AN ANALYSIS OF FINANCIAL RATIO EFFECT ON STOCK PRICES ON MANUFACTURING COMPANIES IN INDONESIA STOCK EXCHANGE (IDX) 2014-2016 PERIOD

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Abstract

This study aims to determine the effect of financial ratios to the price on the shares of manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2014-2016, either partially or simultaneously. Financial ratios studied include: earning per share (EPS), net profit margin (NPM), return on assets (ROA), and return on equity (ROE). The population in this study is a manufacturing company listed on the Indonesia Stock Exchange (IDX) in 2014-2016. The sample of research is 60 manufacturing companies obtained by purposive sampling technique. Data collection techniques used are documentation. Data analysis was done by multiple regression analysis technique. The results showed that partially EPS and ROA variables have a positive effect on stock prices, ROE has a negative effect on stock prices, while NPM has no effect on stock prices. Simultaneously variables EPS, NPM, ROA, and ROE effect on stock prices. EPS, NPM, ROA and ROE variables can explain the stock price variables in manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2014-2016 of 87.7%.

Key Words: Financial ratios, EPS, NPM, ROA, ROE, and stock prices

Introduction

One characteristic of the modern economy is the existence of a capital market as an element of the economic system that contributes to economic and business growth and development. The economies of developed countries are always marked by the rapid development of the capital market industry both the stock market (equity market), bond market (bond market), and the market for derivatives or derivatives.

The Indonesia Stock Exchange (IDX) is a capital market in Indonesia. The Indonesia Stock Exchange has an important role as a means for people to invest, which is an alternative investment. For companies, IDX helps companies to get additional capital by going public,

namely stock offering activities or other securities carried out by issuers (companies that go public) to the public based on procedures regulated by the Capital Market Law and Implementation Regulations (Basir, 2015: 28) Financial instruments traded in the capital market include stocks, bonds, warrants, rights, convertible bonds, and various derivative products such as options (put or call), (Basir & Fakhrudin, 2015: 5). Shares are proof of having a company where the owner is called a shareholder.

Internal factors that influence stock prices include announcements of corporate financial statements, such as forecasting earnings before the end of the fiscal year and after the end of the fiscal year, earnings per share (EPS), dividend per

share (DPS), price earnings ratio (PER), net profit margin (NPM), return on assets (ROA), return on equity (ROE) and others (Alwi, 2003: 87). The results of Susilowati and Tri (2011) research show the influence of EPS, NPM, ROA, ROE, and DER (debt to equity ratio) on stock returns. Where stock returns are returns from stock investments measured through changes in stock prices and dividends.

Previous research related to the effect of financial ratios on stock prices was by Sasongko and Wulandari (2016) which examined the linkages of economic value added (EVA), return on assets (ROA), return on equity (ROE), return on sales (ROS), earning per share (EPS), and basic earning power (BEP) with changes in stock prices in manufacturing companies for the period 2011-2012. The results showed that only the EPS ratio had a significant effect on stock prices while the ratio of EVA, ROA, ROE, ROS and BEP had no effect on stock prices. This research has not been able to prove the theory put forward in advance that ROA and ROE affect stock prices.

Silitonga's research (2012) about the effect of price earnings ratio (PER), return on equity (ROE), and net profit margin (NPM) on stock prices in the cigarette industry. The results showed that PER and NPM had a positive effect on stock prices, while ROE did not affect stock price changes. Wulandari's (2012) study of CAMEL's influence on the price of banking stocks listed on the Indonesia Stock Exchange showed different results where the NPM ratio had a negative effect on the stock price of banking companies.

IDX listed companies can be classified into: agriculture, mining, basic and chemical industry, various industries, consumer goods industry, property and

Building construction, infrastructure and transportation, finance, and trading, services and investment companies. Each type of company has different characteristics. For example, in relation to return on assets (ROA) which is the result of the times between profit margin (profit margin) and asset turnover (assets turn), distributor or trading type companies have low margins and high asset turnover. Telecommunication service companies generate very high margin and low asset turnover. While the figures are reasonable, with a moderate margin value and a higher asset turnover rate than the Manufacturing Company, it can be produced by manufacturing companies (Walsh, 2014: 68-69).

