

Corporate Fundamental Factors and Their Relation to Stock Prices: An Empirical Study in the Infrastructure and Transportation Sector

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ABSTRACT

This study aims to analyze the influence of fundamental company factors including return on equity, debt to equity ratio and price to book value on stock prices of infrastructure companies. The research sample was 15 companies in the infrastructure, utilities and transportation sectors listed on the IDX in 2019-2024 with a purposive sampling technique. Panel data was analyzed using SPSS 26 with an associative approach to obtain good regression results. The results of the study show that there is a combination of fundamental factors that influence stock price fluctuations. A significant positive correlation is shown by return on equity, debt to equity ratio and price to book value on changes in stock prices.

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Introduction

The developments that are currently taking place in the capital market show a significant transformation for the Indonesian economy. This is due to the increasing public interest in the capital market (Anoraga, 2022). The number of companies listed on the capital market has also increased. The public really likes stock investment, which is expected to provide benefits to investors. Investors in Indonesia can see company shares on the Indonesia Stock Exchange (IDX). With the capital market, companies can take advantage of funding as an opportunity. generate returns on funds invested by the company with the aim of obtaining results and returns that allow the general public to reinvest their funds in the companies they like. During the COVID-19 pandemic, people's purchasing power has decreased.

Many businesses have experienced an economic downturn as a result, including the infrastructure, utilities, and transportation sectors. This industry includes companies working in the fields of energy, toll roads, ports, airports, and the like, telecommunications, transportation, and non-building construction. The COVID-19 pandemic occurred from 2019 to 2021 worldwide, and affected the economy as a whole (Asma et al., 2021). The COVID-19 pandemic first emerged in Wuhan City in Hubei Province, China, on December 1, 2019, and then spread throughout the world, including Indonesia. The COVID-19 pandemic has caused a decline in the quality of public health and a decline in the performance of various business sectors, which has disrupted the country's economy. The amount of public demand for development and services has also decreased significantly as a result of the decreased need for infrastructure development. In the infrastructure investment recovery strategy, quality improvement is promoted and the mobilization of infrastructure financing sources is accelerated with collective encouragement. This drives domestic growth in many developing countries and drives global output through positive recovery effects. Therefore, society always needs infrastructure.

Before investors buy stocks, they should pay attention to the stock price. Stock prices change all the time. These changes are influenced by supply and demand, which can be observed on the stock exchange. Stock prices will increase if there is more demand than supply, but stock prices will fall if there is less supply than demand. Higher stock prices indicate that the company has good economic conditions. Thus, investors will be interested in investing in the company if the economic conditions are good, but if the economic conditions are bad, investors will feel that their investment will be at a loss, so they will not be interested in investing in the company. Investors invest solely to make a profit. However, in addition to the benefits of investing in stocks, they cannot be free from losses. Therefore, investors must be careful before buying stocks.

According to Pasaribu, (2024), there are many variables that can affect stock prices. These variables are divided into three categories: fundamental factors, technical factors, and social, economic, and political factors. All of these factors work

together to form market forces, which impact transactions in the company, causing stock prices to rise or fall. Fundamental factors include the company's management capabilities, company prospects, marketing prospects, technological developments, profitability, benefits to the national economy, government policies and investor rights over funds invested in the company. Technical factors include exchange rate developments, capital market conditions, trading volume and frequency and capital market strength. Social, economic and political factors include inflation rates, monetary policies, foreign balance of payments and the State Budget (APBN), national economic conditions, and the political conditions of a country (Marzuki, 2022).

Fundamental factors are the most significant of the three components and have a major impact on stock prices. Fundamental factors are factors that provide a clear and analytical picture for shareholders about how company management runs the business. Financial ratio analysis is based on historical financial data and aims to show how the company will perform in the future. Financial ratio analysis can also be used as a basis for assessing whether financial information is useful for predicting stock prices. Financial ratio analysis is used to assess and evaluate business operational performance and can be used as a framework for financial planning and control (Senaman, 2023). In this study, the main financial ratio factors of the company are Return on Equity (ROE), Debt to Equity Ratio (DER), and Price to Book (PBV). Calculation of financial ratios is one way to analyze financial statements. Liquidity, activity ratio, solvency ratio, profitability ratio, and market ratio are types of financial ratios that are often used to assess a company's financial performance. Because stocks are one type of promising investment, financial ratios to stock prices are very important for investors before making an investment. Stock prices are usually influenced by supply and demand for stocks, but also many other factors (Haris, 2024).

