
THE RELATIONSHIP BETWEEN FUNDAMENTAL ANALYSIS AND STOCK RETURNS USING PANEL DATA: EVIDENCE FROM KOMPAS 100 INDONESIA

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ABSTRACT

This research aims to examine the significance of earnings per share, current ratio, debt equity ratio, return on equity and firm size on Kompas100 stock returns. The population in this study is companies listed on Kompas100 in 2016-2022, totalling 203 companies. The sampling method used in this research was purposive sampling, so that 28 companies were obtained. The analysis used in this research is panel data regression, and the selected regression model is the fixed effect. In this study it is proven that earnings per share, current ratio and firm size have a significant effect on stock returns while the debt equity ratio and return on investment have no significant effect. These findings provide an illustration that the company's fundamental conditions affect stock returns, then investors still have to take it into account in determining the selection of company shares to be purchased. These findings support signal theory and the efficient market hypothesis, investors need company fundamental information and think rationally in choosing stocks worth buying.

KEYWORDS stock returns; fundamental analysis; panel data regression; Kompas 100



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INTRODUCTION

Stock return is the income that is expected to be obtained from the results of investment policies made by companies, individuals and institutions. The main motivation for investing in stocks is to get stock returns. As investors, investors will

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definitely predict the factors that influence the acquisition of stock returns. Several factors can affect stock returns return on equity, return on assets, earnings per share, firm size, current ratio, debt equity ratio (Aisah & Mandala, 2016; Parwati & Sudiarta, 2016).

The first consideration that investors will always pay attention to is the market value ratio (Brigham & Houston, 2021). This research uses earnings per share as an indicator of market value. Earnings per share is important for investors because it illustrates the company's ability to generate earnings per share outstanding (Almira & Wiagustini, 2020). Various studies have argued that earnings per share affect stock returns (Almira & Wiagustini, 2020; Mayuni & Suarjaya, 2018) stated that earnings per share had a positive and significant effect on stock returns. Other research states that earnings per share has a significant negative effect on stock returns (Aisah & Mandala, 2016; Almira & Wiagustini, 2020; Pandaya et al., 2020).

The next factor to be considered by investors is the company's liquidity condition. Good company management can certainly balance each of its needs. Management is considered good if it can maintain the liquid condition of the company, so that business continuity is not disrupted. The current ratio is a ratio that is commonly used as a measure of company liquidity. Previous research stated that the current ratio has a positive and significant effect on stock returns (Dewi, 2016; Septiana & Wahyuati, 2016), while others argue that it has a negative and significant effect on stock returns (Aryanti & Mawardi, 2016; Muhammad & Ali, 2018).

The third factor that influences stock returns is solvency, which in this research is measured by the debt to equity ratio. This ratio was chosen because it gives an illustration of the company's ability to pay its total debt with its own capital (Apriyana & Rahmawati, 2017). Companies that have relatively large own capital can feel safe with the level of debt they have. There is previous research which states that the debt equity ratio has a positive and significant effect on stock returns (Chandra, 2016; Septiana & Wahyuati, 2016), while other studies state that the debt equity ratio has a negative and significant effect on stock returns (Devi & Artini, 2019; Parwati & Sudiarta, 2016).

The fourth factor is profitability which cannot be left behind in analyzing the company's fundamental condition. This research chooses the proxy return on equity as an indicator of profitability. The main reason for choosing a proxy for return on equity is related to the third factor which measures the ability of own capital to pay total debt, while roe measures the level of profitability of own capital (Banerjee, 2019). Previous research proves (Almira & Wiagustini, 2020; Mahardika & Artini, 2017). Other research is able to prove that return on equity has a negative and significant effect (Aryanti & Mawardi, 2016; Banerjee, 2019).

The last factor in this research is company size, with the natural log total assets as a proxy (Duy & Phuoc, 2016). The size of the company is considered to have an influence on the ability to provide stock returns, because it relates to its operational activities (Helia et al., 2020). Previous research found that firm size has no effect on stock returns (Leonardo & Kharismar, 2021; Maramis et al., 2021), while other research proves that firm size has a positive and significant effect on stock returns (Fitroh & Fauziah, 2022; Helia et al., 2020). The research aims

analyze the relationship between fundamental analysis and stock returns using panel data: evidence from Kompas 100 Indonesia.

