

## The Effect of RoA, Roe, and DeR on Stock Prices in Companies That Listed on the LQ-45 Indonesia Stock Exchange in the 2018-2020 Period

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### Abstract

This study analyzes the effect of Return on Assets, Return on Equity, and Debt to Equity Ratio on stock prices in LQ-45 companies listed on the Indonesia Stock Exchange during the 2018-2020 period. The sample used consisted of 63 companies consisting of 21 companies from 45 companies listed in the LQ45 index during that period. The analytical tool used is multiple linear regression analysis with purposive sampling. The results of the study show that together, Return on Assets (ROA), Return on Equity (ROE), and Debt to Equity (DER) have a significant influence on stock prices. Partially ROA and ROE do not affect stock prices, while DER affects stock prices.

**Keywords:** ROA, ROE, DER Stock Price



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### INTRODUCTION

Rapid economic development and growth in a company demand better management to face a competition between companies and seek alternative funds through the Indonesia Stock Exchange. The capital market is the most effective means for overcoming company liquidity problems and an investment vehicle chosen by parties with excess funds to invest in the capital market. Shares are also a sign of ownership of a person or entity in a company or limited liability company. The portion of ownership is determined by the amount invested in the company. The price of a company's shares is also influenced by economic fluctuations, namely ups, and downs, that sometimes occur, thereby limiting investors in taking steps to invest. Financial statement analysis can provide the best results when combined to show a change in the financial condition or operational performance during a specific period.

A company's profit level is very concerning for investors before investing their capital. This is, of course, because a good company will reflect maximum results in managing its assets. In the process, the company uses return on investments to carry out a good accounting role to produce efficient use of capital for the company's financial system. A company with sound financial management will also have an excellent ability to pay off obligations or debts so that the company's internal parties can make efforts to help the company's financial condition. Research conducted by (Nordiana & Budiyanto, 2017; Mannoppo, 2017) proves that the ROA variable significantly affects stock prices. Contrary to research conducted by (Umar & Savitri, 2020), ROA has no significant effect on stock prices. Furthermore, research conducted by (Setyorini, 2016) proves that ROE has a significant effect on stock prices, and is contrary to research (Wrtono, 2018) that ROE hurts stock prices.

It is further known that research conducted by (Mahardika & Dohar, 2016; Wahyuni, 2018) gave the result that ROE affected stock prices, while research conducted by (Nordiana & Budiyanto, 2017; Abdulah, 2016) found that the DER variable had a significant effect on the stock price. Based on the results of this research which are still different, they attract researchers to conduct further research. Another known phenomenon is an increase and

decrease in stock prices on the Indonesian Stock Exchange. The following shows the increase and decrease in share prices of several companies listed on the Indonesia Stock Exchange, which can be seen in Table 1 below:

**Table 1. Phenomenon Data**

Issuer Code	Year	Net Profit	Total Equity	Total Dept	Saham
BBRI	2018	325.001.250	303.395.317	1.307.896.206	3.660
	2019	344.138.252	208.784.336	1.183.155.670	4.430
	2020	18.660.393	199.911.376	1.278.346.276	4.160
BBNI	2018	15.100.523	140.197.662	619.420.671	8.800
	2019	15.508.583	125.003.948	688.489.442	7.925
	2020	23.321.442	112.872.199	746.236.663	9.054
BBC	2018	25.789.321	150.783.156	650.789.567	5.200
	2019	28.569.974	174.143.156	740.067.127	6.685
	2020	27.147.109	184.714.709	885.537.919	8.560

Source: Financial Statements, Data Processed

The BBRI company's net profit in 2018-2020 increased by 0.05%, while the share price in the same period only increased by 0.21%. The BBNI company experienced a decrease in total equity of 1.89% in 2018-2020, while its share price decreased by 0.09% in the same period. The BBNI company's total debt in 2018-2020 increased by 0.13%, while the share price increased by 0.028% in the same period.

