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The Effect of Return On Assets (ROA), Return On Equity (ROE), and Net Profit Margin (NPM) on Stock Price (Empirical Studies of Companies Listed on the LQ45 Indeks for the 2019-2021 period)

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Abstract— *The purpose of this discussion is to determine the effect of Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) on stock prices in companies listed on the LQ45 Index for the 2019-2021 period. The stock price is the quoted price per share on the stock exchange of the company and is an important quantity predetermined by the issuer as the stock price is affected by the efficiency of the issuer. Data analysis was performed by multiple linear regression analysis. This study uses the SPSS version 25 program. The samples taken are companies that are consistently included in the LQ45 index for the 2019-2021 period. The results of this study indicate that ROE has an effect on stock prices, while ROA and NPM have no effect on stock prices.*

Keywords— *Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Stock Price*

I. INTRODUCTION

Currently entering the era of digital development 4.0 where technology is developing rapidly along with the times. Humans cannot be separated from digital needs. As technology and digital developments can influence people's interest in investing. Considering that technological developments can facilitate investment, people are now starting to realize the importance of an investment. Investment is a delay in present consumption to be included in productive assets for a certain period of time. There are various options in investing, one of which is stock investment.

Shares are securities issued by a limited liability company or public issuer. Share price is the value of shares which is determined by the bidding power to buy and sell shares in a certain market mechanism, and is the selling price of other investors (Ch Manoppo et al., 2017). According to Hendrich (2020) The stock price reflects the value of the company. If a company performs well, its stock will be in high demand among investors. You can see the good performance by looking at the securities report issued by the company.

Stock traders who are just starting out may be more enthusiastic about entering the capital market because they want to quickly and easily achieve high profits by holding on to the belief that joining the stock market is just for fun and not for business. Before investing, one must understand what factors, if any, will influence the purchase price of securities to receive a large return on investment (Tahir et al., 2021). Factors that affect changes in stock prices include company performance as reflected in financial statements, stock splits, and financial ratios (Oktavia & Genjar, 2019).

The index is needed as an indicator to monitor the development of security prices. One of them is Index Liquid 45 (LQ45). This index is made up of only the 45 most actively traded stocks. The LQ45 Index is the stock that investors are most interested in due to its high liquidity, capitalization and good company fundamentals. Therefore, while there is hope that investors will be able to generate the returns they expect, there is no guarantee that profits from the LQ45 Index will always be large (Laulita & Yanni, 2022).

II. LITERATURE REVIEW AND HYPOTHESIS

A. Signal Theory

Signaling theory is a measure of corporate governance that tells investors how management views a company's future prospects (Imelda et al., 2022). Signaling theory explains why companies have incentives to share closing information with third parties. The company's incentive to disclose is the existence of information asymmetry between the company and outsiders, because the company knows more about the company and its future prospects than outsiders, namely investors and creditors.

B. Stock Price

The stock price is the quoted price per share on the stock exchange of the company and is an important quantity predetermined by the issuer as the stock price is affected by the efficiency of the issuer. According to Jogiyanto (2008: 143) a stock price is the price of a stock appearing on the capital market at a particular point in time, determined by market participants and determined by the supply and demand for that stock in the capital market. The share price is the price formed by an agreement between the seller and the buyer of the shares, or the price resulting from the market demand and supply of buying and selling shares at a certain time when they appear on the stock market.

C. Return On Assets (ROA)

According to Dewi & Suwarno (2022) Return On Assets (ROA) describes a company's ability to gain profits using assets. ROA aims to measure the return on invested capital by using all the assets owned by the company. The higher the ROA value, the more effective it is in providing returns to investors. Prabowo's research (2020) and Rahmat & Fatimah (2022) state that ROA affects stock prices. Based on the results of these two studies, it can be concluded that the hypothesis is as follows:

H1= Return On Assets (ROA) affects stock prices.

