitability, while liquidity had a positive effect, supporting both hypotheses. Regarding the moderating role of company size, the results indicate that firm size does not influence the relationship between inflation, interest rates, or leverage and profitability, thereby rejecting these hypotheses. However, company size was found to strengthen the effect of liquidity on profitability, confirming the final hypothesis.

This study is limited to property companies listed on the IDX from 2020 to 2024, which may restrict the generalizability of the findings to other sectors or periods with different macroeconomic conditions. The results have important implications for both managers and investors. While inflation and interest rates were not found to significantly affect profitability, leverage consistently reduced it and liquidity enhanced it, suggesting that internal financial management plays a more critical role in sustaining performance than external macroeconomic factors. For practitioners, these findings underscore the importance of maintaining optimal capital structures and liquidity positions to enhance profitability and investor confidence. Future research could be expanded by incorporating other moderating variables, such as corporate governance mechanisms, ownership structures, or innovation strategies, as well as examining cross-sectoral or cross-country comparisons to capture broader dynamics and provide deeper insights into how firms can strategically respond to macroeconomic challenges.

References

Afrianti, D., & Purwaningsih, E. (2022). Pengaruh leverage, likuiditas dan pertumbuhan aset terhadap profitabilitas. *Jurnal Ilmiah MEA (Manajemen, Ekonomi dan Akuntansi)*, *6*(1), 1781–1796.

Al Hasoon, A., Hashemi, S. A., & Hamidian, N. (2025). Managers' ability and debt structure: Evidence from Iran's financial reporting environment. *Journal of Asset Management and Financing*, *13*(4), 1-16.

Anisa, T. D. M., & Febyansyah, A. (2024). Pengaruh likuiditas, leverage, ukuran perusahaan dan pertumbuhan penjualan terhadap profitabilitas. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, dan Akuntansi)*, 8(2), 1992–2016.

Artikanaya, I. K. (2024). Pengaruh inflasi, leverage, dan ukuran perusahaan terhadap profitabilitas dan retur saham. *Jurnal Ilmuan: Jurnal Ilmu Manajemen*, 2(3), 26–33.

Asmeri, R., Meriyani, & Muliani, U. (2022). Pengaruh profitabilitas, suku bunga dan inflasi terhadap financial distress dengan variabel moderating ukuran perusahaan pada perusahaan manufaktur sektor tambang yang terdaftar pada BEI Periode 2017-2021. *Pareso Jurnal*, 4(2), 947–958.

Aulia, I. F., Arigawati, D., & Wiyani, N. T. (2024). Pengaruh leverage dan likuiditas terhadap profitabilitas pada perusahaan properti dan real estate yang terdaftar di BEI tahun 2021-2023. *Inovasi dan Kreativitas dalam Ekonomi*, 7(1), 1-10.

Brigham, E. F., & Houston, J. F. (2020). *Dasar-Dasar Manajemen Keuangan* (14 th ed). Jakarta: Salemba Empat.

Burhani, A. F., & Prajawati, M. I. (2023). Profitability and liquidity moderated by firm size as determinants of firm value. JAE (*Jurnal Akuntansi dan Ekonomi*), 8(1), 42–54.

Daruwala, Z. (2023). Influence of financial leverage on corporate profitability: Does it really matter? *International Journal of Economics and Financial Issues*, 13(3), 37–46.

Dehghan Dehnavi, M. A., Amiri, M., & Khorshidsavar, A. (2024). Factors influencing bank risk-taking with an emphasis on monetary policy, regulations, and macroeconomics. *Iranian Journal of Economic Research*, *29*(101), 83-118.

Farajzadeh, H., & Dehghan Dehnavi, A. (2025). Peer effects in the disclosure timing of financial statements. *Empirical Studies in Financial Accounting*, *21*(85), 207-236.

Fialis, M. A. (2021). *Pengaruh inflasi, suku bunga dan leverage terhadap profitabilitas (studi empiris padaperusahaan perbankan yang terdaftar di Bursa Efek Indonesia periode 2016-2019).* (Bachelor's Dissertation, Universitas Muhammadiyah Magelang).

Ghozali, I. (2021). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 26 (10th ed.).* Semarang: Penerbit Universitas Diponegoro.

Goh, T. S. (2023). *Monograf: Financial Distress.* Jakarta: Indonesia Pustaka.

Hanafi, M. (2012). *Analisis Laporan Keuangan.* Yogyakarta: UPP STIM YKPN.

Inrawan, A., Lie, D., Nainggolan, L. E., Silitonga, H. P., & Sudirman, A. (2022). Pengaruh inflasi, suku bunga, kurs, pertumbuhan ekonomi, capital expenditure, dan leverage terhadap profitabilitas (Studi pada perusahaan Indeks LQ 45 yang terdaftar di Bursa Efek Indonesia). *Seminar Nasional Hasil Riset dan Pengabdian kepada Masyarakat*, 2(1), 136-155.

