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Determinant Factors in Stock Returns of Food and Beverage Industry Companies in Indonesia

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ABSTRACT

This study aims to analyze the influence of internal and external factors on stock returns in destroying the food and beverage industry listed on the IDX from 2011 to 2021. The sample in this study used a purposive sampling technique or was based on specific criteria with 12 companies. This research data is panel data, namely a combination of times series and cross-section data, which is tested statistically using Stata. Three data analyses are used: model estimation test, model selection, and static panel regression model estimation results with the criterion of a P value < 0.05, so there is a significant influence between the independent and dependent variables. The research results prove that the best model chosen is the CEM model. The research results demonstrated that the variables ROE (P Value: 0.543 > 0.05), DER (P Value: 0.491 > 0.05), interest rates (P Value: 0.373 > 0.05), and inflation (P Value: 0.165 > 0.05) statistically does not affect stock returns. However, the exchange rate variable (P Value: 0.005 < 0.05) significantly impacts stock returns. The research results also prove that ROE, DER, interest rates, exchange rates, and inflation can explain stock returns of 12.30%. In comparison, the remaining 87.70% is influenced by other variables not included in the research.

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Introduction

The capital market is an activity related to public offerings and securities trading, public companies related to the securities they issue, and institutions and professions related to securities. The capital market can help companies carry out public offerings and trade securities on the stock exchange [1]. Through securities issued by companies in the capital market, such as bonds, shares, mutual funds, and the like, it is hoped that they can help companies obtain external capital injections.

Shares are securities that are proof of ownership of a company. It is commonly known that in the capital market, not all company stocks with a good profile will provide good returns to investors. Therefore, an in-depth analysis of the companies' overall health is needed. This study aims to discuss the impact of companies' internal factors on the performance of their stock returns. The companies meant here are those listed in the Jakarta Islamic Index (JII). The tool by which the data is analyzed is panel data, a combination of time series data and cross-section. By employing companies data of the years 2014-2016, the study shows that Return On Assets (ROA), Net Profit Margin (NPM), Debt to Equity Ratio (DER), and Price to Book Value (PBV) simultaneously had a significant effect on the formation of stock returns of companies listed in the JII. Likewise, those four variables, namely; ROA, NPM, DER, and PBV, partially affect the formation of stock returns of companies listed in the JII [2]. It shows that the number of investors who invested in shares in the capital market in January 2022 increased by 5.0%1 or 7.86 million compared to December 2021. Investors expect a profit (return) from the capital invested in the capital market. Return is the profit obtained by investors from investment [3].

According to Ref. [4], investors obtain two types of returns: dividends and capital gains. Dividends are profits obtained by investors by reducing profits held by the company, which are distributed over a certain period, while capital gains are profits obtained by investors from the difference in share prices when the assets are sold [4]. The profits investors receive are bonuses for the sacrifices made by purchasing shares in a certain amount.

According to Ref. [3], investors usually expect profits or expected returns in the future. The expected return is the return expected by investors in the form of earnings from purchasing shares and is still saturated with uncertainty, which causes high risk. The problem that investors often encounter when investing in shares in the capital market is that not all traded shares have an excellent profile capable of providing good returns in the form of stock returns.

Companies may experience fluctuating returns at any time due to various factors in microeconomics and macroeconomics [1]. Return fluctuations can be seen from company trends from year to year. If the trend decreases or has a negative value, it can cause high risks

for investors. Investors, in this case, will bear losses in the form of capital loss. One of the sectors that have a fluctuating stock return trend during the 2011 to 2021 period is twelve companies that are included in the food and beverage sub-sector, including PT Nippon Indosari Corpindo Tbk (ROTI), PT Siantar Top Tbk (STTP), PT Ultra Jaya Milk Industry Tbk (ULTJ), PT Mayora Indah Tbk (MYOR), PT Tiga Pilar Sejahtera Food Tbk (AISA), PT Wilmar Cahaya Indonesia Tbk (CEKA), PT Delta Djakarta Tbk (DLTA), PT Indofood CBP Sukses Makmur Tbk (ICBP), PT Indofood Sukses Makmur Tbk (INDF), PT Multi Bintang Indonesia Tbk (MLBI), PT Prashida Aneka Niaga Tbk (PSDN), and PT Sekar Laut Tbk (SKLT), namely as follows.