Underlying Theory

Investment

Hartono (2014: 5) investment is a delay in current consumption for use in efficient production over a period of time. Tandelilin (2011: 3) states that investment is a commitment to a number of funds or other funding sources that are carried out at this time, with the aim of obtaining profits in the future. The purpose of investment activities is to earn income for a certain period of time, increase the value of the capital placed and maintain assets against inflation. But that is all done with a level of risk that can be tolerated. The greater of the investment benefits, the greater the risk that accompanies it. If you want to invest with a small risk, then the benefits that can be expected from the investment will be smaller.

Capital Market

There are several understandings about the capital market, Tandelilin (2011:

13) States that the capital market is a meeting between parties who are over-

funded and those who need funds by buying and selling securities. The capital market is also defined as a market for a variety of long-term financial instruments or securities that can be traded, both in the form of debt and own capital, both issued by the government, public authorities, and private companies (Husnan, 2011: 3). In addition, Darmadji and Fakhrudin (2011:

2) proposed the notion of capital markets that are close to Husnan, according to him the capital market is a market for various long-term financial instruments such as stocks, bonds, warrants, rights, which can be traded both in the form of debt or own capital.

The capital market has a very important role, namely as a place to channel funds from investors (parties who are over-funded) to companies (those who lack funds) efficiently. Access to available sources of funds efficiently will be reduced without the capital market. This will cause the company to bear higher capital costs, or even reduce its business activities, which in turn will cause economic activity to be disrupted. Through its mechanism, the capital market can also allocate available funds to the most productive parties who can use the funds, so that the capital market also functions to allocate funds optimally.

The capital market also has a large role and benefit for the economy of a country because the capital market creates facilities for industrial or investor needs to meet capital demand and supply. The key to measuring an efficient capital market is the relationship between the price of securities and information

Shares

Shares can be defined as a sign of ownership or ownership of a person or entity in a company or limited liability

Company. The form of shares in the form of a piece of paper which explains that the owner of the paper is the owner of the company that issued the securities (Darmadji and Fakhruddin, 2016: 6). Husnan (2011: 303) states that shares are a piece of paper that shows the rights of investors, namely the right to own the paper to obtain a share of the prospect or the wealth of the organization that issued the shares and various conditions that allow the investor to exercise his rights. So, stocks are a piece of paper that shows proof of company ownership and investor rights over the company.

Investments in the form of shares have potential benefits and risks that are in accordance with investment principles, namely high risk high return low risk low return. The higher the profit potential of an investment instrument, the higher the risk potential that investors will suffer, and vice versa, the potential return on investment in the form of shares is relatively greater than investment in other financial assets such as money market instruments, bonds, and mutual funds, by therefore the investment risk in the form of shares is greater than the investment in the form of financial assets other than shares.

Investment losses in the form of shares, i.e. if an investor sells shares at a price lower than the price when buying shares, the investor will suffer a loss or capital loss. And if the issuer suffers a

loss, the investor will not receive dividends at the end of the year. The biggest risk of stock investment is the risk of liquidation, that is, if a company whose shares are owned by an investor are declared bankrupt or dissolved. In this case the claim of the shareholder gets the last priority after all the obligations of the company are fulfilled. If there is still

remaining company wealth, then the remainder is divided proportionally to all shareholders. But if there is no residual wealth, investors suffer losses at the value of the investment in the company (Basir and Fakhrudin, 2015: 13-14).

