

**THE INFLUENCE OF INFLATION, RETURN ON ASSETS (ROA),
AND DEBT TO EQUITY RATIO (DER) ON STOCK PRICES OF
FOOD AND BEVERAGE COMPANIES LISTED
ON THE INDONESIA STOCK EXCHANGE
FROM 2019 TO 2023**

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ABSTRAK

This study aims to analyze and test the influence of Inflation, Return On Assets (ROA), and Debt to Equity Ratio (DER) on the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023. The independent variables in this research are Inflation, Return On Assets, and Debt to Equity Ratio. The dependent variable is the Stock Price. The population consists of 95 Food and Beverage companies listed on the Indonesia Stock Exchange during 2019 - 2023, and the sample includes 21 companies. Data testing and analysis were conducted using E Views 12 software with panel data. Using multiple linear regression analysis, the partial test results indicate that Inflation, ROA, and DER simultaneously do not affect stock prices. The partial test also shows that Inflation, ROA, and DER have no effect on the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023, with a coefficient of determination of 5%.

Keywords: *Inflation, Return on Assets, Debt to Equity Ratio, Stock Price*

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INTRODUCTION

The capital market generally rely on internal funding and external funding, often sourced from stakeholders. According to Paningrum (2022), the capital market serves as a meeting point between capital owners and borrowers, or more precisely, it is where the supply and demand for long-term funds intersect. The Indonesia Stock Exchange (IDX), commonly referred to as BEI, is the official capital market established by the Indonesian government. Stakeholders usually assist companies by providing financial support and play a role in the company's ownership. Siregar (2011) states that shareholders are considered internal stakeholders. According to Tannadi (2020:5), ownership in a company is evidenced by the possession of shares, meaning that anyone holding shares has partial ownership of that company.

The book titled "Investment," written by Bodie, Kane, and Marcus, mentions several macroeconomic factors that can influence stock prices, such as interest rates, inflation, and exchange rates. According to Mayuni & Suarjaya (2018:4065), micro factors are internal factors within a company, including book value per share, earnings per share, profitability ratios, debt payment ratios, market ratios, financial ratios, and more. This research employs macroeconomic factors that impact stock prices, namely inflation, as well as microeconomic factors in the form of financial ratios, specifically Return on Assets (ROA) and Debt to Equity Ratio (DER). Inflation is defined as the general trend of rising prices (Boediono, 2018:155). The ROA ratio is used to determine a company's management's ability to generate profit using total assets (Effendi, 2018). Meanwhile, the Debt to Equity Ratio (DER) is used to measure a company's debt against its equity (Kasmir, 2018:157).

**Table 1.1 Table of Phenomena in Food and Beverage Companies for the Period
2019 – 2023**

PERUSAHA	TAHUN	INFLASI (%)	ROA (%)	DER (%)	ARGA SAHAM (Rp)
CLEO	2019	0.13333333	0.07291667	0.43333333	505
	2020	0.08888889	0.07013889	0.44791667	500
	2021	0.10208333	0.09305556	0.24027778	470
	2022	0.0551	0.07986111	0.29722222	555
	2023	0.12569444	0.09236111	0.54305556	710
FISH	2019	0.13333333	0.026	2.644	3.800
	2020	0.08888889	0.044	2.317	2.620
	2021	0.10208333	0.005	2.475	7.650
	2022	0.0551	0.071	1.756	6.750
	2023	0.12569444	0.050	1.747	5.525
GOOD	2019	0.13333333	0.086	0.57638889	1.510
	2020	0.08888889	0.037	1.270	1.270
	2021	0.10208333	0.072	1.224	525
	2022	0.0551	0.071	1.186	525
	2023	0.12569444	0.080	0.900	430

Based on Table 1.1, several phenomena were found to contradict previous theories and expert opinions. The company with the stock code CLEO in 2022 experienced a simultaneous increase in DER and inflation by 0.082% and 3.64%, respectively, while ROA declined to 0.019%. However, the stock price rose by IDR 85. This phenomenon indicates that despite internal factors such as the debt-to-equity ratio and external factors like inflation, which pose a risk of lowering the stock price, the stock price actually increased.

