JOURNAL OF ACCOUNTING RESEARCH, UTILITY FINANCE AND DIGITAL ASSETS (JARUDA) | ISSN (E): 2962-973X
Website: https://jaruda.id/index.php/go | Volume 5 No. 3 (2026)

THE EFFECT OF CURRENT RATIO, RETURN ON EQUITY, FIRM SIZE, AND DEBT-TO-EQUITY RATIO ON STOCK PRICES OF COAL SUBSECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE DURING THE 2021–2025

Yesi Safitri[1], Rico Nur Ilham[2], Ghazali Syamni[3], Muttaqien[4], Frengki Putra Ramansyah[5]
[1234]Department of Management, Faculty of Economics and Business, Universitas Malikussaleh
[5]Universitas Battuta, Indonesia.
E-mail: riconurilham@unimal.ac.id

Received: 03/10/2026 | **Revised:** 10/10/2026 | **Accepted:** 20/10/2026 | **Published:** 26/10/2026

Abstract

This study aims to analyze the effect of the Current Ratio (CR), Return on Equity (ROE), Firm Size, and Debt-to-Equity Ratio (DER) on the stock prices of coal subsector companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 period. The research population consisted of all 34 coal subsector companies listed on the IDX, with a final sample of 26 companies selected using purposive sampling, resulting in 130 panel data observations. Secondary data, including annual financial statements and year-end closing stock prices, were analyzed using panel data regression with EViews software. The Random Effects Model (REM) was selected as the most appropriate model based on the Chow test, Hausman test, and Lagrange Multiplier test. The results indicate that, partially, the Current Ratio (CR), Return on Equity (ROE), and Debt-to-Equity Ratio (DER) have no significant effect on stock prices, while Firm Size has a positive and significant effect. Simultaneously, all four independent variables have a significant effect on stock prices, with an adjusted R-squared value of 0.1553, indicating that the model explains 15.53% of the variation in stock prices, while the remaining 84.47% is explained by other factors outside the model. These findings suggest that investors in the coal sector place greater emphasis on a company's scale and stability than on conventional financial ratios when making investment decisions.

Keywords: Current Ratio, Return on Equity, Firm Size, Debt-to-Equity Ratio, Stock Price, Panel Data Regression.

INTRODUCTION

Background

The Indonesian capital market regards the coal mining sector as one of the subsectors with highly volatile stock prices. Throughout the 2021–2025 period, the stock price movements of coal companies listed on the Indonesia Stock Exchange (IDX) did not always align with their fundamental performance. During the COVID-19 pandemic, the decline in global energy demand exerted downward pressure on the stock prices of many coal companies. Conversely, when the Russia–Ukraine conflict triggered a surge in global energy commodity prices, the financial performance of several coal companies improved significantly. However, their stock prices remained volatile and did not fully reflect these improvements in financial performance.

The discrepancy between corporate fundamentals and stock price movements serves as the primary motivation for this study. Theoretically, investors commonly rely on four financial indicators in making investment decisions: the Current Ratio (CR) as a measure of liquidity, Return on Equity (ROE) as a measure of profitability, Firm Size as a proxy for business scale, and the Debt-to-Equity Ratio (DER) as an indicator of capital structure and financial risk. However, preliminary observations of companies such as PT Bukit Asam Tbk (PTBA), PT Adaro Energy Indonesia Tbk (ADRO), PT Indo Tambangraya Megah Tbk (ITMG), PT Bayan Resources Tbk (BYAN), and PT Bumi Resources Tbk (BUMI) indicate that improvements in these financial ratios are not always accompanied by corresponding increases in stock prices. For example, PT Bukit Asam Tbk (PTBA), despite maintaining a relatively high Current Ratio during several observation years, did not consistently experience

proportional increases in its stock price. Likewise, PT Bumi Resources Tbk (BUMI), despite having a relatively high Debt-to-Equity Ratio, did not consistently experience significant declines in its stock price.

Previous studies have also produced inconsistent findings. Some studies report that the Current Ratio has a significant effect on stock prices, whereas others conclude otherwise. Similar inconsistencies are found regarding Return on Equity, Firm Size, and the Debt-to-Equity Ratio, with empirical evidence varying across industries and research periods. These inconsistencies, together with the limitations of previous studies that primarily examined periods before 2020 and therefore did not capture the post-pandemic and post-geopolitical conflict environment, highlight the need for a new empirical investigation focusing specifically on coal subsector companies listed on the Indonesia Stock Exchange during the 2021–2025 period.

