

Return on Assets, Debt to Equity Ratio, and Earning per Share Impact on Stock Price in Property Companies Stock Exchange

Devi Lutfiah

*Departemen Magister Manajemen
Universitas Komputer Indonesia
Bandung, Indonesia
devi.75218008@mahasiswa.unikom.ac.id*

Dedi Sulistiyo Soegoto

*Departemen Magister Manajemen
Universitas Komputer Indonesia
Bandung, Indonesia
dedi@unikom.ac.id*

Abstract—This study aims to determine the rate of return on assets, debt to equity ratio, and earnings per share impact on stock price, either partially or simultaneously, on a property company listed on the Indonesia Stock Exchange 2014-2018 period. The data analysis method used was multiple linear regression analysis using analytical tools Eviews version 5.0. Hypothesis testing is done by a statistical test is a simultaneous test (F test) and (T-test). Samples are 6 companies with a term of 5 years back. The study was conducted in property companies listed on the Indonesia Stock Exchange. Analysis of the results of the regression performed after the model did not experience symptoms such as classical assumptions of normality, multicollinearity, autocorrelation, and heteroskedastic. F test of hypothesis testing results shows that the variable Rate of Return of Assets, Debt Ratio and Earnings Per Share simultaneously significant effect on the stock price. T test of hypothesis testing results showed that the rate of return on assets and the ratio of debt partially not significant effect on Stock Return while earnings per share are a partially significant effect on Stock Return.

Keywords—Return on Assets, Debt Ratio, Earnings Per Share , Price Shares

I. INTRODUCTION

The stock price is one of the most important in determining investor decisions [1]. That way investors need to understand the analysis of the company's financial ratios that have been published on the Indonesia Stock Exchange [2]. Since January 1996, the Indonesia Stock Exchange has grouped all shares listed on the IDX into nine sectors according to industry classification (www.bapepam.go.id) [3]. This capital market provides information that is published for the benefit of investors, namely historical price information, the publication of the company's financial statements, the information in annual reports, and events in the company [4]. Published information and personal information are needed by investors in observing stock price movements and conducting stock trading transactions in the hope of obtaining returns [5]. The Indonesian capital market has been developing since the reopening of the IDX in 1977 [6]. However, since the economic crisis in 2008, many companies have experienced difficulties because they have large amounts of US dollar debt [7]. Loan interest rates jumped to 50%, making it difficult for companies to pay credit installments (Kompas 2008) [8]. The decline in corporate

performance will be responded by investors in the capital market so that it affects the stock market price [9].

In theory, Robert Ang (1997) in Abied Luthfi Safitri (2013), stated that the greater the ROA, the better the management of assets, the more efficient the assets, the level of investor confidence in the company would increase stock prices [1]. This statement is supported by research conducted by Abigail K and Ika S (2008), Zuliarni (2012), which stated that ROA has a positive role in stock prices [1,6,7]. According to Putu Dina Aristya Dewi and I.G.N.A Suaryana (2013) stated the level of company risk is reflected in the DER ratio which shows how much equity is owned by the company in meeting company obligations [8]. It was concluded that the high level of DER ratio is a high level of risk for investors to invest so that investors avoid the high level of DER ratio. The high level of DER ratio will have an impact on the decline in demand for shares in the market thereby reducing the price of these shares. Earning Per Share (EPS) shows the effect on net income obtained by investors on the number of shares (Abied Luthfi Safitri, 2013) [9]. By giving more profits per share to investors, the higher the attractiveness of investors to invest in these shares. So that demand for prices in the market will be high and share prices will rise. In determining an investor's shares, an understanding is needed in analyzing the company's financial performance [10]. Of course, an analysis that needs to be considered in determining the shares is needed. This analysis is in the form of fundamental analysis and technical analysis that applies to the company's stock price. So that the impact on the rise and fall of company prices. Technical analysis uses stock price data in the past, whereas fundamental analysis uses factors that are identified so that it can affect future stock prices. The basis of fundamental analysis is a company's fundamental factors.

Fundamental analysis is related to evaluating financial performance about the effectiveness and efficiency of the company in achieving its objectives [11]. To analyze company performance, financial ratios can be used [12]. With this analysis, the analysts try to estimate future stock prices by estimating the value of fundamental factors that affect stock prices and applying the relationship of these factors to obtain an estimated share price.