## RESEARCH METHODS

This research focuses on industries engaged in manufacturing (LQ-45 stock market index) on the Indonesia Stock Exchange (IDX) using secondary data, namely financial reports recorded from 2018 to 2020, which, of course, can be obtained directly from each company's annual reports respectively. The population is the entire object of the study (Sugiyono, 2017). The population used in this study is a company listed on the Indonesia Stock Exchange in LQ-45 shares for 2018-2020. The criteria of manufacturing companies that have never lost during the 2018-2020 period with observational data of 21 X 3 or 63 companies.

### Classic Assumption Test

The classic assumption test is an assumption test in research that underlies regression analysis to measure associations or attachments between independent variables (Ghozali, 2019). In a study, of course, it is essential to test the classical assumption to find out that the data in the research is worthy of being used as the basis for further decision-making. In this study, several tests were carried out: the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation.

### Multiple Linear Regression Analysis

Multiple linear regression analysis studies the dependent variable's dependence (bound) with one or more independent variables (independent/explanatory variables) to estimate and predict the population means or the average value of the dependent variable based on the known values of the independent variables. The multiple linear regression analysis models explain the relationship and how much influence the independent (independent) variables have on the dependent variable (Sugiyono, 2017). The form of multiple regression in this study discusses multiple regression with three independent variables, namely:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Information:

- Y = Stock Price
- a = Constant
- X<sub>1</sub> = ROA
- X<sub>2</sub> = ROE
- X<sub>3</sub> = DER
- b<sub>1</sub>,b<sub>2</sub>,b<sub>3</sub> = Regression Coefficient
- e = Standard Error

**RESEARCH RESULTS AND DISCUSSION**

**Descriptive statistics**

This research was conducted on manufacturing companies (LQ-45 stock market index) on the Indonesia Stock Exchange (IDX) in 2018-2020. The following are the results of the descriptive statistical test in this study:

**Table 2. Statistics Descriptive**

	N	Minimum	Maximum	Mean	Std. Deviation
X1	63	10.00000	3933.00000	365.5396825	531.54649071
X2	63	6.00000	561.00000	136.4603175	163.97116440
X3	63	10.00000	3933.00000	285.9523810	559.38648503
Y	63	1.22000	975.00000	157.9172698	292.07470729
Valid N (Listwise)	63				

Source: SPSS Output Results

1. ROA has a minimum value of 0.10 obtained by Bank Rakyat Indonesia Tbk, a maximum value of 39.33 obtained by Bank Negara Indonesia Tbk, an average value of 365,5, and a standard deviation of 531,5
2. ROE has a minimum value of 0.60 obtained by Bank Central Asia Tbk and a maximum value of 5.61 obtained by Bank Negara Indonesia Tbk, an average value of 1.36, and a standard deviation of 163.97
3. DER has a minimum value of 0.10 obtained by Bank Rakyat Indonesia Tbk and a maximum value of 3.933 obtained by PT Bank Central Indonesia Tbk, an average value of 285.95, and a standard deviation of 559.02
4. Stock price has a minimum value of 1.22 obtained by PT Bank Rakyat Indonesia, Bank Negara Indonesia Tbk, and Bank Central Indonesia Tbk, a maximum value of 157.97, and a standard deviation of 292.07

**Assumption Test Classic**

**Normality Test**

**Table 3. Normality Test Results**

<b>One-Sample Kolmogorov-Smirnov Test</b>		
		Unstandardized Residual
N		63
Normal Parameters <sup>b</sup>	Mean	2.7279873
	Std. Deviation	.19648306
Most Extreme Differences	Absolute	.071
	Positive	.071
	Negative	-.056
Test Statistic		.071
Asymp. Sig. (2-tailed)		.200 <sup>c</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Based on the results of the Kolmogorov Smirnov test using SPSS, as in Table 3 above, it can be seen that the significance value of Asymp Sig. (2-tailed) of 0.200. This value is, of course, greater than 0.05, so it is by the basis for decision-making in the Kolmogorov-Smirnov normality test that it can be ascertained that the data is usually distributed. With these results, further testing can be carried out.

