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Determinants of stock returns in property and real estate companies listed on the Indonesia Stock Exchange

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ABSTRACT

Purpose — *This study aims to investigate the influence of macroeconomic factors, including economic growth, inflation, the rupiah exchange rate, and interest rates, as well as corporate financial performance indicators such as leverage and profitability, on the stock returns of Indonesian Property and Real Estate Sub-Sector companies.*

Method — *The research data consists of annual data obtained from the Indonesia Stock Exchange, the Indonesia Central Bureau of Statistics, and Bank Indonesia for the period from 2017 to 2021. The research population comprises 36 Property and Real Estate companies listed on the Indonesia Stock Exchange. Out of these, 28 companies meet the sample requirements. The analysis employs panel data regression to examine the data.*

Result — *The results indicate that inflation and exchange rates have a negative and statistically significant impact on stock returns. On the other hand, economic growth, interest rates, return on equity, and the debt-to-equity ratio exhibit a positive influence on stock returns, although these effects are not statistically significant.*

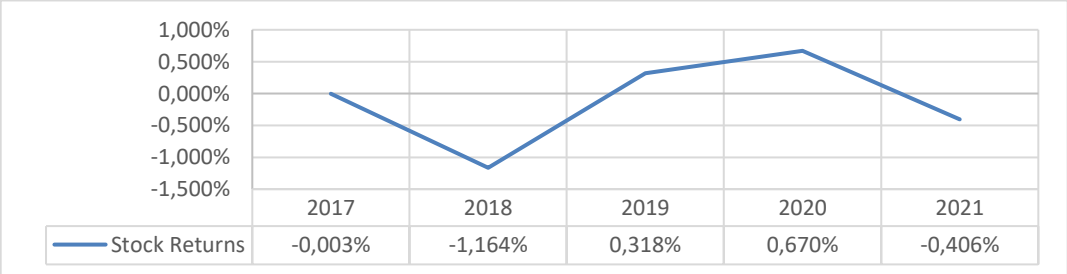
Contribution — *This study's distinctive contribution is its focused analysis of the Property and Real Estate Sub-Sector in Indonesia. It stands out by exploring the intricate relationship between macroeconomic factors and financial performance variables concerning the stock returns of companies within this sub-sector. This nuanced approach provides valuable insights into a specific industry within the Indonesian market, shedding light on previously unexplored dynamics and contributing to a deeper understanding of how these factors affect stock returns in this context.*

Keywords: *stock return, macroeconomics, return on equity, property, real estate companies*

INTRODUCTION

Property, real estate, and building construction are sectors that have witnessed a surge in share prices. Nevertheless, concerning returns, the stocks in this sector have displayed erratic fluctuations and demonstrated a negative trend, as illustrated in the following figure:

Figure 1. Trend in stock return of property, real estate, and building construction sector

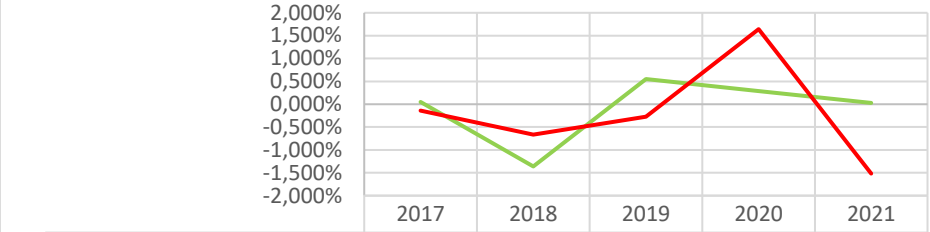


Source: Yahoo Finance (2022)

In 2017, stock returns were nearly zero (-0.003%), signaling stability. In 2018, there was a significant decline (-1.164%), reflecting uncertainty. 2019 marked an upturn with an increase of 0.318%, signaling recovery. In 2020, there was a more significant increase of 0.670%, potentially influenced by various factors. However, in 2021, there was another decline of -0.406%, indicating vulnerability to market fluctuations and risks.

