

COMPANY PERFORMANCE AND STOCK RETURNS IN INDONESIA CONSTRUCTION COMPANIES

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ABSTRACT

The purpose of this analysis was to identify the best and worst performing IDX construction sector businesses from 2016 through 2021 in terms of stock return performance. During the carrying period, the company's performance was evaluated using the profitability ratio, measured by return on equity, the solvency ratio, measured by debt to equity, the market ratio, measured by price to book value, and the beta value. Annual reports filed with the Indonesia Stock Exchange and Pefindo Beta Stock provide the information used here. Quantitative techniques including imbalanced panel data analysis were applied in this study. Uneven statistics from 109 annual reports from 20 businesses in the construction sector listed on the This analysis focused on the Indonesia Stock Market. Return on equity was found to have a statistically significant positive influence on stock returns, but debt to equity ratio, price to book value, and beta risk all failed to make a statistically meaningful impact. The findings of this study provide a useful resource for anybody considering making a financial investment in a company listed on the Indonesia Stock Exchange that operates in the construction industry. In addition, please find an attached appraisal of the company's financial performance based on fundamental research.

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1. INTRODUCTION

Capital markets are a viable option for investors in the modern economic period. Securities having maturities of more than one year, such as equities, are traded on the capital market, connecting individuals with spare cash with those in need of financing.[1].

In addition, investors' hopes indicated that their money would provide a satisfactory rate of return. Yield from stock investments, including dividends and capital gains (losses). Yield is a measure of the regular income or cash flow realized, whereas capital gains (losses) are the result of a change in the market price of a security. When the closing price of a stock is higher than its opening price for the period, a capital gain has occurred, whereas a capital loss has occurred when the closing price of a stock is lower than its opening price.

For the last four years, the Indonesian government has prioritized efforts to improve the country's infrastructure. The building industry plays an essential part in the expansion of essential infrastructure. According to the RPJMN, Indonesia would need to spend a total of IDR 6.445 trillion on infrastructure between 2020 and 2024. In particular, the construction industry in Indonesia stands to benefit from the country's active infrastructure development. An growth in stock price in the construction industry might signal strong financial performance, drawing the attention of investors who hope to profit from the subsequent appreciation in stock value.

However, stock returns for construction companies during the period 2016 to 2021 have indicated in its fluctuation. Stock returns decreased during 2016-2018 period. It was said that in 2018, it was the lowest level of stock returns because to the high cost of debt carried by construction companies, which weighed down on operations and prompted negative sentiment in the market. The stock prices of construction businesses, such as the four state-owned construction firms, fell by an average of 27.6 percent as a result of this mood. [2]

However, in 2019, the government refocused on domestic growth in response to the Covid-19 outbreak, and construction business stock returns started to rise again. However, in 2020, the first year Indonesia was hit by Covid-19, the fall in stock returns was slightly substantial since the construction

industry businesses were not the major sector to face the most impact. As a result of the epidemic, businesses in the building industry are continuously revising their policies and procedures. Thus, the construction industry can boost firm performance in 2021, leading to higher stock returns.

Since the stock return of a firm varies, investors need a way to predict what elements will lead to a high or low stock return in order to make informed selections. Samsul [3] argues that both internal and external macro and micro variables contribute to the overall environment that affects stock performance.

In addition, investors may use financial ratios to gauge the company's potential to earn stock return returns based on its performance. Financial performance is one aspect that affects stock returns, but there are other market hazards that investors should be aware of as well. Investors, despite their best efforts to spread their money around, are nevertheless exposed to the systemic risk of the market.

The purpose of this study was, therefore, to look at how both internal and external factors affect construction firms' stock returns in Indonesia. The research under the same issue has been carried out by many researchers, however the findings of the studies have shown inconsistency, as was revealed by a survey of the existing literature. Previous studies examined the connection between a company's profitability and its stock price by Almira and Wiagustini [4] and Sukmawati [5]. Return on equity, a measure of a company's profitability, was found to have a favorable impact on stock returns. Recent studies, however, have shown contrasting findings. Kartadjumena, et al. [6] and Pande and Sudjarni [7] where there was no significant effect of return on equity on stock returns.

Arista and Astohar [8] and Novitasari and Herlambang [9] have also conducted studies on the impact of firm solvency on stock returns. There was a statistically significant positive relationship discovered between a company's solvency as measured by its debt to equity ratio and its stock returns. The impact of the market ratio on stock returns has also been studied by researchers such as Kartadjumena, et al. [6] and Jaya and Kuswanto [10]. Using price book value as a stand-in for market ratio, they discovered that it significantly improved returns. However, Arfah [11] and Saputra and Kusumawati [12] discovered that price book value does not impact the stock returns of companies.