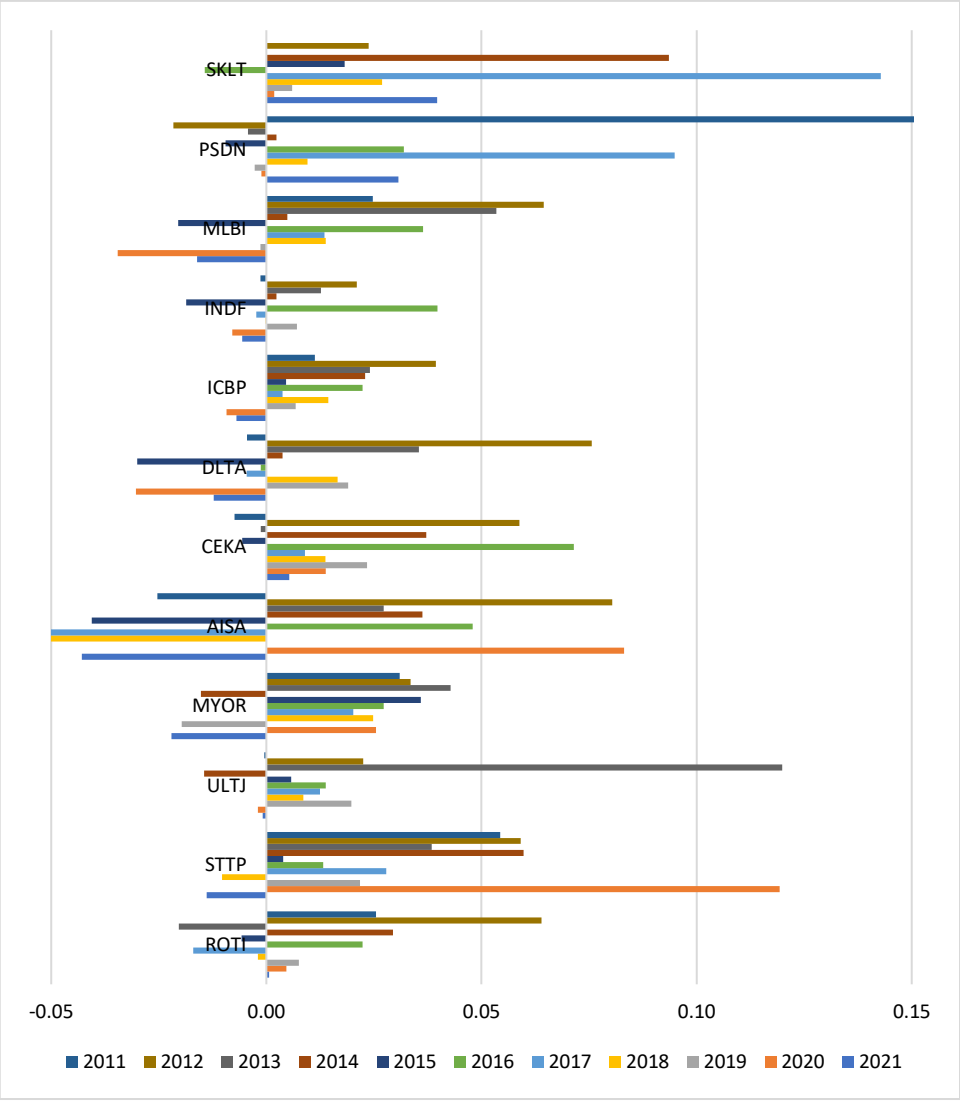


Fig. 1. Stock Returns in Twelve Food and Beverage Companies Listed on the IDX

Fig. 1 provides information that, on average, 12 food and beverage companies have a fluctuating trend from 2011 to 2021. The stock code with the highest return was PSDN in 2011 at 18%, while the stock code with the lowest return was AISA in 2011. 2017 was -9%. Based on the diagram above, shares provide high returns in the form of profits to investors, and

shares in specific periods provide low returns or experience losses. Investors must carefully analyze the company's past financial reports before investing in shares. According to Ref. [4], companies' financial reports are investigated to plan the company's future actions, including formulating strategies and policies. At the same time, for investors, it is used as a reference for predicting company performance. One way to analyze stock performance is with financial ratios. Financial ratios are helpful to assist in evaluating a company's past performance. After explaining previous research and inconsistencies, further research must be carried out. This research is worth carrying out because it was chosen. After all, the food and beverage sector plays a vital role in meeting consumer needs and is needed every day.

