

Moderating Effect of Inflation Risk on the Effect of Profitability, Managerial Ownership on Stock Returns and Debt as Moderating Variables

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ABSTRACT

The main goal of investors in investing in the capital market, especially the stock market, of course, investors want a high level of return with minimal risk. Therefore, an investor needs information to analyze the fundamentals of a company using the company's financial data. This study uses inflation risk variables as a moderating effect, profitability and managerial ownership as independent variables, and debt as a mediating variable. The data used is secondary data using 20 manufacturing companies in the consumer good industry sector listed on the Indonesia Stock Exchange in the 2016-2019 period with 80 samples used. In processing the data, the programs used are SPSS version 24 and the Sobel Test Online Calculator.

Based on the coefficient of determination test, the value of R^2 indicates that the dependent variable can be explained by 12.8% by the independent variable. Based on the results of the F test, all dependent variables have an influence on the independent variables. However, the results of the t test show that only profitability and managerial ownership have a positive and significant effect on stock returns, while debt has no significant effect on stock returns. The results of the t-test also show that profitability and managerial ownership have a strengthening effect on stock returns with debt as a mediating variable. Meanwhile, the moderating effect of inflation risk on the effect of profitability and managerial ownership also shows a strong and significant result on stock returns.

Keywords: Stock Return, Profitability, Managerial Ownership, Debt and Inflation Risk.

INTRODUCTION

Fundamental to the investment decision process is understanding the relationship between risk and return. There is a term "high risk high return", meaning that the greater the expected return, the greater the risk that must be considered. The main goal of investors when investing in the capital market, especially the stock market, of course, investors want high returns with minimal risk. Therefore, an investor needs information to analyze the fundamentals of a company using the company's financial data. Stock returns can be assessed as an indicator of the success of a company in the stock market as indicated by the sale and purchase of the shares. Increasing the performance of a company to get maximum sales can affect its share price for the better and increase the interest of potential investors to invest.

This study uses stock data of consumer goods companies. Consumer goods companies generally do not have much control over the economic situation. In other words, economic changes do not affect consumer demand for consumer goods company products. Shares of consumer goods companies will not be affected in the global crisis and will make potential investors more attractive to invest because people have a consumption level that will increase in line with the demands of higher human needs. The following is a sample of data from 4 consumer goods companies in 2016-2019 which shows the phenomena of the relationship between profitability, debt, and managerial ownership with stock returns.

An investment with a high level of risk implies a high return as well. Considering the level of inflation risk is a way that can be done in carrying out management. Inflation risk is a systematic risk or unavoidable risk in investing in the stock market. High inflation raises the price of raw materials, causing high production costs to be borne by the company. Lower purchasing power and higher raw material costs indirectly have an impact on capital market conditions.

This shows that the investment risk is very high because high inflation lowers the rate of return. In other words, inflation risk can harm potential investors in getting the expected profit if investors cannot analyze inflation risk properly. Without profitability, it will be difficult for companies to attract capital from outside. Therefore, in estimating the risk of good inflation will also affect the level of profitability of a company.

LITERATURE REVIEW

Pecking Order Theory

Pecking Order Theory is based on the assumption that company managers have complete knowledge of the company's financial condition and the second assumption is based on the assumption that company managers will act according to the best possible actions for the benefit of their investors. This theory is divided into two forms, including:

1. Strong Form explains that a company will not use equity in its long-term funding structure, the company will use internal funding or debt to finance the company.
2. Weak Form explains that a company may use equity financing (shares) in a long-term funding structure

Agency Theory

The principal needs to know about all company information, including management activities related to the funds invested by the owner in the company, but agents tend to provide information that is not in accordance with reality. Company

information is sourced from financial reports that are manipulated by agents, so that the company's performance will look good. This can trigger agency costs as an effort to minimize agency problems by ensuring that company management is carried out in accordance with applicable regulations. Agency costs are divided into 3, among others:

1. Monitoring cost namely the costs used to monitor the behavior of agents by observing, measuring and controlling, these costs are borne by the principal.
2. Bonding cost is a cost to comply with and implement the agent's performance mechanism for the benefit of the principal, this cost is borne by the agent.
3. Residual loss is the declining welfare experienced by the principal because there is a difference between the decision that will maximize the welfare of the principal and the agent's decision.