Research Problems

Based on the background presented above, this study seeks to answer the following research questions:

1. Does the Current Ratio (CR) affect the stock prices of coal subsector companies listed on the Indonesia Stock Exchange during the 2021–2025 period?
2. Does Return on Equity (ROE) affect the stock prices of coal subsector companies listed on the Indonesia Stock Exchange during the 2021–2025 period?
3. Does Firm Size affect the stock prices of coal subsector companies listed on the Indonesia Stock Exchange during the 2021–2025 period?
4. Does the Debt-to-Equity Ratio (DER) affect the stock prices of coal subsector companies listed on the Indonesia Stock Exchange during the 2021–2025 period?
5.

Research Objectives and Significance

This study aims to empirically examine the effects of the four independent variables, both individually (partially) and collectively (simultaneously), on stock prices. From a practical perspective, the findings are expected to provide valuable insights for corporate management in managing financial ratios, assist investors in developing investment strategies that are not solely based on conventional financial ratios, and serve as a useful reference for academics and future researchers conducting studies on related topics.

LITERATURE REVIEW

This study is grounded in Signaling Theory, which explains how financial information disclosed by a company serves as a signal to investors in assessing the company's prospects and risks. Positive signals, such as increasing profitability or a large asset base, are expected to enhance investor confidence and ultimately influence stock prices. However, these signals are effective only if they are consistently interpreted and responded to by the market, which is not always the case when external factors, such as global commodity prices and geopolitical sentiment, dominate investors' decision-making.

Within this theoretical framework, four independent variables are examined:

a. Stock Price refers to the market value resulting from trading activities in the capital market and is generally measured using the closing price. It reflects the market's perception of a company's value.
b. Current Ratio (CR) measures a company's ability to meet its short-term obligations using its current assets. It is calculated by dividing total current assets by total current liabilities.
c. Return on Equity (ROE) measures a company's effectiveness in generating net income from the shareholders' equity invested in the business.
d. Firm Size, commonly proxied by total assets, reflects the scale of a company's operations and its capacity to access external financing and withstand business risks.
e. Debt-to-Equity Ratio (DER) measures the proportion of total debt relative to shareholders' equity and theoretically reflects the company's financial risk.

A review of previous studies reveals inconsistent findings. Several studies conducted in the processed food, consumer goods, and property sectors report that the Current Ratio and Debt-to-Equity Ratio have significant effects on stock prices. In contrast, other studies in the mining and technology sectors find no significant relationship. Similarly, findings regarding Return on Equity vary, with some studies reporting a significant positive relationship, while others identify a weak negative or insignificant effect. Meanwhile, Firm Size has been more consistently found to have a positive effect on stock prices, as larger firms are generally perceived by investors as being more stable and less risky. However, in commodity-based industries such as the coal sector, this relationship tends to weaken

OPEN ACCESS

because external factors, particularly global commodity price fluctuations, often exert a stronger influence on stock price movements.

Based on the literature review, the following research hypotheses are proposed:

a. H_1: Current Ratio (CR) has a significant effect on stock prices.
b. H_2: Return on Equity (ROE) has a significant effect on stock prices.
c. H_3: Firm Size has a significant effect on stock prices.
d. H_4: Debt-to-Equity Ratio (DER) has a significant effect on stock prices.

METHOD

Research Design, Population, and Sample

This study employed a quantitative approach using a causal-associative research design to examine the causal relationships among the research variables. The research population consisted of all 34 coal subsector companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 period. Using a purposive sampling technique, companies were selected based on the following criteria: (1) they were continuously listed on the IDX throughout the 2021–2025 period, and (2) they published complete annual financial statements for the entire observation period. Based on these criteria, 26 companies were selected as the final sample. With a five-year observation period, the study analyzed a total of 130 panel data observations (26 × 5).

Data Type and Sources

This study utilized secondary data, consisting of annual financial statements and stock price data obtained from the official website of the Indonesia Stock Exchange (IDX). Data were collected through a combination of literature review and documentation techniques, using the published annual financial reports of the sampled companies.

Operational Definition of Variables

The dependent variable is Stock Price, measured using the year-end closing stock price and transformed into its natural logarithm (Y_LNCP) to reduce scale bias and improve data normality.

The independent variables are defined as follows:

a. Current Ratio (CR) (X_1) = Total Current Assets ÷ Total Current Liabilities × 100%
b. Return on Equity (ROE) (X_2) = Net Income ÷ Total Shareholders' Equity× 100%
c. Firm Size (X_3) = *F*irm Size = ln (Total Assets)
d. Debt-to-Equity Ratio (DER) (X_4) = Total Liabilities÷ Total Shareholders' Equity × 100%

Data Analysis Technique

The data were analyzed using panel data regression with the assistance of EViews software, as the dataset combines both cross-sectional data (26 companies) and time-series data (five years).