Securities analysis

Investors need to analyze an effect or group of effects. One of the objectives of this assessment is to identify the wrong price (mispriced) effects, whether the price is too high (over price) or too low (under price) (Halim, 2015: 5). Securities analysis is also carried out to predict stock prices in the future. There are three approaches that can be used, namely: fundamental analysis, technical analysis and informational analysis. Fundamental analysis emphasizes that fundamental factors affect stock prices because they focus on financial ratio analysis. Through financial ratio analysis can be obtained information or an overview of the company's financial condition and operational results that have been achieved by the company. So it can be concluded in this case that what was tried to be raised in this study was about the influence of financial ratios on stock prices owned by the company.

Theoretical Framework

Based on the above thoughts, it can be described a frame of mind as illustrated below::
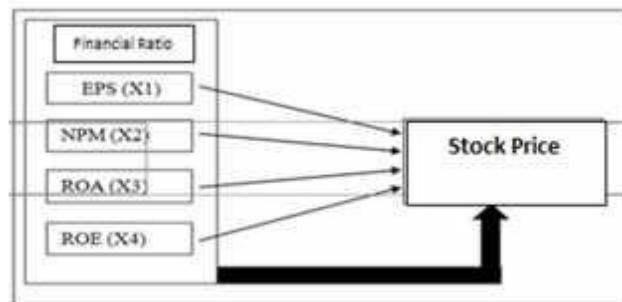
Researh Method

This study uses quantitative research; the population of this research is the Manufacturing Company on the Indonesia Stock Exchange (IDX) for the period 2014-2016. The data used in this study are the financial statements of Manufacturing Companies on the Indonesia Stock Exchange (IDX) as of December 31, 2014- 2016 and stock prices that can be downloaded through the IDX website. The independent variables in this study consist of: earnings per share (EPS), net profit margin (NPM), return on assets (ROA), and return on equity (ROE) and the dependent variable is the stock price. The data analysis techniques using classical assumption test, multiple linear regression analysis and hypothesis testing.

Result and Discussion

Result

Classical Assumption Test

Variables	Asymp.sig (2-tailed)	Condition	Conclusion
Residual	0,008	P < 0,05	Abnormal

Based on the table above, it is known that Asymp.sig is smaller than the predetermined significance level (0.00 <0.05), so it can be concluded that the residuals are not normally

Distributed. These results are reinforced by the results of the normal distribution of the variable as follows.

Normality Test Results

VariabLE	Asymp. Sig. (2-tailed)	Condition	Conclusion
Residual	0,316	P > 0,05	Abnormal

Based on table 4.6 it is known that Asymp. Sig. greater than the predetermined significance level (0.847 <0.05), it can be concluded that the residuals are normally distributed.

Multicollinearity Test Results After Transformation

Variable	Tolerance	VIF	Conclusion
Ln_EPS	0,484	2,067	multicollinearity Not occur
Ln_NPM	0,223	4,489	multicollinearity Not occur
Ln_ROA	0,101	9,948	multicollinearity Not occur
Ln_ROE	0,166	6,009	multicollinearity Not occur

From the table above it can be seen that the tolerance value for all variables is greater than 0.100 and the VIF value for all variables is smaller than 10. Thus it can be concluded that there are no multicollinearity symptoms in all variables.

Heteroscedasticity Test Results

Variable	Sig	Conclusion

Ln_EPS	0,387	There is no heteroscedasticity
Ln_NPM	0,458	There is no heteroscedasticity
Ln_ROA	0,434	There is no heteroscedasticity
Ln_ROE	0,526	There is no heteroscedasticity

From the table above shows that the significance value of all independent variables is greater than 0.05, which means that none of the independent variables significantly affect the

dependent variable. Thus there is no heteroscedasticity in the regression model, so it can be continued for further analysis.