In order to provide broader and deeper insights from the capital market and data reference sources in conducting

further research relating to asset returns, debt ratios and earnings per share that affect stock prices. This study aims to determine the development of ROA, DER, EPS that affect the stock prices of property companies on the Indonesia Stock Exchange[13]. This research was conducted at a Property Company on the Indonesia Stock Exchange. Quantitative methods used in this study. The variables used are asset rate of return (ROA), debt ratio (DER), earnings per share (EPS), and share price (closing price). Multiple linear regression is used to analyze data. To support data collection, use secondary data from financial statements and the allocation of company profits on the Indonesian stock exchange[14].

II. METHOD

This research was conducted on company property on the Indonesia Stock Exchange. The sampling technique is done through a purposive sampling method. The period of data collected for the analysis in this study is based on historical data from 2014 to 2018. This data is secondary data obtained from the Indonesia Stock Exchange (IDX) from 2014 to 2018.

The researcher analyzes the data that has been described using descriptive (qualitative) and verification (quantitative) methods. Descriptive analysis was used to answer the problem formulation, which is to know the development of Asset Returns, Debt Ratios, Earnings Per Share and Share Prices of property companies in the Indonesia Stock Exchange (BEI) as outlined in the form of bar charts, namely by comparing the difference in the development of the base year with the development of the following year compared to the development of the base year then multiplied by 100%. The data analysis technique that will be used to analyze the effect of independent variables on the dependent variable is the multiple linear regression method.

The T-test is intended to analyze whether the independent variable individually influences the dependent variable, assuming the other independent variables are constant. The hypothesis that will be praised is:

H0: $\beta_1 = 0$, the partial rate of return on assets is not significant to the price of shares in property companies on the Indonesia Stock Exchange.

Ha: $\beta_1 \neq 0$, the rate of return on assets is partially significant to the price of property companies on the Indonesia Stock Exchange.

H0: $\beta_2 = 0$, the approved loan ratio is not significant to the price of shares in property companies on the Indonesia Stock Exchange.

Ha: $\beta_2 \neq 0$, Significant loan ratio to prices at property companies on the Indonesia Stock Exchange.

H0: $\beta_3 = 0$, Earnings per share do not fully affect the price of shares in property companies on the Indonesia Stock Exchange.

Ha: $\beta_3 \neq 0$, earnings per share is significant to the price of property companies on the Indonesia Stock Exchange.

The F test is used to determine whether all independent variables included in the model have a joint influence on the dependent variable. The hypothesis to be tested is written as follows:

H0: $\beta_1, \beta_2, \beta_3 = 0$. Simultaneously, the Return on Assets, Debt Ratio, and Earnings Per Share Share has no effect on the price of property shares on the Indonesia Stock Exchange.

Ha: $\beta_1, \beta_2, \beta_3 \neq 0$, Simultaneously Return of Assets, Debt Ratio, and Earnings Per Share Share have an influence on the price of property shares on the Indonesia Stock Exchange.

The validity test was performed by using the Pearson Correlation

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}} \quad (1)$$

Remarks :

- r xy = The correlation coefficient is sought
- x = Total item score
- y = Amount of total score (all of item)
- n = Number respondent

While reliability test was performed by using Cronbach Alpha formula

$$r_i = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum \sigma_b^2}{\sigma_t^2} \right) \quad (2)$$

Remarks:

- r_i = Instrument reliability
- k = Total Question
- $\sum \sigma_b^2$ = Number of grain variants
- σ_t^2 = Total Varian

III. RESULTS AND DISCUSSION

The result showed that all data were valid. The reliability test was measured by formula (2) by Cronbach Alpha. The result in Table 1 showed that the value of r count > r table (0.6); therefore, data were declared reliable. Following are the results of the analysis on Eviews 5.0:

TABLE I. VALIDITY TEST CONDUCTED BY PEARSON CORRELATION

	STOCK	ROA	DER	EPS
STOCK	1.000000	0.541861	0.013050	0.772502
ROA	0.541861	1.000000	0.161324	0.841389
DER	0.013050	0.161324	1.000000	0.001674
EPS	0.772502	0.841389	0.001674	1.000000

The results of the calculation of the correlation coefficient as follows :

1. The close relationship between the rate of return on assets (X1) and the stock price (Y) of 0.541861 shows that the relationship between the two variables is moderate (in the interval 0.40-0.599). The direction of the positive correlation between the rate of return on assets and the stock price indicates that the low rate of return on assets will affect the decline in stock prices.