Upon closer examination, the Property, Real Estate, and Building Construction Sector comprises two sub-sectors: the Property and Real Estate Sub-sector and the Building Construction Sub-sector. Among the two sub-sectors, the most significant factor contributing to the downward trend is the stock return of the property and real estate sub-sector. Over five years, from 2017 to 2021, the property and real estate sub-sector stock returns experienced unstable fluctuations, primarily showing a negative trend, as shown in the following figure.

Figure 2. Comparison of stock return of property & real Estate sub-sector and building construction sub-sector

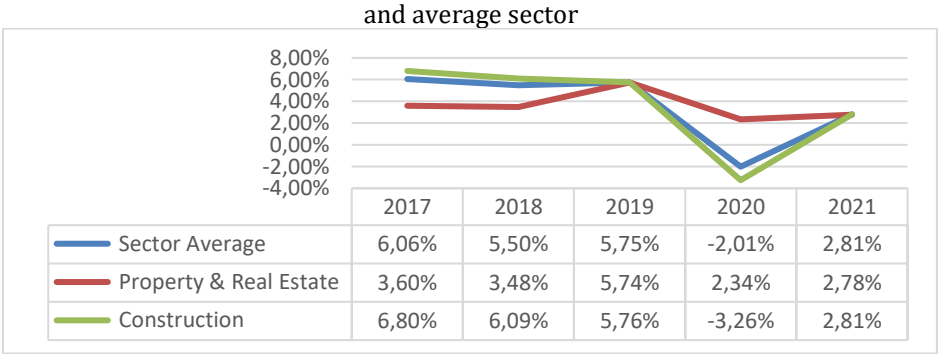


	2017	2018	2019	2020	2021
Stock Return Trends in Property, Real Estate Sub Sectors	0,051%	-1,361%	0,551%	0,288%	0,030%
Stock Return Trends in the Building Construction Sub Sector	-0,142%	-0,664%	-0,274%	1,642%	-1,517%

Source: Yahoo Finance (2022)

In Figure 2, the stock return of the property and real estate sub-sector was stable in 2017 (0.051%) and experienced a significant decline in 2018 (-1.361%). 2019 showed an increase (0.551%), but they declined once more in 2020. Although there was a resurgence in 2021, it still fell short of the peak yield achieved in 2019 (0.030%). Over the course of five years, stock returns have fluctuated, affected by the decline in property purchasing power and lower GDP growth compared to the building construction sector.

Figure 3. GDP growth of property & real estate sub-sector, building construction sub-sector, and average sector



	2017	2018	2019	2020	2021
Sector Average	6,06%	5,50%	5,75%	-2,01%	2,81%
Property & Real Estate	3,60%	3,48%	5,74%	2,34%	2,78%
Construction	6,80%	6,09%	5,76%	-3,26%	2,81%

Source: Yahoo Finance (2022)

Figure 3 illustrates that the property and real estate sub-sector had lower GDP growth than building construction and the industry sector in 2017 and 2018. However, in 2020, it outperformed building construction and the industry sector despite volatile fluctuations. Over five years, the property and real estate sub-sector contributed an average of 3.07% to GDP, considerably less than the industry's 10.38% average.

The property sector, despite receiving incentives like interest rate cuts, reduced mortgage down payments, and tax benefits, experienced weak business performance in 2021. The IDX Sector Property & Real Estate index fell by 15.38% in 2021, presenting opportunities for underperforming property stocks. This decline is attributed to factors like declining purchasing power, rising essential prices, stagnant wages, and a high housing demand, which, according to the Ministry of PUPR, amounts to 13 million housing needs in Indonesia.

While there is growth potential in the property and real estate sub-sector, potential investors should conduct a comprehensive analysis to make informed decisions. This analysis should consider the factors that impact stock returns in this sub-sector.