Azhari et al. [13] and Pratama et al. [14] also look at the systematic impact on stock returns in their studies. The two teams had gotten contradictory findings from their studies. Azhari et al. [13] found that the value of beta, which measures systematic risk, significantly positively affects stock returns. Meanwhile, the research presented in [14] by Pratama et al. reveals that systematic risk does not influence stock returns.

This study was conducted by surveying a wide range of construction firms in Indonesia in order to fill in some of the gaps in the literature and shed light on certain interesting phenomena. Construction firms trading on the Indonesia Stock Exchange (IDX) between 2016 and 2021 were the focus of this study. One of the reasons why construction businesses in Indonesia are being studied is the country's present infrastructural boom.

2. LITERATURE REVIEW

The influence of Return On Equity (ROE) on Stock Returns

Return on equity is one of the measures of a company's profitability that might serve as proxies (ROE). One definition of return on equity (ROE) is a company's ability to make money [15]. The greater the return on equity, the better the organization is at managing its resources. There will be an effect on the company's bottom line as a result of this. As a result, the likelihood of dividend payments from the corporation to its shareholders grows. When dividend payments rise, investors take notice and buy more shares of the firm, driving up the stock price. This is consistent with the findings of studies by Almira and Wiagustini [4] and Sukmawati [5], who found that ROE significantly positively affects stock returns for companies. Following the aforementioned statement, the following serves as the study hypothesis:

H₁: *ROE has a significant positive influence on stock returns in Indonesia construction companies.*

The influence of Debt to Equity Ratio on Stock Returns

Debt to equity is a measure of the financial health of a corporation (DER). Company debt as a percentage of total capital is represented by DER. Since more debt is used in operations when the DER value is exceptionally high, the firm is viewed as high risk. Because of this, stock prices may fall as the interest of potential buyers dwindles. According to studies by Arfah [11] and Arista and Astohar [8], DER has a detrimental impact on stock returns. The comment prompts the following speculation:

H₂: *DER has a significant negative influence on stock returns in Indonesia construction companies*

The influence of Price to Book Value on Stock Returns

Price to book value is commonly used as a proxy for market ratios (PBV). The ratio between the stock's market price and the company's book value is an indication of the stock's relative attractiveness. When evaluating a firm, investors place more weight on a higher PBV since it indicates a greater return on investment. Businesses that put an emphasis on qualities that boost the company's worth are more attractive to investors. When PBV is high, investors become more interested in purchasing the stock, driving up the price. This is consistent with the findings of studies by Kartadjumena et al. [6] and Jaya & Kuswanto [10], which demonstrated the favorable impact that PBV has on the stock return of a firm. So, here's the working hypothesis for the study:

H₃: *PBV has a significant positive effect on company returns in Indonesia construction companies.*

The influence of Beta Risk on Stock Returns

The systemic risk of an investment is one factor that must be considered by investors. A stock's beta indicates how sensitive it is to changes in the market. As a result, beta may be seen as a measure of the risk associated with the correlation between overall market performance and individual stock performance [16]. A stock's beta indicates how much you should be willing to risk investing in it. As a result, investors will demand a greater projected return when the risk associated with a company is higher (as shown by a higher beta) and vice versa when the risk is lower (as indicated by a lower beta). According to the findings of Azhari, et al. [13], beta has a highly substantial beneficial influence on stock returns. The following is the research hypothesis that relates to the aforementioned claim:

H₄: *Beta risk has a significant positive effect on stock returns in Indonesia construction companies.*

3. METHOD

One hundred twenty annual reports from twenty firms in the construction industry listed on the Indonesia Stock Exchange between 2016 and 2021 made up the study's population. Incomplete data from two firms meant that only 109 annual reports could be used as a data sample for this analysis. Both free and reliant variables were included in this study. Return on equity (ROE), which is the ratio of net income to shareholders' equity, debt to equity ratio (DER), which is the ratio of total debt to total equity, price to book value (PBV), which is the ratio of the market price of a stock per share to the book value of a share of stock, and beta risk (BR), which is a measure of the volatility, or systematic risk, of a common stock, were the independent variables. Meanwhile, stock return, defined as the percentage of change in stock price relative to the beginning stock price, was employed as the dependent variable. The following list contains the 20 construction firms that participated in this analysis:

Table 1. Construction Company Data

No	Name and Codes	Observable Years Numbers
1	PT Acset Indonesia Tbk	6
2	PT Adhi Karya (Persero) Tbk	6
3	PT Bukaka Teknik Utama Tbk	6
4	PT Djasa Uber Sakti Tbk	2
5	PT Indonesia Pondasi Raya Tbk	6
6	PT Jaya Konstruksi Manggala Pratama Tbk	6
7	PT Nusantara Infrastructure Tbk	6
8	PT Nusa Konstruksi Enjiniring Tbk	6
9	PT Nusa Raya Cipta Tbk	6
10	PT Paramita Bangun Sarana Tbk	6
11	PT Pembangunan Perumahan (Persero) Tbk	6
12	PT PP Presisi Tbk	5
13	PT Pratama Widya Tbk	2
14	PT Surya Semesta Internusa Tbk	6
15	PT Total Bangun Persada Tbk	6
16	PT Totalindo Eka Persada Tbk	5
17	PT Waskita Karya (Persero)	6
18	PT Wijaya Karya Bangunan Gedung Tbk	5
19	PT Wijaya Karya (Persero) Tbk	6
20	PT Cipta Marga Nusaphala Persada Tbk	6
TOTAL DATA		109

The effect of firm performance on stock returns was investigated using panel data regression analysis in this study. Multiple types of analyses, including common effects, fixed effects, and random effects tests, were applied to the model in this study. To determine whether or whether there is a difference in intercepts between groups or time periods, the fixing effect model was put through a F test [17]. The pooled OLS would be selected if the F test indicated that the null hypothesis would be accepted regardless of which test was performed. Moreover, the Lagrange multiplier (LM) test [18] can be used to confirm the presence of a random effect model. Next, we used Hausman's specification test [19] to check if there was a fixed-effect model equivalent to the one with a random-effects input. The individual effects should become uncorrelated with the other regressors if the null hypothesis is adopted. It would then be possible to select the random effect model.

4. RESULTS AND DISCUSSION

To find the best model to use, this research applied the Chow test using the possibilities ratio test. It was determined that the Cross Section probability was 0.0446 0.05. (it is rounded to 0.05). Since this likelihood was less than or equal to the significance level alpha, the common effect model was deemed to be adequate. Consequently, the Common Effects Model should be used. Based on the remark in Park [17], if the common effect model is the best fit, then additional tests based on the Hausman and Lagrange multiplier (LM) are unnecessary.

Table 2. Chow Test Result

Redundant Fixed Effects Tests			
Equation: REGRESI			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.467978	(19,96)	0.1150
Cross-section Chi-square	30.607040	19	0.0446

When the VIF is less than 10 across all independent variables, it indicates multicollinearity, as seen in Table 3. Because of this, we may safely assume that all independent variables are not multicollinear.

Table 3. Multicollinearity Test

Variance Inflation Factors
Date: 02/16/23 Time: 18:13
Sample: 1 109
Included observations: 109

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.021182	4.754504	NA
ROE	0.071551	1.448212	1.060969
DER	0.004753	3.643800	1.585560
PBV	0.001005	1.758582	1.144747
BR	0.016779	4.956942	1.613562

Also, the Prob value may be shown in Table 4 thanks to the results of the heteroscedasticity test. Over 0.05, the F-statistic is 0.0925. No heteroscedasticity was found in the analysis, hence the hypothesis was rejected.

Table 4. Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	2.046505	Prob. F(4,115)	0.0925
Obs*R-squared	7.974301	Prob. Chi-Square(4)	0.0925
Scaled explained SS	7.741721	Prob. Chi-Square(4)	0.1015

Additionally, the Prob value is displayed as a consequence of the heteroscedasticity test. Over 0.05, the F-statistic is 0.0925. No heteroscedasticity was found in the analysis, hence the hypothesis was rejected.

Table 5. Common Effect test

Dependent Variable: Y
Method: Panel Least Squares
Date: 02/16/23 Time: 18:29
Sample: 2016 2021
Periods included: 6
Cross-sections included: 20
Total panel (balanced) observations: 109

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.094046	0.143723	0.654357	0.5142
ROE	0.754335	0.250842	3.007217	0.0032
DER	0.015873	0.067614	0.234765	0.8148
PBV	-0.029530	0.031187	-0.946863	0.3457
BR	0.128889	0.127422	1.011507	0.3139
R-squared	0.096819	Mean dependent var		0.312228
Adjusted R-squared	0.065404	S.D. dependent var		0.744373
S.E. of regression	0.719619	Akaike info criterion		2.220584
Sum squared resid	59.55290	Schwarz criterion		2.336729
Log likelihood	-128.2350	Hannan-Quinn criter.		2.267751
F-statistic	3.081939	Durbin-Watson stat		1.713641
Prob(F-statistic)	0.018811			

The panel data regression's results used the common effect with the following equation:

$$Y = 0.0941 + 0.7542 ROE_{i,t} + 0.0159 DER_{i,t} - 0.0295 PBV_{i,t} + 0.12889 BR_{i,t} + \epsilon_{i,t}$$

Table 5 showed that with a 0.0032 probability, a DER of 0.8148, and a BS coefficient of 0.3139, ROE, DER, and BS coefficient all had positive values. As a result, the PBV coefficient was -0.029530, corresponding to a probability of 0.3457. Stock market returns were not significantly affected by DER, PBV, or BS factors, as shown by these results. The result is that we cannot accept the second, third, or fourth hypothesis. In addition, only the return on equity variable significantly influenced stock returns.

