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DOES ECONOMIC GROWTH MODERATE THE EFFECT OF FUNDAMENTAL VALUES ON STOCK RETURN OF INDONESIAN INFRASTRUCTURE COMPANIES?

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Abstract

In recent years, issues of infrastructure development and economic growth have become very popular topics during President Jokowi's administration. Infrastructure



development is expected to have an impact on economic growth. The purpose of this study was to examine the effect of fundamental values on the stock returns of infrastructure companies listed on the Indonesia Stock Exchange in 2015-2017 with economic growth as a moderating variable. This research uses a purposive sampling technique. The analytical method used is partial least squares with WarpPLS software version 6.0. The results obtained from this study vary. EPS has a positive effect on stock returns, while DER, PER, and NPM do not affect stock returns. Furthermore, the results of the study indicate that economic growth does not moderate the effect of EPS and DER on stock returns. However, the results of the study prove that economic growth can moderate the effect of PER and NPM on stock returns. This research implies that government policy that sets priorities for infrastructure development needs to be supported because it is proven that the government policy has a positive effect on the profits and stock returns of infrastructure companies.



Keywords: Economic growth, fundamental value, stock return

Abstrak

Dalam beberapa tahun terakhir, masalah pembangunan infrastruktur dan pertumbuhan ekonomi menjadi topik yang sangat populer selama masa pemerintahan Presiden Jokowi. Pembangunan infrastruktur diharapkan berdampak pada pertumbuhan ekonomi. Tujuan penelitian ini adalah untuk menguji pengaruh nilai-nilai fundamental terhadap return saham perusahaan infrastruktur yang terdaftar di Bursa Efek Indonesia pada tahun 2015-2017 dengan pertumbuhan ekonomi sebagai variabel moderasi. Penelitian ini menggunakan teknik purposive sampling. Metode analisis yang digunakan adalah partial least squares dengan perangkat lunak WarpPLS versi 6.0. Hasil yang diperoleh dari penelitian ini bervariasi. EPS berpengaruh positif terhadap return saham, sementara DER, PER, dan NPM tidak berpengaruh terhadap return saham. Selanjutnya, hasil penelitian menunjukkan bahwa pertumbuhan ekonomi tidak memoderasi pengaruh EPS dan DER terhadap



return saham. Namun, hasil penelitian membuktikan bahwa pertumbuhan ekonomi mampu memoderasi pengaruh PER dan NPM terhadap return saham. Implikasi penelitian ini adalah kebijakan pemerintah yang menetapkan prioritas untuk pembangunan infrastruktur perlu didukung karena terbukti bahwa kebijakan pemerintah tersebut berpengaruh positif terhadap laba dan return saham perusahaan infrastruktur.

Kata kunci: Pertumbuhan ekonomi, nilai fundamental, return saham

Introduction

The year 2014 was a political year in Indonesia because in that year there were major political events, namely presidential elections and legislative elections. General elections affect the economy, especially national economic growth. The election had an ambiguous impact (positive and negative) for the Indonesian economy. On the one hand, the election can encourage the economy, but on the other hand, it brakes the pace of the national economy (Pepinsky and Wihardja, 2011).



Capital markets are important instruments in the modern economy. Capital markets are considered as one of the effective means to accelerate the development of a country because the distribution of capital plays a very important role in the development of the economy (Samimi and Jenatabadi, 2014). Capital market conditions are very volatile, so it is difficult to predict and this is very risky for investors. Investment activity is an activity that has risks and it is difficult to predict the rate of return. Investors in making investment decisions in the capital market need various kinds of information, evaluation, and consideration. The strategy commonly used by investors is to use financial ratios to determine the fundamental value of shares. Financial ratios allow shareholders to compare different information in making investment decisions (Singh and Schmidgall, 2002). In addition to considering the benefits to be gained from stock investments, investors also need to pay attention to the risks that will be faced. Stock return is a very important factor to provide an attraction for investors to invest their funds in the capital market. The higher the stock return of a company, the more attractive investors



will be to invest. The higher the return or profit obtained, the better the position of the company owner (Miller, 1976).

There are several studies on the analysis of the effect of fundamental stock factors on stock returns. The results of the study prove that the fundamental value of shares has a significant effect on stock returns (Putra and Herawati, 2018). The fundamental values studied are return on assets (ROA) and price to book value (PBV). Also, Jasman and Kasran (2017) stated that changes in stock returns are affected by variables ROA, PBV, earnings per share (EPS), and exchange rates. While the variable debt to equity ratio (DER) proved to have no significant effect on stock returns.

Different results are shown by Rohmah and Rina (2004) which stated that economic value added (EVA), ROA, return on equity (ROE), and return on sales (ROS) variables both simultaneously and partially do not significantly influence stock returns. Al-Qudah and Laham (2013) show that the DER variable and stock beta have a significant effect on stock returns, while the ROE, PBV, and EPS variables have no significant effect on stock



returns. While the results of Sorongan study (2016) show that DER and beta stocks do not significantly affect stock returns. 29

Inconsistent research results indicate that fundamental values are not enough to be used as a basis for investors to make investment decisions. EPS, PER, DER, ROA, and other similar ratios are fundamental factors originating from the internal company. Also, there are fundamental factors that come from external companies such as economic conditions, government policies, or strategic plans that also need to be considered.³¹

President Jokowi stated that the current national development strategic plan focuses on infrastructure development (Nasional.Kompas.com., March 27, 2017). According to Estache and Garsous (2012), infrastructure is one of the pillars supporting national economic growth. Infrastructure development is an effort to strengthen the foundation for the creation of economic growth.