D. Return On Equity (ROE)

Return On Equity (ROE) describes a company's ability to generate profits based on certain ratios. ROE is one of the most important profitability ratios. The higher the company's ROE value, the more efficiently the company generates net profit after tax (Dewi & Suwarno, 2022). Research conducted by Hendrich (2020) and Ulil Albab Al Umar (2020) states that Return on equity (ROE) has a significant influence on stock prices. Based on the results of these two studies, it can be concluded that the hypothesis is as follows:

H2= Return On Equity (ROE) affects stock price

E. Net Profit Margin (NPM)

Net Profit Margin (NPM) is a measure used to compare net profit after tax with net sales in order to find out how much profit a company gets. Net Profit Margin (NPM) describes a company's ability to generate net profit, namely net profit after tax compared to net sales. The results of research conducted by Mustapa et al., (2021) and Junifa Wijinurtini Puspita Sari & Rina Trisnawati (2022) show that NPM has a significant effect on stock prices. Based on the results of these two studies, it can be concluded that the hypothesis is as follows:

H3= Net Profit Margin (NPM) affects stock prices

III. METHODOLOGY

A. Types of Research

This study uses a quantitative approach. Quantitative approach method is used in this study because data collection includes statistical analysis and entering numbers.

B. Population and Sample

The population selected by the researchers for this study consists of companies included in the LQ45 Index list for the three periods 2019-2021. The study was targeted based on financial and time series reports on stock prices over the past three years (2019-2021) of companies listed on the Indonesian Stock Exchange listed on the LQ45 index. This study uses a purposive sampling method.

The sample criteria used in this study are as follows :

TABLE I. Sample Selection process

No.	Research Sample Criteria	Total
1.	Companies included in the LQ45 Index list and listed on the Indonesia Stock Exchange	52
2.	Companies that are consistently included in the LQ45 calculation during the 2019-2021 period	35
3.	The company publishes financial reports in rupiah for the period 2019 to 2021	29
4.	Companies that have complete closing price data for the 2019-2021 period	29
	Research samples that fit the criteria	29
	Total observation in 2019-2021	87
	Data outliers	3
	Total unit of analysis for 3 years processed	84

TABLE 2. Indicators Variable

Variable	Indicators	Source
Return On Assets	$ROA = \frac{\text{Earning After Tax}}{\text{Total Asset}} \times 100\%$	Gerald Edsel Yermia Egam, Ventje Ilat, Sonny Pangerapan (2017)
Return On Equity	$ROE = \frac{\text{Earning After Tax}}{\text{Equity}} \times 100\%$	Laulita & Yanni (2022)
Net Profit Margin	$NPM = \frac{\text{Earning After Tax}}{\text{Sales}} \times 100\%$	Gerald Edsel Yermia Egam, Ventje Ilat, Sonny Pangerapan (2017)
Stock Price	Stock Price = Closing Price	Hayati (2019)

C. Data Analysis Technique

The data used in this research is secondary data. Data were obtained from the website www.idx.co.id and the official websites of each company. In this study, a quantitative method was used using the SPSS version 25 program in data processing and testing. Multiple linear analysis methods are used to determine the relationship between one variable and another.

$$SP = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NPM + e$$

Information :

SP = Stock Price
α = Constant
$\beta_1\ \beta_2\ \beta_3$ = Regression Coefficient of each variable
ROA = Return On Assets
ROE = Return On Equity
NPM = Net Profit Margin
e = error

IV. RESULTS AND DISCUSSION

A. Normality Test

The normality test in this study uses the CLT (Central Limit Theorem) test. This means that if the number of observed data is large enough ($n > 30$), the data results will approach normal. In this study, the number of n is 84 when the data are 30 or more. This can be interpreted to mean that the data in the study are normally distributed.

B. Multicolinearity Test

TABLE 3. Multiconearity Test

Variable	Tolerance	VIF	Information
Return On Assets	0,394	2,535	No Multicolinearity
Return On Equity	0,387	2,585	No Multicolinearity
Net Profit Margin	0,964	1,037	No Multicolinearity

Source : Data Process, 2023

Based on the test results above, it shows that all independent variables have a tolerance of more than 0.10 and a VIF value of less than 10, so it can be concluded that the regression model is free from multicollinearity symptoms.

C. *Heteroscedasticity Test*

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TABLE 4. Heteroscedasticity Test

Variable	Sig.	Information
Return On Assets	0,960	There is no Heterocedasticity
Return On Equity	0,063	There is no Heterocedasticity
Net Profit Margin	0,051	There is no Heterocedasticity

Source : Data Process, 2023

Based on the test results above, the sig value of each independent variable has a value greater than the significant level of 5%, which means it does not affect the dependent variable so that it can be categorized as not affected by heteroscedasticity.