Based on the Arbitrage Pricing Theory (APT), an alternative theory for pricing assets, the return on investment is influenced by various economic and industry factors (Ross, 1976). Research by Samsul (2015) shows that factors influencing stock returns include both macro and microeconomics. Macroeconomic factors affect company performance directly or indirectly. In contrast, company financial performance is measured by financial ratios, as revealed by Ho et al. (2014), who state that company news and macroeconomics can significantly affect stock return volatility.

The results of research by Laichena & Obwogi (2015) and Mugambi & Okech (2016) found that economic growth, as reflected in the gross domestic product (GDP), has a negative impact on stock returns. In contrast, the findings of research by Purnama & Purbawangsa (2017) indicate that GDP has a positive effect on stock returns.

Wiratno et al. (2018) and Gatuhi et al. (2015) discovered that inflation, as one of the other macroeconomic factors, has a negative effect on stock returns. Meanwhile, Prawira et al. (2016) and Mugambi & Okech (2016) found that inflation has a positive effect on stock returns. In addition to GDP and inflation, research by Wiratno et al. (2018), Ardhi et al. (2017), and Nisha (2015) reported a negative effect of exchange rates on stock returns, while research by Denziana et al. (2015), Prawira et al. (2016), and Riadevi & Darma (2016) demonstrated a positive influence of exchange rates on stock returns. Furthermore, Wiratno et al. (2018) found a negative effect of interest rates on stock returns, while the research of Denziana et al. (2015), Gatuhi et al. (2015), Prawira et al. (2016), and Aditya & Badjra (2018) showed the opposite result.

In addition to macroeconomic factors, a company's financial performance also exerts an influence on stock returns, particularly through measures of profitability and leverage (Erfina & Kurniasih, 2019). One vital indicator for investors and shareholders concerning stock returns is ROE (return on equity), reflecting capital management efficiency. Investors should also monitor leverage ratios like DER (debt to equity ratio) to gauge the solvency of the company.

Several studies have explored the relationship between ROE (return on equity) and stock returns. The findings from research conducted by Denziana et al. (2015) and Ardhi et al. (2017) show that return on equity has a significant positive effect on stock returns. In contrast, research by Mulya & Turisna (2016), Anwaar (2016), and Aditya & Badjra (2018) suggests that ROE has no significant effect. Previous research on the impact of DER (debt to equity ratio) on stock returns has yielded diverse results. Purwitajati & Putra (2016), Aditya & Badjra (2018), and Bustami & Heikal (2019) found evidence indicating a positive effect of DER on stock returns. In contrast, Sayedy & Ghazali (2017) concluded that DER has a significant negative effect on stock returns.

In the context of stock returns in the property and real estate sub-sector, additional research is warranted to examine the influence of macroeconomic factors such as economic growth,

inflation, rupiah exchange rate, and interest rates, as well as company financial performance like ROE and DER, on stocks listed on the Indonesia Stock Exchange (IDX).

The contribution of this research lies in its specific concentration on the Property and Real Estate Sub-Sector in Indonesia. It stands out by examining the interplay between macroeconomic factors and financial performance variables in relation to the stock returns of companies within this sub-sector.

The purpose of this study is to examine the impact of macroeconomic factors, including economic growth, inflation, the rupiah exchange rate, and interest rates, alongside corporate financial performance factors like leverage and profitability, on the stock returns of Indonesian Property and Real Estate Sub-Sector companies.

METHOD

This quantitative study employs a descriptive verification classification, which includes statistical hypothesis testing, emphasizing cause-and-effect relationships. The research focuses on the property & real estate sub-sector, with a population of 36 companies listed on the Indonesia Stock Exchange from 2015 to 2019. The sample selected for the study consists of 28 property & real estate sub-sector companies listed on the Indonesia Stock Exchange from 2017 to 2021.

The study gathers quantitative data through panel data collection, which combines both time series and cross-sectional data. The data sources include secondary data obtained from finance.yahoo.com, bps.go.id, Bank Indonesia (downloaded from www.bi.go.id), and company reports on the Indonesia Stock Exchange (downloaded from www.idx.co.id).