RESULTS AND DISCUSSION

Descriptive Statistics Test

Table 1

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Return_Saham	80	-.946	1.000	.03655	.327296
ROA	80	-17.612	22.836	5.91198	7.341543
KM	80	.009	68.275	8.42919	13.749260
DER	80	8.331	333.892	66.09499	52.822072
Inflasi	80	.311	.381	.34125	.027945
Valid N (listwise)	80				

Table 1 shows descriptive statistics consisting of Stock Return, Profitability (ROA), Managerial Ownership (KM), Debt (DER), Inflation Risk with a sample size of 80, and the results that can be concluded as follows:

1. Stock Return has a minimum value of -0.946 and a maximum value of 1.0000. This variable has an average value of 0.03655 and a standard deviation of 0.327296. The average value of stock returns is smaller than the standard deviation value, this shows the uneven distribution of the data and there is a high difference between one data and another.
2. Profitability (ROA) has a minimum value of -17.612 and a maximum value of 22.836. This variable has an average value of 5.91198 and a standard deviation of 7.341543. The average value of profitability is smaller than the standard deviation value, this shows the uneven distribution of the data and there is a high difference between one data and another.
3. Managerial Ownership (KM) has a minimum value of 0.009 and a maximum value of 68.275. This variable has an average value of 8.42919 and a standard deviation of 13.749260. The average value of managerial ownership is smaller than the standard deviation value, this indicates the uneven distribution of the data and there is a high difference between one data and another.
4. Debt (DER) has a minimum value of 8,331 and a maximum value of 333.892. This variable has an average value of 66.09499 and a standard deviation of 52.822072. The average value of debt is greater than the standard deviation value, this indicates that the data distribution has been evenly distributed and there is no high difference between one data and another.

- Inflation Risk has a minimum value of 0.311 and a maximum value of 0.381. This variable has an average value of 0.34125 and a standard deviation of 0.027945. The average value of inflation risk is greater than the standard deviation value, this indicates that the data distribution has been evenly distributed and there is no high difference between one data and another.

Autocorrelation Test

Table 2

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.349 ^a	.122	.087	.312716	1.988

a. Predictors: (Constant), DER, KM, ROA

b. Dependent Variable: Return_Saham

The autocorrelation test aims to determine whether there is a correlation between the confounding variables in a certain period and the confounding variables in the previous period. According to Winarno (2011) if the Durbin-Watson value is between 1.54 and 2.46, then there is no autocorrelation.

So it can be concluded that the results of the autocorrelation test in table 1 show that there is no autocorrelation in the research regression model.

Multicollinearity Test

Table 3

Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
1 ROA	.668	1.497
KM	.978	1.023
DER	.662	1.510

a. Dependent Variable: Return_Saham

The results of the multicollinearity test in table 3 show that all variables have tolerance values above 0.1 and VIF below 10. This proves that there is no multicollinearity between independent variables in the regression model. Then the data can be used in research, because there is no relationship between the independent variables.

Heteroscedasticity Test

Table 4

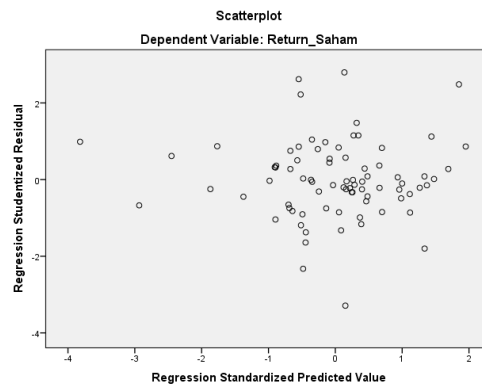


Table 4 shows that there is no clear pattern and the points are scattered above and below the number 0 on the Y axis in the range -2 to +2, so there is no heteroscedasticity. To be more convincing, a statistical test was carried out with the Spearman test by correlating the absolute value of the residual with all independent variables.