ROE is a profitability ratio to measure the amount of net profit compared to the amount of equity owned by the company [4]. The higher the ratio, the more effectively the company processes its equity to generate net profit. Investors increasingly believe that a company can generate high profits from its equity, which is a positive signal, thus attracting investors to invest, which impacts share prices in the market. This condition benefits many investors who own these shares because they get high returns. Previous research proves that ROE positively influences stock returns [5],[6]. However, contrary to the research results by Ref. [7],[8] ROE does not affect stock returns.

The DER ratio can influence returns. DER is a leverage ratio to compare debt with equity [4]. A higher debt ratio can increase the company's risk, especially for interest payments to creditors, which can reduce the profits generated by the company. This condition is a negative signal that can minimize investor confidence so that share offers increase, which results in lower stock returns. Research results by Ref. [9]-[11] show that DER hurts stock returns. In contrast to the research results by Ref. [12], DER does not affect stock returns.

The rise and fall of stock returns can be influenced by financial performance and macroeconomic conditions, such as reference interest rates, exchange rates, and inflation because they can impact the sustainability of the company's business. The reference interest rate is the amount of interest determined monthly by the central bank as a reference for various loan products from banks and other financial institutions. The higher the setting of the reference interest rate, the more it can affect increasing credit and deposit interest rates, which will increase the company's cost of capital so that profits will decrease further. The decline in company profits triggers investors' desire to sell shares and switch to investing in more profitable bonds so that stock returns slip due to high supply. Previous research by Ref. [13] shows that interest rates hurt stock returns. However, the results of research by Ref. [14] that interest rates do not affect stock returns.

The exchange rate is the exchange rate between the two countries. This research focuses on the exchange rate between the Rupiah and the USD. Suppose there is an increase in the exchange rate. In that case, it will impact production costs, which will decrease, especially for companies that import raw materials, so that it can increase company profits and increase investor interest in these shares so that stock returns increase. Research by Ref. [15] shows that the exchange rate affects stock returns. However, the results of research by Ref. [16] show that the exchange rate does not affect stock returns.

Inflation is a continuous increase in product prices, affecting production costs. This condition will cause profits to decrease because production costs increase, triggering high investor offers for company shares. A high supply compared to demand for shares causes a longer rate of return. The results of research by Ref. [13] prove that inflation can hurt stock returns. However, contrary to Ref. [14] research, inflation does not affect stock returns. The objectives to be achieved from this research are to determine the effect of ROE, interest rates, exchange rates, and inflation on stock returns in food and beverage sector companies registered on the IDX.

Material and Methods

A. Research Context

The object of this research was carried out in food and beverage sector companies listed on the IDX in 2011-2021 using a static panel approach via Stata. A population is a group of individuals who have the same characteristics. The research population includes all companies in the food and beverage sector registered on the IDX since the 2011-2021 period. The research population of food and beverage sector companies listed on the IDX was 12 companies.

The author took samples from the population. The sample is part of the population group, the main target in conducting planned research. The author carried out sampling using a purposive sampling method. The purposive sampling method is a method that is based on specific criteria. This research data is quantitative. Quantitative data is a type of data that can be measured or calculated mathematically. The quantitative data in this research is in the form of data regarding ROE, DER, interest rates, exchange rates, inflation, and stock returns. The type of data used in this research is secondary data. Secondary data is data taken through intermediaries or other parties.

The data in the research uses documentation techniques. Documentation techniques are taken through a database. The stock ROE and DER variables are accepted via the IDX website through annual financial reports and deficiencies via Yahoo Finance. The stock return variable is obtained through calculations sourced from Yahoo Finance. Meanwhile, the variables are interest rates, exchange rates, inflation, and stock returns via the Bank Indonesia website.

B. Data analysis method

The data analysis used a static panel which was tested through the Stata program with three equation models: Common-Effect Model (CEM), Random Effect Model (REM), and Fixed Effects Model (FEM). The data in CEM has weaknesses, and the data tested is at least 30 without looking at the nature of the cross-section and time series. Ref. [17] shows that the standard effect model has weaknesses. Not all regression coefficients are statistically significant, but this model has a high R^2. This model has a low value on Durbin-Watson, so the data may have autocorrelation and spatial correlation. A combination of various subjects and times can mask the heterogeneity that can occur with errors.

REM assumes that the intercept value is a random value from a larger population [17]. The Random Effect model is called the Error Components Model (ECM) model because the error term combines two or more components. The assumption usually used by ECM is that the error components are not correlated with each other; there is no autocorrelation with each other, and there is no autocorrelation between the cross-section and the time series.