The data collection process involves library research and documentation, while the data analysis process consists of both descriptive and inferential analyses. Descriptive analysis aims to clarify the research variables, while inferential analysis employs multiple regression methods on panel data models to assess the impact of independent variables on the dependent variable. Classical assumption tests, including Common Effect and Fixed Effect using the Ordinary Least Squared (OLS) approach, and Random Effect with Generalized Least Squares (GLS), are applied based on the selected model. The necessity of classical assumption tests in panel data regression analysis depends on the specific model employed. For instance, Common Effect and Fixed Effect models utilize the OLS approach in their estimation technique.

Hypotheses development

Economic growth and stock return

Economic growth affects stock prices, which, in turn, influence stock returns. A rise in economic growth implies increased sector-specific income, benefiting specific sectors or companies and enhancing their stock performance. Therefore, economic growth (GDP) has a positive influence on stock returns.

Inflation and stock return

Inflation rates can affect stock prices. Excessive inflation poses risks to the overall economy, leading to a reduction in stock prices (Samsul, 2015). Conversely, very low inflation can cause stock prices to move slowly. Therefore, inflation has a negative effect on stock returns.

Rupiah exchange rate and stock return

Changes in the exchange rate lead to changes in a company's revenue and expenses, thereby affecting the company's income. These changes particularly impact companies with debt in

dollars or companies whose operational activities involve the use of the US dollar. The theoretical differences in the direction of the relationship between exchange rates and stock prices can be explained, with one of the explanations being the traditional approach as proposed by Granger et al. (2000). Based on this assumption, the exchange rate has a positive effect on stock returns.

Interest rate and stock return

Interest rate is also a macroeconomic factor that affects stock returns. This is because increases and decreases in interest rate influence investment behavior. When interest rate rises, people tend to save their money rather than investing it. In contrast, when interest rate decreases, investors are more inclined to choose to invest. Based on this premise, interest rate has a negative impact on stock returns.

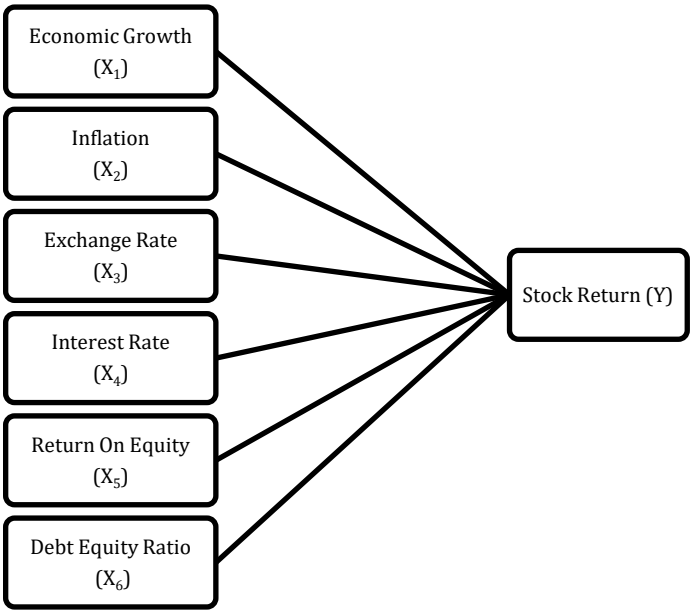
Return on Equity (ROE) and stock return

The relationship with ROE reflects the efficiency of management in converting investor capital into profit. As a result, this ratio can be used to estimate the stock returns that investors can anticipate. Based on this assumption, ROE has a positive influence on stock returns.

Debt to Equity Ratio (DER) and stock return

The Debt to Equity Ratio (DER) indicates the level of a company's debt. A high DER suggests that the total debt composition exceeds the company's equity, leading to a greater burden on the company due to increased debt. In general, investors tend to avoid companies with a high DER. Therefore, the higher the DER value, the lower the interest of investors in investing in the company, resulting in lower stock returns. Based on this premise, DER has a negative impact on stock returns.