### Multicollinearity Test

**Table 4. Multicollinearity Result**

Model		Collinearity Statistic	
		Tolerance	VIF
1	(Constant)		
	Ln_Roa	.455	2.196
	Ln_Roe	.719	1.390
	Ln_Der	.431	2.321

The multicollinearity test is the next classical assumption test stage that a study must meet. This test aims to see if the regression model finds a correlation between the independent variables. The criteria or methods that can be used to determine whether there are deviations from the multicollinearity test are by looking at each independent variable's Tolerance and VIF values . Furthermore, if the Tolerance value is  $> 0.10$  and the VIF value is  $< 10$ , the data is free from multicollinearity symptoms. From the results of the multicollinearity test above, the data in this study are free from multicollinearity problems. This can be proven from the values obtained: all research variables have a tolerance value of  $> 0.10$  and a VIF value of  $< 10$ .

### Autocorrelation Test Results

**Table 5. Autocorrelation Test Results**

	Unstandarized Residual
Test Value <sup>a</sup>	-.82218
Cases < Test Value	31
Cases $\geq$ Test value	32
Tptal Cases	63
Number of Runs	37
Z	1.145
Asymp. Sig. (2-tailed)	.252
a. Median	

From Table 5 above and the run test analysis that has been carried out, the result can be obtained that the data is free from autocorrelation problems. This can be seen from the significance value obtained, equal to  $0.252 > 0.05$ .

### Heteroscedasticity Test

The heteroscedasticity test is the testing stage in research or scientific work to test the regression model. Heteroscedasticity testing was carried out to fulfill the requirement that the regression model in this study had an unequal variance from the residual from one observation to another. Furthermore, the heteroscedasticity test in this study can also be carried out using the Glejser test. The Glejser test is the most frequently used statistical test in a study. The Glejser test is carried out by regressing the absolute value of the residuals to the independent variables in a study. The criteria must be met so that the regression model is said to be not affected by heteroscedasticity, that is, if the significance probability value is above the 5% confidence level or  $> 0.05$  and vice versa.

**Table 6. Heteroscedasticity Test Glejser**

Model	Unstandarized Coefficients		Standarized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.908	1.796		1.619	.111
	Ln_Roa	-.584	.456	-.243	-1.281	.205
	Ln_Roe	.235	.233	.152	1.006	.318
	Ln_Der	.436	.318	.267	1.370	.176

From the results of the heteroscedasticity test and the results in Table 6 above, the data in this study are free from heteroscedasticity problems. This, of course, can be proven from the value of the independent variables ROA (0.205), ROE (0.318), and DER (0.176) > 0.05. From the test results, further tests can be carried out.

### Analysis Results in Multiple Linear Regression

This analysis will explain the multiple linear regression equation used in the following SPSS results.

**Table 7. Analysis Results in Multiple Linear Regression**

Model	Unstandarized Coefficients		Standarized Coefficients	
	B	Std. Error	Beta	
1	(Constant)	2.611	1.619	
	Ln_Roa	-.655	.411	-.288
	Ln_Roe	.199	.210	.136
	Ln_Der	.787	.287	.511

a. Dependent Variable: LN\_HS

From the results of the multiple linear regression test in this study, which can be seen in Table 7, the following results are obtained: **Stock Price = 8.177 + -0.635 LN\_CR + -0.451 LN\_ROA + 0.659 LN\_TATO + -0.102 LN\_NPM**

1. A constant of 2,611, the value of the independent variable (ROA, ROE & DER) is 0 or fixed, then the value of the dependent variable (stock price) is 2,611.
2. The coefficient of ROA is -0.655, indicating a negative relationship to stock prices, meaning that if the ROA variable (X1) increases by 1 unit, the stock price (Y) will decrease by -0.655
3. The coefficient of ROE is 0.199, indicating a positive relationship to stock prices, meaning that the ROE variable (X2) increases by 1 unit, so the stock price (Y) will increase by 0.199
4. The coefficient of DER of 0.787 indicates a positive relationship to stock prices, meaning that if DER (X3) increases by 1 unit, the stock price (Y) will increase by 0.787.