The most appropriate estimation model was determined through the following sequence of specification tests:

a. Chow Test, to determine whether the Common Effects Model (CEM) or the Fixed Effects Model (FEM) was more appropriate.
b. Hausman Test, to determine whether the Fixed Effects Model (FEM) or the Random Effects Model (REM) should be employed.
c. Lagrange Multiplier (LM) Test, to determine whether the Common Effects Model (CEM) or the Random Effects Model (REM) was preferable when necessary.

Prior to hypothesis testing, several classical assumption tests were conducted to ensure that the regression model satisfied the Best Linear Unbiased Estimator (BLUE) assumptions. These tests included the Jarque–Bera normality test, Variance Inflation Factor (VIF) test for multicollinearity, heteroskedasticity test, and Durbin–Watson test for autocorrelation. Hypothesis testing was subsequently performed using the t-test to examine the individual effects of the independent variables, the F-test to evaluate their joint effect, and the adjusted coefficient of determination (Adjusted R^2) to assess the explanatory power of the regression model.

RESULTS AND DISCUSSION

Model Selection

Based on a series of model specification tests, including the Chow test, Hausman test, and Lagrange Multiplier test, the Random Effects Model (REM) was selected as the most appropriate estimation model for this study. The Hausman test indicated that the random effects model was more suitable than the fixed effects model, while the Lagrange Multiplier test demonstrated that it outperformed the common effects model. Therefore, the Random Effects Model was employed as the basis for the panel data regression analysis.

Panel Data Regression Results

The estimation results obtained from the Random Effects Model produced the following regression equation: Y_LNCP = -6,602549 + 0,103174 X1 + 0,371461 X2 + 0,440123 X3 – 0,065289 X4

The summary of the regression results is presented below.

Variable	Coefficient	Std. Error	t-Statistic	Probability
Constant (C)	-6.602549	4.075941	-1.619883	0.1088
Current Ratio (CR) (X_1)	0.103174	0.056284	1.833087	0.0701
Return on Equity (ROE) (X_2)	0.371461	0.422333	0.879546	0.3814
Firm Size (X_3)	0.440123	0.138891	3.168836	0.0021
Debt-to-Equity Ratio (DER) (X_4)	-0.065289	0.094520	-0.690741	0.4915

The constant coefficient of −6.602549 indicates that, when all independent variables are assumed to be zero, the projected stock price (expressed in natural logarithmic form) would be −6.602549. The positive coefficient of the Current Ratio (0.103174) suggests a positive but weak and statistically insignificant relationship with stock prices. Likewise, the positive coefficient of Return on Equity (0.371461) indicates a positive relationship, although the effect is statistically insignificant.

Firm Size exhibits the largest positive coefficient (0.440123) and is statistically significant, indicating that it provides the strongest and most consistent contribution to stock price movements. Meanwhile, the Debt-to-Equity Ratio has a negative coefficient (−0.065289), which is consistent with financial risk theory; however, its effect is not statistically significant.

Classical Assumption Tests

The classical assumption tests indicate that the residuals of the Random Effects Model satisfy the requirements for statistical analysis. The normality test shows that the residuals are approximately normally distributed. Although slight deviations from perfect normality exist, the large sample size (more than 30 observations) ensures that the model remains statistically reliable. The multicollinearity test reveals that all Variance Inflation Factor (VIF) values are below the threshold of 10, indicating the absence of serious multicollinearity among the independent variables. Furthermore, the heteroskedasticity test produces probability values greater than 0.05, suggesting that heteroskedasticity is not a significant concern in the estimated model.

Hypothesis Testing

a. Effect of Current Ratio on Stock Prices

The calculated t-statistic for the Current Ratio is 1.832, which is lower than the critical t-value of 2.979, with a probability value of 0.0701 (> 0.05). Therefore, H_1 is rejected, indicating that the Current Ratio does not have a significant effect on stock prices. This finding suggests that liquidity is not a primary consideration for investors in the coal sector. For example, PT Bukit Asam Tbk (PTBA), despite maintaining a relatively high Current Ratio during several observation years, did not consistently experience proportional increases in its stock price. This implies that investors place greater emphasis on future profitability and global commodity price movements than on a company's short-term liquidity position.