Figure 4. Research model



Source: authors' compilation (2022)

RESULT AND DISCUSSION

Descriptive analysis

Descriptive analysis is employed to depict the research data, including the mean, maximum, and minimum values for variables such as GDP, inflation, exchange rates, interest rates, ROE, DER, and stock returns. The results of the descriptive analysis are as follows:

Table 1. Descriptive statistics of research variables

	N	Minimum	Maximum	Mean
Stock Return	140	-0,0100	0,0042	-0,0003
GDP	140	-0,0207	0,0517	0,0338
Inflation	140	0,0168	0,0361	0,0260
Exchange Rate	140	13.548	14.481	14.061
Interest Rate	140	0,0352	0,0563	0,0461
ROE	140	0,0034	0,0683	0,0374
DER	140	0,6713	0,8103	0,7441
Valid N (listwise)	140			

Source: Processed data (2022)

Table 1 summarizes property and real estate sub-sector performance for stock returns, revealing an average return of -0.09%. In 2018, it hit its lowest at -1.36%, while the highest occurred in 2021 at 0.55%. Notably, PT Lippo Cikarang Tbk (LPCK) achieved the peak return of 7.29% in 2020. However, the annual average remains at -2.06%, primarily due to initial negative returns followed by a resurgence in 2020, despite a 2021 decline. LPCK displayed fluctuating returns from 2017 to 2021. Conversely, PT Bakrieland Development Tbk (ELTY) recorded the lowest total return at -7.5% with an annual average of -1.33% during 2017-2021, consistently facing negative returns, indicating substantial stock value loss compared to peers.

Indonesia's GDP averaged 3.38% over five years, peaking at 5.17% in 2018, though falling short of the 5.4% target due to commodity price decline and global economic challenges. The pandemic caused a significant 2020 decline (-2.07%), followed by a 2021 recovery to 3.69%, driven by eased restrictions, particularly benefiting manufacturing, transportation, and mining sectors.

Inflation averaged 2.60% from 2017 to 2021, peaking at 3.61% in 2017 and decreasing to 1.68% in 2020 due to the COVID-19 pandemic. In 2021, it remained stable at 1.87%, partly attributed to effective government coordination. The average exchange rate over this period stood at IDR 14,060 per USD, hitting its lowest level at IDR 13,548 in 2017 and peaking at IDR 14,481 in 2018 due to global market uncertainty and a strengthening USD. In 2019, the rate fell to IDR 13,901, marking the most significant five-year decrease, before recovering to IDR 14,105 in 2020 and IDR 14,269 in 2021.

Regarding interest rates, the average BI Rate from 2017 to 2021 was 4.61%, reaching its highest at 5.63% in 2019 to preserve external stability and stimulate growth. In response to low inflation forecasts and efforts for economic recovery during the pandemic in 2020, the BI Rate reduced to 4.25%. Further support for economic recovery and exchange rate stability led to another reduction in 2021, bringing the rate down to 3.52.

Lastly, the property and real estate sub-sector's average ROE stands at 3.74%. PT Puradelta Lestari Tbk (DMAS) achieved the highest ROE of 24.38% in 2020, while PT Duta Anggada Realty Tbk (DART) suffered a loss in 2021 with an ROE of -16.43%, attributed to COVID-19 impacts. The average annual DER in the sector was 0.7441, with DMAS recording the lowest in 2018 at 0.0433, indicating a strong debt-paying ability. Conversely, PT PP Properti Tbk (PPRO) had the highest DER of 2.3971 in 2021, signifying considerably higher debt compared to equity.

Inferential statistics

The inferential statistical method used in this research is the associative method (relationship and influence) employing the panel data model regression analysis technique. The regression approach requires adherence to classical assumptions to ensure the resulting equation serves as the best linear unbiased estimator. These classic assumption tests include normality, autocorrelation, and multicollinearity tests (Hendryadi & Suryani, 2015).