RESEARCH METHOD

The approach used in this study is a quantitative method, namely research that produces findings using statistical procedures (Sugiyono, 2019). The population of this research is 203 companies. The sampling method used is purposive sampling. The required criteria are: companies consistently listed in Kompas 100 from 2016-2022; non-banking company; companies that earn profits during the study period. The number of samples obtained was 28 companies, so the number of observations was 196.

Data analysis was performed using panel data regression, by going through stages; estimation methods, selection of estimation models and testing of classical assumptions. The best estimation model in this study was chosen by the fixed effect method (FEM) with the formula:

$$RS_{it} = a + b_1EPS_{it} + b_2CR_{it} + b_3DER_{it} + b_4ROE_{it} + b_5FS_{it} + e$$

Note: a=constant; b1-5 = regression coefficient; RS= stock return; EPS = earnings per share; CR=current ratio; ROE=return on equity; FS=firm size; i=company; t=period of time.

RESULT AND DISCUSSION

This study uses secondary data taken from publications conducted by the Indonesian stock exchange. Observations were made from 2016 to 2022 and obtained 28 companies with a total of 196 observations using purposive sampling.

Kompas100 is an index published by the Indonesian stock exchange in collaboration with the Kompas daily. First released in 2007, this index consists of 100 companies that have the characteristics of high liquidity, large market capitalization, good fundamentals and financial performance. The Kompas 100 capitalization value represents around 75% of the total market capitalization of the entire market, so that investors can observe the movement of the index to predict market conditions.

Descriptive statistical analysis in this research is used to describe research variable data. The results of descriptive statistical analysis can be seen in table 1.

Table 1. Descriptive Statistical Analysis Test Results for Research Variables

	hospital	EPS	CR	DER	ROE	FS
Means	0.95	45,969.65	213.97	119.76	111.51	30.93
std. Dev.	31.52	87,859.97	140.88	156.95	109.42	1.02
Maximum	140.83	565,499.30	726.11	1,354.32	145.09	33.49
Minimum	-82.50	126.84	23.42	15.34	0.43	28.94

Source: data processed 2023, evIEWS10

Note: RS=stock return (dependent variable); (independent variables) are EPS=earnings per share; CR=current ratio; DER=debt equity ratio; ROE=return on equity; FS = firm size

Stock return has a minimum value of -82,500 recorded by PT. Unilever Indonesia Tbk (UNVR) and a maximum of 140,833 at PT. Charoen Pokphand Indonesia Tbk (CPIN), meaning that during the research period the returns generated were not always positive and the largest value was 140,833. The average return generated during the study period was 0.945016 or 94.5016% with a deviation of 31.51543.

Earnings per share is an independent variable. The standard deviation value of 87,859.97 is greater than the mean of 45,969.65, meaning that the data deviation is higher than the average data. The maximum value of earnings per share during the study period was 565,499.3 given by Gudang Garam Tbk. (GGRM) and the lowest was 126.46 in the Sawit Sumber Sarana Tbk (SSMS) company.

The second independent variable is the current ratio. The resulting standard deviation of 140.88 is smaller than the average value, 213.97. A deviation value that is smaller than the average value indicates that the data is well distributed. The maximum value of 726.11 was recorded by Ace hardware Indonesia Tbk (ACES) and the lowest was 23.42 by PT Tower Bersama Infrastructure Tbk (TBIG).

The next research variable is the debt to equity ratio, which has a standard deviation of 156.95, which is greater than the mean of 119.76. The maximum value of 1,354.32 was recorded by PT. Tower Bersama Infrastructure Tbk (TBIG) and a minimum of 15.34 by PT. Indocement Tunggal Perkasa Tbk (INTP). The maximum value for the variable return on equity is recorded by PT. Unilever Indonesia Tbk (UNVR) and the minimum score by PT. Adhi Karya Tbk (ADHI). The mean return on equity is greater than the standard deviation. The last variable is firm size with the maximum value at PT. Astra International Tbk (ASII) and the minimum value at PT. Ace Hardware Indonesia Tbk (ACES). The level of spread of data from the average is smaller than the mean, for firm size data.