2. The close relationship between the debt ratio (X2) and stock price (Y) of -0.013050 shows that the relationship between the two variables is very low (in the interval 0.00-0.199). The direction of the negative correlation between the debt ratio and the stock price shows that the low debt ratio will affect the increase in share price growth.

3. The close relationship between the share of the stock (X3) and the stock price (Y) of 0.772502 indicates that the relationship between the two variables is strong (in intervals of 0.60 - 0.799). The direction of a positive relationship between earnings per share and the price of shares shows that low earnings per share will affect the decline in stock prices.

TABLE II. THE T-TEST RESULTS USING EIEWS 5.0

Dependent Variable: SAHAM				
Method: Panel Least Squares				
Date: 07/07/19 Time: 15:26				
Sample: 2014 2018				
Cross-sections included: 6				
Total panel (balanced) observations: 30				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.614743	0.931159	6.029846	0.0000
ROA	-0.582454	0.286806	-2.030831	0.0582
DER	-0.385189	0.204770	-1.881085	0.0772
EPS	0.871336	0.277688	3.137829	0.0060
R-squared	0.921859	Mean dependent var	5.552271	
Adjusted R-squared	0.866701	S.D. dependent var	1.043367	
S.E. of regression	0.380934	Akaike info criterion	1.206302	
Sum squared resid	2.466885	Schwarz criterion	1.813488	
Log-likelihood	-5.094536	F-statistic	16.71305	
Durbin-Watson stat	1.536864	Prob(F-statistic)	0.000000	

Based on the table it can be seen that the t-value of the return on assets (ROA) of -2.030831, t-count of the debt ratio (DER) of -1.881085, and t-count of earnings per share of 3.137829. The value of ttab with an error level of 5% and $df = n-k-1 = 30-4-1 = 25$ is 2.056. By comparing between t count and t table, it can be known t calculate the rate of return on assets (ROA) is smaller than t table (t count < t table or -2.030831 < 2.056). Then it can be concluded that H0 is accepted. The rate of return of assets is partially not a significant effect on stock prices on property companies on the Indonesia Stock Exchange. The results of this partial hypothesis test are in accordance with previous research conducted by Abied (2013) and not in accordance with

research by Alwi and Sutrisno (2013). The value of t calculates the debt ratio (DER) is smaller than t table (t count < t table or -1.881085 < 2.056). Then it can be concluded that H0 is accepted, the Debt Ratio is partially not significant effect on stock prices on property companies on the Indonesia Stock Exchange. The partial hypothesis test results are in accordance with previous studies conducted by Abied (2013), Nurjanti, and Hamidah (2011), Roskarina (2009), and not in accordance with a research by Alwi and Sutrisno (2013) and Ema (2013). The value of t arithmetic earnings per share (EPS) is greater than t table (t arithmetic > t table or 3.137829 > 2.056). Then it can be concluded that H0 is rejected, Profit Per Share Partially has a significant effect on stock prices on property companies on the Indonesia Stock Exchange. The results of this partial hypothesis test are in accordance with previous research conducted by Abied (2013), Alwi and Sutrisno (2013), Putu and IGNA Suaryana (2013), Fitri (2013) and not in accordance with research by Nurjanti and Hamidah (2011), Harry and Dika (2009) and Ema (2013).