Infrastructure is physical facilities that are developed or needed by public agents for government functions in water supply, electricity, waste disposal, transportation, and similar services to facilitate social and economic



goals (Basiago, 1999). Meanwhile, infrastructure companies are business entities that function to manage physical systems to meet basic human needs in the social and economic sphere.

The government's seriousness in building infrastructure is reflected in the increase in the allocation of the State Budget (APBN) from 2014-2017. The following chart from the Indonesian Ministry of Finance shows a significant increase in the infrastructure budget in the APBN over the past three years.

Source: Ministry of Finance

Figure 1

Increased State Budget Per Sector

During 2014-2017 there was an increase of more than 200% of the APBN budget in the infrastructure sector. Also, in the draft data on the Financial Note RAPBN 2018, it is stated that the APBN budget in the infrastructure sector reaches 409 trillion rupiahs. The budget increase is evidence of the government's seriousness in improving infrastructure in Indonesia.



Infrastructure development is believed to be able to drive Indonesia's economic growth to reach 6% in 2019 (Waluyo, 2018). The government seems to signal to investors to participate in the success of national development. Infrastructure is one of the factors that influence economic growth, so it is necessary to examine the effect of the trend of infrastructure development and economic growth on stock returns on infrastructure companies.

The fundamental value of shares of infrastructure companies listed on the IDX is one of the bases for decision making for investors. The fundamental value of shares can be reflected in financial ratios. In this study, the fundamental values studied included EPS, PER, DER, and Net Profit Margin (NPM). However, because the results of previous studies show inconsistent results, researchers need to add economic growth variables that are proxied by GDP (gross domestic product) as a moderating variable to understand the effect of fundamental factors originating from external companies on stock returns.



Economic growth is predicted to be able to increase the effect of the fundamental values on stock returns of infrastructure companies. Infrastructure plays an important role in increasing economic growth. Higher economic growth is found in areas with sufficient levels of infrastructure availability (World Bank, 1994).

Economic growth is believed to have a positive effect on stock returns (Ritter, 2012). But research by Dimson et al. (2006) as a whole does not show a significant effect of economic growth on stock returns.

Based on the description above, researchers are interested in examining whether economic growth moderates the effect of the fundamental values on stock returns of infrastructure companies in Indonesia.

Theoretical Framework and Hypothesis Fundamental Analysis

Fundamental analysis is one method or method used by investors to predict stock prices in the future (Venkates et al., 2012). Fundamental analysis is done by looking at the company's equity value based on the analysis of published financial statements and other information



without reference to the price of the company's shares in the capital market (Bauman, 1996).

The role of financial ratios is very important in fundamental analysis. Financial ratios are used to compare companies that have the same or similar activity and size (Baresa et al., 2013). Also, according to Abardanell and Bushee (1997), macroeconomic conditions such as GDP also need to be considered because they relate to fundamental values and corporate profits. Fundamental values can be used to estimate stock returns of a company in the future (Abardanell and Bushee, 1998).

Framework of Thinking

This study aims to examine whether economic growth moderates the effect of the fundamental value of shares on stock returns of infrastructure companies in Indonesia. The framework of thinking of this research is described as follows:

Fundamental Value



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EPS

DER

PER

NPM



Economic Growth

Figure 2

Moderation Variable Effect Test

Description of Figure 2

- = Direct effect
- = Effect of moderating variables
- = Variable

Hypothesis Formulation

The Effect of EPS on Stock Returns

Earning per share (EPS) is an important measure used by investors to assess company performance (Wet, 2013). According to Islam et al. (2014), EPS shows the amount of the company's net profit that is ready to be shared with



the company's shareholders. The number of EPS of a company can be known from the company's financial statement information. Although some companies do not list the size of the EPS of the company concerned, EPS can be calculated based on the balance sheet information and the company's income statement.

The company's ability to generate net income per share is an indicator of the company's financial fundamentals which is considered by investors in choosing stocks. With accurate and accurate assessment, EPS analysis can minimize investment risk and help investors gain profits. Based on the description above, can be formulated the hypothesis as follows:

H1: EPS has a positive effect on stock returns

Economic Growth Weakens/Strengthens the Effect of EPS on Stock Returns

The results of Velankar⁵² et al. study (2017) show that the effect of economic growth on EPS and stock returns is inconsistent. That is, economic growth can have a positive or negative effect on EPS and stock returns. The



results of this study are the same as the results of the Crestmont Research study in 2017.

According to Samimi and Jenatabadi (2014), economic growth encourages companies to issue new shares because they are considered capable of increasing company profits. Coban (2014) stated that there is a positive relationship between profitability and economic growth. Profit affects earnings that automatically affect EPS. Based on the description above, can be formulated the hypothesis as follows:

H2: Economic growth strengthens the positive effect of EPS on stock returns

The Effect of DER on Stock Returns

According to Haque and Sarwar (2013), DER has a positive and significant effect on stock returns. The increase in DER will make the market react positively if the market tends to interpret that an increase in DER is considered a good signal about the company's prospects in the future (Degutis and Novickytė, 2014). This can occur because a high DER is considered capable of



producing a higher return if it is used optimally (Acheampong et al., 2014).