A similar situation occurred with the company with the stock code FISH in 2021. When DER and inflation increased by 0.158% and 0.19%, respectively, and ROA declined to 0.039%, the stock price nevertheless rose to IDR 5,030. Conversely, in 2020, the company with the stock code FISH experienced a stock price decline of IDR 1,180, even though DER and inflation decreased by 0.169% and 1.04%, respectively. A similar pattern was observed in the company with the stock code GOOD in 2023. When DER and inflation dropped by 0.286% and 2.9%, respectively, the stock price still fell by IDR 95.

These phenomena demonstrate that when internal factors (DER) and external factors (inflation) show low risks of stock price decline, the stock price may still decrease. Based on the presentation in Table 1.1, the rise and fall of stock prices in the Food and Beverage subsector during 2019–2023 are influenced by factors that are not

fully aligned with existing theories. This has led the researcher to explore whether both internal and external factors can influence stock prices in the study titled **“The Influence of Inflation, Return On Assets (ROA), and Debt to Equity Ratio (DER) on Stock Prices of Food and Beverage Companies Listed on the Indonesia Stock Exchange from 2019 to 2023.”**

LITERATURE REVIEW

The Effect of Inflation on Stock Prices

Inflation can have both positive and negative impacts, depending on its level. If inflation is too high, it negatively affects the overall economy, leading to potential bankruptcies for companies. Conversely, when inflation is within a normal range, it can weaken economic growth, resulting in a sluggish stock price movement. However, if inflation becomes excessively high, stock prices in the market may fall significantly (Aji Wicaksono, 2018).

The Effect of ROA on Stock Prices

A higher Return on Assets (ROA) ratio indicates strong company performance in generating profits, attracting more investor interest due to the prospect of higher returns. As a result, stock prices tend to rise as investors flock to buy shares in the company (Purnama, 2019). Similar studies have found that ROA affects stock prices in the Food and Beverage sector listed on the IDX during the 2019-2022 period (Bimo R.L., 2023).

The Effect of DER on Stock Prices

Investor confidence in a company increases when the Debt to Equity Ratio (DER) is low, leading to a rise in investor interest in the capital market. Conversely, a high DER tends to lower stock prices (Dewi, 2022). According to Novitasari (2019), DER has a negative and insignificant effect on stock prices in the Food and Beverage sector from 2014 to 2018. This indicates that when DER increases, stock prices tend to decline, as investors avoid companies with high debt risk.

METHOD

The research methodology employs a quantitative approach, as explained by Machali (2021), where the research process predominantly uses numerical data, from data collection, analysis, to drawing conclusions. The study was conducted using data from the Indonesia Stock Exchange (IDX) and Bank Indonesia's website from September 2023 to May 2024. Secondary data was used, as explained by Sugiyono (2017), and included panel data on ROA, DER, inflation, and stock prices from 2019 to 2023. The operational definition of variables refers to Nurdin & Hartati (2019), where characteristics are observed and measured thoroughly. The study population consisted of 95 food and beverage companies listed on the IDX between 2019 and 2023, and purposive sampling was used, following Sugiyono's (2017) guidelines. Data analysis was conducted using EViews 12, with descriptive statistics, classical assumption tests, the coefficient of determination (R^2), and hypothesis tests. Descriptive statistics were used to describe collected data, as stated by Sugiyono (2017), without drawing general conclusions. Panel regression tests were performed based on Gujarati (2004) and Winarno (2011), using three models: the Common Effect Model, Fixed Effect Model, and Random Effect Model, with additional tests like Chow, Hausman, and Lagrange Multiplier tests for model selection. Multiple linear regression was applied with stock prices as the dependent variable, and DER, inflation, and ROA as independent variables. Classic assumption tests included normality, multicollinearity, heteroskedasticity, and autocorrelation tests, as explained by Ghozali (2016), ensuring the accuracy of the regression model. The determination coefficient test (R^2) was applied to measure how well the independent variables explained the dependent variable, while hypothesis testing, including F and T-tests, was conducted to determine the simultaneous and partial effects of independent variables on stock prices, with significance levels set at 5% (Solling Hamid, n.d.).