The above R-square value of 0.097 is based on the estimation of the regression equation. That the independent variables explain 9.7 percent of the variation in the dependent variable suggests that additional factors, not included here, account for the remainder of the variation.

Discussion

The influence of Return On Equity on Stock Returns

The findings of the tests indicate that in the Indonesian construction sector, ROE has a highly favorable relationship with stock returns. This indicates that when the ROE value rises, the stock returns will rise proportionally, and vice versa. Consistent with the assumption that, as a company's potential to create profits grows, so too will the stock's return on investment grow, and vice versa. If we take the construction industry as an example, the average return on equity of construction firms in 2021 is higher than it was in 2020. Stock returns on average have gone up throughout this time as well. On the other hand, ROE has been trending downwards this year, and 2018 has seen a similar decline in stock returns.

This study agrees with the findings of Almira and Wiagustini [4] and Sukmawati [5], who found that ROE has a positive significant influence with on stock returns, but it disagrees with the findings of Pande and Sudjarni [7] and Kartadjumena, et al. [6], who found that ROE has no effect on company stock returns.

The influence of Debt to Equity Ratio on Stock Returns

The analysis found no evidence that increasing the debt to equity ratio would improve stock returns for Indonesian building businesses. The findings demonstrated that stock returns kept rising even when the DER rose. Reviewing the business's debt structure, investors determined that trade debt predominated, rather than finance debt, therefore the company was deemed secure, and consequently, investors elected to maintain their construction industry investments. A recent survey of investors found that 71% of them did not view construction firms' high levels of corporate debt as a cause for concern. This is due to PSAK 72's rules on when to recognize income from customer contracts, which requires the ordinary construction business to wait until work is finished before billing such contracts.

This study's findings run counter to those of Novitasari and Herlambang [9], who found that the DER ratio significantly affected the stock return of the companies they studied. This finding is consistent with studies by Kartadjumena et al. [6] and Hisar et al. [20], both of which found that DER did not significantly affect the rate of return on the shares of publicly traded companies.

The influence of Price to Book Value on Stock Return

Results from this analysis indicate that the ratio of stock price to book value for Indonesian construction businesses is not significantly correlated with stock price performance. This demonstrates that investors' choices are not influenced by the PBV variable. This analysis demonstrates that the stock return rate of businesses operating in the construction industry improves when the PBV decreases. The PBV projection utilized is a lagging projection, which explains why this connection holds true. Stock returns are anticipated to rise over this time period because investors predict that the market price will rise from its current low level in the future. In 2020 and 2021, for instance, the average PBV value has declined while the average stock return has climbed. This occurred because the transition period coincided with a time when the market price of building stocks in the mid to late 2021 timeframe had grown, resulting in higher stock returns in that year.

This study agrees with previous studies by Saputra and Kusumawati [12], which found that PBV had a negative and negligible impact on stock returns for publicly traded companies. Dwialesi and Darmayanti [21], Jaya and Kuswanto [10], and Kartadjumena, et al. [6] all claim that PBV as a market ratio significantly affects the stock returns of companies, but their findings are at odds with one another.

Effect of Beta Risk on Stock Returns

Given that most investors acquire stocks for short-term aims in the form of financial gains notwithstanding the risk of market volatility, the authors of this study conclude that beta risk has a negligible influence on stock returns in businesses in the construction industry. This is why a company's current beta number has no bearing on its stock return.

This study's findings are consistent with those of Pratama et al. [14], who found no evidence that beta affected returns when tested using an inversion variable of investment choices.

5. CONCLUSION

This research found that in the construction industry of Indonesia, only ROE played a major role in predicting stock returns. Since return on equity is one of the ratios that may quantify a company's degree of profitability, it follows that investors place a disproportionate amount of weight on a company's capacity to make profits when making investment selections. The dividend equivalent yield, the price-to-book ratio, and the beta of a stock all have negligible effects on the performance of that stock.

Despite its merits, this study has limitations due to its exclusive focus on publicly traded businesses in the Indonesian construction industry. Since this study only covers the years 2016 through 2021, its findings may not be a complete reflection of the company's environment beyond that time frame.

Future studies can refine and extend the findings by including or drawing on data from other firm sectors with higher capitalization value in order to present a more comprehensive view of market circumstances. In the future, academics may also make use of additional independent factors, such as current ratios, economic growth, and inflation rates, to give even more foundational information for prospective investors. Potential investors might use this study as a resource when deciding which firms on the Indonesia Stock Exchange to put their money into from the construction industry. Examining the company's financial performance from a basic perspective was the focus of this study.

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