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EFFECT OF DEBT TO EQUITY RATIO, PRICE EARNING RATIO AND PRICE TO BOOK VALUE ON STOCK RETURNS IN THE COMPANY PT. BANK CIMB NIAGA TBK PERIOD 2013-2022

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ABSTRACT

This research aims to determine the description and influence of Debt to Equity ratio, Price Earning Ratio, and Price to Book Value on Stock Returns. The object of this research is PT Bank CIMB Niaga Tbk, the method used is descriptive and verification methods with a quantitative approach. The population in this study were ten financial reports of PT Bank CIMB Niaga Tbk for the 2013-2022 period using a sampling technique, namely non-probability sampling, a saturated sample type. The results of this research show that the Debt-to-Equity Ratio, Price Earning Ratio, Price to Book Value, Stock Returns fluctuate, tend to decrease, and are below standard. Based on the results of the determination test, it is known that partially the influence of the Debt-to-Equity Ratio is 13.4%, the influence of the Price Earning Ratio is 5%, the influence of Price to Book Value is 15.7% and the influence of the Debt-to-Equity Ratio, Price Earning Ratio and Price to Book Value simultaneously affect share returns of 58.8%.

Keywords: Debt to Equity Ratio; Price Earning Ratio; Price to Book Value; Stock Return

INTRODUCTION

The rapid development of the stock exchange today cannot be separated from the role of investors who carry out transactions on the Indonesian stock exchange. There are many industrial sectors listed on the Indonesian stock exchange, one of which is the banking sector. Tandiarrang & Nurhayati (2022) stated that the Bank is a financial institution that has an important role in the economic conditions of a country, this is based on the meaning of banking which is one of the financial systems that functions as a financial intermediary. Changes to the banking business in Indonesia has a direct influence on all business sectors, because almost all businesses involve banking, especially for countries that adhere to an open economic system.

Banks have a very important function in national development, considering that banks are institutions

that have the main function as a tool for collecting funds and as intermediaries in terms of channeling funds aimed at supporting the implementation of national development to increase equitable economic growth and national stability in the direction of increasing welfare of the people at large (Decker & Kingdom, 2020). Based on the bank's function, the nature of the bank's business is different from that of manufacturing companies and service companies. The banking business is a business that relies heavily on the trust of the public as users of banking services themselves (Lugovsky, 2021). No matter how small the issue or problem that arises and is negative in nature related to the condition or situation of a bank, the public as customers and investors will simultaneously withdraw the funds they have stored in the bank, which will further worsen the condition of the bank.

RESEARCH METHOD

The research method used in this research is a descriptive and verification method using a quantitative approach. In this study, researchers used secondary data in the form of annual financial reports. Documentation in this research was carried out by downloading the annual report on the company's official website and on the Indonesian Stock Exchange.

Population and Sample

Population is a generalized area consisting of objects/subjects that have certain specified qualities and characteristics by researchers for researchers to be studied and then withdrawn conclusion. Based on this theory, the population in this study was 10 annual financial reports of PT. CIMB Niaga Tbk for the 2013-2022 period.

Sampling in this research uses Non-Probability Sampling, namely a sampling technique that does not provide equal opportunities for each element or member of the population to be selected as a sample. By using saturated sampling, which is a sampling technique when all members of the population are used as samples. Based on the theory above, in this research the samples were 10 annual financial reports of PT. Bank CIMB Niaga Tbk for the period 2013-2022.

Data Testing Techniques

In this research the author carried out an analysis of the data that has been described using the classic assumption test. Before testing multiple linear regression analysis on the research hypothesis.

Classic Assumption Test

According to (Ghozali, 2017: 33), the classic assumption of linear regression is carried out to find out whether the regression model is good or not. The purpose of the classical assumption test is to test the feasibility of the regression model which is then used to test research hypotheses.

Normality Test

According to (Ghozali, 2017:127), the normality test is used to test whether in the regression model, an independent variable, and a dependent variable both have a normal distribution or not. A good regression model must be normally distributed to avoid bias.

The test carried out in this research was using the Kolmogorov-Smirnov method, test criteria $\alpha = 0.05$. If the sig value is > 0.05, it means the sample distribution is normal and conversely, if the sig value < 0.05, it means the sample distribution is not normal.

Multicollinearity Test

According to (Ghozali, 2017:106), the multicollinearity test aims to test whether in the regression model a correlation is found between the independent variables or not. In a good regression modal, there should be no correlation between independent variables. Variables that cause multicollinearity can be identified with a tolerance value > 0.1 or a VIF value < 10 which can indicate that there are no symptoms of multicollinearity in the regression model.