TABLE III. THE RESULTS OF THE F TEST USING EIEWS 5.0

Dependent Variable: SAHAM				
Method: Panel Least Squares				
Date: 07/07/19 Time: 15:26				
Sample: 2014 2018				
Cross-sections included: 6				
Total panel (balanced) observations: 30				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.614743	0.931159	6.029846	0.0000
ROA	-0.582454	0.286806	-2.030831	0.0582
DER	-0.385189	0.204770	-1.881085	0.0772
EPS	0.871336	0.277688	3.137829	0.0060
R-squared	0.921859	Mean dependent var	5.552271	
Adjusted R-squared	0.866701	S.D. dependent var	1.043367	
S.E. of regression	0.380934	Akaike info criterion	1.206302	
Sum squared resid	2.466885	Schwarz criterion	1.813488	
Log-likelihood	-5.094536	F-statistic	16.71305	
Durbin-Watson stat	1.536864	Prob(F-statistic)	0.000000	

Based on the table above, it is known that the calculated F value of 16.71305. This value can be compared with a probability level of 0.05, from the F distribution table the values obtained for the F table are $n = 30$; $k = 4$; $df1 = k-1, = 4-1 = 3$; $df2 = n-k = 30-4 = 26$, it is known that the table F value is 2.89. From the values above, it can be seen that the F count \geq F table is $16.71305 \geq 2.89$, then Ho is rejected, meaning that there is a significant effect between the rate of

return on assets (ROA), debt ratio (DER) and earnings per share (EPS) on prices stock.

The development of the rate of return of assets in 6 property companies on the Indonesia Stock Exchange increased fluctuating. PT Bakrieland. Development in 2014 and 2015 and PT Bekasi. Asri Beginners, in 2014 and 2015. The development of debt ratios at 6 property companies on the Indonesia Stock Exchange experienced a sharp decrease. This happened because the company PT Duta Anggada Putra in 2014 increased the debt ratio and PT Perdana Gapuraprima which every year has decreased. This is an increase in long and short term loans followed by an increase in the company's equity so that the increasing loan ratio is increasing[15].

The development of earnings per share in 6 property companies on the Indonesia Stock Exchange increased in 2014 and 2015, there is also a decline in earnings per share that occurs every year seen in PT Bakrieland Development Tbk. PT Bakrieland Development Tbk is unstable and is followed by a global crisis. Another thing that happened to PT Bekasi Asri Beginners who reduced earnings per share in 2014 and 2015 and PT Duta Anggada Realty increased earnings per share in 2014 and 2015. This increase was caused by the small earnings of shares[16,17].

The development of share prices in 6 property companies on the Indonesia Stock Exchange increased at PT Bakrieland Development from year to year. On the other hand PT Bekasi Asri Pemula, PT Duta Anggada Realty, PT Perdana Gapuraprima, and PT Jaya Real Property Tbk. The average decline occurred in 2016; this decline is indicated in the weak performance of the company in 2015, which affected the increase in the closing price of the company.

The results of testing the rate of return on assets, debt ratios and earnings per share have an impact on stock prices simultaneously on property companies on the Indonesia Stock Exchange for the period 2014-2018 showing that there is a significant influence between the rate of return on assets (ROA), debt ratio (DER) and earnings per share (EPS) to stock prices. Partially the results of testing the rate of return on assets, debt ratios, earnings per share have an impact on the price of shares in property companies on the Indonesia Stock Exchange shows that the rate of return of assets partially has no significant effect on stock prices on property companies on the Indonesia Stock Exchange. The debt ratio partially does not have a significant effect on stock prices on property companies on the Indonesia Stock Exchange. While earnings per share partially have a significant effect on stock prices on property companies on the Indonesia Stock Exchange.

IV. CONCLUSION

The findings of this study conclude that the rate of return on assets, debt ratios and earnings per share have an impact on stock prices simultaneously on property companies on the Indonesia Stock Exchange in the period 2014-2018 showing that there is a significant influence between the rate of return on assets (ROA), debt ratio (DER) and earnings per share (EPS) on stock prices. Partially the results of testing the rate of return on assets, debt ratios, earnings per share have an impact on the price of shares in property companies on the Indonesia Stock Exchange shows that the rate of return of assets partially has no significant effect on stock prices on

property companies on the Indonesia Stock Exchange. The debt ratio partially does not have a significant effect on stock prices on property companies on the Indonesia Stock Exchange. While earnings per share partially have a significant effect on stock prices on property companies on the Indonesia Stock Exchange. The findings of this study contribute to the reference to determine the development of stock prices on property companies in the Indonesian stock exchange. For further research is expected to develop variables that have not been examined given the accelerated development of stock prices which is influenced by other factors that have not been studied by previous authors such as government regulatory factors, political turmoil, systematic risk, fundamental factors and other internal and external factors that affect stock prices.

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