



## The Impact of Financial Ratios on Investor Returns: An Empirical Study of the Property Sector Listed on the Indonesia Stock Exchange

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### Abstract

This study aims to analyze the effect of financial ratios on investor returns in property sector companies listed on the Indonesia Stock Exchange. Another objective is to identify which financial ratios are the most dominant in influencing stock returns. In addition, this study is expected to provide useful information for investors in making investment decisions based on the company's financial indicators.

This research analysing the influence of Debt to Equity Ratio (DER), Total Asset Turn Over (TATO), and Net Profit Margin (NPM) with BI-rate as moderating role on investor's return. This research using purposive sampling method for filtering the sample. Population on this research is property company listed on *Bursa Efek Indonesia* / Indonesia Stock Exchange (BEI) period 2019-2023. Using multiple regression analysis, using SPSS software.

The result showing that Debt on Equity Ratio (DER) has impact and significant on Investor's Return. Meanwhile TATO and NPM do not showing a significant impact individually, when moderated by BI-rate added, the relation between independent variabels and Investor's Return become more clear. The relation between DER and Investor's Return become positive, while the realtion between TATO and NPM on Investor's Returns become negative.

**Keywords:** *Debt to Equity Ratio, Total Asset Turn Over, Net Profit Margin, Investor's Return, BI-rate, Property Company*

### 1. Introduction

The capital market has an important role in mobilizing funds from the public to support the activities of sectors listed on the Indonesia Stock Exchange (IDX). One of the factors that makes investors interested in investing in the capital market is a sense of security related to clear, reasonable, and timely information about the investments they make. Transparent information is the basis for decision-making for investors to assess whether the investment provides the expected return (Rinaldi, 2024). Investors basically invest to get returns, which consist of realized returns and expected returns. Realized returns refer to the results of investments that have already occurred, while expected returns are expected profits in the future, which are often calculated based on historical data to estimate the company's future performance (Rachmawati & Triyonowati, 2019).

The company's share price is a crucial factor that investors consider in determining their investment decisions. The stock price reflected in the capital market reflects how much return investors can get from the stock. To analyze potential returns, investors often use fundamental analysis involving various economic and financial indicators. Fundamental analysis focuses on macroeconomic conditions, industry performance, as well as financial indicators such as revenue, profit, profit margin, and others to evaluate the company's potential future performance (Anam, et al. 2021).

Financial ratio analysis is one of the methods used to assess a company's financial performance. In this study, the researcher examined the influence of three fundamental ratios, namely Debt to Equity Ratio (DER), Total Asset Turnover (TATO), and Net Profit Margin (NPM), on investor returns. These ratios are important for assessing a company's ability to generate profits and operational efficiency. Rachmawati and Triyonowati (2019) explained that fundamental analysis is used to predict future stock prices by considering fundamental factors that affect stock prices.

Previous research has also shown the importance of macroeconomic variables such as interest rates in influencing stock returns. Research by Puspitasari, et.al. (2022) and Meliza and Novitasari (2024) states that interest rates can strengthen or weaken the relationship between macroeconomic factors and stock returns. Interest rates announced by Bank Indonesia (BI) are an important indicator in monetary policy that



has an impact on inflation and economic stability, which in turn affects investment decisions in the capital market.

This research focuses on property companies listed on the IDX during the 2019-2023 period. The property industry was chosen because it was heavily influenced by internal financial factors such as DER, TATO, and NPM. In addition, the property sector in Indonesia is growing rapidly in line with the increasing population and the need for housing, as well as government support in infrastructure development which has a positive impact on this industry (Rachmawati & Triyonowati, 2019). Quality infrastructure development is expected to increase the attractiveness of property in the market, both for developers and investors. In addition, the shares of property companies listed on the IDX also contribute to fluctuations in the Composite Stock Price Index (JCI), which is an important indicator for the capital market in Indonesia (Lutfi & Endri, 2024).