Heteroscedasticity Test

According to (Ghozali, 2017:47), the heteroscedasticity test aims to test whether in the regression model there is inequality of residual variance from one observation to another. A good regression model is a regression model with homoscedasticity or no heteroscedasticity.

One way to detect the presence or absence of heteroscedasticity is to carry out the Glejser test. The Glejser test proposes to regress the absolute value of the residual against the independent variable. If the significant

number obtained from the new regression equation is greater than alpha 5% then it is said that heteroscedasticity does not occur. On the other hand, if the significant figure obtained is smaller than alpha 5%, it can be said that heteroscedasticity has occurred.

Apart from the Glejser test, heteroscedasticity can be tested by looking at scatterplot graphs. According to (Ghozali, 2017: 134) the way to detect the presence of a heteroscedasticity test is to do it by looking at the graph plot between the predicted value of the dependent variable, namely ZPRED, and the residual SRESID.

Autocorrelation Test

According to (Ghozali, 2017: 93) , the autocorrelation test aims to find out whether in a linear regression model there is a correlation between residual errors in period t and errors in period t-1 (previous). Detecting autocorrelation can be done in several ways, one of which is using the Durbin Watson method.

Multiple Linear Regression Coefficients

According to Sugiono (2019:275) multiple linear regression analysis is used by researchers, if the researcher intends to predict how the value of the dependent variable will change if the value of the independent variable is increased or decreased in value (manipulated). Multiple linear regression analysis is used to obtain a comprehensive picture of the influence of the independent variables on the dependent variable. So, the regression model for the two predictors is as follows:

$$\mathbf{Y = \alpha + b_1 X_1 + b_2 X_2 + b_3 X_3 + e}$$

Multiple Linear Correlation Coefficient

According to Sugiono (2019:231), multiple correlation is a number that shows the direction and strength of two or more variables together with other variables. Multiple correlation analysis functions to find the magnitude of the influence or relationship between two or more independent variables (X) simultaneously (together) with the dependent variable (Y).

Coefficient of Determination

According to Ghozali (2017:21), the coefficient of determination aims to measure how far the model's ability is to explain

variations in the dependent variable. A small R2 value means that the ability of the independent variables to explain variations in the dependent variable is very limited. According to Sugiono, (2019:231), to calculate the coefficient of determination by squaring the coefficient found.

Hypothesis Testing

Hypothesis testing is carried out to measure the extent of influence of Debt-to-Equity Ratio, Price Earning Ratio, Price to Book Value and Stock Returns whether it has an influence or no influence at all between the independent variable and the dependent variable, namely Stock Returns. both partially and simultaneously which can be tested using the t test and F test.

T Test (Partial)

This t test aims to test how far the influence of one independent variable (X) partially has on the dependent variable (Y) by assuming the other independent variables are constant (Ghozali, 2017 :23) . If the significant value in the t test < 0.05 where the value is (t Calculated > t Table) then H1 is accepted, thus it can be concluded that the independent variable partially influences the dependent variable.

F Test (Simultaneous)

The F statistical test basically shows whether all independent variables have an overall influence on the dependent variable (Ghozali, 2017 :22). This F test is used to determine whether there is a joint (simultaneous) influence of the independent (free) variables on the dependent (dependent) variable. If the value of $F_{count} > F_{table}$ or significant at < 0.05, then H0 is rejected, meaning that there is a significant simultaneous influence of the independent variable on the dependent variable.

RESULT AND DISCUSSION

Descriptive Statistics

Descriptives for all variables in the study include minimum, maximum, mean and std values. deviation as in the following table:

Based on the results of descriptive statistical test research that has been carried out, the Debt-to-Equity Ratio variable has a minimum value of 5.34, and a maximum value of 7.48. The mean value of the Debt-to-Equity Ratio variable is 631.40, which means the company's total debt compared to its total own capital is

631.40 and has a standard deviation of 75.010.

The Price Earning Ratio variable has a minimum value of 5.34, and a maximum value of 17.47. The mean value of the Price Earning Ratio variable is 923.70 which means the share price compared to earnings per share is 923.70 and has a standard deviation of 397.511.

The Price to Book Value variable has a minimum value of 0.53, and a maximum value of 1.99. The mean value of the Price to Book Value variable is 81.30, which means the share price compared to the book price per share is 81.30 and has a standard deviation of 43.673.

Return variable has a minimum value of -32 and a maximum value of 58. The mean value of the Stock Return variable is 4.20, which means that the current year's stock price compared to the previous year's stock price is 4.20% and has a standard deviation of 29.298.