b. Effect of Return on Equity on Stock Prices

The calculated t-statistic for Return on Equity is 0.878, with a probability value of 0.3814 (> 0.05). Therefore, H_2 is rejected, indicating that Return on Equity does not significantly affect stock prices. For instance, changes in the Return on Equity of PT Indo Tambangraya Megah Tbk (ITMG) were not consistently followed by comparable changes in its stock price. This suggests that investors in the coal industry consider external factors, such as global economic conditions and government policies, more important than the company's return on shareholders' equity alone.

c. Effect of Firm Size on Stock Prices

OPEN ACCESS

The calculated t-statistic for Firm Size is 3.150, with a probability value of 0.0021 (< 0.05). Therefore, H_3 is accepted, indicating that Firm Size has a positive and statistically significant effect on stock prices. Companies with substantial total assets, such as PT Bukit Asam Tbk (PTBA) and PT Adaro Andalan Indonesia Tbk (AADI), provide investors with greater confidence regarding their ability to sustain operations, obtain financing, and withstand business risks. Consequently, larger firms tend to attract greater investor interest, leading to higher stock prices.

d. Effect of Debt-to-Equity Ratio on Stock Prices

The calculated t-statistic for the Debt-to-Equity Ratio is −0.690, with a probability value of 0.4915 (> 0.05). Therefore, H_4 is rejected, indicating that the Debt-to-Equity Ratio does not have a significant effect on stock prices. PT Bumi Resources Tbk (BUMI), for example, maintained a relatively high Debt-to-Equity Ratio throughout the observation period but did not consistently experience significant declines in its stock price. This finding suggests that the use of debt is not necessarily perceived as a negative signal by investors, provided that the company is able to manage its financial obligations effectively while maintaining stable operational performance.

e. Simultaneous Significance Test (F-Test)

The F-statistic of 4.135242, with a probability value of 0.004027 (< 0.05), indicates that the Current Ratio, Return on Equity, Firm Size, and Debt-to-Equity Ratio jointly have a significant effect on stock prices. This implies that although three of the four independent variables are individually insignificant, their combined effect provides meaningful explanatory power for stock price movements.

f. Coefficient of Determination

The adjusted R-squared values range from 0.117710 (weighted model) to 0.287011 (unweighted model). Overall, the model explains approximately 15.53% of the variation in stock prices among coal subsector companies, while the remaining 84.47% is attributable to factors not included in the model, such as global coal commodity prices, macroeconomic conditions, geopolitical sentiment, and government policies.

General Discussion

Overall, the findings support the view that, within commodity-based industries such as the coal sector, stock prices are influenced more strongly by firm scale and external macroeconomic factors than by conventional internal financial ratios. This is consistent with the empirical evidence observed during the 2021–2025 period, when fluctuations in the stock prices of coal companies were driven primarily by changes in global commodity prices resulting from the COVID-19 pandemic and the Russia–Ukraine conflict, rather than by changes in the companies' Current Ratio, Return on Equity, or Debt-to-Equity Ratio.

The consistent positive effect of Firm Size indicates that investors place greater importance on market confidence, corporate stability, and operational scale when making investment decisions. These factors appear to play a more dominant role than profitability indicators or short-term capital structure measures in determining stock prices within the coal industry.

CONCLUSION

Based on the panel data regression analysis using the Random Effects Model (REM) on 130 observations from 26 coal subsector companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 period, the following conclusions can be drawn:

1. The Current Ratio (CR) does not have a statistically significant effect on stock prices.
2. Return on Equity (ROE) does not have a statistically significant effect on stock prices.
3. Firm Size has a positive and statistically significant effect on stock prices.
4. The Debt-to-Equity Ratio (DER) does not have a statistically significant effect on stock prices.
5. Collectively, the four independent variables have a statistically significant effect on stock prices, with the model explaining 15.53% of the variation in stock prices.

Recommendations

For corporate management, it is recommended that companies not only focus on improving liquidity and short-term capital structure but also strengthen their business scale and expand their asset base to enhance investor confidence.

OPEN ACCESS

For investors, investment decisions should take into account firm size, the prospects of the coal industry, macroeconomic conditions, and global coal commodity prices, rather than relying solely on traditional financial ratios such as liquidity, profitability, and solvency measures.

For future researchers, it is recommended to incorporate additional financial variables, such as Earnings per Share (EPS), Return on Assets (ROA), and Net Profit Margin (NPM), as well as external variables including inflation, interest rates, and global coal prices. Expanding the research period and broadening the scope of the study to include other sectors or industries may also provide more comprehensive findings.

For academics, this study is expected to serve as a valuable reference for future research examining the determinants of stock prices, particularly within commodity-based industries.