The formulation of this research problem consists of 7 namely: (1) Does the Debt Equity Ratio (DER) affect Investor Return in Property Companies listed on the IDX in 2019-2023? (2) Does Total Asset Turn Over (TATO) affect Investor Return in Property Companies listed on the IDX in 2019-2023? (3) Does Net Profit Margin (NPM) affect Investor Return in Property Companies listed on the IDX in 2019-2023? (4) Does Return on Asset (ROA) and Interest Rate as moderation affect Investor Return in Property Companies listed on the IDX in 2019-2023? (5) Does Total Asset Turn Over (TATO) and Interest Rate as moderation affect Investor Return in Property Companies listed on the IDX in 2019-2023? (6) Does Net Profit Margin (NPM) and Interest Rate as moderation, affect Investor Return in Property Companies listed on the IDX in 2019-2023? (7) Does Debt to Equity Ratio (DER), Total Asset Turn Over (TATO), and Net Profit Margin (NPM) as well as Interest Rate as moderation affect Investor Return in Property Companies listed on the IDX in 2019-2023?

The property industry requires large investments in fixed assets such as land, buildings, and infrastructure, so efficient asset management is essential to generate optimal returns for investors. The Debt-to-Equity Ratio (DER), which measures the proportion of debt to a company's equity, plays an important role in assessing financial risk and its impact on investor returns (Rinaldi, 2024). Total Asset Turnover (TATO), which measures a company's efficiency in using assets to generate revenue, is also very relevant in the property sector, given that property companies often have large and expensive assets. Therefore, the efficiency of the use of these assets will affect financial performance and returns for investors (Rachmawati & Triyonowati, 2019). In addition, Net Profit Margin (NPM) measures a company's ability to generate a net profit from each sale. A higher ratio indicates that the company is more effective in managing revenue to generate profits (Januardin, et.al. 2020).

## 2. Objectives

The objectives of this study are:

- 1) To examine the effect of Debt to Equity Ratio, Total Asset Turnover, and Net Profit Margin on investor returns.
- 2) To investigate the effect of Return on Assets, Total Asset Turnover, Net Profit Margin, and Debt to Equity Ratio on investor returns, with interest rate as a moderating variable

## 3. Materials and Methods

The scope of this research includes property companies listed on the Indonesia Stock Exchange (IDX) in the 2019-2023 period, with a research method in the form of indirect observation using secondary data. The data used was obtained from financial statements published through the Refinitiv program to test the influence of independent variables, namely DER, TATO, and NPM on the dependent variable, namely investor returns. The sample collection method applied is purposive sampling, where samples are selected based on certain criteria that are relevant to the research objectives. These criteria include property companies listed on the IDX, have reported complete and audited financial statements for the period 2019-2023, are not in the process of delisting, and their financial statements can be accessed through the Refinitiv program. The data collection method involves the use of secondary data obtained from IDX publications through Refinitiv,



as well as the literature method, which is by studying and analyzing related literature from books, journals, and articles relevant to the problem being researched.

The analysis method used to test the hypothesis in this study is multiple regression analysis, which aims to analyze the influence of two or more independent variables on dependent variables. In this study, multiple regression was used to determine the relationship between the dependent variable, namely the investor's return, and the independent variable, namely DER (X1), TATO (X2), and NPM (X3). The analysis begins with descriptive statistics describing the variables in the study, using tools such as standard deviation, mean, minimum value, and maximum. Furthermore, a normality test was carried out to test whether the residual distribution of the regression model was close to normal. This test refers to the criteria of good data distribution, where the data scattered follows a diagonal line or shows a normal distribution pattern on the histogram chart indicating that the regression model meets the assumption of normality. Furthermore, classical assumption tests are used to ensure the validity of the regression model.

#### 4. Results and Discussion

This research is limited to the analysis of the financial statements of property companies that have been listed on the IDX. The determination of the sample in this study uses a purposive sampling technique with a complete data availability category from the sample. The years used in this study are 2019 to 2023. The data used is secondary data obtained using the Refinitiv program. Based on information obtained from the <https://fima.co.id/blog/perusahaan-properti-yang-terdaftar-di-bei/> website, it was found that only 15 property companies are listed on the IDX. Researchers use the Refinitiv program to look at the amount of after-tax income, sales, total assets, total liabilities, total equity, and stock price. For stock prices, researchers use supporting sites to get the value for each company's dividend distribution using [id.investing.com](https://id.investing.com) sites. The following is a list of companies sampled in this study.