The company's risk level is reflected in the debt to equity ratio (DER). DER shows how much capital is owned by the company in meeting company obligations. Based on signaling theory, information about the company's financial statements is used by investors as a signal about the condition of the company in the future. Every investor avoids investing in a company that has a high DER because it reflects a high level of risk (Celik and Isaksson, 2014). De Luca (2017) stated that the greater 59 the DER, the greater the risk of defaults faced by the company. The higher the DER the company must also pay higher interest costs (Roshan, 2009). Based on the description above, can be formulated the hypothesis as follows:

H3: DER has a negative effect on stock returns

Economic Growth Weakens/Strengthens the Effect of DER on Stock Returns

DER is related to the amount of company debt. Although debt is one of the considerations of investors in



determining investment decisions, it does not mean that the debt that the company has caused the stock return to be bad. Debt is related to financial institutions (banks) lenders. The high and low rate of loan interest affects the company and economic growth. Vaithilingam et al. (2003) assessed that the reduction in lending rates could be the key to driving economic growth.

The lower the interest, the less the investment risk faced by investors. Also, a lower interest rate can encourage higher dividend payments. The source of corporate funding derived from debt has advantages, namely lower tax costs due to interest costs (Miller, 1976). Based on the description above, can be formulated the hypothesis as follows:

H4: Economic growth weakens the negative effect of DER on stock returns

The Effect of PER on Stock Return

The price-earnings ratio (PER) is the ratio of price per share to earnings per share. This ratio shows the amount investors are willing to pay for each dollar (rupiah) reported by the company (Brigham and Houston, 2007).



The higher PER value indicates the prospect of the stock price being valued higher by the investor on the income per share, so the higher PER also shows the more expensive the stock is to the income per share. Companies that have a high PER have a high chance of growth rates, which causes investors to interest in buying company shares which can then increase stock prices (Angelovska, 2016). The increase in stock prices that occur will be responded positively by investors because it affects stock returns, thus indicating that PER will have a positive effect on stock returns. This statement is supported by the results of research conducted by Chavali and Zahid (2011) and Karami & Talaeei (2013). Based on the description above, can be formulated the hypothesis as follows:

H5: PER has a positive effect on stock returns

Economic Growth Weakens/Strengthens the Effect of PER on Stock Return

According to MSCI Barra Research (2010), economic growth is assumed to affect shareholders in three stages. First, economic growth affects the growth of company



profits; second, the growth of aggregate income translates into an increase in EPS; third, an increase in EPS translates into an increase in stock prices. Increasing stock prices will affect stock returns. PER shows how many times investors pay for each rupiah profit per share of shares produced by the company (Puspitaningtyas, 2018). The PER value is used by investors to understand how the market appreciates the company's performance as reflected by EPS. Companies with high growth rates usually have a high PER. This shows that the market expects earnings growth in the future. The development of the infrastructure sector and the increase in economic growth are expected to be able to influence the increase in profits and return on the stock of infrastructure companies. Based on the description above, can be formulated the hypothesis as

H6: Economic growth strengthens the positive effect of PER on stock returns

The Effect of NPM on Stock Returns

follows:



Net profit margin (NPM) is used to calculate the amount of profit from each dollar (rupiah) of sales remaining after all costs are deducted, namely operating costs, interest, and taxes (Graham, 2006). According to Dita and Murtaqi (2014), NPM has a positive and significant effect on stock returns. The statement was supported by Martani et al. (2009) which first stated that NPM has a positive and significant effect on company stock returns. A high NPM value also signals investors to invest because it indicates the company's ability to increase net income (Dita and Murtaqi, 2014). Based on the description above, can be formulated the hypothesis as follows:

H7: NPM has a positive effect on stock returns

Economic Growth Weakens/Strengthens the Effect of NPM on Stock Returns

Economic growth is a macro variable that affects stock returns. In this study, economic growth can be seen from the size of the GDP. Increased GDP can be interpreted as an increase in the income and purchasing power of the people. Increasing people's purchasing power can affect company profits and investment levels. The greater the



NPM, the more effective the company's performance will be. This can increase investor confidence to invest in a company (Muhammad, 2017). This ratio shows how much percentage of net profit earned from each sale. The higher the GDP, the higher the level of sales of the company is expected.

Investment, in general, has a long-term relationship with economic growth (Li, 2002). One indicator that shows that GDP affects investment is because investment depends on the outputs obtained from all economic activities (Samuelson and Nordhaus, 2001). Low GDP indicates poor economic growth. Also, significant changes in GDP have a significant effect on the stock market (Sattar et al., 2018). This affects the high or low stock prices of companies that automatically affect stock returns. Also, economic growth increases investor expectations for future profits. Based on the description above, can be formulated the hypothesis as follows:

H8: Economic growth strengthens the positive effect of NPM on stock returns

Research Method



According to Sekaran and Bougie (2013), a population is a whole group of people, events, or other interesting things that want to be investigated to make conclusions.

Whereas according to Antwi and Kasim (2015), the population is a generalization area consisting of objects/subjects that have certain quantities and characteristics set by researchers to be studied and then drawn conclusions. The population in this study was 63 infrastructure companies listed on the Indonesia Stock Exchange.

Samples are part of a population consisting of elements that are expected to have characteristics that represent the population (Sekaran and Bougie, 2013). Whereas according to Antwi and Kasim (2015), the sample is part of the number and characteristics possessed by the population. Representation of the characteristics of a population is an important requirement so that samples can represent the population. The sample used in this study is the annual report of infrastructure companies in the 2015-2017 observation period. Sampling in this study was carried out by a purposive sampling technique,



where samples were taken with certain terms and conditions.