D. Autocorrelation Test

TABLE 5. Autocorrelation Test

Du	Durbin-Watson	4-Du	Information
1,7199	2,210	2,2801	No Autocorrelation Occurs

Source : Data Process, 2023

Based on the test above, the DW value (Durbin Watson) is 2,210. In this study, there were 3 variables while the total sample size was 84, so that DU < DW < (4-DU): 1,7199 < 2,210 < 2,2801, it can be concluded that the data does not show autocorrelation symptoms.

E. Multiple Linear Regression Test

TABLE 6. Multiple Linear Regression Test

	Unstandardized Coefficients		Standadized Coefficients	t	Sig
	B	Std. error	Beta		
(Constant)	4113,277	1679,873		2,449	0,017
ROA	-16416,005	0,122	-0,127	-0,756	0,452
ROE	15687,355	0,229	0,358	2,111	0,038
NPM	12308,647	0,113	0,149	1,392	0,168

Source : Data Process, 2023

Based on table 7 above, a regression equation can be made which will complement the results found in the study :

SP = 4113,277 - 16416,005ROA + 15687,355ROE + 12308,647NPM + e

Based on the multiple linear regression model above, the results of the regression coefficients of this study can be interpreted as follows :

a. The value of the regression coefficient on the variable Return On Assets (ROA) is negative by -16416.005. This can be interpreted that the lower the Return On Assets (ROA), the lower the stock price. Conversely, the higher the Return On Assets (ROA), the higher the stock price.
b. The regression coefficient value on the Return On Equity (ROE) variable has a positive value of 15687,355. This can be interpreted that the higher the Return On Equity (ROE), the higher the stock price. Conversely, the lower the Return On Equity (ROE), the lower the stock price.
c. The regression coefficient value on the Net Profit Margin (NPM) variable is positive at 12308,647. This can be interpreted that the higher the Net Profit Margin (NPM), the higher the stock price. Conversely, the lower the Net Profit Margin (NPM), the lower the stock price.

F. Simultaneous Signiticant Test (F Test)

TABLE 7. F Test

Model	F	Sig.
Regression	3,329	0,024[b]
Residual		
Total		

Source : Data Process, 2023

The results of the simultaneous F test showed a significant value of 0,024. The significance value produced by the F test is less than 0,05, so it can be concluded that the multiple regression model meets the requirements and can be said to be a fit regression model.

G. Detrminant Coefficient Test (R^2)

TABLE 8. Detrminant Coefficient Test (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0,333[a]	0,111	0,078	8646,919

Source : Data Process, 2023

Adjusted R Square value of 0,078 or 7,80%. This shows that the independent variables namely Return On Assets (ROA), Return On Equity (ROE), and Net Profit Margin (NPM) simultaneously contribute to the influence of the dependent variable, namely the stock price of 7,80%, while the remaining is 92,2% is explained by other variables that are not included in the study.

H. Partial Test (T Test)

TABLE 9 : T Test

Variable	Sig.	Information
Return On Assets	0452	H1 Rejected
Return On Equity	0,038	H2 Accepted
Net Profit Margin	0,168	H3 Rejected

Source : Data Process, 2023

Based on table 9 above it is concluded that:

The Return On Assets (ROA) variable has a significance value of 0,452 which means more than 0,05. Thus it can be concluded that H1 is rejected, meaning that Return On Assets (ROA) has no effect on stock prices. This shows that the company's management ability to optimize assets used to generate profit is not very good. Companies must increase profits by using assets as much as possible. There are other factors that influence this ratio, such as changes in the inflation rate, politics, changes in economic policies and the global economy.

The Return On Equity (ROE) variable has a significance value of 0,038 which means less than 0,05 or 5%. Thus it can be concluded that H2 is accepted, meaning that Return On Equity (ROE) affects stock prices. Return On Equity (ROE) shows a company's ability to generate profits on its capital base. High Return On Equity (ROE) shows the rate of return for shareholders. So the stock price will rise. When Return On Equity (ROE) falls, it indicates low returns for investors and causes stock prices to fall. Investors decide to invest in companies that have high stock prices.