Table 1 List of Property Companies

No.	Company Name	Code
1	PT. Agung Podomoro Land Tbk.	APLN
2	PT. Alam Sutera Realty Tbk.	ASRI
3	PT. Bumi Serpong Damai Tbk.	BSDE
4	PT. Ciputra Development Tbk.	CTRA
5	PT. Jaya Sukses Makmur Sentosa Tbk.	RISE
6	PT. Jaya Real Properti Tbk.	JRPT
7	PT. Lippo Karawaci TI	LPKR
8	PT. Maha Properti Indonesia Tbk.	MPRO
9	PT. Metropolitan Kentjana Tbk.	MKPI
10	PT. Pantai Indah Kapuk Dua Tbk.	PANI
11	PT. Pakuwon Jati Tbk.	PWON
12	PT. Plaza Indonesia Realty Tbk.	PLIN
13	PT. Pollux Property Indonesia Tbk.	POLL
14	PT. Puradelta Lestari Tbk.	DMAS
15	PT. Summarecon Agung Tbk.	SMRA

In this sampling, it was found that PT. Pantai Indah Kapuk Dua Tbk. (PANI), previously PT. Pratama Abadi Nusa Industri Tbk. previously, PT Pratama Abadi Nusa Industri Tbk. was a manufacturing company, as of 2021. So that PT. Pantai Indah Kapuk Dua Tbk. (PANI) was excluded from the research sample.

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## Descriptive Statistics

Descriptive analysis is a statistical analysis method that aims to provide a description or overview of the research subject based on variable data obtained from certain subject groups. Descriptive analysis can be displayed in the form of frequency distribution tables, histogram tables, mean values, maximum and minimum values, and standard deviation values.

Table 2 Descriptive Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
DER	70	.08	6.02	.9132	.97468
TATO	70	.00	.41	.1736	.08439
NPM	70	-7.14	1.73	.0330	1.05004
Return Saham (Stock Return)	70	-.82	5.34	.0913	.77839
Valid N (listwise)	70				

Table IV. I. shows the mean value of the DER variable (X1) of 0.9132 with a standard deviation of 0.9747. The highest value in the DER variable was 6.02 while the lowest value was 0.08. In table IV. I. Shows the mean value of the TATO variable (X2) of 0.1736 with a standard deviation of 0.1736. The highest value of the TATO variable was 0.41 while the lowest value was 0.00. Table IV.I. shows the mean value of the NPM variable (X3) of 0.0330 with a standard deviation of 1.0500. The highest value of NPM was 1.73 while the lowest value was -7.14. Table IV.I shows the mean value of the stock return variable of 0.913 with a standard deviation of 0.7784. The highest value of the stock return variable was 0.77 while the lowest value was -0.82.

## Classical Assumption Test

The classical assumption test is a test that aims to ensure that the test results are unbiased so that the research model can be trusted (Ghozali, 2011). The classical assumption test used in this study, namely:

### Normality Test

The normality test is a statistical procedure used to determine whether or not the data in a sample follows a normal distribution. The normality test on the regression model was carried out to test whether the residual values resulting from the regression were normally distributed or not. A good regression model is one that has normally distributed residual values. The data normality test process was carried out using the Kolmogorov-Smirnov (K-S) test.

The Kolmogorov-Smirnov One Sample test is used to determine the distribution of data whether it follows a normal, poisson, uniform, or exponential distribution. In this case, to find out whether the distribution is normal or not, it is known by looking at the significance value on the Kolmogorov-Smirnov table must be greater than 0.05 then the data can be said to be distributed normally.

Table 3 Normality Test

### One-Sample Kolmogorov-Smirnov Test

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		Unstandardiz Residual
N		70
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.15486931
Most Extreme Differences	Absolute	.257
	Positive	.257
	Negative	-.206
Test Statistic		.257
Asymp. Sig. (2-tailed) <sup>c</sup>		.054

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

In table 3. The normality test showed that the significance value was  $0.054 > 0.05$ . So it can be concluded that the data is distributed normally and passes the normality test.