Types and Data Sources

Williams (2007) stated that data can be classified into three types, namely subject data, physical data, and documentary data. The type of data used in this study is documentary data. The documentary data used is the financial statements of infrastructure companies listed on the IDX and economic growth data from BPS in 2015-2017.

Williams (2007) also stated that data can be classified into two, namely primary data and secondary data. The data source in this study is secondary data. The data in this study were taken from the IDX and the database of PT Mirae Asset Sekuritas.

Method of Collecting Data

This study uses the documentation method as a means of collecting data. The documentation method is done by collecting financial statements of infrastructure companies through the IDX official website and the PT



Mirae Asset Sekuritas database during 2015-2017. Data is then processed to produce an overview related to the research variables.

Evaluate the Goodness of Fit Model

This study uses a structural model (inner model) because all variables used in this study can be calculated directly and interpreted with exact numbers and standard formulas. The following is an evaluation of the structural model using WarpPLS:

Multicollinearity

According to Daoud (2017), the multicollinearity test aims to test whether, in the regression model, there is a correlation between independent variables. In a good regression model, there should be no correlation between the independent variables. If the independent variables correlate with each other, then the variables are not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables is zero (0). Multicollinearity in the WarpPLS software can be known through the value of the average block variance inflation factor (AVIF). The ideal AVIF value



is less than 3.3, but can still be accepted if it is worth less than 5. The results of the multicollinearity test in this study can be seen in the table below:

Table 1

AVIF

Coefficient

AVIF

1,739

Source: WarpPLS output processed

From Table 1 it can be seen that the AVIF value is 1.739 < 3.3 (ideal). This shows that in this study there was no multicollinearity between independent variables.

Inner model

According to Sholihin and Ratmono (2013), the measures that can be used in assessing the inner model are as follows:

a. Coefficient of determination

R2 values were 0.67, 0.33, and 0.19 indicating that the models were good, moderate, and weak (Chin, 1998). The value of R2 of the test results using WarpPLS is as follows:



Table 2

R-Squared

Coefficient

P-values

R-squared

0,257

0,002

Source: WarpPLS output processed

Table 2 shows that the R2 value of this research model is 0.257 (weak). The R2 value shows that the dependent variable returns on infrastructure companies in Indonesia for the 2015-2017 period can be explained by the independent variables (EPS, DER, PER, NPM) and moderating variables of economic growth of 25.7%. The remaining 74.3% is explained by other variables, not in this research model.

b. Predictive relevance

Q2 predictive relevance of structural models is a value that shows how well observations are generated by the model and also its parameter estimates. Q2 greater than zero (0) indicates that the exogenous latent variable has a



predictive relevance of the endogenous latent variables that are affected (Sholihin and Ratmono, 2013). The value of Q2 of the test results using WarpPLS is as follows:

Table 3

Q-Squared

Coefficient

Q-squared

0,339

Source: WarpPLS output processed

Table 3 shows that the Q2 value of this research model is 0.339. This value is more than zero (0), so it can be concluded that the exogenous latent variable has predictive relevance to the endogenous latent variables that are affected.

c. Effect size



Effect size is a measure of the practical significance of research results in the form of a measure of the magnitude of the correlation or the effect of a variable on other variables (Sullivan and Feinn, 2012). The effect size can be found on the standard errors and effect size of the path coefficients menu in the WarpPLS software. Effect size according to Sholihin and Ratmono (2013) can be grouped into three categories, namely weak (0.02), moderate (0.15), and large (0.35). The value of the effect size in this study is presented in the table as follows:

Table 4

Effect Size Path Coefficient

EPS

DER

PER

NPM

PDB*

EPS

PDB*

DER

PDB*

PER



PDB*

NPM

Return (Std. Error)

0,096

0,098

0,094

0,099

0,100

0,101

0,096

0,097

Return (Path Coefficient)

0,051

0,020

0,132

0,008

0,007

0,003

0,099

0,034

Source: WarpPLS output processed



Table 4 shows that the estimated effect size of the EPS variable is 0.051 > 0.02. The estimation results include medium, so that shows that EPS has a moderate contribution to increasing stock returns. The estimated effect size for the DER variable is 0.020 = 0.02. The estimation results are moderate, so that shows that DER has a moderate contribution to increasing stock returns. Estimated value of effect size for PER variable is 0.132 > 0.02. The estimation results are moderate, so that shows that PER has a moderate contribution to increasing stock returns. Estimated value of effect size for NPM variable is 0.008 < 0.02. The estimation results are weak, thus indicating that NPMs contribute low in increasing stock returns. Also, the estimated effect size for EPS, DER, PER, NPM variables on the dependent variable return on infrastructure companies in Indonesia for the 2015-2017 period with economic growth as a moderating variable shows a value of 0.007 (GDP*EPS), 0.003 (GDP*DER), 0.099 (GDP*PER), 0.034 (GDP*NPM). This value indicates that the contribution of GDP*EPS and GDP*DER variables to stock returns is classified as weak (<0.02). While the



contribution of GDP*PER and GDP*NPM to stock returns is classified as moderate.

In addition to the size above, the fit indices and P-values model also displays the results of two other fit indicators, namely the average path coefficient (APC) and average R-squared (ARS). According to Kock (2013), the P-value of APC and ARS can be received if it is less than 0.05 (significant).