Normality Test

Table 5

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		80
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.30558180
Most Extreme Differences	Absolute	.073
	Positive	.073
	Negative	-.070
Test Statistic		.073
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the Kolmogorov-Smirnov One Sample test in table 5, it shows that all variables have a normal distribution because of the Asymp. sig. (2-tailed) is greater than 0.05.

F test

Table 6

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1.031	3	.344	3.513	.019 ^b
	Residual	7.432	76	.098		
	Total	8.463	79			

a. Dependent Variable: Return_Saham

b. Predictors: (Constant), DER, KM, ROA

Based on table 6, it can be concluded that reject H0 because the value of Fcount > Ftable or sig. < 0.05 i.e. 3.513 > 2.490 or 0.019 < 0.05. This means that there is at least one of the variables of profitability, managerial ownership and debt that affect the stock return variable. So it can be concluded that the regression model is feasible to use in research.

t Test

Table 7

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.060	.086		.691	.492		
ROA	.015	.006	.343	2.609	.011	.668	1.497
KM	.005	.003	.217	1.996	.049	.978	1.023
DER	.001	.001	.120	.912	.365	.662	1.510

a. Dependent Variable: Return_Saham

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $2.609 > 1.992$ or $0.011 < 0.05$ for the profitability variable then H_0 is rejected. So it can be interpreted that there is a significant positive effect of profitability on stock returns.

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $1.996 > 1.992$ or $0.049 < 0.05$ for managerial ownership variables, then H_0 is rejected. So that it can be interpreted that there is a significant positive influence of managerial ownership on stock returns.

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $0.912 < 1.992$ or $0.365 > 0.05$ for the debt variable, then H_0 is accepted. So it can be interpreted that there is no significant positive effect of debt on stock returns.

Table 8

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.060	.086		.691	.492		
X1.Z2	.052	.017	.389	3.004	.004	.672	1.488
X2.Z2	.021	.009	.259	2.397	.019	.962	1.039
Z1.Z2	.003	.002	.154	1.200	.234	.688	1.454

a. Dependent Variable: Return_Saham

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $3.004 > 1.992$ or $0.004 < 0.05$ for the profitability variable which is moderated by inflation risk, then H_0 is rejected. So that it can be interpreted that there is a significant positive influence on profitability moderated by inflation risk on stock returns.

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $2.397 > 1.992$ or $0.019 < 0.05$ for the managerial ownership variable which is moderated by inflation risk, then H_0 is rejected. So it can be interpreted that there is a significant positive effect of managerial ownership moderated by inflation risk on stock returns.

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $1.200 < 1.992$ or $0.234 > 0.05$ for the debt variable which is moderated by inflation risk, then H_0 is accepted. So that it can be interpreted that there is no significant positive effect of debt moderated by inflation risk on stock returns.

Table 9

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.060	.086		.691	.492		
ROA	4.124	.668	.573	6.176	.000	.999	1.001
KM	.457	.357	.119	1.280	.204	.999	1.001

a. Dependent Variable: DER

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $6.176 > 2.0154$ or $0.000 < 0.05$ for the profitability variable, then H_0 is rejected. So that it can be interpreted that there is a significant positive effect of profitability on debt.

$t_{count} > t_{table}$ or $sig. < 0.05$ that is $1.280 < 2.0154$ or $0.204 > 0.05$ for managerial ownership variables, then H_0 is accepted. So that it can be interpreted that there is no significant positive effect of managerial ownership on debt.