### Multicollinearity Test

The multicollinearity test aims to test whether there is a correlation between free variables in the regression model or not. A good regression model is that there is no correlation between independent variables. If the independent variables correlate with each other, then these variables are not orthogonal (independent variables whose correlation value between other independent variables is equal to 0) (Ghozali, 2011).

Multicollinearity was detected using tolerance and Variance Inflation Factor (VIF). Tolerance measures the variability of selected independent variables that cannot be explained by other variables. So a low tolerance value equals a high VIF value (because  $VIF=1/\text{tolerance}$ ) and indicates a high collinearity. The commonly used cutoff value is a tolerance value of 0.1 or equal to a VIF below 10 (Ghozali, 2011).

Table 4 Multicollinearity Test

		Coefficient <sup>a</sup>					Collinearity Statistics	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.208	.049		4.241	.000		
	DER	-0.65	.020	-.363	-3.301	.002	.992	1.008
	TATO	-.329	.241	-.160	-1.366	.176	.882	1.134
	NPM	-0.24	.019	-.145	-1.236	.221	.875	1.143

a. Dependent Variable: Return Saham

In table 4. shows that the VIF value of all independent variables is less than 10. Therefore, it can be concluded that there is no multicollinearity in the independent variable and passes the multicollinearity test.

### Heteroscedacity Test

The heteroscedacity test is the detection of the presence or absence of heteroscedacy, namely by graph method and statistical method. The graph method is usually done by looking at the plot graph between the predicted value of the free variable and its residual. Meanwhile, statistical methods can be carried out



with the Park Test, Glacier Test, White Test, Spearman's Rank Correlation Test, Gold Quandt Test, and Breunsch-Pagan-Godfrey Test.

Table 5 Heteroscedacity Test

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.119	.042		2.830	.006
	DER	.010	.017	.073	.600	.551
	TATO	-.301	.205	-.189	-1.468	.147
	NPM	0.13	.017	.104	.802	.425

a. Dependent Variable: Resabs

Table IV.V. shows that the significance value of each independent variable is greater than 0.05, so it can be concluded that there is no heteroscedacity in the residual data and passes the heteroscedacity test.

### Autocorrelation Test

Autocorrelation tests often appear in time-series analysis. The goal is to see if there is a correlation between errors or disturbances in one period and errors in the previous period. In a good statistical analysis, regression data should not show any autocorrelation. Autocorrelation is a correlation between observation members arranged by time or place. The test method uses the Durbin-Watson (DW) test.

Table 6 Autocorrelation Test

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.238 <sup>a</sup>	.207	.171	.15835	2.023

a. Predictors: (Constant), NPM, DER, TATO

b. Dependent Variable: Return Saham

In table IV.VI. shows that the DW value is 2.023 which is between dU (1.810) to 4-dU (2.190). In other words, it can be described as  $dU < DW < 4-dU$  or  $1.810 < 2.023 < 2.190$ . Therefore, it can be concluded that there is no autocorrelation in residual data.

### Multiple Linear Regression Analysis

Multiple linear regression is used by researchers to predict how the state (ups and downs) of bound variables; or multiple linear regression is carried out when the number of independent variables is more than one (Sugiyono, 2018). This analysis is used to find out whether or not there is an influence of the independent variable on the bound variable.

Table 7 Multiple Regression Models

#### Coefficient<sup>a</sup>

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Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.224	.049		4.575	.000
	DER	-.167	.054	-.934	-3.099	.003
	TATO	-0.98	.306	-0.47	-.319	.751
	NPM	-0.42	.025	-.251	-1.665	.101
	DER_BI	2.334	1.163	.662	2.007	0.49
	TATO_BI	-6.668	6.684	-.179	-.997	.322
	NPM_BI	1.353	1.188	.170	1.139	.259

a. Dependent Variable: Return Saham

Based on the multiple linear regression model, it shows that DER has a negative effect on stock returns. TATO has a negative effect on stock returns. Meanwhile, NPM has a negative effect on stock returns.