The Fixed Effect model requires a minimum of 30 data to be tested by giving each unit of cross section a variable (intercept) [17]. This model introduces heterogeneity between subjects by providing an intercept to each object so that the intercept for each subject will be different due to the uniqueness of each subject. This model is called the Fixed Effect model because even though the intercept is different for each subject, the intercept for each subject does not increase over time.

C. Model Selection

This research has three models that must be determined in the panel data regression model: the Fixed Effect, Random Effect, or Common Effect model. According to Ref. [18], there are three testing stages to determine the research model used, namely as follows. Chow's test determines the best estimation between the Common Effect and Fixed Effect models. The Hausman test selects the best estimation model between the Fixed Effect and Random Effect models. The Lagrange-Multiplier test best estimates the Common Effect and Random Effect models. The Lagrange-Multiplier test calculation was carried out using the Breusch-Pagan method.

D. Hypothesis Testing

Hypothesis Testing uses Partial Statistical Test (t-test), Simultaneous Statistical Test (F-test), and R^2-test. The t-test shows how far individual independent variables are influenced in explaining variations in the dependent variable. The basis for decision-making used in the t-test is that if the P value is more than 0.05, the hypothesis is rejected. A rejected hypothesis means that the independent variable has no significant effect on the dependent variable. The

F-test is used to simultaneously test the relationship of independent variables to the dependent variable. The basis for decision-making in the F-test is that if the P value is more than 0.05, the independent variables can influence the dependent variable. The coefficient of determination (R^2) essentially measures how far the model can explain variations in the dependent variable. R^2 functions to determine whether the variations in the independent variables in the estimation equation can explain the variations in the dependent variable well.

Results and Discussion

A. Description of Research Data

This research analyzes the influence of internal and external factors on stock returns in food and beverage sector companies listed on the IDX from 2011 to 2021. The research data is panel data from a combination of times series and cross-section data, where the research period is 11 years with the number of companies A total of 12 companies were included in the research sample criteria, so the observation data amounted to 132 data. The names of the companies included in the research sample are PT Nippon Indosari Corpindo Tbk (ROTI), PT Siantar Top Tbk (STTP), PT Ultra Jaya Milk Industry Tbk (ULTJ), PT Mayora Indah Tbk (MYOR), PT Tiga Pilar Sejahtera Food Tbk (AISA), PT Wilmar Cahaya Indonesia Tbk (CEKA), PT Delta Djakarta Tbk (DLTA), PT Indofood CBP Sukses Makmur Tbk (ICBP), PT Indofood Sukses Makmur Tbk (INDF), PT Multi Bintang Indonesia Tbk (MLBI), PT Prashida Aneka Niaga Tbk (PSDN), and PT Sekar Laut Tbk (SKLT).

To determine the characteristics of the research data, the author carried out a descriptive statistical analysis, which was tested using the Stata program. Table 1 shows the results of descriptive statistics.

Table 1. Description of Research Data (N=132)

Variable	Mean	Std. Dev.	Min	Max
Return n Shares (%)	0.0217	0.0733	- 0.0863	0.7469
ROE (%)	0.2026	0.3485	-1.6663	1.4544
DER (%)	0.9850	1.3403	-2.1273	13.5511
Interest rate (%)	0.0564	0.0148	0.0350	0.0775
Exchange Rate (Rp)	12.831	1.8263	9.0690	14. 929
Inflation (%)	0.0402	0.0219	0.0168	0.0838

Based on Table 1 proves that the average stock return is 2.17% with a standard deviation of 0.0733. The company with the highest stock return was PT Indofood CBP Sukses Makmur Tbk (ICBP) in 2013, amounting to 74.69%, while the company with the lowest stock return was PT Tiga Pilar Sejahtera Food Tbk (AISA) in 2017 amounting to -8.63%.

Internal factors show that ROE averages 20.26% with a standard deviation 0.3485. The company that has the highest ROE is PT Tiga Pilar Sejahtera Food Tbk (AISA) in 2020 at

145.44%, while the company that has the lowest ROE is PT Prashida Aneka Niaga Tbk (PSDN) in 2021 at -166.63%. Besides that, DER has an average of 98.50% with a standard deviation of 1.3403. The company that has the highest DER is PT Tiga Pilar Sejahtera Food Tbk (AISA) in 2019 at 1,355.11%, while the company that has the lowest DER is PT Prashida Aneka Niaga Tbk (PSDN) in 2021 -212.73%.