Research Implications

The findings indicate that investors in the coal subsector place greater emphasis on **Firm Size** than on traditional financial ratios such as the Current Ratio, Return on Equity, and Debt-to-Equity Ratio. This suggests that market confidence in a company's stability, operational scale, and long-term growth prospects plays a more influential role in determining stock prices than short-term financial performance indicators.

Furthermore, the results reinforce the argument of **Signaling Theory**, which posits that not all financial information disclosed by firms is interpreted equally by investors. In the context of the coal industry during the 2021–2025 period, external factors such as the COVID-19 pandemic, fluctuations in global coal commodity prices, and geopolitical conflicts exerted a stronger influence on investor behavior than conventional financial ratios. Consequently, firm size emerged as the most credible signal of corporate stability and resilience, making it the only financial characteristic that consistently influenced stock prices throughout the study period.

REFERENCES

Andriani, S. D., Kusumastuti, R., & Hernando, R. (2023). Pengaruh *Return On Equity* (ROE), *Earning Per Share* (EPS) dan *Debt to Equity Ratio* (DER) terhadap harga saham. *Owner: Riset dan Jurnal Akuntansi*, 7(1), 333–345.

Anisa, O. N., Wibowo, A. R. E., & Nurcahyono, N. (2022). Faktor-faktor yang memengaruhi harga saham: Berdasarkan *signaling theory*. *Jurnal Akuntansi Indonesia*, 11(2), 85–95.

Basuki, A. T., & Prawoto, N. (2017). *Analisis regresi dalam penelitian ekonomi dan bisnis*. Jakarta: Rajawali Pers.

Bursa Efek Indonesia. (2022–2024). *IDX Statistics*. Jakarta: BEI.

Caroline, C., Shellin, S., Putri, A. P., & Purba, R. B. (2025). Pengaruh *Return On Equity*, *earning per share*, *current ratio*, *debt to equity ratio* terhadap harga saham pada perusahaan *consumer goods* yang terdaftar di BEI. *Jurnal Lentera Bisnis*, 14(2), 2725–2737.

Chen, N. F., Roll, R., & Ross, S. A. (1986). Economic forces and the stock market. *Journal of Business*, 59(3), 383–403.

Dayanti, K. A. T., Primasatya, R. D., & Fernando, H. A. (2024). Pengaruh rasio keuangan terhadap harga saham perusahaan sektor teknologi di BEI. *Owner: Riset dan Jurnal Akuntansi*, 8(1), 793–802.

Fitriani, W., & Desmiza, D. (2024). Pengaruh *exchange rate*, inflasi, *leverage*, dan *firm size* terhadap volatilitas harga saham. *J-MAS (Jurnal Manajemen dan Sains)*, 9(1), 427.

Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.

Gujarati, D. N. (2003). *Basic econometrics*. New York: McGraw-Hill.

Kasmir. (2021). *Analisis laporan keuangan*. Jakarta: Rajawali Pers.

Lonia, E., & Mudjijah, S. (2024). Pengaruh *Debt to Equity Ratio*, *Total Asset Turnover*, *Net Profit Margin* dan struktur aktiva terhadap harga saham. *Sammajiva: Jurnal Penelitian Bisnis dan Manajemen*, 2(3), 259–278.

Nurlaily, L., Mela, F. Y., & Agustina, F. F. (2023). Faktor yang memengaruhi harga saham pada perusahaan sektor teknologi di BEI. *Jurnal Ilmiah Fokus Ekonomi, Manajemen, Bisnis & Akuntansi*, 2(2), 168–178.

Sari, D. R. (2020). Pengaruh CR, DER, dan EPS terhadap harga saham pada perusahaan pertambangan batubara. *Jurnal Ekonomi*, 8(3), 88–97.

Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.

Sukartaatmadja, I., Khim, S., & Lestari, M. N. (2023). Faktor-faktor yang memengaruhi harga saham perusahaan. *Jurnal Ilmiah Manajemen Kesatuan*, 11(1), 21–40.

OPEN ACCESS

Taha, R., Al-Omush, A., & Al-Nimer, M. (2023). Corporate sustainability performance and profitability: The moderating role of liquidity and stock price volatility. *Cogent Business and Management*, 10(1).

Zakaria, M., Damayanti, F., Anggraeni, A. F., & Yulianti, M. L. (2024). Pengaruh *Return On Equity* (ROE) dan *Current Ratio* (CR) terhadap harga saham. *Jurnal Lentera Bisnis*, 11(2), 282–296.

OPEN ACCESS