Table 5

Average Path Coefficient and ARS

Average path coefficient

Average R-squared

P-values

0,026

0,002

Source: WarpPLS output processed

Table 5 shows that the value of APC and ARS are 0.026 and 0.002 respectively. This value is acceptable because it is less than 0.05. Because APC and ARS < 0.05 and AVIF 1.739 < 3.3, it can be concluded that this research model fits the data used and is free of multicollinearity.



Data Analysis and Discussion

Coefficient of Determination (Adjusted R2)

The problem that is often encountered in the use of Rsquared to assess the good or bad of a model is that the value continues to rise along with the addition of independent variables into the model. According to Daoud (2017), the coefficient of determination (R2) is a measure of a model's ability to explain variations in the dependent variable. Adjusted R2 serves to measure the level of confidence, adding the right independent variable to increase the predictive power of the model. Adjusted R2 value will never exceed the R-squared value, 1st can even go down if there are additional independent variables that are not needed. Adjusted R2 can have a negative value. The adjusted R2 estimation results in this study are presented in the table as follows:

Table 6

Adjusted R2

Adjusted R2

P-Values



0,188

0,014

Source: WarpPLS output processed

The adjusted R2 values in this study were 0.188. This value shows that the regression model used in this study can explain the magnitude of the effect of the independent variables EPS, DER, PER, and NPM on the dependent variable of stock return of infrastructure companies in Indonesia in the period 2015-2017 with economic growth as a moderating variable of 18.8%.

While the remaining 81.2% is explained by other variables that are not in the regression model.

Partial Significance Test

The partial test aims to examine the effect of each independent variable EPS, DER, PER, and NPM on the stock return of infrastructure companies. The researcher also examined the effect of each independent variable on stock returns with economic growth (GDP) as a moderating variable. Partial testing is done by comparing



the P-values of each independent variable and the moderating variable to the dependent latent variable. The P-values of each variable is presented in the following figure and table:

Source: WarpPLS output processed



Figure 3

SEM Model

Table 7

Path Coefficient and P-values

EPS

DER

PER

NPM

PDB*

EPS

PDB*

DER

PDB*

PER

PDB*

NPM

Return (Path C.)

0,216

-0,146

-0,293



-0,097

0,049

0,083

-0,217

0,185

Return (P-Val)

0,013

0,070

0,001

0,165

0,313

0,203

0,013

0,030

Source: WarpPLS output processed

Explanation of Table 7 is as follows:

1. Effect of independent variables on the dependent variable

a. Effect of EPS on stock returns.

H1: EPS has a positive effect on stock returns



From Table 7 it is known that the EPS path coefficient value is 0.216 with p-values of 0.013. P-values are lower than the significance value of 0.05. H1 is supported if the p-values are less than 0.05. P-values 0.013 <0.05, then H1 is supported. Therefore, it can be concluded that EPS has a positive effect on stock returns of infrastructure companies in Indonesia for the 2015-2017 period.

b. Effect of DER on stock returns

H3: DER has a negative effect on stock returns

From Table 7 it is known that the value of the DER path coefficients is 0.096 with a p-value of -0.146. P-values 0.070 > 0.05, then H3 is not supported. Therefore, it can be concluded that DER has no effect on stock returns of infrastructure companies in Indonesia for the 2015-2017 period.

c. Effect of PER on stock returns

H5: PER has a positive effect on stock returns

From Table 7 it is known that the value of the path

coefficients PER is -0.293 with 0.001 p-values. P-values

0.001 < 0.05, then H5 is not supported. Therefore, it can

be concluded that PER does not affect stock returns of



infrastructure companies in Indonesia for the 2015-2017 period.

d. Effect of NPM on stock returns.

H7: NPM has a positive effect on stock returns

From Table 7 it is known that the value of NPM path
coefficients is -0.07 with p-values < 0.165. P-values 0.165
> 0.05, then H7 is not supported. Therefore, it can be
concluded that NPM has no effect on stock returns of
infrastructure companies in Indonesia for the 2015-2017
period.

- 2. Effect of independent variable and moderation variable on the dependent variable
- a. The effect of EPS on stock returns with economic growth (GDP) as a moderating variable.

H2: Economic growth strengthens the positive effect of EPS on stock returns

From Table 7 it is known that the path coefficient value of EPS*GDP is 0.049 with p-values of 0.203. P-values 0.203 > 0.05, H2 is not supported. Therefore, it can be concluded that economic growth does not moderate the effect of EPS on stock returns of infrastructure companies in Indonesia for the 2015-2017 period.



b. The effect of DER on stock returns with economic growth (GDP) as a moderating variable.

H4: Economic growth weakens the negative effect of DER on stock returns

From Table 7, it is known that the path coefficients of GDP*DER are 0.083 with p-values of 0.313. P-values 0.313 > 0.05, then H4 is not supported. Therefore, it can be concluded that economic growth does not moderate the effect of DER on stock returns of infrastructure companies in Indonesia for the 2015-2017 period.

c. The effect of PER on stock returns with economic growth (GDP) as a moderating variable.

H6: Economic growth strengthens the positive effect of PER on stock returns

From Table 7 it is known that the value of GDP*PER path coefficients is -0.217 (greater than -0.293) with p-values of 0.013. P-values 0.013 < 0.05, then H6 is supported. Therefore, it can be concluded that economic growth strengthens the positive effect of PER on stock returns of infrastructure companies in Indonesia for the 2015-2017 period.



d. The effect of NPM on stock returns with economic growth (GDP) as a moderating variable.