The Net Profit Margin (NPM) variable has a significance value of 0,168 which means more than 0,05. Thus it can be concluded that H3 is rejected, meaning that Net Profit Margin (NPM) has no effect on stock prices. This shows that the

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company has not been able to generate high profits, causing the stock price to decline. Companies need to increase production, marketing, and sales so they can obtain high profits. If sales are high, the profit generated will be even greater, thus the stock price will be high. A good level of company performance makes the Net Profit Margin (NPM) value even greater so that the stock price is higher and is able to attract investors to invest in the company. Investors will be attracted to companies with good performance and more profitable profits.

V. Conclusion

Based on the test results and discussion obtained in the previous chapter, it can be concluded as follows:

1. Return On Assets (ROA) has no effect on stock prices in companies listed on the LQ45 Index for the 2019-2021 period. The rise and fall of Return On Assets (ROA) has no effect on stock prices.
2. Return On Equity (ROE) affects the stock prices of companies listed on the LQ45 Index for the 2019-2021 period. The higher the return on equity (ROE), the higher the profit and the higher the stock price.
3. Net Profit Margin (NPM) has no effect on stock prices in companies listed on the LQ45 Index for the 2019-2021 period. The ups and downs of Net Profit Margin (NPM) have no effect on stock prices.

References

[1] Ch Manoppo, V. O., Tewal, B., Bin Hasan Jan, A., Ekonomi dan Bisnis, F., & Manajemen Universitas Sam Ratulangi Manado, J. (2017). Pengaruh Current Ratio. *DER……… 1813 Jurnal EMBA*, *5*(2), 1813–1822.

[2] Dewi, N. S., & Suwarno, A. E. (2022). Pengaruh Roa, Roe, Eps Dan Der Terhadap Harga Saham Perusahaan (Studi Empiris pada Perusahaan LQ45 yang Terdaftar di Bursa Efek Indonesia Tahun 2016-2020). *Seminar Nasional Pariwisata Dan Kewirausahaan (SNPK)*, *1*.

[3] Edsel Yermia Egam, G., Ilat, V., & Pangerapan, S. (2017). Pengaruh Return On Asset (Roa), Return On Equity (Roe), Net Profit Margin (Npm), Dan Earning Per Share (Eps) Terhadap Harga Saham Perusahaan Yang Tergabung Dalam Indeks Lq45 Di Bursa Efek Indonesia Periode Tahun 2013-2015. In *105 Jurnal Emba* (Vol. 5, Issue 1).

[4] Hayati, K., Simbolon, A. K., Situmorang, S., Haloho, I., & Tafonao, I. K. (2019). Pertumbungan Penjualan terhadap Harga Saham pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2013-2017. *Owner*, *3*(1), 133. https://doi.org/10.33395/owner.v3i1.112

[5] Hendrich, M. (2020). Pengaruh Return On Asset (Roa) Dan Return On Equity (Roe) Terhadap Harga Saham Pada Perusahaan Manufaktur Yang Terdaftar Di Indonesia Periode 2017-2019. *Jurnal Ilmiah Akuntansi Rahmaniyah (Jiar)*, *4*(1), 20–39. Http://Jurnal.Stier.Ac.Id

[6] Imelda, A., Angelica, S., Sihono, C., & Anggarini, D. R. (2022). Pengaruh Likuiditas , Profitabilitas , Dan Rasio Pasar Terhadap Harga Saham (Studi Kasus Pada Perusahaan Indeks Lq45 Yang Terdaftar Di Bursa Efek Indonesia Periode 2017-2021). *Journal of Economic and Business Research Vol.*, *2*(2), 17–25. http://jurnal.teknokrat.ac.id/index.php/JEB/article/view/114/pdf

[7] Jogiyanto. 2008. Teori Portofolio dan Analisis Investasi. BPFE. Jakarta Kasmir.