External factors show that the average reference interest rate is 5.64% with a standard deviation of 0.0148. The highest reference interest rate occurred in 2014 and 2015 at 7.75%, while the lowest was in 2021 at 3.50%. The rupiah exchange rate against USD was IDR 12,831/USD, with a standard deviation of 1,826.39. The highest exchange rate occurred in 2018 at IDR 14,929/USD, while the lowest exchange rate was in 2011 at IDR 9,069/USD. The reference interest rate averages 5.64% with a standard deviation of 0.0148. The highest reference interest rate occurred in 2014 and 2015 at 7.75%, while the lowest was in 2021 at 3.50%. Meanwhile, inflation averages 4.02% with a standard deviation of 0.0219. The highest inflation occurred in 2013 at 8,385, while the lowest was in 2020 at 1.68%.

B. Model Estimation Test

This research uses static panel data, which the Stata program tests. The estimated regression models in this research are CEM, FEM, and REM models. This test was carried out to determine the relationship between the research variables of each model and the criteria for a P-value of more than 0.05. The estimation results of the regression model are as follows.

Table 2. Model Estimation Results

Variable	CEM		FEM		BRAKE	
	Coef.	P>|z|	Coef.	P>|z|	Coef.	P>|z|
ROE (%)	0.1012	0.543	0.6478	0.050	0.2378	0.270
DER (%)	0.1431	0.491	-0.1722	0.613	0.0663	0.792
Interest rate (%)	-0.1263	0.373	-0.0557	0.391	-0.1376	0.307
Exchange Rate (Rp)	2.3139	0.005	-2.4068	0.003	2.3765	0.002
Inflation (%)	0.1245	0.165	0.1726	0.053	0.1440	0.091
Const	18.4134	0.018	19.8571	0.009	19,211	0.008

The results of the model estimation test in Table 2 show that in the CEM, the variables are ROE (P-Value= 0.543 > 0.05), DER (P-Value= 0.491 > 0.05), interest rate (P-Value =0.373 > 0.05), and inflation (P-Value= 0.165 > 0.05) which means that statistically ROE, DER, interest rates, and inflation do not affect stock returns. Meanwhile, regarding the exchange rate variable (P-Value= 0.005 < 0.05), it can be concluded that inflation significantly affects stock returns.

The results of the model estimation test in Table 2 show that in the FEM, the variables DER (P-Value=0.613> 0.05), interest rates (P-Value=0.391> 0.05), and inflation (P- Value= 0.053 > 0.05) are significant. Statistically, DER, interest rates, and inflation do not affect stock returns.

Meanwhile, for the variables ROE (P-Value=0.050) and exchange rate (P-Value= 0.003 < 0.05), it can be concluded that ROE and the exchange rate have a significant effect on stock returns.

The results of the model estimation test in Table 2 show that in the REM, the variables are ROE (P-Value= 0.270 > 0.05), DER (P-Value= 0.792 > 0.05), interest rate (P-Value=0.307 > 0.05), and inflation (P-Value= 0.091 > 0.05) which means that statistically ROE, DER, interest rates and inflation do not affect stock returns. Meanwhile, regarding the exchange rate (P-Value= 0.002 < 0.05), it can be concluded that the exchange rate significantly affects stock returns.

C. Model Selection

The model selection test is a type of test to determine the best model selected from the three static panel models, namely CEM, FEM, and REM. There are three stages of testing, namely: the Chow test to determine the best model between CEM and FEM, the Hausman test to select the best model between FEM and REM, and Lagrange-Multiplier (LM) to choose the best model between REM and CEM.

The first stage is to carry out the Chow test to select the best model between CEM and FEM. The criteria used are if the statistical probability chi-square value is ≤ 0.05, then FEM is set, so the next test needs to be carried out, namely the Hausman test. However, if the Probability chi-square statistic is ≥ 0.05, then CEM is selected, and no further tests need to be carried out.

Based on the test, it can be explained that the Chow test has a probability chi-square value of 0.0564 or greater than 0.05. This means that the research model chosen is the CEM, so there is no need to carry out the Hausman test. According to [17], the CEM is an estimation model using the Generalized Least Square (GLS) method, which meets classical assumptions, so there is no need to test classical assumptions.

D. Static Panel Regression Model Estimation Results

This research analyzes the influence of ROE, DER, interest rates, exchange rates, and inflation on stock returns in beverage companies from 2011 to 2021. This research uses the STATA program with a static panel approach with the best model chosen, namely the CEM model. The criteria used are a P value of more than 0.05, so there is a significant influence between the independent and dependent variables so that the research hypothesis can be accepted. The research results can be seen in Table 3.