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Tabel 3.1 Analisis Statistik Deskriptif

	LOG_HARGA_SAHAM	INFLASI	ROA	DER
Mean	3.246848	287.8000	4937.533	306.8670
Median	3.178977	261.0000	80.00000	223.0000
Maximum	4.190332	551.0000	274086.0	985.0000
Minimum	1.995635	168.0000	1.000000	1.006000
Std. Dev.	0.532914	138.3227	34602.10	313.2151
Skewness	-0.116856	1.185680	7.128087	0.696538
Kurtosis	2.116983	2.844982	52.26477	2.166898
Jarque-Bera	3.650238	24.70727	11507.37	11.52691
Probability	0.161198	0.000004	0.000000	0.003140
Sum	340.9191	30219.00	518441.0	32221.04
Sum Sq. Dev.	29.53568	1989851.	1.25E+11	10202787
Observations	105	105	105	105

Sumber : Data di olah dengan software Eviews 12

In Table 3.1, the following data figures can be observed:

1. The Stock Price variable has a mean value of 3.246848, a minimum value of 1.995635, a maximum value of 4.190332, and a standard deviation of 0.532914 for Food and Beverage companies listed on the Indonesia Stock Exchange during the period 2019–2023.
2. The Inflation variable has a mean value of 287.8000, a minimum value of 168.0000, a maximum value of 551.0000, and a standard deviation of 138.3227 from 2019 to 2023.
3. The ROA variable has a mean value of 4937.533, a minimum value of 1.000000, a maximum value of 274086.0, and a standard deviation of 34602.10 for Food and Beverage companies listed on the Indonesia Stock Exchange during the period 2019–2023.
4. The DER variable has a mean value of 306.8670, a minimum value of 1.006000, a maximum value of 985.0000, and a standard deviation of 313.2151 for Food and Beverage companies listed on the Indonesia Stock Exchange during the period 2019–2023.

Panel Data Model Selection Test

Chow Test

Gambar 3.1 Output Uji Chow

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

E ffects Test	Statistic	d.f.	Prob.
Cross-section F	77.375364	(20,60)	0.0000
Cross-section Chi-square	276.200016	20	0.0000

Sumber : Data di olah dengan software Eviews 12

The first model selection test is conducted through the Chow test. The probability value of the cross-section F in Figure 3.1 is < 0.05 , indicating the selection of the Fixed Effect Model (FEM).

Hausman Test

Gambar 3.2 Output Uji Hausman

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	3	1.0000

Sumber : Data di olah dengan software Eviews 12

The second model selection test is the Hausman test. Based on Figure 3.2, the probability value for cross-section random is $1.0000 > 0.05$, indicating that the Random Effect Model is selected.

Lagrange Multiplier Test (LM-Test)

Gambar 3.3 Output Uji Lagrange Multiplier

Lagrange Multiplier Tests for Random Effects
Null hypothesis: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

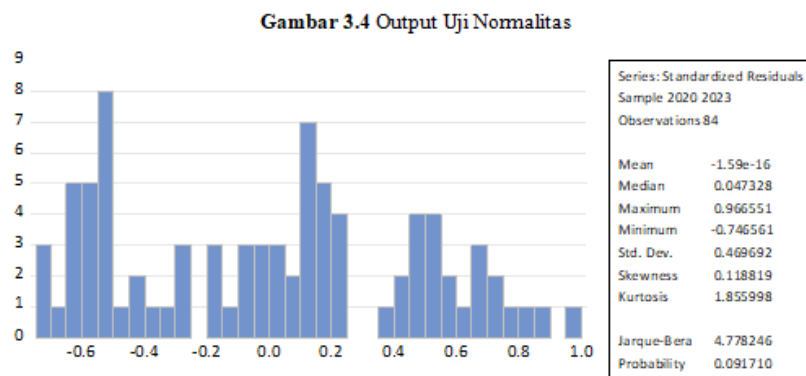
	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	99.64351 (0.0000)	1.971549 (0.1603)	101.6151 (0.0000)
Honda	9.982160 (0.0000)	-1.404119 (0.9199)	6.065591 (0.0000)
King-Wu	9.982160 (0.0000)	-1.404119 (0.9199)	2.295785 (0.0108)
Standardized Honda	10.08024 (0.0000)	-0.981510 (0.8319)	3.569910 (0.0002)
Standardized King-Wu	10.08024 (0.0000)	-0.981510 (0.8319)	0.402458 (0.3437)
Gourieroux, et al.	--	--	99.64351 (0.0000)

Sumber : Data di olah dengan software Eviews 12

Figure 3.3 shows the output of the Lagrange Multiplier (LM) test, where the Breusch-Pagan cross-section value is $0.0000 < 0.05$. This indicates that the chosen model is the Random Effect Model (REM). Based on the three model selection tests, the Random Effect Model is determined to be the best model. Therefore, the best model for conducting the analysis in this research is the REM.