With the results shown, the researcher added a moderation variable, namely interest rate (Z) to find out whether adding an interest rate variable to the regression model would affect the previous regression model or not.

Based on table IV.VII. shows changes in the results given. It is shown that DER with interest rates has a positive effect on stock returns. TATO with interest rates has a negative effect on stock returns. Meanwhile, NPM with interest rates has a positive effect on stock returns.

## Hypothesis Test

### T-test

The t-test was carried out to find out whether each variable had a significant influence or not. This test is carried out by looking at the t-value of the table with  $\alpha$ . In this study,  $\alpha = 0.05$ . If the value of t is calculated  $\geq t$  of the table, then the independent variable has a significant influence on the bound variable. Based on table IV.VII. it can be seen that:

- 1) DER has a significance value of  $0.003 < 0.05$ , so it can be concluded that H01 is rejected and Ha1 is accepted. In other words, DER has a significant effect on stock returns.
- 2) TATO has a significance value of  $0.0751 > 0.05$ . So it can be concluded that Ha2 was rejected and H02 was accepted. In other words, TATO does not have a significant effect on stock returns.
- 3) NPM has a significance value of  $0.101 > 0.05$ . So it can be concluded that Ha3 was rejected and H03 was accepted. In other words, NPM does not have a significant effect on stock returns.
- 4) DER with the addition of Interest Rate has a significance value of  $0.049 < 0.05$ . So it can be concluded that H04 was rejected and Ha4 was accepted. In other words, DER with the addition of Interest Rates has a significant effect on stock returns.
- 5) TATO with the addition of Interest Rate has a significance value of  $0.322 > 0.05$ . So it can be concluded that Ha5 was rejected and H05 was accepted. In other words, TATO with the addition of Interest Rates has an insignificant effect on stock returns.
- 6) NPM with the addition of Interest Rate has a significance value of  $0.259 > 0.05$ . It can then be concluded that Ha6 was rejected and H06 was accepted. In other words, NPM with the addition of Interest Rates has an insignificant effect on stock returns.

### F-test

The F test was conducted to test whether the regression model used could be used to predict the influence of independent variables simultaneously (together) or not. Hypothesis testing using the distribution F. This test is used to find out how much influence the independent variables simultaneously (together) have on the bound variables. The test was carried out by comparing the significance value at  $\alpha = 0.05$ . If the

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significance value is  $\geq \alpha$ , it can be concluded that the independent variables and moderation variables simultaneously (together) affect the bound variables significantly.

Table 8 F-Test

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.571	6	.095	3.953	.002 <sup>b</sup>
	Residual	1.515	63	.024		
	Total	2.086	69			

a. Dependent Variable: Return Saham

b. Predictors: (Constant), NPM\_BI, DER, TATO\_BI, NPM, DER\_BI

Based on the results in table 8, the significance value is  $0.002 < 0.05$ . Therefore, it can be concluded that H07 was rejected and Ha7 was accepted. In other words, DER, TATO, and NPM as well as Interest Rates as moderation simultaneously (together) have a significant effect on stock returns.

**Coefficient of Determination**

The determination coefficient measures how much the influence of the independent variable contributes to the bound variable. This study uses adjusted R<sup>2</sup> because the independent variable in the research model is more than one. The value of the determination coefficient is 0 and 1. The value of the determination coefficient is between 0 and 1. An R<sup>2</sup> value close to 0 means that the ability of independent variables to bind variables is very limited. Meanwhile, if the R<sup>2</sup> value is close to the number 1, then the independent variables provide almost all the information needed to explain the bound variable.

Table 9 Coefficients of Determination

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.523 <sup>a</sup>	.274	.204	.15509

a. Predictors: (Constant), NPM\_BI, DER, TATO, TATO\_BI, NPM, DER\_BI

Table 9 shows that the R<sup>2</sup> is 0.274 which means that the variables DER, TATO, and NPM as well as Interest Rate as moderation have an influence of 27.4% on stock returns. While the remaining 72.6% is explained by other variables outside this study.