The research results in Table 3 show that the ROE variable has a coefficient value of 0.1012 with a P-value of 0.543 > 0.05. These results indicate that ROE statistically does not affect stock returns. This study's results are inconsistent with the research hypothesis, so H1 is rejected. The research results in Table 3 show that DER has a coefficient of 0.1431 with a P-Value=0.491 > 0.05. This means that it can be concluded that DER does not affect stock returns, so H2 is rejected. The interest rate has a coefficient of -0.1263 with a P-value=0.373> 0.05. This research proves that interest rates statistically do not affect stock returns.

Table 3. Static Panel Regression Model Estimates

Variable	Expected Direction	CEM		Conclusion
		Coef.	P>|z|	
ROE (%)	+	0.1012	0.543	Rejected
DER (%)	-	0.1431	0.491	Rejected
Interest rate (%)	-	-0.1263	0.373	Rejected
Exchange Rate (Rp)	+	2.3139	0.005	Accepted
Inflation (%)	-	0.1245	0.165	Rejected
Const		18.4134	0.018	
F sig	3.24			
Prob > F	0.0105			
R-squared	0.1778			
Adj R-squared	0.1230			

This research's results are inconsistent with the hypothesis, so H3 is accepted. The Rupiah exchange rate against the USD has a coefficient value of 2.3139 with a P-Value=0.005< 0.05. The research results prove that the exchange rate statistically positively affects company value. The results of this study are consistent with the research hypothesis, so H4 is accepted. Inflation has a coefficient value of 0.1245 with a P-value= 0.165 > 0.05, meaning that inflation does not affect stock returns statistically. These results do not fit the proposed hypothesis, so H5 is rejected. Simultaneously, it has a P value of 0.0105 < 0.05. This means that ROE, DER, interest rates, exchange rates, and inflation simultaneously influence stock returns. The research results show that ROE, DER, interest rates, exchange rates, and inflation have an Adj R-squared of 0.1230, which means that ROE, DER, interest rates, exchange rates, and inflation can explain stock returns of 12.30%. The remaining 87.70% is influenced by other variables not included in the research. The regression equation model for this research is as Eq. 1.

$$RS = 18.4134 + 0.1012*ROE + 0.1431*DER - 0.1263*BIRate + 2.3139*Exchange + 0.1245*Inflation \quad (1)$$

Where:

18.4134 : Constant value
0.1012 : ROE variable coefficient
0.1431 : DER variable coefficient
-0.1263 : Interest rate variable coefficient
2.3139 : Coefficient of the exchange rate variable
0.1245 : Coefficient of inflation variable.

The constant value is 18.4134, meaning that if the values of the independent variables ROE, DER, interest rate, exchange rate, and inflation are absent or equal to 0, the stock return will be 18.4134. The coefficient value of the ROE variable is 0.1012, which means that every 1% increase in ROE cannot affect stock returns, assuming other variables are constant. The coefficient value of the DER variable is 0.1431, which means that for every 1% increase in DER, it cannot affect stock returns, assuming other variables are constant. The coefficient value of the interest rate variable is -0.1263, which means that every 1% increase in interest rates

cannot affect stock returns, assuming other variables are constant. The coefficient value of the exchange rate variable is 2.3139, which means that every 1% increase in the exchange rate value will increase stock returns by 2.3139, assuming other variables are constant. The coefficient value of the inflation variable is 0.1245, which means that every 1% increase in inflation cannot affect stock returns, assuming other variables are constant.

Discussion

A. The Influence of ROE on Stock Returns

ROE is a profitability ratio used to measure the effectiveness of equity management in generating profits. The research results prove that ROE has a coefficient value of 0.1012 with a P-value of 0.543 > 0.05. This research demonstrates that ROE statistically does not affect stock returns, so H1 is rejected. This follows previous research by Ref. [7], which proves that ROE does not significantly affect stock returns. Ref. [8] provides the same evidence that ROE has no statistical effect on stock returns. However, this contradicts Ref. [19], which proved that ROE significantly affects stock returns.

This research indicates that investors do not consider ROE in predicting stock returns. According to [7], high or low ROE cannot influence investors' investments, especially in measuring return shares. This shows that food and beverage sector companies' management of all equity for positive profits does not affect the growth of stock returns. This means that this ratio cannot signal investors to invest. This matter occurs because ROE only describes the size of the return on the investment made by the holder of ordinary shares but does not reflect the prospective company, so the market doesn't respond to it. The size of ROE is a consideration for investment investors will do.