Inrawan, A., Sianipar, R. T., Putri, J. A., & Silitonga, P. H. (2024). Studi empiris: Hubungan inflasi, suku bunga, likuiditas dan leverage terhadap profitabilitas. *Financial: Jurnal Akuntansi*, 10(1), 304–316.

Ita, E., Simatupang, B., Ernita, V. Y., Silalahi, B., Rosalina, D., & Panggabean, M. S. (2022). The effect of liquidity, leverage, times interest earned ratio, sales growth and company size on profitability in property and real estate companies listed on the IDX for the 2015-2019 Period. *Costing: Jurnal of Economic, Business and Accounting*, 5(2), 905-914.

Jogiyanto. (2000). *Teori Portofolio dan Analisis Investasi (Kedua).* Yogyakarta: BPFE.

Khotijah, N. Z., Suharti, T., & Yudhawati, D. (2020). Pengaruh tingkat suku bunga dan inflasi terhadap profitabilitas. *Jurnal Ilmu Manajemen*, 3(2), 40–47.

Kriswanto, R., & Munandar, A. (2022). Pengaruh leverage, likuiditas, profitabilitas dan kemampuan operasional perusahaan terhadap risiko finansial dengan ukuran perusahaan sebagai moderasi. *Jurnal Administrasi dan Manajemen*, 15(2),179–187.

Kusumawati, L. (2021). *Pengaruh leverage, likuiditas dan sales growth terhadap profitabilitas (Studi kasus perusahaan properti dan real estate yang terdaftar di BEI Periode 2017-2019*). Surakarta: Universitas Muhammadiyah Surakarta (Bachelor's Dissertation).

Mawarni, A. P. (2025). *Pengaruh profitabilitas, likuiditas, leverage, dan perputaran aset terhadap nilai perusahaan dengan ukuran perusahaan sebagai variabel moderasi (studi kasus pada sektor consumer non-cyclicals yang terdaftar di Bursa Efek Indonesia Periode 2019-2023).* Jakarta: Universitas Islam Negeri Syarif Hidayatullah Jakarta (Bachelor's Dissertation).

Natalya, D., & Maimunah, M. (2022). Pengaruh leverage, likuiditas dan ukuran perusahaan terhadap profitabilitas. *JIA: Jurnal Informasi Akuntansi, 1(1)*, 1–8.

Ningrum, H. S., & Pertiwi, T. K. (2025). Pengaruh profitabilitas, likuiditas dan leverageterhadap harga saham dengan ukuran perusahaan sebagai variabel moderasi. *Journal Publicuho*, 8(2), 345–359.

Nugraha, N. N., & Manda, G. S. (2021). Pengaruh inflasi, BI 7 days reserve repo rate dan nilai tukar terhadap profitabilitas perbankan (Studi kasus pada bank umum konvensional yang terdaftar di BEI Tahun 2016 2020). *Jurnal Riset Manajemen Sains Indonesia (JRMSI)*, 12(2), 2301–8313.

Nugrahaeni, R. A., & Nugraeni. (2024). Pengaruh inflasi, suku bunga, dan nilai tukar uang terhadap profitabilitas pada perbankan konvensional. *Journal of Education Research*, 4, 6576–6582.

Nuraini, F. D., & Suwaidi, R. A. (2022). Pengaruh leverage, likuiditas, dan ukuran perusahaan terhadap profitabilitas pada perusahaan textile dan garment yang go public di Bursa Efek Indonesia. *Jurnal Ilmu Manajemen*, 11(2), 157.

Nurdiana, D. (2018). Pengaruh ukuran perusahaan dan likuiditas terhadap profitabilitas. *Menara Ilmu: Jurnal Penelitian dan Kajian Ilmiah, 12*(6), 77-88.

Putra, A. W. Y., & Badjra, I. B. (2015). Pengaruh leverage, pertumbuhan penjualan dan ukuran perusahaan terhadap profitabilitas. *E-Jurnal Manajemen Unud*, 4(7), 2052-2067.

Putra, R. D., & Gantino, R. (2021). Pengaruh profitabilitas, leverage, dan ukuran perusahaan terhadap nilai perusahaan. *Jurnal Bisnis dan Manajemen*, 11(1), 81–96.

Putri, A. N. P., & Iswara, U. S. (2024). Pengaruh profitabilitas, likuiditas, dan struktur modal terhadap nilai perusahaan dengan ukuran perusahaan sebagai variabel pemoderasi. *Jurnal Ilmiah Akuntansi dan Keuangan (JIAKu)*, 3(4), 393– 410.

Putri, V. E., Elfiswandi, & Lusiana. (2024). Pengaruh inflasi dan BI rate terhadap nilai perusahaan dengan profitabilitas sebagai variabel intervening pada perusahaan perbankan terdaftar di BEI Tahun 2019-2023. *Jurnal Revolusi Ekonomi dan Bisnis*, 7(1), 13–26.