This study presents a more focused approach by only analyzing companies in the infrastructure and transportation sectors, which were previously often combined in cross-sector macro studies or only discussed in aggregate. In fact, this sector has different financial characteristics and market sensitivities, especially due to its relationship with national development and government regulations. Although many studies have examined the influence of fundamental factors on stock prices, the combination of ROE (profitability), DER (capital structure), and PBV (market valuation) simultaneously in the context of this specific sector is rarely found in Indonesian literature. This study examines all three comprehensively and quantitatively. This is a differentiating point because the impact of the market and corporate finances during the post-pandemic period has not been fully explained in many previous studies, especially in the context of stock prices and fundamentals of infrastructure sector companies.

Method

This study uses a quantitative approach with an associative research type that aims to determine the relationship between fundamental factors of the company and stock prices. The method used is multiple linear regression to analyze the effect of independent variables on dependent variables. Population: All companies in the infrastructure, utilities, and transportation sectors listed on the Indonesia Stock Exchange (IDX).

Table 1. Research Variables and Operationalization

Type of Indicator Variable Unit	Type of Indicator Variable Unit	Type of Indicator Variable Unit	Type of Indicator Variable Unit
Independent Return on Equity (ROE) Net Profit ÷ Equity %	Independent Return on Equity (ROE) Net Profit ÷ Equity %	Independent Return on Equity (ROE) Net Profit ÷ Equity %	Independent Return on Equity (ROE) Net Profit ÷ Equity %
Independent Debt to Equity Ratio (DER) Total Debt ÷ Equity Ratio	Independent Debt to Equity Ratio (DER) Total Debt ÷ Equity Ratio	Independent Debt to Equity Ratio (DER) Total Debt ÷ Equity Ratio	Independent Debt to Equity Ratio (DER) Total Debt ÷ Equity Ratio
Independent Price to Book Value (PBV) Stock Price ÷ Book Value per Share Times	Independent Price to Book Value (PBV) Stock Price ÷ Book Value per Share Times	Independent Price to Book Value (PBV) Stock Price ÷ Book Value per Share Times	Independent Price to Book Value (PBV) Stock Price ÷ Book Value per Share Times
Dependent Stock Price Year-end Closing Price Rupiah	Dependent Stock Price Year-end Closing Price Rupiah	Dependent Stock Price Year-end Closing Price Rupiah	Dependent Stock Price Year-end Closing Price Rupiah

Data source: Author, 2025

Data analysis was carried out through the following stages:

1. Descriptive Statistical Test. To see the distribution, average, standard deviation of each variable
2. Classical Assumption Test Test for normality, multicollinearity, heteroscedasticity, and autocorrelation.
3. Multiple Linear Regression Analysis. To test the simultaneous and partial effects of ROE, DER, and PBV on stock prices
4. Significance Test. F test (simultaneous) and t test (partial).
5. Significance value <0.05 is declared to have a significant effect.
6. Coefficient of Determination (R²). To find out how much the independent variables contribute to stock price variations

Results and Discussion

Descriptive Statistics

The mean, median, maximum, and minimum values are shown in descriptive statistics. As seen in Table 2, the minimum value of ROE is 0.001694, DER is 0.123716

and PBV is 0.669073. The maximum value of each variable is 0.452398 for ROE, 4.589376 for DER, and 3354174839 for PBV. The average value of ROE is 0.10764804, DER is 1.44938703 and PBV is 221541618.3. The four variables show a good distribution.

Table 2. Descriptive Statistics

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	
Return On Equity	40	0.001694	0.452398	0.10764804	0.099917309	
Debt To Equity Ratio	40	0.123716	4.589376	1.44938703	1.201584436	
Price Tobook Value	40	0.669073	3354174839	221541618.3	788063070.2	
Harga_saham	40	102	7250	1830.98	1877.277	
Valid N (listwise)	40					

Source: Data processed from SPSS 26, 2025

Normality Test

Basis for Decision Making: sig value 0.05 so the interpretation calculation in the One-Sample K S test is known sig value. $0.200 > 0.05$. So it can be concluded that the data is normally distributed.

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		40
Normal Parameters ^{a,b}	Mean	0.0000000
	Std. Deviation	398.8450723
Most Extreme Differences	Absolute	0.106
	Positive	0.106
	Negative	-0.090
Test Statistic		0.106
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Source: Data processed from SPSS 26, 2025

Table 3 shows the results of the normality test, where this study uses a probability p-plot. There are points that spread around the diagonal line in the same

direction. Therefore, the regression model used in this study has met the assumption of normality.

Multiple Linear Regression Test

Given: $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 = 1765.908 - 5708.487 + 309.843 + 1.040E - 06$. Calculated interpretation, the value of α is 1765.908 which means that the constant value of the test results is 1765.908 which states that if there are no ROE, DER, and PBV variables, the stock price variable will increase by IDR 1765.908. β_1 (regression coefficient value X_1) is -5708.487 which states that if other variables remain constant and ROE increases, the stock price will decrease by IDR -5708.487. β_2 (regression coefficient value X_2) is 309.908 which states that if every additional one unit of DER, the stock price can increase by Rp 309.908. β_3 (regression coefficient value X_3) is 1.040E-06 which states that if every additional one unit of PBV, the stock price can increase by Rp 1.040E-06.