**Analysis Discussion****DER to Investor Return**

In the t-test, it was found that DER showed a significance value of  $0.003 < 0.05$ . And it can be seen that t table has a negative value of -3.099, meaning that DER has a negative effect. Therefore, it can be concluded that DER has a negative and significant effect on investor returns in Property Companies listed on the IDX in 2019-2023. This is in line with research conducted by Sari and Maryoso (2022) and research conducted by Rinaldi (2024). So in this study, it agrees with the research conducted by Sari and Maryoso





(2022) and the research also conducted by Rinaldi (2024). Although the year period in the study sample is different, it can be concluded that DER has a significant effect on investor returns. Because DER measures the level of a company's debt to equity. Companies with high DER indicate high level of leverage, which means the company relies more on debt to finance its operations. This can increase the company's financial risk due to interest obligations and principal liabilities to be paid, which in turn will affect investor returns.

A high debt-to-equity ratio (DER) indicates that the company uses more borrowed funds than equity to finance its operational activities. This heavy reliance on debt can increase financial risk, especially if the profits earned are not enough to meet the obligation to pay interest and principal on debt. In the context of investment, this is seen as a negative signal because the company is considered to have a high level of risk. The property sector itself is known to be quite sensitive to macroeconomic conditions, so a large debt burden will increase the potential for losses when there is a decline in income. Therefore, investors tend to be careful in making decisions, and a high DER can encourage them not to buy shares in the company or even sell them if they are considered no longer worth maintaining.

But when the DER is added to the Interest Rate as moderation, it shows that there is a difference between before using the Interest Rate and after using the Interest Rate. In the study, a significance value of  $0.049 < 0.05$  was obtained. It is also shown that the t-value of the table has a positive value of 2.077. The results obtained show that the DER that has been added to the Interest Rate has a positive and significant effect on Investor Returns. This is because low interest rates make the cost of corporate debt smaller. This gives the company the advantage of increasing leverage by using more debt. With lower debt costs, companies can increase profitability and generate higher investor returns. (Titman, S., & Wessels; 1988).

### **TATO on Investor Return**

Total Asset Turnover (TATO) reflects the level of efficiency of a company in utilizing all assets owned to generate revenue. This ratio is obtained from the comparison between net sales and total assets, so a high TATO value indicates that the company is able to manage its assets optimally in supporting sales activities. For investors, this is a positive sign because it shows the potential for good financial performance, which in turn can increase confidence in the company's stock prospects. Conversely, a low TATO signals that the company's assets are not being utilized efficiently, which can lead to low profits and reduce investment attractiveness. In conditions like this, investors tend to be more careful in making decisions, including considering selling shares or postponing purchases if the company's efficiency continues to decline. Therefore, TATO is one of the important indicators that investors can use in evaluating investment feasibility based on the company's operational effectiveness.

In the t-test, it was found that TATO showed a significance value of  $0.0751 > 0.05$ . Therefore, it can be concluded that TATO does not have a significant effect on investor returns in Property Companies listed on the IDX in 2019-2023. This is in line with research conducted by Rachmawati and Triyonowati (2019). Although the year period in the research sample is different from the research conducted by Rachmawati and Triyonowati, it can be concluded that TATO does not have a significant effect on investor returns.

The same thing happened when TATO added Interest Rates as moderation. The results of the study show that after adding the Interest Rate, a significance value of  $0.322 > 0.05$  was obtained. This clearly proves that TATO is not an explanatory variable that can affect investor returns. Although TATO measures the efficiency of companies in using assets to generate profits, the profitability of companies is more influenced by other factors that are not present in this study. (Modigliani, F., and Miller, M.H.; 1958).

### **NPM on Investor Return**

In the t-test, it was found that NPM showed a significance value of  $0.101 > 0.05$ . Therefore, it can be concluded that NPM does not have a significant effect on investor returns in Property Companies listed on the IDX in 2019-2023. This is in line with research conducted by Lutfi and Endri (2024). Although the year period in the research sample is different from the research conducted by Lutfi and Endri (2024), this study proves that NPM has no effect on Investor Returns.