Multiple Linear Regression Results

Variable	Regression Coefficient (B)	t Count	Sig.
Konstanta	2866,073	1,22	0,277
EPS	8,609	11,19	0,000
NPM	-46,522	-	0,735
ROA	1255,697	4,80	0,000
ROE	-815,809	-	0,000
R²	= 0,739		
F-count	= 39,022		
Sig.	= 0,000		

Multiple Linear Regression Results (Log-Linear)

Variable	Regression Coefficient (B)	t count	Sig.
Konstanta	3,688	12,586	0,000
Ln_EPS	0,900	15,215	0,000
Ln_NPM	-0,280	-1,788	0,079
Ln_ROA	0,838	3,016	0,004
Ln_ROE	-0,826	-3,453	0,001
R²	= 0,877		
F-count	= 97,639		
Sig.	= 0,000		

The results of multiple linear regression analysis can be entered into the equation as follows:

Ln_Harga Saham = 3,688+0,9Ln_EPS- 0,28Ln_NPM+0,838Ln_ROA0,826Ln_R OE

The form of the regression equation above can be interpreted as follows:

1) a (constant) = 3.688, means that if there is no financial ratio variable EPS, NPM, ROA, and ROE then the magnitude of the Ln_ share price of the manufacturing company is Rp.3,688, assuming other factors are constant (ceteris parimbus).

2) b1 = 0.9. The Ln_EPS regression coefficient of 0.9 shows that EPS has a positive regression coefficient direction which means that every increase of Ln_EPS of 1% will increase the share price by 0.9% and vice versa, assuming other factors are constant (ceteris parimbus).

3) b2 = -0.28. The regression coefficient of Ln_NPM is -0.28 indicating that NPM has a negative regression coefficient direction which means that every Ln_NPM increase of 1% will decrease Ln_price by 0.28% and vice versa, assuming other factors are constant (ceteris parimbus) .

4)   b3 = 0.838. The regression coefficient of Ln_ROA of 0.838 indicates that ROA has a positive regression coefficient direction which means that every increase of Ln_ROA of 1% will increase the share price by 0.838% and vice versa, assuming other factors are constant (ceteris parimbus).

5) b4 = -0,826. The regression coefficient of Ln_ROE of -0.826 indicates that ROE has a negative regression coefficient direction which means that every increase in Ln_ROE of 1% will decrease the stock price by 0.826% and vice versa, assuming other factors are constant (ceteris parimbus).

Partial Test Results

Variable	Regression Coefficient (B)	t count	Sig.	Conclusion
Ln_EPS	0,900	15,215	0,00	Signifikan
Ln_NPM	-0,280	-1,788	0,07	Tidak signifikan
Ln_ROA	0,838	3,016	0,00	Signifikan
Ln_ROE	-0,826	-3,454	0,00	Signifikan

Based on the summary of the partial test results in table 4.12 above can be explained as follows:

1) Testing the effect of earnings per share (EPS) on stock prices produces a regression coefficient of 0.9, also obtained t count of 15.215 with a probability of error rate of 0.000 smaller than the expected significance level (0.0% <5%). The results of the analysis show that there is a positive and significant influence on earnings per share (EPS) on stock prices.

2) Testing the effect of net profit margin (NPM) on stock prices produces a regression coefficient of -0.280, also obtained t count of -1.788 with a probability of error rate of 0.078 greater than the expected significance level (7.8%> 5%). The results of the analysis show that there is a negative influence on the significant net profit margin (NPM) of the stock price.

3) Testing the effect of return on assets (ROA) on stock prices produces a regression coefficient of 0.838, obtained also t count of 3.016 with a probability of error rate of 0.004 smaller than the expected significance level (0.4% <5%). The results of the analysis show a positive and significant influence on return on assets (ROA) on stock prices.

4) Testing the effect of return on equity (ROE) on stock prices produces a regression coefficient of -0.826, obtained also t count of -3.454 with a probability of an error rate of 0.001 smaller than the expected significance level (0.1% <5%). The results of the analysis show that there is a significant negative influence on return on equity (ROE) on stock prices.