Effect of Profitability on Stock Return

Profitability (ROA) has a significant value of 0.011 significant value smaller than 0.05, it can be concluded that there is a significant positive effect of profitability on stock returns. This means that profitability has a positive and significant effect on stock returns. This is in accordance with research by Zulyanti and Handayati (2018), Utami and Supriantikasari (2019) and Harini, et al (2018) which prove that the higher the ROA value, the better the company's performance is and vice versa. The increase in ROA means that the company is considered capable of generating high corporate profits and as a result the company's stock price increases. An increase in stock prices also results in an increase in the company's stock returns received by shareholders.

Effect of Managerial Ownership on Stock Return

Managerial Ownership (KM) has a significant value of 0.049 significant value smaller than 0.05, it can be concluded that there is a significant positive effect of managerial ownership on stock returns. This means that managerial ownership has a positive and significant effect on stock returns. This is in accordance with the research of Khoiruddin and Jannah (2017), Novian (2016) and Islamiya (2016) which prove that the greater the proportion of management ownership in a company, the management will strive harder to fulfill the interests of shareholders who are also themselves.

Effect of Debt on Stock Return

Debt (DER) has a significant value of 0.365 significant value greater than 0.05, it can be concluded that there is an insignificant positive effect of debt on stock returns. This means that debt has no significant effect on stock returns. This is in accordance with the research of Daljono and Nugroho (2013) which states that debt does not have a significant effect on stock returns. There are different views of investors on the company's debt, some investors think a large DER will be a burden for the company because of the obligation of the company to pay debts and the risk of bankruptcy that will be borne by investors. However, on the other hand, some investors also argue that debt is needed by the company for the company's operations. Debt is needed by the company to increase the company's capital because having large debt can be used to increase the company's capital so that the company can develop its business and by doing business development investors are more interested in buying the company's shares so that the company's stock price will rise and the stock return will also increase.

Effect of Profitability on Debt

Profitability (ROA) has a significant value of 0.000 significant value smaller than 0.05, it can be concluded that there is a significant positive effect of profitability on debt. This means that profitability has a positive and significant effect on debt. This is in accordance with the research of Azhar, et al (2014) which states that profitability has a positive and significant effect on debt. Companies with high returns on investment use relatively small debt because high returns allow the company to finance most of its internal funding. This is in accordance with the Pecking Order Theory.

Effect of Managerial Ownership on Debt

Managerial Ownership (KM) has a significant value of 0.204 significant value greater than 0.05, it can be concluded that there is an insignificant positive effect of managerial ownership on debt. This means that managerial ownership has no significant effect on debt. This is in accordance with the research of Purwanto, et al (2016) which states that managerial ownership has no significant effect on debt. This is

because the proportion of managerial ownership is still low compared to other groups of shares in a company.

Inflation Risk moderates the Effect of Profitability on Stock Return

Profitability (ROA) moderated by Inflation Risk has a significant value of 0.004. significant value smaller than 0.05, it can be concluded that there is a significant positive effect of inflation risk moderating profitability on stock returns. This means that the effect of significant inflation risk moderating profitability has a positive and significant effect on stock returns

Inflation Risk Moderates the Effect of Managerial Ownership on Stock Return

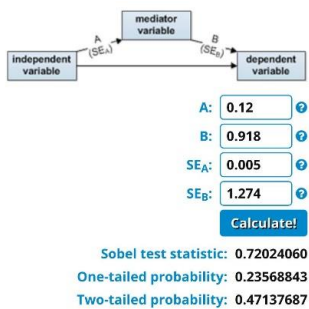
Managerial Ownership (KM) moderated by Inflation Risk has a significant value of 0.019 significant value smaller than 0.05, it can be concluded that there is a positive influence of significant inflation risk moderating the positive effect of managerial ownership on stock returns. This means that the effect of significant inflation risk moderating managerial ownership has a significant effect on stock returns.