**Table 8. Coefficient Determination Results**  
**Coefficient Determination**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. An error in the Estimate
1	.347 <sup>a</sup>	.121	.076	1.98999

a. Predictors: (Constant), ROA, ROE, DER

The table above presents a coefficient of determination of 0.347 where as much as 34.70% ROA, ROE, and DER in explaining the stock price is 34.70%. In comparison, variables outside of this study influence the remaining 65.30%.

**Hypothesis Test kindly Partial (t-test)**

**Table 9. Uji t Results**

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.609	3.460		1.613	.112
	ROA	.181	.066	.238	-1.593	.116
	ROE	.247	.076	.275	.945	.349
	DER	.395	.104	.333	2.745	.008

a. Dependent Variable: Harga Saham

Based on Table 9, it can be explained that the partial test results in this study were obtained:

1. ROA (X1) t-count (-1.593) < t-table (1.66940) with a significance value (11.2) > 0.05, therefore, ROA partially does not have a significant effect on stock prices (Y) in LQ-45 companies in Indonesia Stock Exchange for the 2018-2020 period.
2. ROE (X2) t-count (0.945) < t-table (1.66940) with a significance value (34.9) > 0.05; therefore, ROE partially does not have a significant effect on stock prices (Y) in LQ-45 companies in Indonesia Stock Exchange for the 2018-2020 period.
3. DER (X3) t-count (2.745) > t-table (1.66940) with a significance value (0.008) < 0.05; therefore, DER partially has a significant effect on stock prices (Y) in LQ-45 companies on the Stock Exchange Indonesian securities for the period 2018-2020.

**Hypothesis Test kindly Simultaneous (Test F)**

**Table 10. Uji F Result**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.042	3	10.681	2.697	.054 <sup>b</sup>
	Residual	233.643	59	3.960		
Total		265.685	62			

a. Dependent Variable: Ln\_Hs  
b. Predictors: (Constant), Ln\_Der, Ln\_Roe, Ln\_Roa

The significant test (F test) in Table 10 above shows that the calculated F is 2.697 > F Table 2.75 with a significance value of 0.054 < 0.05, meaning ROA, ROE, and DER simultaneously influence stock prices.

**Effect of Return On Assets (ROA) on Stock Prices**

Statistical test of ROA variable t-count (-1.593) < t-table (1.66940) with a significance value (11.2) > 0.05; therefore, H1 is rejected. This is, of course, because ROA (X1) partially does not significantly affect stock prices (Y). This, of course, can be caused because the shareholders are negligent in paying attention to the company's internal capabilities, especially to generate large profits, but only pay attention to one side, namely external risks and market conditions. This is, of course, in line with research conducted by (Egam et al. 1, 2017), which states that Return on Assets does not affect stock prices.

**Effect of Return On Equity on Stock Prices**

The results of testing the ROE variable (X2) t-count (0.945) < t-table (1.66940) with a significance value (34.9) > 0.05, therefore, ROE partially does not have a significant effect on stock prices (Y) in LQ-45. Companies on the Indonesia Stock Exchange for the 2018-2020



period. This shows that H2 is rejected. This can occur due to fluctuations in net profit from year to year, so the return on capital decreases and causes investors not to invest. This aligns with research conducted by (Alfiah & Diyani, 2017), where Return on Equity has no significant effect on stock prices.

### **Effect of Debt To Equity Ratio on Stock Prices**

Statistical test results show that DER (X3) t-count (2.745) > t-table (1.66940) with a significance value (0.008) < 0.05; therefore, DER partially has a significant effect on stock prices (Y) in LQ-45 on the Indonesia Stock Exchange for the 2018-2020 period. This indicates that H3 is accepted. This can happen because the company has a strategy for using debt, namely, to reduce the tax burden in a company so that the use of large amounts of debt will increase profits and can attract investors. These results certainly align with research conducted by (Angraini & Hasanuh, 2023) that DER significantly affects stock prices.

### **ROA, ROE, and DER Have a Direct Effect on Stock Prices**

The results of the research hypothesis H4 are accepted, which means that ROA, ROE, and DER to the stock price are 34.70%.