H8: Economic growth strengthens the positive effect of NPM on stock returns

From Table 7, it is known that the value of NPM*GDP path coefficients is 0.197 with p-values of 0.022. P-values 0.022 < 0.05, then H8 is supported. Therefore, it can be concluded that economic growth strengthens the positive effect of NPM on stock returns on infrastructure companies in Indonesia for the 2015-2017 period.

Conclusion, Implication, Limitation, and Suggestion

Conclusion

Based on the results of research that has been conducted on the effect of fundamental values (EPS, DER, PER, and NPM) on stock returns which are moderated by economic growth (GDP), it can be concluded as follows:

1. EPS has a positive effect on stock returns of infrastructure companies in Indonesia for the 2015-2017 period. For investors, EPS is information that is



considered the most basic and useful, because it can describe the earnings prospects in the future.

- 2. DER does not affect the stock return of infrastructure companies in Indonesia for the 2015-2017 period. DER that does not affect stock returns shows that the company is unable to maximize its debt to generate profits. Investors will not be interested in companies that have low profits.¹⁶³
- 3. PER does not affect the stock return of infrastructure companies in Indonesia for the 2015-2017 period. A low PER indicates that the company's shares have a low market price. The low PER value also indicates that the company is in bad condition, so it is risky for investors.
- 4. NPM does not affect the stock return of infrastructure companies in Indonesia for the 2015-2017 period. Of the total 63 infrastructure sector companies studied, 23 of them had negative NPM values. The negative NPM value indicates that the company suffered a loss.
- 5. Economic growth does not moderate the effect of EPS on stock returns of infrastructure companies in Indonesia for the 2015-2017 period. Economic growth can trigger issuers to issue new stock or do stock splits. Too many



shares will reduce the value of EPS and the delusion of shares.

- 6. Economic growth does not moderate the effect of DER on stock returns of infrastructure companies in Indonesia for the 2015-2017 period. Economic growth has an effect on decreasing credit interest. However, investors prefer to invest in company stocks that generate higher profits than new companies that have the potential to earn higher profits because of the use of financial leverage.
- 7. Economic growth strengthens the positive effect of PER on stock returns of infrastructure companies in Indonesia for the 2015-2017 period. Economic growth increases investors' expectations of company profits in the future. Investors will not mind buying shares at higher prices but have higher profit prospects and stock returns as a result of infrastructure development and economic growth.

Economic growth strengthens the positive effect of NPM on stock returns of infrastructure companies in Indonesia for the 2015-2017 period. Increasing GDP as a proxy for economic growth should be able to increase consumers' purchasing power of the company's products and



services. The increase in sales/earnings of the company can encourage an increase in company profits, which has implications for increasing investor confidence in investing.

Implication

The results of this study indicate that economic growth does not moderate the effect of EPS and DER on stock returns of infrastructure companies. However, economic growth has been shown to moderate the effect of NPM and PER on stock returns. This means that when investors will invest in the company, investors need to pay attention to economic growth factors.

Investors should begin to observe the potential for increasing stock returns that can be influenced by infrastructure development and economic growth. The effect of infrastructure development policies will not be felt shortly. However, in the long run, infrastructure development can boost economic growth to become better. Therefore, government policies that set priorities for infrastructure development need to be supported



because they have a positive effect on profit and return on the stock of infrastructure companies.

Limitation

This study has several limitations that are expected to be improved in future research to obtain better results.

These limitations include:

- 1. The number of samples studied is limited because the focus of research is only on infrastructure sector companies.
- 2. This study only uses four independent variables related to fundamental values, namely EPS, DER, PER, and NPM, and one moderating variable of economic growth which is proxied by GDP.

Suggestion

In connection with the limitations, researchers provide several suggestions for future research as follows:

1. The next researcher is advised to increase the time of the observation period to obtain a more adequate number of samples so that more accurate results can be obtained

.



2. The next researcher is advised to add the number of independent variables related to stock returns.

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1.	very popular → trendy, prevalent, viral	Word Choice	Engagement
2.	is expected	Passive Voice Misuse	Clarity
3.	Furthermore → ¶ Furthermore	Intricate Text	Clarity
4.	study → survey	Word Choice	Engagement
5.	moderate → reduce, decrease, lessen	Word Choice	Engagement
6.	effect → impact	Word Choice	Engagement
7.	is proven	Passive Voice Misuse	Clarity
8.	, in	Punctuation in Compound/Complex Sentences	Correctness
9.	year,	Punctuation in Compound/Complex Sentences	Correctness
10.	major → significant	Word Choice	Engagement
11.	election → poll	Word Choice	Engagement
12.	important → essential	Word Choice	Engagement
13.	are considered	Passive Voice Misuse	Clarity
14.	a very important → a vital, a significant, a critical, a crucial	Word Choice	Engagement
15.	very → unusually	Word Choice	Engagement
16.	, and	Punctuation in Compound/Complex Sentences	Correctness
17.	, and	Punctuation in Compound/Complex Sentences	Correctness