Raflie, & Ikhsan, S. (2024). Pengaruh pertumbuhan penjualan, likuiditas dan ukuran perusahaan terhadap profitabilitas pada perusahaan sektor properties dan real estate di BEI Periode 2019-2022. *Jurnal Manajemen Perbankan Keuangan Nitro*, 7(2), 98–107.

Rahmadani, D, M. (2020). Pengaruh tingkat inflasi, ukuran perusahaan dan leverage terhadap profitabilitas. *Jurnal Ilmu dan Riset Akuntansi*, *9(2)*, 1-16.

Ramli, D., & Yusnaini. (2022). Pengaruh sales growth, debt to equity ratio, total assets turnover terhadap return on assets pada perusahaan property dan real estate yang terdaftar di Bursa Efek Indonesia 2018-2020. *Owner Riset dan Jurnal Akuntansi*, 6(1), 722–734.

Rizky, K. T., & Aryani, F. (2020). The influence of Debt to Equity Ratio (DER) and Net Profit Margin (NPM) to changes in earnings in construction and building sub sector companies listed in Indonesia Stock Exchange 2016- 2019. *Neraca: Jurnal Akuntansi Terapan*, 2(1), 48–61.

Saputra, D., & Ardiles, A. (2024). Pengaruh leverage, ukuran perusahaan, pertumbuhan penjualan dan aktivitas terhadap profitabilitas perusahaan sub sektor property dan real estate yang terdaftar di Bursa Efek Indonesia. *Jurnal GeoEkonomi*, 15(1), 71–80.

Saputra, D., Yudha, A. M., & Ulnisa, T. (2024). Pengaruh tingkat suku bunga, nilai tukar dan inflasi terhadap nilai perusahaan dengan profitabilitas sebagai variabel moderasi pada perusahaan property dan real estate yang terdaftar di BEI 2017-2021. *JAF- Journal of Accounting and Financ*e, 8(1), 54-65.

Setiawan, A. F., & Suwaidi, R. A. (2022). *Pengaruh rasio likuiditas, aktivitas, dan leverage terhadap profitabilitas dengan firm size sebagai variabel moderasi.* Surabaya: Universitas Pembangunan Nasional "Veteran" Jawa Timur (Bachelor's Dissertation).

Simatupang, E. I. B., Ernita, V. T., Silalahi, B., Rosalina, D., & Panggabean, M. S. (2022). Pengaruh likuiditas, leverage, times interest earne ratio, pertumbuhan penjualan dan ukuran perusahaan terhadap profitabilitas pada perusahaan property dan reak estate yang terdaftar di BEI Periode 2015-2019. *Costing: Journal of Economic, Business and Accounting*, *5*(1), 905–914.

Suriani, E. S. R., Asmeri, R., & Silvera, D. L. (2019). Pengaruh profitabilitas, likuiditas, nilai tukar, inflasi, suku bunga dan leverage terhadap financial distress pada perusahaan manufaktur makanan dan minuman yang terdaftar pada BEI Periode 2019 - 2021. *EPJA (Ekasakti Pareso Jurnal Akuntansi)*, 2(1), 62–71.

Suwitho, & Putri, R. A. (2020). Pengaruh solvabilitas, likuiditas dan profitabilitas terhadap nilai perusahaan property dan real estate yang terdaftar di Bursa Efek Indonesia. *Jurnal Ilmu dan Riset Manajemen*, 9(2), 1–17.

Ummah, R., & Efendi, D. (2022). Pengaruh likuiditas, pertumbuhan penjualan dan perputaran modal kerja terhadap profitabilitas perusahaan. *Jurnal Ilmu dan Riset Akuntansi*, 11(2), 1–15.

Wijaya, N. S., & Fitriati, I. R. (2022). Pengaruh likuiditas, ukuran perusahaan, profitabilitas, dan struktur modal terhadap nilai perusahaan. *Jurnal Ilmiah Akuntansi dan Keuangan*, 4(12), 5606–5616.

Yulianti, L., & Suharto, E. (2025). Pengaruh profitabilitas, likuiditas dan ukuran perusahaan terhadap nilai perusahaan dengan inflasi sebagai variabel moderating pada perusahaan properti di BEI Periode 2020-2024. *J-Ceki: Jurnal Cendekia Ilmiah*, *4*(3), 1490-1508.

Zega, E. H., & Wahyudi, ickhsanto. (2023). Pengungkapan corporate social responsibility, struktur modal, likuiditas terhadap profitabilitas. *JIIP (Jurnal Ilmiah Ilmu Pendidikan)*, *6*(1), 9160–9166.

Acknowledgment

We gratefully acknowledge the contributions of individuals who supported the completion of this article.

Funding Information

This research did not receive any funding.

Conflict of Interest Statement

The authors declare that there is no conflict of interest.

Ethical Approval and Originality Statement

Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.