### **CONCLUSION**

From this research, it can be concluded that: ROA variable t-count (-1.593) < t-table (1.66940) with a significance value (11.2) > 0.05; therefore, H1 is rejected. This is, of course, because ROA (X1) partially does not significantly affect stock prices (Y). This indicates that ROA partially has no effect on the stock prices of LQ-45 companies on the Indonesia Stock Exchange for the 2018-2020 period. The results of testing the ROE variable (X2) t-count (0.945) < t-table (1.66940) with a significance value (34.9) > 0.05; therefore, ROE partially does not have a significant effect on stock prices (Y) in LQ companies -45 on the Indonesia Stock Exchange for the 2018-2020 period. DER (X3) t-count (2.745) > t-table (1.66940) with a significance value (0.008) < 0.05; therefore, DER partially has a significant effect on stock prices (Y) in LQ-45 companies on the Stock Exchange Indonesian securities for the period 2018-2020. ROA, ROE, and DER jointly affect the stock price (Y) of LQ-45 companies on the Indonesia Stock Exchange for 2018-2020. Advice for investors and potential investors is to take advantage of the information published by each company regarding a company's financial statements. Future researchers can add other variables that were not included in this study to add new insights and knowledge.

### **BIBLIOGRAPHY**

- Ghozali, I. (2018). *Aplikasi Analisis Multivariate SPSS 25 (9th Ed)*. Universitas Diponegoro.
- Janaina, N.N & Yudiantoro, D. (2023). Pengaruh EPS, ROE Dan DER Terhadap Harga Saham Properti Dan Real Estate Yang Terdaftar Di JII70. Al-Kharaj: *Jurnal Ekonomi, Keuangan & Bisnis Syariah*. 5 (2). 712-725.
- Kasmir. Analisis Laporan Keuangan Edisi 9. (2016). Jakarta: Rajawali Pers
- Mannopo, V.C.O., Tewal, B., & Jan.A.B.H. (2017). Pengaruh Current Ratio, DER, ROA Dan NPM Terhadap Harga Saham Pada Perusahaan Food And Beverage Yang Terdaftar Di BEI Periode 2010-2015. *Jurnal EMBA*. 15 (2). 1813-1822.
- Nordiana, A., & Budiyanto. (2017). Pengaruh DER, ROA Dan ROE Terhadap Harga Saham. *Jurnal Ilmu Dan Riset Manajemen*. 6 (2). 1-16.
- Prasetya, A., & Fitra. (2022). Pengaruh ROE, ROA, EPS Dan DER Terhadap Harga Saham Dengan PER Sebagai Variabel Moderasi: Studi Empiris Pada Perusahaan LQ-45 Di Bursa Efek Indonesia. *Jurnal Eksplorasi Akuntansi (JEA)*. 4 (4). 712-725.

- Setyorini . (2016). Pengaruh Dividend Per Share Dan Earning Per Share Terhadap Harga Saham Pada Perusahaan Industri Barang Konsumsi Yang Terdaftar Di BEI. E-Journal SI Ak Universitas Pendidikan Ganesha Jurusan Akuntansi Program SI.
- Sudana, I M. (2015) *Tori Dan Praktik Manajemen Keuangan Perusahaan* (2Ed). Erlangga
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif Dan R&D*. Bandung: Alfabeta, CV.
- Sujarweni, V. W. (2017). *Analisis Laporan Keuangan Teori, Aplikasi & Hasil Penelitian*. Pustaka Baru Press
- Sukamulja, S. (2019). *Analisis Laporan Keuangan Sebagai Dasar Pengambilan Keputusan Investasi*. Yogyakarta : ANDI, 2019.
- Umar, A. A., & Savitri, A. S. (2020). Analisis Pengaruh Roa, Roe, Eps Terhadap Harga Saham. *Jurnal Analisa Akuntansi Dan Perpajakan*, 4 (2), 92-98.
- Watung, R. W., & Ilat, V. (2016). Pengaruh Return On Asset (Roa), Net Profit Margin (Npm), Dan Earning Per Share (Eps) Terhadap Harga Saham Pada Perusahaan Perbankan Di Bursa Efek Indonesia Periode 2011-2015. *Jurnal Rise Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 4 (2) (ISSN 2303-1174), 518-529.