Classic Assumption Test

Normality Test

the One Sample Kolmogorov Smirnov method with the test criteria α = 0.05 and the following conditions:

a. If α sig ≥ α means the sample distribution is normal.
b. If α sig ≤ α means the sample distribution is not normal.

The results of the normality test using the One Sample Kolmogorov-Smirnov method can be seen in the following table:

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			10
Normal Parameters[a,b]	Mean		.0000000
	Std. Deviation		26.32395470
Most Extreme Differences	Absolute		.129
	Positive		.129
	Negative		-.104
Test Statistic			.129
Asymp. Sig. (2-tailed)[c]			.200[d]
Monte Carlo Sig. (2-tailed)[e]	Sig.		.910
	99% Confidence Interval	Lower Bound	.902
		Upper Bound	.917

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.
e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 299883525.

Figure 1: Normality Test Result

Based on the results of the normality test using the One Sample Kolmogorov Smirnov test method in table 4.6, it is known that the test has a significant value of 0.200 > 0.05, which means that the residual value normally distributed, or the assumption of normality is met

Multicollinearity Test

The multicollinearity test was carried out to determine whether the regression model contained a correlation between independent (free) variables or not. A regression model can be said to be free from multicollinearity if it has a VIF (Variance Inflation Factor) value of

less than 10 and a Tolerance value of more than 0,10. The following are the results of the multicollinearity test:

Based on the data in the table above, the results of the multicollinearity test show that the Debt-to-Equity Ratio has a Tolerance value of 0.886 and a VIF value of 1.129. The Price Earning Ratio has a Tolerance value of 0.782 and a VIF value of 1.278. Then Price to Book Value has a Tolerance value of 0.873 and a VIF value of 1.146. So that the independent variables Debt to Equity Ratio, Price Earning Ratio, and Price to Book Value have a Tolerance value > 0.1 and a VIF value < 10. Thus, it can be concluded that the regression model in this study is free from symptoms of multicollinearity between the independent variable and the dependent variable.

Heteroscedasticity Test

The heteroscedasticity test can be seen using the Glejser test. The Glejser test has a condition that if the correlation coefficient of all variables with the residual is > 0.05, then heteroscedasticity does not occur in the regression model. The following are the results of the heteroscedasticity test using the Glejser test.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.174	2.577		1.232	.264
	DER	-2.283E-5	.000	-.416	-1.239	.262
	PER	-5.964E-5	.001	-.039	-.112	.914
	PBV	.043	.032	.448	1.334	.230

a. Dependent Variable: LN_RES

Figure 2: Heteroscedasticity Test Result

Based on the data in the table above, the results of the heteroscedasticity test show that the Debt to Equity Ratio, Price Earning Ratio, and Price to Book Value variables have significant values > 0,05. Thus, it can be concluded that the regression model does not experience heteroscedasticity.

Autocorrelation Test

The autocorrelation test was carried out to test whether in the linear regression model there was a correlation between confounding errors in period t and confounding variables in period t-1 (previously). One way to test autocorrelation is to use the Durbin-Watson (DW) test.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.439[a]	.193	-.211	32.24013	1.582

a. Predictors: (Constant), PBV, DER, PER

b. Dependent Variable: Return Saham

Figure 3: Autocorrelation Test Result

Based on the results of the autocorrelation test in table 4.9 above, it shows a Durbin Watson (DW) value of 1.582, which according to Ghozali, if the DW value is between -2 to 2 then autocorrelation does not occur, therefore, it can be concluded that in this study the regression model does not occur. autocorrelation.

Multiple Linear Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	66.717	36.455		1.830	.117
	DER	-.169	.058	-.667	-2.931	.026
	PER	.024	.012	.506	2.090	.082
	PBV	.271	.100	.622	2.714	.035

a. Dependent Variable: Return Saham 1

Figure 4: Multiple Linear Regression Result

The linear regression equation in this research is as follows:

Stock Return = 66,717 + (-169 X $_{1)}$ + 0.24 X $_{2}$ + 2.71 X $_{3}$ + e

This linear equation can be interpreted as follows:

1. The value of a (constant) is 66.717, meaning that if the Debt-to-Equity Ratio, Price Earning Ratio and Price to Book Value are ignored (X1,
2. Debt to Equity Ratio regression coefficient value is -169, meaning that for every one unit increase in the Debt-to-Equity Ratio variable (X1) and other variables are ignored (X2, X3 = 0), the value of the Stock Return variable (Y) will decrease by 1609.
3. Price Earning Ratio regression coefficient is 0.24, meaning that for every one unit increase in the Price Earning Ratio (X2) variable and other variables are ignored (X1, X3 = 0), the value of the Stock Return (Y) variable will increase by 0.24.
4. The Price to Book Value regression coefficient value is 2.71, meaning that for every one unit increase in the Price to Book Value variable (X3) and other variables are ignored (X1, X2 = 0), it will increase the value of the Stock Return variable (Y) by 2.71.