Inflation risk moderates the Effect of Debt on Stock Returns

Debt (DER) moderated by Inflation Risk has a significant value of 0.234 significant value of greater than 0.05, it can be concluded that there is no significant effect of inflation risk moderating the effect of debt on stock returns. This means that the effect of moderating inflation risk on debt does not significantly affect stock returns.

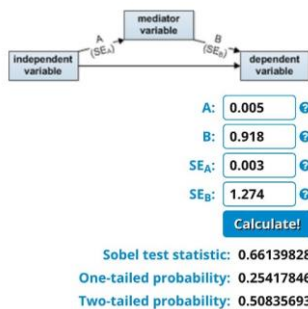
Sobel Test

Table 10



Based on the Sobel Test, the moderate effect of inflation risk on the effect of profitability on stock returns of the Sobel online calculator, the statistical value of the Sobel test was $0.72 < 1.96$ and P-Value $0.47 > 0.05$, so moderating inflation risk on the effect of profitability affects returns. shares positively and significantly.

Table 11



Based on the Sobel Test, the moderating effect of inflation risk on the effect of managerial ownership on stock returns using the online calculator Sobel, obtained the Sobel test statistic value of $0.66 < 1.96$ and P-Value $0.51 > 0.05$, the moderating effect of

inflation risk on the effect of managerial ownership does not significantly affect stock returns

Intervening Variable Effect

Table 12

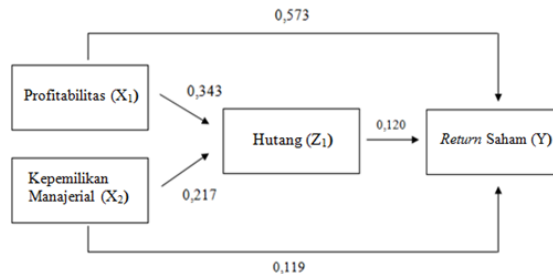


Table 13

Variabel	Tidak Langsung	Langsung	Keterangan
ROA terhadap RS		0,343	kurang menguatkan
KM terhadap RS		0,217	kurang menguatkan
ROA terhadap RS melalui Z	$(0,343 + 0,120) = 0,463$		menguatkan
KM terhadap RS melalui Z_1	$(0,217 + 0,120) = 0,337$		menguatkan

CONCLUSION

Based on the results of the test and analysis, it can be concluded several things as follows:

1. Profitability has a significant positive effect on stock returns in consumer goods industry companies listed on the Indonesia Stock Exchange in 2016-2019,
2. Managerial Ownership has a significant positive effect on stock returns in consumer goods industry companies listed on the Indonesia Stock Exchange in 2016-2019,
3. Debt has an insignificant positive effect on stock returns in consumer goods industry companies listed on the Indonesia Stock Exchange in 2016-2019,
4. Profitability has a significant positive effect on stock returns in consumer good industry sector companies listed on the Indonesia Stock Exchange in 2016-2019,

5. Managerial Ownership doesn't have a positive and significant impact on Stock Returns in consumer good industry sector companies listed on the Indonesia Stock Exchange in 2016-2019,
6. Inflation risk moderates the effect Profitability has a positive and significant impact on stock returns in consumer good industry sector companies listed on the Indonesia Stock Exchange in 2016-2019,
7. Inflation Risk moderates the influence of Managerial Ownership has a positive and significant impact on Stock Returns in consumer good industry sector companies listed on the Indonesia Stock Exchange in 2016-2019,
8. Inflation risk moderates the effect of debt on stock returns and doesn't have a significant effect on stock returns in consumer goods industry companies listed on the Indonesia Stock Exchange in 2016-2019,
9. Profitability has a positive and significant effect on Stock Return mediated by Debt in consumer good industry sector companies listed on the Indonesia Stock Exchange in 2016-2019,
10. Managerial Ownership has a positive and significant influence on Stock Return mediated by Debt in consumer good industry sector companies listed on the Indonesia Stock Exchange in 2016-2019.

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