In this study, the data normality test used the Jarque-Bera test, yielding a value of 0.2025216 and a probability of 0.903700, which is greater than α = 0.05. With a probability that exceeds the significance level of 0.05, the data in this study can be concluded to be normally distributed.

The multicollinearity test is utilized to detect the relationship between independent variables in the regression model. The Correlation Matrix results obtained in this study indicate that none of the correlation coefficient values exceed 0.9, signifying the absence of multicollinearity issues in the regression model used for this study.

The autocorrelation test results reveal that the Durbin-Watson value is 2.19323, falling within the range of 4-du and 4-dl, i.e., 1.6356 < 1.814 < 2.186 (4-1.814) < 2.3644 (4-1.6356). This indicates that the test results do not provide a definitive conclusion. There are indications of an autocorrelation problem in the regression model of this study. However, based on Durbin-Watson's (1951) conservative rule, values close to 2 may not necessarily indicate autocorrelation problems, depending on the sample and analysis model used.

In panel data regression models, tests are conducted to select the appropriate regression model. This involves three alternative methods: common effect models (CEM), fixed effect models (FEM), and random effect models (REM). The best model is selected through three tests: the Chow Test, the Hausman Test, and the Lagrange Multiplier Test. Following the outcomes of the Chow test, which favor the selection of the Common Effect Model, the Lagrange Multiplier test is subsequently conducted, solidifying the Common Effect method as the precise estimation for the panel data regression model.

Table 2. Common Effect Model (CEM) assumption test results

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	3464,735	1.190,335	2,910722	0,00430
GDP (X1)	0,083011	0,130249	0,637326	3,64653
INFLATION (X2)	-1,261925	0,588437	-2,144537	0,23542
EXCHANGE RATE (X3)	-231,2306	80,84108	-2,860311	0,00490
INTEREST RATE (X4)	0,228815	0,374140	0,611574	3,76319
ROE (X5)	0,028664	0,034785	0,824034	2,85764
DER (X6)	-0,004934	0,004094	-1,205051	1,60000
R-squared	0,087517	Mean dependent var		-9,253731
Adjusted R-squared	0,044408	S,D, dependent var		262,57380
S,E, of regression	256,6775	Akaike info criterion		13.98434
Sum squared resid	8367183	Schwarz criterion		14.13572
Log-likelihood	-929.9510	Hannan-Quinn criter.		14.04586
F-statistic	2,030114	Durbin-Watson stat		2.193230
Prob (F-statistic)	0,066291			

Source: Processed data with Eviews 9.0 (2022)

In Table 2, the results of the Common Effect regression analysis for the independent variables, including economic growth (GDP), inflation, rupiah exchange rate, interest rate (Rate), ROE, and DER on the dependent variable, stock returns of the Property and Real Estate sub-sector listed on the Indonesia Stock Exchange in 2017-2021, are presented.

Hypothesis testing

The assessment of the regression model in this study includes three key tests: the F-test (simultaneous significance), the R-test (coefficient of determination test), and the t-test (partial).

The t-test is a partial significance test conducted to determine the individual influence of each independent variable on the dependent variable. It involves comparing the t-count to the t-table and examining the partial p-value for each variable separately.

Based on the test results presented in Table 2, it is evident that the t-count for each variable is greater than the t-table value (with df = 139 and t-table = 1.65589). Furthermore, the probability (p-value) for each variable is greater than 0.05 (α = 5%), except for INFLATION (X2) and EXCHANGE RATE (X3). This indicates that the variables GDP (X1), Interest Rate (X4), ROE (X5), and DER (X6) are not statistically significant in explaining stock returns (Y) for the Property and Real Estate sub-sectors listed on the Indonesia Stock Exchange from 2017 to 2021. On the other hand, the variables INFLATION (X2) and EXCHANGE RATE (X3) are statistically significant in explaining stock returns (Y) for the same sub-sectors during the specified period.