B. The Effect of DER on Stock Returns

DER is a leverage ratio to compare the liabilities and equity owned by the company. The research results prove that DER has a coefficient of 0.1431 with a P-value of 0.491 > 0.05. This research demonstrates that DER does not affect stock returns, so H2 is rejected. This aligns with research by Ref. [22],[21], which proves that DER statistically does not affect stock returns. Different from research by Ref. [10],[11] that DER involves stock returns.

The debt-to-capital ratio in food and beverage sector companies is not a benchmark for investors when investing capital, so investors' response to changes in DER is not strong. Signal theory shows that the DER ratio cannot signal investors to invest. It can also be concluded that the rise and fall of company debt as a sign of dependence on creditors is not a benchmark for investment decision-making.

C. The Effect of Interest Rates on Stock Returns

This research involves the interest rate variable, measured through the BI 7-Day Reverse Repo Rate (BI7DRR). The research results prove that the interest rate has a coefficient of -

0.1263 with a P-value of 0.373 > 0.05. This research demonstrates that interest rates do not affect stock returns. The results of this research do not follow the research hypothesis, so H3 is rejected. Following research by Ref. [14], interest rates are proven not to affect stock returns. Contrary to Ref. [20], interest rates influence stock returns.

The rise and fall of interest rates do not influence investors to invest their capital in the capital market. An increase in interest rates can encourage food and beverage sector companies to choose cheaper and more efficient financing alternatives so that it will not affect the company's profitability on the stock returns that investors will receive. High interest rates do not influence investors in determining food and beverage company investments. This means that signal theory shows that the size of interest rates cannot signal investors to invest.

D. The Effect of Exchange Rates on Stock Returns

The exchange rate is measured through the exchange of Rupiah against USD. Companies use this currency exchange to carry out import and export activities of goods. The research results prove that the exchange rate has a coefficient value 2.3139 with a P-value = 0.005 < 0.05. The results of this research demonstrate that, statistically, the exchange rate positively affects stock returns. These results are consistent with the research hypothesis, so H4 is accepted. In line with the research results by Ref. [15], the exchange rate can significantly affect stock returns.

The exchange rate is used more to predict stock returns than ROE, DER, interest rates, and inflation, with a confidence level of 1%. Every 1% increase in the exchange rate can increase stock returns by 2.3139. Food and beverage companies benefit greatly when the rupiah exchange rate against the USD strengthens because they can buy raw materials at low costs. This is a positive signal for potential investors to invest in shares when the exchange rate is supported because it can directly reduce operational costs, which will impact increasing company profits.

E. The Effect of Inflation on Stock Returns

Inflation can be interpreted as a general and continuous increase in the prices of goods and services over a certain period. The research results prove that inflation has a coefficient value of 0.1245 with a P-value=0.165. This means that inflation statistically does not affect stock returns, so H5 is rejected. Ref supports the results of this study. [14] that inflation does not affect stock returns. However, this contradicts Ref. [15], which proves that inflation significantly affects stock returns.

Inflation occurs due to an overall price increase and a decrease in low consumer purchasing power for products. Inflation experiencing a decline is a signal for investors to gain profits from investment activities. High and low inflation does not affect the rise and fall of

stock returns in food and beverage sector companies. According to Ref. [14], inflation only consistently affects continuous price increases and does not affect stock returns. Inflation that occurred from 2011 to 2021 can still encourage investors' interest in investing in food and beverage sector companies.

Conclusions

This study investigates the influence of internal and external factors on stock returns within the food and beverage sector from 2011 to 2022. Internal characteristics, such as profitability and liquidity ratios, and external factors, including interest rates, exchange rates, and inflation, are considered. The analysis employs the Stata program. Key findings indicate that the Return on Equity (ROE) variable does not significantly impact stock returns, and the Debt-to-Equity Ratio (DER) similarly lacks a substantial influence. Furthermore, interest rates do not demonstrate a statistically significant effect on stock returns. Conversely, the exchange rate between the rupiah and USD is identified as having a substantial and positive impact on company value. Finally, inflation does not exhibit a significant effect on stock returns.

Conflict of Interest

The authors declare that there is no conflict of interest.