Classical Assumption Test

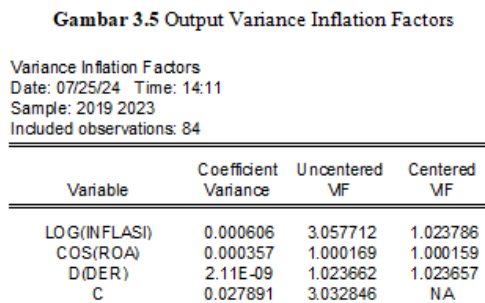
Normality Test



Sumber : Data di olah dengan software Eviews 12

Based on the normality test results presented in Figure 3.4, the Jarque-Bera probability value is 0.091710. Since this value is ≥ 0.05 , it indicates that the data is normally distributed.

Multicollinearity Test



Sumber : Data di olah dengan software Eviews 12

Figure 3.5 shows the output of the Variance Inflation Factors (VIF) test. The

interpretation of the Centered VIF values for each variable is ≤ 10.00 , indicating that each variable in the study is free from multicollinearity issues.

Heterokedastisitas Testing

Gambar 3.6 Output Uji Heteroskedastisitas (Gletsjer-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(INFLASI)	0.002565	0.067826	0.037810	0.9699
COS(ROA)	-0.051793	0.043953	-1.178378	0.2421
D(DER)	0.000120	0.000123	0.975730	0.3321
C	0.421783	0.378160	1.115354	0.2680
R-squared	0.029118	Mean dependent var	0.437416	
Adjusted R-squared	-0.007290	S.D. dependent var	0.284618	
S.E. of regression	0.285654	Akaike info criterion	0.378374	
Sum squared resid	6.527839	Schwarz criterion	0.494128	
Log likelihood	-11.89172	Hannan-Quinn criter.	0.424906	
F-statistic	0.799762	Durbin-Watson stat	0.202706	
Prob(F-statistic)	0.497617			

Sumber : Data di olah dengan software Eviews 12

The heteroskedasticity test, conducted using the Glejser test, is shown in Figure 3.6. The probability values for each independent variable regressed against the absolute residuals as the dependent variable are all ≥ 0.05 , indicating that the issue of heteroskedasticity has been addressed.

Autokorelasi Testing

Gambar 3.7 Uji Autokorelasi

Weighted Statistics			
R-squared	0.085288	Mean dependent var	-0.011286
Adjusted R-squared	0.050987	S.D. dependent var	0.108211
S.E. of regression	0.105417	Sum squared resid	0.889013
F-statistic	2.486416	Durbin-Watson stat	1.027623
Prob(F-statistic)	0.066503		

Sumber : Data di olah dengan software Eviews 12

The autocorrelation test is conducted by examining the Durbin-Watson statistic value, which is then analyzed using the Durbin-Watson table criteria. In Figure 3.7, the

Durbin-Watson statistic is 1.027623. Given a total sample size of 21, the Durbin-Watson table provides a DU value of 1.6694 and a DL value of 1.0262. Since the Durbin-Watson statistic falls between the DU and DL values, it can be concluded that there is ambiguity in the decision regarding autocorrelation, indicating that the data is free from both positive and negative autocorrelation.

Koefisien Determinasi (R²) Testing

Gambar 3.8 Uji Autokorelasi

Weighted Statistics			
R-squared	0.085288	Mean dependent var	-0.011286
Adjusted R-squared	0.050987	S.D. dependent var	0.108211
S.E. of regression	0.105417	Sum squared resid	0.889013
F-statistic	2.486416	Durbin-Watson stat	1.027623
Prob(F-statistic)	0.066503		

Sumber : Data di olah dengan software Eviews 12

In Table 3.8, the Adjusted R-Squared value is 0.050987, which indicates that the variables Inflation, ROA, and DER explain 5.9% of the variation in stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange for the period 2019-2023. The remaining 94.1% is influenced by other variables not included in the study.