18.	In addition to considering the benefits to be gained from stock investments, investors also need to pay attention to the risks that will be faced.	Wordy Sentences	Clarity
19.	a very important → a significant, a critical, a crucial, an essential	Word Choice	Engagement
20.	to provide → in providing	Incorrect Verb Forms	Correctness
21.	return → yield, gain, performance	Word Choice	Engagement
22.	fundamental → underlying, primary	Word Choice	Engagement
23.	is having a significant impact, has a significant impact, having a significant impact	Word Choice	Engagement
24.	. While → while	Incomplete Sentences	Correctness
25.	are shown	Passive Voice Misuse	Clarity
26.	, which	Punctuation in Compound/Complex Sentences	Correctness
27.	effect → impact	Word Choice	Engagement
28.	the Sorongan	Determiner Use (a/an/the/this, etc.)	Correctness
29.	While the results of Sorongan study (2016) show that DER and beta stocks do not significantly affect stock returns.	Incomplete Sentences	Correctness
30.	fundamental → significant, essential, crucial, underlying	Word Choice	Engagement
31.	be considered	Passive Voice Misuse	Clarity
32.	is reflected	Passive Voice Misuse	Clarity



33.	is believed	Passive Voice Misuse	Clarity
34.	fundamental → primary, significant, underlying, essential	Word Choice	Engagement
35.	value → importance	Word Choice	Engagement
36.	be reflected	Passive Voice Misuse	Clarity
37.	fundamental → underlying	Word Choice	Engagement
38.	is predicted	Passive Voice Misuse	Clarity
39.	an important → a vital, an essential	Word Choice	Engagement
40.	increasing → boosting, improving, enhancing	Word Choice	Engagement
41.	is found	Passive Voice Misuse	Clarity
42.	is believed	Passive Voice Misuse	Clarity
43.	effect → impact	Word Choice	Engagement
44.	is done	Passive Voice Misuse	Clarity
45.	analysis → review	Word Choice	Engagement
46.	very important → vital, significant, critical, crucial	Word Choice	Engagement
47.	are used	Passive Voice Misuse	Clarity
48.	be used	Passive Voice Misuse	Clarity
49.	is described	Passive Voice Misuse	Clarity
50.	be known	Passive Voice Misuse	Clarity
51.	, which	Punctuation in Compound/Complex Sentences	Correctness



52.	the Velankar	Determiner Use (a/an/the/this, etc.)	Correctness
53.	effect → impact	Word Choice	Engagement
54.	Profit → Advantage, Benefit, Gain	Word Choice	Engagement
55.	This	Intricate Text	Clarity
56.	considered → deemed to be	Word Choice	Engagement
57.	is reflected	Passive Voice Misuse	Clarity
58.	in the debt → in debt	Determiner Use (a/an/the/this, etc.)	Correctness
59.	greater → higher	Word Choice	Engagement
60.	greater → higher	Word Choice	Engagement
61.	, the	Punctuation in Compound/Complex Sentences	Correctness
62.	has a negative effect on → hurts, harms	Wordy Sentences	Clarity
63.	debt → liability	Word Choice	Engagement
64.	bad → wrong	Word Choice	Engagement
65.	namely,	Punctuation in Compound/Complex Sentences	Correctness
66.	income → pay, profit	Word Choice	Engagement
67.	, which	Punctuation in Compound/Complex Sentences	Correctness
68.	is supported	Passive Voice Misuse	Clarity



69.	is assumed	Passive Voice Misuse	Clarity
70.	performance,	Punctuation in Compound/Complex Sentences	Correctness
71.	This	Intricate Text	Clarity
72.	are expected	Passive Voice Misuse	Clarity
73.	increase → rise	Word Choice	Engagement
74.	is used	Passive Voice Misuse	Clarity
75.	are deducted	Passive Voice Misuse	Clarity
76.	costs → expenses, fees	Word Choice	Engagement
77.	, which	Punctuation in Compound/Complex Sentences	Correctness
78.	offect → impact	Word Choice	Engagement
79.	be seen	Passive Voice Misuse	Clarity
80.	be interpreted	Passive Voice Misuse	Clarity
81.	<u>Increasing</u> → Improving	Word Choice	Engagement
82.	greater → higher, more excellent	Word Choice	Engagement
83.	This	Intricate Text	Clarity
84.	investment → placement	Word Choice	Engagement
85.	investment → placement	Word Choice	Engagement
86.	poor → weak	Word Choice	Engagement
87.	significant → substantial, considerable	Word Choice	Engagement



88.	This	Intricate Text	Clarity
89.	<u>interesting</u> → exciting	Word Choice	Engagement
90.	be investigated	Passive Voice Misuse	Clarity
91.	certain → specific	Word Choice	Engagement
92.	population → people	Word Choice	Engagement
93.	are expected	Passive Voice Misuse	Clarity
94.	characteristics → features	Word Choice	Engagement
95.	population → community, society, people	Word Choice	Engagement
96.	important → essential	Word Choice	Engagement
97.	samples → examples	Word Choice	Engagement
98.	sample → example	Word Choice	Engagement
99.	were taken	Passive Voice Misuse	Clarity
100.	certain → specific	Word Choice	Engagement
101.	can → could	Faulty Tense Sequence	Correctness
102.	be classified	Passive Voice Misuse	Clarity
103.	type → kind	Word Choice	Engagement
104.	can → could	Faulty Tense Sequence	Correctness
105.	be classified	Passive Voice Misuse	Clarity
106.	were taken	Passive Voice Misuse	Clarity
107.	is done	Passive Voice Misuse	Clarity
108.	be known	Passive Voice Misuse	Clarity



be seen	Passive Voice Misuse	Clarity
1,	Punctuation in Compound/Complex Sentences	Correctness
This	Intricate Text	Clarity
study,	Punctuation in Compound/Complex Sentences	Correctness
be used	Passive Voice Misuse	Clarity
good → right	Word Choice	Engagemer
valuo → amount, cost	Word Choice	Engagemer
shows → indicates, proves	Word Choice	Engagemer
be explained	Passive Voice Misuse	Clarity
are generated	Passive Voice Misuse	Clarity
be concluded	Passive Voice Misuse	Clarity
a measure → an action	Word Choice	Engagemer
be found	Passive Voice Misuse	Clarity
, according	Punctuation in Compound/Complex Sentences	Correctnes
),	Punctuation in Compound/Complex Sentences	Correctnes
be grouped	Passive Voice Misuse	Clarity
is classified	Passive Voice Misuse	Clarity