References

[1] Aldiena, E., & Hanif al Hakim, M. (2019). The Impact of Companies' Internal Factors On The Performance of Their Stock Returns. Journal of Islamic Economic Laws, 2(1), 120–149. https://doi.org/10.23917/jisel.v2i1.7708
[2] Dirgantara, H. (2022). The number of investors in the Indonesian capital market Reached 7.86 million as of January 2022. Web: https://investasi.kontan.co.id/news/nomor-investor-di-pasar-modal-indonesia-sentuh-786-juta-per-January-2022. Accessed April 23, 2022.
[3] Hartono, J. (2019). Portfolio and Investment Theory. Eleventh Edition. BPFE, Yogyakarta.
[4] Brigham, EF, Houston, JF, Hsu, JM, Kong, YK, & Bany-Ariffin, AN (2018). Essentials of Financial Management. 4th Ed. Singapore: Cengage Learning Asia Pte Ltd.
[5] Wahyuningsih, T., & Susetyo, A. (2020). The Influence of ROE, TVA, and DER on Stock Returns in Banking Sub-Sector Companies with PBV as an Intervening Variable. Scientific Journal of Management, Business and Accounting Students (JIMMBA), 2(2), 228–239. https://doi.org/10.32639/jimmba.v2i2.465
[6] Oktiar, T. (2016). The Influence of Debt to Equity Ratio, Return on Equity, Interest Rates, and Inflation on Share Returns of Property and Real Estate Subsector Companies Listed on the Indonesian Stock Exchange for the 2007-2012 Period. Journal of Accounting, 2(2), 80-93. https://doi.org/10.24964/ja.v2i2.37
[7] Aisah, AN, & Mandala, K. (2016). The Influence of Return on Equity, Earning Per Share, Firm Size and Operating Cash Flow on Stock Returns. Udayana University Management E-Journal, 5(11), 6907-6936.
[8] Febrioni, R. (2016). The Influence of Return On Assets, Return On Equity, Earning Per Share, And Current Ratio On Stock Returns (In Companies Listed On The Lq45 Index On The Indonesian Stock Exchange). E-Proceedings of Management, 3(3), 3439–3449.
[9] Prabawa, DW, & Lukiastuti, F. (2017). Analysis of the Effect of Financial Performance, Risk Management and Working Capital Management on Stock Returns. Indonesian Management Journal, 15(1), 1-16. https://doi.org/10.25124/jmi.v15i1.388
[10] Ozlen, S. (2014). The Effect of Company Fundamentals on Stock Values. International Multidisciplinary Journal, 71, 595–602.

[11] Kajananthan, R., & Nimalthasan, P. (2013). Capital structure and its impact on firm performance: A study on Sri Lankan listed manufacturing companies. Merit Research Journal, 1(2), 37–44.
[12] Puspitadewi, CII, & Rahyuda, H. (2016). The influence of der, roa, per, and eva on stock returns in food and beverage companies in Bei. E-Journal of Management, 5(3), 1429–1456. https://ocs.unud.ac.id/index.php/Manajemen/article/view/16228
[13] Kurniasari, W., Wiranto, A., & Yusuf, M. (2018). The Effect of Inflation and Interest Rates on Stock Returns with Profitability as an Intervening Variable in Banks Listed on the Indonesian Stock Exchange in 2013-2015. Journal Of Accounting Science, 2(1), 67-90. https://doi.org/10.21070/jas.v2i1.1216
[14] Andes, SL, Puspitaningtyas, Z., & Prakoso, A. (2017). The Effect of Inflation, Rupiah Exchange Rates and Interest Rates on Manufacturing Company Stock Returns. Journal of Financial and Business Accounting, 10(2), 8-16.
[15] Suyati, S. (2015). The Effect of Inflation, Interest Rates, and the Rupiah/US Dollar Exchange Rate on Returns on Property Shares Listed on the Indonesian Stock Exchange. Acitya Fiber, 4(3), 70-86.
[16] Hidayat, LR, Setyadi, D., & Azis, M. (2017). The influence of inflation and interest rates and the rupiah exchange rate and money supply on stock returns. Economic Forum, 19(2), 148-154.
[17] Gujarati, D. N., & Porter, D. C. (2009). Basic Econometrics. 5th Edition. New York: McGraw–Hill.
[18] Sholihin, M., & Anggraini, PG (2021). Research Data Analysis Using STATA Software. Andi: Yogyakarta.
[19] Devi, NNSJP, & Artini, LGS (2019). The Influence of Roe, Der, Per, and Exchange Rates on Stock Returns. Udayana University Management E-Journal, 8(7), 4183-4212. https://doi.org/10.24843/ejmunud.2019.v08.i07.p07
[20] Aditya, IGNW, & Badjra, IB (2018). The Role of Profitability in Mediating the Effect of Interest Rates and Leverage on Stock Returns. Unud Management E-Journal, 7(4), 1831-1861.

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