The same thing happens when the NPM value is added with the Interest Rate as moderation. It was found that NPM with Interest Rate as moderation showed a significance value of  $0.259 > 0.05$ .

Therefore, it can be concluded that NPM has no effect on Investor Returns in Property Companies listed on the IDX in 2019-2023. This shows that NPM is not an explanatory variable in Investor Returns. Although NPM indicates the profitability efficiency of a company, other factors such as a decrease in profit margins in a particular industry or a company's aggressive strategy in conducting market expansion or development may not be shown in NPM directly but may affect Investor Returns. (Graham, J.R., and Harvey, C. R.; 2001).

### **DER, TATO, and NPM with Interest Rates as a Moderation of Investor Returns**

In the F test, a significance value of  $0.002 < 0.05$  was obtained. Therefore, it can be concluded that DER, TATO, and NPM with Interest Rates as moderation simultaneously (together) have a significant effect on Investor Returns in Property Companies listed on the IDX in 2019-2023. This shows that simultaneously, DER, TATO, and NPM with Interest Rate as moderation are explanatory variables in Investor Returns. Then for the explanatory level of DER, TATO, and NPM with Interest Rate as a moderation of Investor Return, it can be shown in the R2 determination coefficient of 27.4% and the other 72.6% is explained by other variables outside this study.

This shows that the influence of DER measures the level of leverage of a company which indicates how much the company depends on debt compared to equity. The influence of TATO measures the efficiency of a company in generating profits using assets. When interest rates are low, companies can more easily access external financing to improve their operations, which can improve the efficiency of asset use. The influence of NPM shows how efficiently a company generates profits from its sales. When interest rates are low, the cost of debt will be smaller, allowing companies to increase the company's profitability.

The role of interest rates in investor returns is when interest rates are low, often followed by monetary policies that support economic growth and the stock market. Investors tend to choose assets with higher yields, including stocks of companies with high leverage (DER), high operational efficiency (TATO), and high profitability (NPM), as they offer greater profit opportunities. (Campbell, J.Y., and Shiller, R. J.; 1988).

### **5. Conclusion**

Based on the data that has been collected and tested using a multiple regression model, it can be concluded that simultaneously, the variables of DER, TATO, and NPM along with interest rates as moderation have a significant effect on investor returns. The DER variable has a negative and significant effect on investor returns, which means that an increase in DER will decrease investor returns, although this is contrary to previous research. This means that the higher the company's debt level compared to its equity, the lower the level of profit perceived by investors. This can be explained because a capital structure that is too dependent on debt increases financial risk, thus impacting investor perceptions of the company's financial health. Although this result contradicts several previous studies that consider high DER as a form of productive leverage, in the context of this study, investors appear to be more sensitive to high debt risk, especially in the property sector.

The TATO had a negative but insignificant effect, which was in line with some previous studies, but the negative coefficient contradicted other findings. NPM also had a negative but not significant effect on investor returns, according to previous research. After the addition of interest rates, the DER showed a significant positive influence, while the TATO remained insignificant, suggesting that the interest rate did not need to be considered in the TATO analysis. Nevertheless, TATO remains relevant as an indicator of a company's operational efficiency. Low or inconsistent TATO values can make investors doubt the company's ability to optimize assets to generate sales, which ultimately affects expectations of stock performance. Meanwhile, the NPM after the addition of interest rates showed a positive influence although not significant, which showed a change in yield but without strong significance. This may indicate that the company's



profitability is not yet strong enough to attract investor interest, or that investors tend to consider other factors such as risk and long-term growth prospects.

Overall, the results of this study confirm that financial ratios such as DER, TATO, and NPM do have relevance to investment decisions, especially when analyzed together with external factors such as interest rates. Therefore, investors are advised not only to pay attention to historical returns alone, but also to consider the financial structure and operational efficiency of the company more comprehensively in formulating their investment strategies.

For future research, it is recommended to use additional variables that are not included in this study to gain broader insights. In addition, expanding the scope of the study will help obtain more accurate results, followed by enlarging the sample size by involving companies from other sectors. Researchers may also consider using more specific variables according to the characteristics of different company sectors for more relevant and comprehensive results.

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