126.	. While → while	Incomplete Sentences	Correctness
127.	is classified	Passive Voice Misuse	Clarity
128.	be received	Passive Voice Misuse	Clarity
129.	, respectively	Punctuation in Compound/Complex Sentences	Correctness
130.	The problem that is often encountered in the use of R-squared to assess the good or bad of a model is that the value continues to rise along with the addition of independent variables into the model.	Wordy Sentences	Clarity
131.	value → amount	Word Choice	Engagement
132.	$\overrightarrow{\text{,it}} \rightarrow ; \text{ it, , and it, . It}$	Punctuation in Compound/Complex Sentences	Correctness
133.	. While → while	Incomplete Sentences	Correctness
134.	is explained	Passive Voice Misuse	Clarity
135.	effect → impact	Word Choice	Engagement
136.	is done	Passive Voice Misuse	Clarity
137.	latent dependent	Misplaced Words or Phrases	Correctness
138.	is presented	Passive Voice Misuse	Clarity
139.	a .	Determiner Use (a/an/the/this, etc.)	Correctness
140.	Effect → Impact	Word Choice	Engagement
141.	7,	Punctuation in Compound/Complex Sentences	Correctness



142.	be concluded	Passive Voice Misuse	Clarity
143.	has a negative effect on → hurts, harms	Wordy Sentences	Clarity
144.	7,	Punctuation in Compound/Complex Sentences	Correctness
145.	be concluded	Passive Voice Misuse	Clarity
146.	7,	Punctuation in Compound/Complex Sentences	Correctness
147.	be concluded	Passive Voice Misuse	Clarity
148.	7,	Punctuation in Compound/Complex Sentences	Correctness
149.	be concluded	Passive Voice Misuse	Clarity
150.	effect → impact	Word Choice	Engagement
151.	7,	Punctuation in Compound/Complex Sentences	Correctness
152.	be concluded	Passive Voice Misuse	Clarity
153.	is known	Passive Voice Misuse	Clarity
154.	be concluded	Passive Voice Misuse	Clarity
155.	7,	Punctuation in Compound/Complex Sentences	Correctness
156.	be concluded	Passive Voice Misuse	Clarity
157.	is known	Passive Voice Misuse	Clarity



158.	, with	Punctuation in Compound/Complex Sentences	Correctness
159.	be concluded	Passive Voice Misuse	Clarity
160.	been conducted	Passive Voice Misuse	Clarity
161.	be concluded	Passive Voice Misuse	Clarity
162.	is considered	Passive Voice Misuse	Clarity
163.	profits → advantages, benefits	Word Choice	Engagement
164.	low → small	Word Choice	Engagement
165.	indicates → shows	Word Choice	Engagement
166.	effect → impact	Word Choice	Engagement
167.	has an effect on → affects	Wordy Sentences	Clarity
168.	higher → more top	Word Choice	Engagement
169.	been shown	Passive Voice Misuse	Clarity
170.	moderate → reduce, decrease, lessen	Word Choice	Engagement
171.	effect → impact	Word Choice	Engagement
172.	This	Intricate Text	Clarity
173.	will invest → invest	Faulty Tense Sequence	Correctness
174.	be felt	Passive Voice Misuse	Clarity
175.	are expected	Passive Voice Misuse	Clarity
176.	, which	Punctuation in Compound/Complex Sentences	Correctness



177.	is advised	Passive Voice Misuse	Clarity
178.	a more adequate → an adequate	Misuse of Modifiers	Correctness
179.	be obtained	Passive Voice Misuse	Clarity
180.	is advised	Passive Voice Misuse	Clarity
181.	number → name	Word Choice	Engagement
182.	Coban,	Improper Formatting	Correctness
183.	Jamal.	Improper Formatting	Correctness
184.	Series,	Improper Formatting	Correctness
185.	Pasquale.	Improper Formatting	Correctness
186.	Management ,	Improper Formatting	Correctness
187.	Rashidul ,	Improper Formatting	Correctness
188.	Khan,	Improper Formatting	Correctness
189.	Choudhury ,	Improper Formatting	Correctness
190.	Adnan.	Improper Formatting	Correctness
191.	at:	Misuse of Semicolons, Quotation Marks, etc.	Correctness
192.	Wihardja .	Improper Formatting	Correctness
193.	Studies,	Improper Formatting	Correctness



194.	Feinn.	Improper Formatting	Correctness
195.	Educ ation → Education	Confused Words	Correctness
196.	Santha ,	Improper Formatting	Correctness
197.	Guru ,	Improper Formatting	Correctness
198.	Shanmugam .	Improper Formatting	Correctness
199.	Business,	Improper Formatting	Correctness
200.	Nandan ,	Improper Formatting	Correctness
201.	Returns → Return	Faulty Subject-Verb Agreement	Correctness
202.	Returns:	Misuse of Semicolons, Quotation Marks, etc.	Correctness