Table 1: Multiple Correlation Coefficient Interpretation

Coefficient Interval	Relationship Level
0.00-0.199	Very low
0.20-0.399	Low
0.40-0.599	Currently
0.60-0.799	Strong
0.80-1,000	Very strong

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.439[a]	.193	-.211	32.24013	.193	.478	3	6

a. Predictors: (Constant), PBV, DER, PER

Figure 5: Multiple Correlation Coefficient Result

Based on the table above, an R value of 0.439 is obtained, which means the value is in the interval 0.40 - 0.599, which shows a moderately close relationship between the variables Debt to Equity Ratio (X1), Price Earning Ratio (X2), and Price to Book Value (X3) on Stock Returns (Y).

Coefficient of Determination

1. Debt to Equity Ratio Determination Test on Stock Returns

   The coefficient of determination (R-Square) is 0.134, which means the contribution (influence) of the Debt-to-Equity Ratio on Stock Returns is 0.134 or 13.4%, while the remaining 87.6% is influenced by other variables outside this research.

2. Price Earning Ratio Determination Test on Stock Returns

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.224[a]	.050	-.068	30.28427

a. Predictors: (Constant), PER

Figure 6: Coefficient of Determination Result on PER

Based on the figure above, the coefficient of determination (R-Square) is 0.050, which means the contribution (influence) of the Price Earning Ratio to Stock Returns is 0.05 or 5%, while the remaining 95% is influenced by other variables outside this research.

3. Price to Book Value Determination Test on Stock Returns

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.396[a]	.157	.051	28.53555

a. Predictors: (Constant), PBV

Figure 7: Coefficient of Determination Result on PBV

Based on the figure above, the coefficient of determination (R-Square) is 0.157, which means that the contribution (influence) of Price to Book Value to Stock Returns is 0.157 or 15.7%, while the remaining 85.3% is influenced

by other variables outside this research.

4. Determination Test, Price Earning Ratio, and Price to Book Value on Stock Returns

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of th Estimate
1	.852[a]	.725	.588	12.24

a. Predictors: (Constant), PBV, DER, PER

Figure 8: Coefficient of Determination Result

Based on the figure above, the results of the Adjusted R-Square value are 0.588. This shows that the contribution (influence) of Debt-to-Equity Ratio (X1), Price Earning Ratio (X2), and Price to Book Value (X3) on Stock Returns (Y) has an influence of 0.588 or 58.8%, while the remainder is 42.2% was influenced by other variables outside this research.

Hypothesis Testing Results

T Test (Partial Test)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	S
1	(Constant)	66.717	36.455		1.830	
	DER	-.169	.058	-.667	-2.931	
	PER	.024	.012	.506	2.090	
	PBV	.271	.100	.622	2.714	

a. Dependent Variable: Return Saham 1

Figure 9: T Test Result

Based on the figure above, due to the results of the t_{count} Debt to Equity Ratio is -2.931 so the t_{table} calculation Debt to Equity Ratio is carried out using a one-tailed or one-sided test. One-tailed is a one-sided test ignoring negative symbols, so the absolute value taken is 2.931. Results from t_{count} and t_{table} Debt to Equity the Debt-to-Equity Ratio (D/E) measures a company's financial leverage by comparing its debt to its equity. It indicates the proportion of a company's financing that comes from debt versus shareholders' equity.

The impact of D/E on stock returns can be explained by several factors: Financial Risk and Stability: Risk Exposure: Higher D/E ratios indicate higher financial leverage and potentially higher financial risk. Investors might perceive companies with lower D/E ratios as more stable and less vulnerable to financial distress. Interest Payments: High debt levels might lead to increased interest payments, impacting profitability and potentially reducing shareholder returns. Growth Opportunities and Market Perception: Capital Allocation: Companies with moderate debt levels might use borrowed funds to invest in

growth opportunities, potentially increasing future earnings and positively influencing stock returns Investor Confidence.