[8] Laulita, N. B., & Yanni, Y. (2022). Pengaruh Return On Asset (ROA), Return On Equity (ROE), Debt To Equity Ratio (DER), Earning Per Share (EPS) dan Net Profit Margin (NPM) terhadap Return Saham pada Perusahaan Yang Terdaftar Di Indeks LQ45. *YUME : Journal of Management*, *5*(1), 232–244. https://doi.org/10.37531/yume.vxix.467

[9] Mafazah, C. N. (2018). Analisis Roa, Roe, Eps, Per, Dan Der Terhadap Harga Saham Pada Perusahaan Real Estate Yang Terdaftar Di Bursa Efek Indonesia Periode 2013–2016. *Accounting and Management Journal*, *1*(2), 81–88. https://doi.org/10.33086/amj.v1i2.76

[10] Mustapa, G., Hermawan, H., & Raraswati, Y. (2021). Net Profit Margin (Npm) Terhadap Harga Saham Pada Perusahaan Farmasi Yang Terdaftar Di Bursa Efek Indonesia (Bei). *Cermin : Jurnal Penelitian*, *5*(2), 249–257.

[11] Nasution, S. (2017). Variabel penelitian. *Raudhah*, *05*(02), 1–9. http://jurnaltarbiyah.uinsu.ac.id/index.php/raudhah/article/view/182

[12] Nuraeni, R., Barnas, B., & Tripuspitorini, F. A. (2021). Pengaruh CR, DER, dan ROE Terhadap Harga Saham Perusahaan LQ45 di BEI. *Indonesian Journal of Economics and Management*, *1*(3), 634–641. https://doi.org/10.35313/ijem.v1i3.3094

[13] Oktavia, I., & Genjar, K. (2019). Sinergitas Quadruple Helix: e-Business dan Fintech sebagai Daya Dorong Pertumbuhan Ekonomi Lokal FAKTOR-FAKTOR YANG MEMPENGARUHI HARGA SAHAM. *Jurnal Riset Akuntansi Multiparadigma*, *6*(1), 29–39.

[14] Prabowo, W. (2020). Analisis Rasio Profitabilitas dan Rasio Pasar Terhadap Harga Saham pada Perusahaan Indeks LQ-45 yang Terdaftar di Bursa Efek Indonesia Periode 2013-2017. *Bisecer*, *3*(1), 61–92.

[15] Prasetya, et al. (2022). *Analisis Faktorfaktor Yang Mempengaruhi Harga*. *2*(1), 36–46.

[16] Rahmat, R., & Fathimah, V. (2022). Pengaruh ROA, ROE dan NPM terhadap Harga Saham pada Perusahaan Non Perbankan yang terdaftar di LQ45. *Jurnal Ilman …*, *10*(1), 8–13. https://journals.stimsukmamedan.ac.id/index.php/ilman/article/view/22%0Ahttps://journals.stimsukmamedan.ac.id/index.php/ilman/article/download/22/13

[17] Said Kelana Asnawi. (2016). Harga Saham. *Novi*, *1*(1), 7. http://id.beritasatu.com/home/harga-saham/148970

[18] Tahir, Y. A., Akuntansi, J., & Bandung, P. N. (2021). Pengaruh ROA, ROE, dan EPS terhadap Harga Saham Bank Umum Kelompok BUKU 4 The effects of ROA, ROE, and EPS on stock prices of commercial banking category of BUKU 4 Tjetjep Djuwarsa Ine Mayasari. *Indonesian Journal of Economics and Management*, *1*(3), 544–560.

[19] Ulil Albab Al Umar, A., Nena Arinta, Y., Anwar, S., Salsa Nur Savitri, A., & Ali Faisal, M. (2020). Pengaruh Profitabilitas Terhadap Harga Saham Pada Jakarta Islamic Index: Struktur Modal Sebagai Variabel Intervening. *Inventory: Jurnal Akuntansi*, *4*(1), 22. https://doi.org/10.25273/inventory.v4i1.6297

[20] Yang, L. Q., Di, T., Efek, B., & Periode, I. (2021). Pengaruh Return on Asset, Return on Equity, Net Profit Margin, Dan Earning Per Share Terhadap Harga Saham Pada Perusahaan Lq45 Yang Terdaftar Di Bursa Efek Indonesia Periode 2014-2018. *Jurnal Ekobis Dewantara*, *4*(1), 11–19. https://doi.org/10.26460/ed_en.v4i1.1766.