Table 2. Results of the estimation test of the research model using FEM

Variables	Coefficient	t-statistic	Prob.
C	502.48	1.33	0.19
EPS	0.003	2.59	0.03*
CR	0.017	3.13	0.00*
DER	-0.016	-7.88	0.00*
ROE	-0.002	-0.46	0.65
FS	0.43	0.14	0.88
Fstat	14.47 (0.00)		
R2	68.09%		

Source: data processed by eviews 2023. *) significant at 0.05

The results of panel data regression analysis with the FEM estimation model, as in table 2 above, prove that the research model is feasible to use for estimation with a Fstat result of 14.47 (0.00). The coefficient of determination (R2) is 68.09%, meaning that the variation in stock returns can be explained by the independent

variable of 6.09% and the remaining 31.91% is explained by other variables not included in the research model.

The panel data regression estimation results show that earnings per share with a regression coefficient of 0.003 (0.03). This means that earnings per share has a positive and significant effect on stock returns with a significance level of 0.03 which is less than $\alpha 0.05$. The findings of this study provide an explanation that the company's ability to generate profits increases, so stock returns will also increase. This argument is in line with the theory of the efficient market hypothesis that investors will act rationally in choosing their investments. The rationality of investors can be seen when choosing company shares by paying attention to the possible benefits that can be obtained from each share they own. So also supports the signal theory, that positive information will be responded to positively by investors. Companies that provide information on increasing earnings per share will increase their stock returns, as a positive reaction from investors. This empirical evidence supports the research results (Almira & Wiagustini, 2020; Mayuni & Suarjaya, 2018) and does not support (Aisah & Mandala, 2016; Anwaar, 2016; Pandaya et al., 2020; Randus, 2021).

The current ratio as the second variable shows a regression coefficient of 0.017 (0.00). This means that the current ratio has a positive and significant effect at a significance level of $0.00 < \alpha 0.05$. This study proves that companies that have a good level of liquidity will increase stock returns significantly. These findings also confirm the efficient market hypothesis and signal theory. Investors will choose companies with good liquidity and good information sent by the company will be responded positively by investors. These findings support the results of the study (Dewi, 2016; Septiana & Wahyuati, 2016) and does not support research (Octovian & Winarsa, 2021).

The regression coefficient of the variable debt equity ratio is -0.016 (0.00), meaning that the effect of the debt equity ratio on stock returns is negative. The effect of the debt equity ratio is not only negative but also significant on stock returns, with a significance level of $0.00 < \alpha 0.05$. The economic meaning is, if the debt equity ratio increases, it will reduce the amount of stock returns. This empirical evidence supports the efficient market hypothesis, that a rational investor will certainly consider the risks that a company may face with a large debt-to-equity ratio. Signal theory provides an explanation, if a high debt-equity ratio implies a company has large debt so that the risk of paying company interest is high. Information from high debt equity is responded negatively by investors thereby reducing the company's stock return. These findings support the research (Devi & Artini, 2019) and does not support research (Giyartiningrum et al., 2023).

The results of the panel data regression analysis, the return on equity variable shows a regression coefficient of -0.002 (0.65), meaning that the return on equity has a negative effect on stock returns. Return on equity has a negative effect but not significant, with a significance level of $0.65 < \alpha 0.05$. The meaning of this empirical evidence is that when the return on equity increases, the stock return decreases. The findings of this study do not support the efficient market hypothesis and signal theory. A high return on equity indicates a very good profitability of own capital, but is perceived negatively by investors and is considered irrational by investors.

This can happen because of the assumption that investors will get a smaller share of profits because operating profits are used more for operations than enjoyed by investors. The results of this study support (Devi & Artini, 2019; Worotikan et al., 2021) and does not support (Almira & Wiagustini, 2020; Banerjee, 2019; Jermisittiparsert et al., 2019).

CONCLUSION

The findings in this study are earnings per share, current ratio and debt equity ratio significantly affect the return of Kompas 100 stock. This indicates that investors need positive information about the company's fundamentals in order to make rational investment decisions, in accordance with signal theory and efficient market hypothesis. Other independent variables return on equity and firm size do not affect the return on Kompas 100 stock. Return on equity does not affect it significantly because it measures profitability using its own capital, even though the company's operations are also financed with foreign capital. Firm size does not significantly affect the Kompas 100 stock return, because the size is currently not taken into account by investors.

This research still needs to be tested again with all companies listed on the Indonesian stock exchange, or with the ASEAN exchanges in order to get a more realistic picture. Further research to be carried out is to conduct autoregression testing, to determine the mutual influence between the independent and dependent variables.

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