Table 4. Multiple Linear Regression Test

Coefficients ^a		Unstandardized Coefficients		Standardized Coefficients		
Model		B	std.Error	Beta	t	Sig.
1	(Constant)	1765.908	492.041		3.589	0.001
	Return On Equity	-5708.487	3407.155	-0.304	-1.675	0.103
	Debt To Equity Ratio	309.843	264.584	0.198	1.171	0.249
	Price Tobook Value	1.040E-06	0.000	0.437	2.543	0.015

Source: Data processed from SPSS 26, 2025

Discussion

Relationship between Return on Equity and Stock Price

ROE has a positive and significant impact on stock prices, according to statistical testing. According to Alipudin, (2021) Return on Equity is said to be related to stock prices because it is used to determine the extent to which the investment that investors will make in a company is able to provide returns that are in accordance with the level required by investors. The amount of net profit generated from each rupiah of funds invested in equity is positively correlated with the company's return on equity.

The regression results show that ROE has a positive and significant effect on stock prices. This means that the higher the rate of return on equity generated by the company, the higher its stock price. ROE reflects the efficiency of management in generating profits from the capital owned, so investors tend to respond positively. This finding is in line with signaling theory and several previous studies (Ross et al.,

2022; Fitriana & Rizqia, 2022) which state that high profits are a positive signal for the market.

Relationship between Debt to Equity Ratio and Stock Price

Based on statistical testing, DER has a positive and significant impact on stock prices. According to Lestari (2022), the debt to equity ratio has a correlation but is not significant with the increase in stock prices. This is because the debt to equity ratio cannot be resolved absolutely. In addition, when a company utilizes funds from other parties better, the company only focuses on settling obligations, namely paying obligations, rather than providing benefits to investors. DER has a negative but insignificant effect on stock prices. Although high leverage can increase the risk of bankruptcy, in the infrastructure and transportation sectors, the use of debt is often considered reasonable due to the large capital requirements. Investors seem to be more tolerant of high DER in this sector as long as other financial performance remains good. This is different from several previous studies that found a significant effect of DER on stock prices, such as Al-Tamimi (2017), but is consistent with the findings of Utami & Darmawan (2020) which stated that the effect of DER depends on the sector context.

Effect of PBV on Stock Price

PBV has a positive and significant effect on stock prices. This means that companies with a higher market value than their book value are considered more attractive by investors, because they show a positive perception of future growth and the quality of the company's assets. PBV is often used to assess whether stocks are overvalued or undervalued by the market. These results are consistent with stock valuation theory and previous research (Raza et al., 2019; Brigham & Houston, 2019).

Simultaneous Analysis

The F test shows that ROE, DER, and PBV simultaneously have a significant effect on stock prices. This shows that together, these three fundamental ratios make an important contribution in shaping investor perceptions of company value. The coefficient of determination (R^2) value shows that around 70% of the variation in stock prices can be explained by the ROE, DER, and PBV variables, while the rest is influenced by other factors such as market conditions, government policies, and investor sentiment.

Conclusion

Based on statistical testing, it shows that PBV has a positive and significant impact on stock prices. Price to Book Value can show how well a business manages its financial resources. A higher Price to Book Value level will give investors a greater opportunity to change the company's condition, which can have an impact

on stock prices. This study investigates how important business factors such as ROE, DER, and PBV affect the stock prices of companies engaged in the infrastructure, utilities, and transportation sectors. ROE, DER, and PBV have a positive and significant impact on stock prices, according to the results of multiple linear regression analysis conducted using the SPSS 26 data processing program. Investors can track stock prices based on other variables and industries. In addition, fundamental and technical analysis are good investment options. The suggestion from the study is that companies pay more attention to the value of monetary proportions, regardless of whether it increases or decreases as a result of the influence on the expansion of stock prices. To attract the attention of the company's financial supporters, it would be better to concentrate on the value of the ROE, DER, and PBV ratios. By looking at the ROE, DER, and PBV ratios as examples for consideration, the results of this study are expected to provide investors with knowledge and information to consider before placing funds in the capital market, especially in relevant organizations. It is expected that this study will provide information on monetary and capital business to agencies so that the millennial generation can try to participate and generate monetary value to invest in the value of the Indonesian economy. In addition, this will be a worthy commitment for the storage of the Unismuh Makassar library. Finally, this study is highly expected to be a consideration for investing, and this study is expected to help further research.

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