Simultaneous Test Results (Statistical F test and R²)

N	F-Count	Sig.	R^2	Conclusion
60	97,639	0,000	0,877	Significant

The table above shows the calculated F value of 97.639 with a probability of error rate smaller than the expected significance level (0.0% <5%), then the fifth hypothesis (Ha5) which reads "EPS, NPM, ROA, and ROE ratios affect together with the share price of manufacturing companies listed on the Stock Exchange in 2014-2016 "received. Thus it can be concluded that the variables EPS, NPM, ROA, and ROE together have a significant influence on stock prices in manufacturing companies on the Stock Exchange in 2014-2016. It is known that the R² value is 0.877, this means that the four independent variables (EPS, NPM, ROA, and ROE) are able to explain the change in the dependent variable (stock price) of 87.7% while the remaining 12.3% is explained by other variables not proposed in this research.

Discussion

Regression coefficient value for earnings per share (EPS) is 0.900, t-count value is 15.215 with a probability of error rate of 0.000 less than the expected significance level (0.0% <5%), it can be concluded that earnings per share (EPS) has a significant positive effect on stock prices on manufacturing companies on the Indonesia Stock Exchange in 2014-2016.

The regression coefficient value of net profit margin (NPM) is -0.280, the t-count value is -1.788 with the probability of an error rate of 0.079 is greater than the expected significance level (7.9%> 5%), it

can be concluded that the net profit margin (NPM) has no significant negative effect on stock prices on manufacturing companies on the Indonesia Stock Exchange in 2014-2016. The value of regression coefficient for return on assets (ROA) of 0.838, t-count value of 3.016 with a probability of error rate of 0.004 is smaller than the expected significance level (0.4% <5%), it can be concluded that return on assets (ROA) has a significant positive effect on stock prices on manufacturing companies on the Indonesia Stock Exchange in 2014-2016. The greater the value of return on assets (ROA), the higher the stock price at a manufacturing company on the Stock Exchange. Conversely, the smaller the ROA value, the lower the stock price of manufacturing companies on the Indonesia Stock Exchange.

The regression coefficient value for return on equity (ROE) is -0.826, the t- count value is -3.454 with a probability of error rate of 0.001 less than the expected significance level (0.1% <5%), it can be concluded that return on equity (ROE) has a significant negative effect on stock prices in manufacturing companies on the Indonesia Stock Exchange in 2014-2016. The greater the value of return on equity (ROE), the lower the stock price at manufacturing companies on the Indonesia Stock Exchange in 2014-2016.

The effect of earnings per share (EPS), net profit margin (NPM), return on assets (ROA) and return on equity (ROE)

on stock prices together can be seen from the results of the F test. The calculated F value is 97.639 with probability the error rate is 0,000, less than the expected significance level (0.0% <5%), indicating that earn per share (EPS), net profit margin (NPM), return on assets (ROA) and return on equity (ROE) jointly have a significant influence on stock prices in manufacturing companies listed on the Stock Exchange in 2014-2016.

Conclusion

Based on the results of the overall study, the following conclusions can be drawn:

1. Earnings per share (EPS) has a positive influence on stock prices in manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2014-2016. The higher the EPS, the higher the stock price.

2. Net profit margin (NPM) has no effect on stock prices on manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2014-2016. The higher or lower the NPM value of the manufacturing company does not affect the high or low share price of the company.

3. Return on assets (ROA) has a positive influence on stock prices in manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2014-2016. The higher the ROA, the higher the stock price, this happens because the higher ROA means the greater the level of profit and the better the level of effectiveness of the use of company assets to generate profits so that investment in the company will be very preferred by investors.

4. Return on equity (ROE) has a significant negative effect on stock prices in manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2014-2016. The higher the ROE, the lower the stock price, this happens because the high ROE value can be due to the relatively large proportion of debt owned by the company.

5. Earnings per share (EPS) ratio, net profit margin (NPM), return on assets (ROA), and return on equity (ROE) jointly affect the stock price in manufacturing companies listed on the Indonesia Stock Exchange (IDX) 2014-2016. Changes that occur at stock prices can be explained by variable earnings per share (EPS), net profit margin (NPM), return on assets (ROA), and return on equity (ROE) of 87.7% and the remaining 12.3% explained by other variables not proposed in this study.

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