Depending on the industry and market conditions, some investors might favor companies with moderate debt levels as they might signify strategic growth plans without excessive financial risk Regarding the statistical analysis you mentioned, a one-tailed result of 2.931 greater than 1.943 signifies that the Debt-to-Equity Ratio has a statistically significant impact on Stock Returns. This means there's evidence supporting the relationship between D/E and stock returns. With a significant value of 0.026 less than 0.05, it implies that the Debt-to-Equity Ratio has a partial effect on Stock Returns. This suggests that while D/E plays a significant role in influencing stock returns, it might not be the sole determinant. Other factors, such as industry dynamics, market conditions, or company-specific strategies, could also contribute to stock returns alongside the D/E ratio. Research aligned with these findings could support the notion that D/E indeed affects stock returns, highlighting the importance of maintaining a balanced debt structure to optimize returns while managing financial risk. It also emphasizes the need to consider various other financial metrics and external factors to comprehensively assess the impact on stock performance.

Results from t_{count} and t_{table} Price Earning Ratio to Stock Returns namely 2.090 < 2.447 then H_2 rejected, and H_o accepted. The significance value of the Price Earning Ratio on Return is 0.082 > 0.05 so it can be concluded that the Price Earning Ratio has no partial effect on Stock Returns is Research findings aligned with these results might suggest that in certain market conditions or industries, the Price Earning Ratio might not be a significant determinant of stock returns. It emphasizes the need to consider a broader spectrum of factors beyond just P/E ratios when analyzing and predicting stock performance. Factors like industry dynamics, macroeconomic conditions, and company-specific strategies could have more substantial impacts on stock returns than the P/E ratio alone.

Regarding the statistical analysis you mentioned, with a t count of 2.714 greater than the t table value

of 2.447, it suggests that the relationship between Price to Book Value and Stock Returns is statistically significant. This means that there is evidence to support that the Price to Book Value ratio does indeed have an impact on stock returns. With a significance value of 0.035 less than 0.05, it signifies that the Price to Book Value has a partial influence on Stock Returns. This implies that while P/BV is a factor influencing stock returns, it might not be the sole determinant. Other variables or factors could also contribute to or interact with stock returns alongside the P/BV ratio.

Research in line with these results could suggest that while P/BV plays a significant role in stock returns, it's crucial to consider a holistic approach that includes various other financial ratios, market dynamics, and macroeconomic factors for a more comprehensive understanding of stock performance.

F Test (Simultaneous Test)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F
1	Regression	2373.036	3	791.012	5.275
	Residual	899.766	6	149.961	
	Total	3272.802	9		

a. Dependent Variable: Return Saham 1
b. Predictors: (Constant), PBV, DER, PER

Figure 10: F Test Result

Based on the output results in the figure above, the significance value is 0.04 < 0.05, which means that There is an influence of Debt-to-Equity Ratio, Price Earning Ratio, and Price to Book Value on Stock Returns. However, it can be seen from F_{count} that it is 5.275 > 4.76 so that based on the hypothesis testing criteria it can be concluded that there is an influence of Understanding these factors along with the analysis of D/E, P/E, and P/B can provide a more comprehensive view of the variables influencing the stock returns of PT. Bank CIMB Niaga. Tbk. This assists in evaluating the company's performance and the potential movement of its stocks.

CONCLUSION

Based on the test results in this research, it can be concluded that:

(1) The description of the Debt-to-Equity Ratio, Price Earning Ratio, Price to Book Value and Share Returns at PT Bank CIMB Niaga Tbk for the 2013-2022 period has a distribution of variable values that is still below the standard value. (2) Debt to Equity Ratio partially influences share returns at the company PT Bank CIMB Niaga Tbk for the 2013-2022 period. (3) Price Earning Ratio partially has no effect on

Stock Returns in the company PT Bank CIMB Niaga Tbk for the 2013-2022 period. (4) Price to Book Value partially influences share returns at the company PT Bank CIMB Niaga Tbk for the 2013-2022 period. (5) Debt to Equity Ratio, Price Earning Ratio, and Price to Book Value simultaneously influence share returns at CIMB Niaga Tbk for the 2013-2022 period.

Potential investors who want to invest in PT Bank CIMB Niaga Tbk should pay attention to the company's high share price, because the higher the share price, the higher the share price is expected to be able to provide returns that are in line with investors' expectations. However, potential investors are also expected to not only look at share price levels, but also pay careful attention to the company's financial ratios when analyzing the financial reports of companies that will be used as a place to invest.

It is hoped that future researchers will be able to expand the research object and increase the research period. Apart from that, future researchers can use or add other variables such as inflation, net profit margin, interest rates and other external factors.

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