Hypothesis Testing

Simultaneous Test (F)

Gambar 3.9 Uji F (Pengujian secara Simultan)

Weighted Statistics			
R-squared	0.085288	Mean dependent var	-0.011286
Adjusted R-squared	0.050987	S.D. dependent var	0.108211
S.E. of regression	0.105417	Sum squared resid	0.889013
F-statistic	2.486416	Durbin-Watson stat	1.027623
Prob(F-statistic)	0.066503		

Sumber : Data di olah dengan software Eviews 12

In the table, it is concluded that the simultaneous test (F-Test) shown in Figure 3.9 has a prob (F-statistic) value of 0.066503, which is ≥ 0.05 . As a result, it can be concluded

that, simultaneously, the variables Inflation, ROA (Return on Assets), and DER do not have a significant effect on the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange for the period 2019-2023.

Parsial (T) Testing

Gambar 3.10 Uji T (Pengujian secara Parsial)

Dependent Variable: SIN(LOG HARGA SAHAM)
 Method: Panel EGLS (Cross-section random effects)
 Date: 07/25/24 Time: 14:11
 Sample (adjusted): 2020 2023
 Periods included: 4
 Cross-sections included: 21
 Total panel (balanced) observations: 84
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(INFLASI)	-0.042948	0.024608	-1.745313	0.0848
COS(ROA)	-0.032235	0.018894	-1.706135	0.0919
D(DER)	7.34E-05	4.59E-05	1.598131	0.1140
C	0.142060	0.167006	0.850624	0.3975

Sumber : Data di olah dengan software Eviews 12

Figure 3.10 shows the partial test output, interpreted as follows:

A. **Inflation** is recorded at -0.042948 with a probability of 0.0848. These figures indicate that inflation has a negative effect on stock prices but is not statistically significant for Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023.

B. **Return on Assets (ROA)** is reported at -0.032235 with a probability of 0.0919. The findings show that ROA has a negative influence on stock prices for Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023, but this effect is not statistically significant.

C. **Debt to Equity Ratio (DER)** is reported at -0.032235 with a probability of 7.34E-05. Based on this data, it is evident that DER has a minor impact on stock prices but is not statistically significant for Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023.

Discussion of Research Results

The Impact of Inflation on Stock Prices

The inflation rate in Indonesia from 2019 to 2023 did not significantly affect the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange during

this period. The effect was found to be negative and statistically insignificant. This suggests that fluctuations in inflation, whether increasing or decreasing, do not correlate strongly with changes in stock prices. Hence, inflation is not a primary external factor influencing stock price fluctuations.

The Impact of ROA on Stock Prices

The size of the Return on Assets (ROA) for Food and Beverage stocks listed on the Indonesia Stock Exchange from 2019 to 2023 did not show a positive and significant relationship with stock prices. This indicates that changes in ROA, whether increasing or decreasing, do not have a notable impact on stock prices. Over the five-year period, ROA was not a strong internal factor affecting stock price fluctuations.

The Impact of DER on Stock Prices

The Debt to Equity Ratio (DER) showed a relevant and meaningful relationship with stock prices for Food and Beverage companies during the 2019-2023 period. This suggests that DER does influence stock prices internally; however, this impact was not evident during the five-year observation period. This could be due to various factors and variables that were not included in the study.

CONCLUSION

1. Inflation has no impact on the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023.
2. Return on Assets (ROA) has no impact on the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023.
3. The Debt to Equity Ratio (DER) has no impact on the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023.
4. Additionally, variables such as Return on Assets and Debt to Equity Ratio have no impact on the stock prices of Food and Beverage companies listed on the Indonesia Stock Exchange from 2019 to 2023.
5. Inflation, Return on Assets, and Debt to Equity Ratio collectively account for 5.9% of the variation in stock prices of Food and Beverage companies listed on

the Indonesia Stock Exchange from 2019 to 2023, while the remaining 94.1% is influenced by other variables outside the scope of this research.

Recommendations

1. Investors should consider other factors beyond the variables studied in this research. Since inflation, Return on Assets, and Debt to Equity Ratio have not shown significant impact on stock prices from 2019 to 2023 for Food and Beverage companies, they should explore a broader range of factors that could potentially influence stock prices.
2. Researchers are encouraged to introduce and explore new variables in future studies, as well as conduct research on topics that have not been previously investigated, to pave the way for new and innovative research areas.
3. Companies should be cautious with ratios previously suspected of causing stock price fluctuations. External factors such as inflation may no longer be essential, and other variables might have a more significant influence on stock prices.

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