Based on the estimation results obtained using the Common Effect Model (CEM), as shown in the previous Table 2, the panel data regression equation is derived as follows:

STOCK RETURN = 3,464.735 + 0.083011DB - 1.261925 INFLATION - 231.2306 LN EXCHANGE + 0.228815 INTEREST + 0.028664 ROE - 0.004934 DER

Based on the data estimation results from the regression model above, a constant value of 3,464.735 is observed with a probability of 0.0043, which is less than 0.05. Therefore, the constant is considered significant. This indicates that when all the independent variables (GDP, inflation, exchange rate, interest rate, ROE, and DER) are set to 0 (held constant), the stock return (Y) remains at 3,464.735. This implies that investors can expect to experience capital gains.

The regression coefficient for the GDP variable (X1) is 0.083011 with a probability of 0.5251. This coefficient signifies that for every one-unit increase in GDP, the Stock Return (Y) variable is expected to increase by 0.083011, assuming that all other variables remain constant. The positive GDP regression coefficient, with a probability of 0.5251 (greater than 0.05), indicates that GDP has a positive and statistically insignificant effect on stock returns.

The regression coefficient for the inflation variable (X2) is -1.261925 with a probability of 0.0339. This coefficient implies that a one-unit increase in inflation results in a decrease of -1.261925 in the Stock Return variable (Y), assuming all other variables remain constant. The negative inflation regression coefficient, with a probability of 0.0339 (less than 0.05), indicates that inflation has a statistically significant negative impact on stock returns.

The regression coefficient for the Rupiah Exchange Rate (X3) variable is -231.23206 with a probability of 0.0049. This coefficient suggests that if the Exchange Rate increases by one unit, the Stock Return (Y) variable is expected to decrease by -231.2306, assuming all other variables remain constant. The negative Rupiah Exchange Rate regression coefficient, with a probability of 0.0049 (less than 0.05), indicates that the Exchange Rate has a statistically significant negative impact on stock returns.

The regression coefficient for the Interest Rate variable (X4) is 0.228815 with a probability of 0.5419. This coefficient implies that if the Interest Rate increases by one unit, the Stock Return (Y) variable is expected to increase by 0.228815, assuming all other variables remain constant. The positive Interest Rate regression coefficient, with a probability of 0.5419 (greater than 0.05), indicates that the Interest Rate has a positive and statistically insignificant effect on stock returns.

The regression coefficient for the ROE variable (X5) is 0.028664 with a probability of 0.4115. This coefficient suggests that if ROE increases by one unit, the Stock Return (Y) variable is

expected to increase by 0.028664, assuming all other variables remain constant. The positive ROE regression coefficient, with a probability of 0.4115 (greater than 0.05), indicates that ROE has a positive and statistically insignificant effect on stock returns.

The regression coefficient for the DER variable (X6) is -0.004934 with a probability of 0.2304. This coefficient implies that if DER increases by one unit, the Stock Return (Y) variable is expected to decrease by -0.004934, assuming all other variables remain constant. The negative DER regression coefficient, with a probability of 0.2304 (greater than 0.05), indicates that DER has a statistically insignificant effect on stock returns.

Discussion

Economic growth

The GDP variable (X1) exhibited a positive but statistically insignificant effect on stock returns, consistent with the findings of research conducted by Purnama & Purbawangsa (2017). Economic growth, signaling higher national income and heightened sector-specific demand, including property and real estate, has the potential to attract investor interest and subsequently influence stock returns.

Inflation

The results indicated that inflation, as hypothesized in H2, had a significant negative impact on stock returns. This finding aligns with numerous prior studies, including research conducted by Wiratno et al. (2018), Gatuhi et al. (2015), Laichena & Obwogi (2015), Abbas et al. (2014), Alam & Rashid (2015), and Prawira et al. (2016). High inflation can indeed negatively affect firm performance by driving up production costs and reducing demand, ultimately resulting in lower stock returns.

Exchange rate

Contrary to hypothesis H3, the Rupiah exchange rate variable was found to have a significant negative effect on the stock returns of property and real estate companies listed on the Indonesia Stock Exchange during the 2017-2021 period. This finding differs from the results of several previous studies, such as those conducted by Wiratno et al. (2018), Ardhi et al. (2017), and Nisha (2015), all of which suggested that exchange rates have a negative impact on stock returns. However, it aligns with the research by Prawira et al. (2016), Gatuhi et al. (2015), Badullahewage (2018), and Kibria et al. (2014), which indicated a positive effect of the Rupiah exchange rate on stock returns. The distribution pattern of stock return data tends to decrease as the exchange rate increases.

Interest rate

The analysis results indicated that the interest rate had no significant positive effect, contrary to hypothesis H4, which proposed that the interest rate negatively impacts stock returns. This finding is consistent with several prior studies, including research conducted by Aditya & Badjra (2018), Purnama & Purbawangsa (2017), Prawira et al. (2016), Denziana et al. (2015), Nisha (2015), and Gatuhi et al. (2015), all of which found that interest rates have a positive effect on stock returns. However, it differs from the results of studies suggesting that interest rates have a negative impact on stock returns, as shown in research conducted by Wiratno et al. (2018), Ardhi et al. (2017), Mugambi & Okech (2016), Laichena & Obwogi (2015), and Alam & Rashid (2015).

Return on Equity (ROE)

The results indicated a positive but statistically insignificant effect of the Return On Equity (ROE) variable on stock returns, aligning with signaling theory. This suggests that investors take ROE into account when investing in property and real estate sector stocks. This finding is consistent with prior research, as observed in research conducted by Ardhi et al. (2017), Riadevi & Darma (2016), Ghi & Ba (2015), Pik Har & Afif Abdul Ghafar (2015), all of which demonstrated a significant positive effect of ROE on stock returns. However, it deviates from the findings of studies by Mulya & Turisna (2016) and Anwaar (2016), which indicated a negative impact of ROE on stock returns.

Debt to Equity Ratio (DER)

The results revealed that the Debt Equity Ratio (DER) variable had a positive but statistically insignificant effect on stock returns, supporting the Modigliani & Miller (1963) theory. This result contradicts hypothesis H4, which posits that DER negatively affects stock returns. It aligns with the research conducted by Bustami & Heikal (2019) and Purwitajati & Putra (2016), both of which found a positive effect of DER on stock returns. However, it differs from the findings of Sayedy & Ghazali (2017), who reported that DER has a negative effect on stock returns.

CONCLUSION

This study delves into the examination of macro and microeconomic factors' influence on stock returns in the property and real estate sub-sectors of the Indonesia Stock Exchange throughout the period spanning 2017 to 2021. The key findings suggest that GDP has a positive but insignificant effect on stock returns, while inflation and exchange rates exhibit negative and significant impacts. Interest rates, ROE (Return on Equity), and DER (Debt to Equity Ratio) demonstrate positive but insignificant effects on stock returns.

From a practical standpoint, these results underscore the paramount importance of inflation as the most influential macroeconomic factor impacting stock returns in the property and real estate sub-sector. Thus, it is imperative for both companies and investors to closely monitor and factor in the prevailing inflation conditions when making investment decisions. For companies planning to issue shares, expand their operations, or engage in the property and real estate sub-sector, a vigilant eye on macroeconomic conditions, particularly inflation, is essential. Taking proactive measures when inflation rises can help mitigate potential investor losses and safeguard the company's reputation.

For future research, it is recommended to explore additional variables, such as liquidity or company activity, to develop a more comprehensive understanding of the factors shaping stock returns in the property and real estate sub-sector. Furthermore, extending similar studies to other sectors can provide valuable insights into their susceptibility to a range of external and internal factors, thereby enriching our understanding of stock market dynamics in Indonesia.

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