Stock Return Cases on High Performance Companies in Indonesia: Determinants and its Intervening

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Abstract. The capital market is an important element in the distribution of financial capital, which occurs between providers of capital or investors (creditors) and those who need capital (debtors). For a long time academics and practitioners have been interested in how stock returns that have been listed on the capital market are influenced by various factors, both economic and non-economic. This economic activity is of course also influenced by other macro factors such as government policies, movements from foreign parties, Derivative activities and others and although it is still in the form of information or issues, any information that enters the market will certainly influence investment decisions. If there is any relevant new information entering the market related to an asset, this information will be used to analyze and interpret the value of the related asset. The data analysis method in this study uses quantitative analysis techniques. In this quantitative research, it was carried out by quantifying research data so as to obtain information that could be needed in data analysis, by applying the linear regression method to find out how much the relationship and influence of the independent variables had on the dependent variable through the intervening variable. Inflation, GDP, BI Rate, Derivative Activity and Stock Liquidity each have a significant effect on Stock Return. This indicates that several macroeconomic variables and measures to protect companies from risk through derivative activities and stock liquidity play a very important role in changes in a company's Stock Return, and of course it will be a separate consideration for investors in determining which company to invest in, because it determines returns.

Keywords: Macroeconomics, Derivatives, Stock Liquidity, Stock Return.

1 Introduction

The capital market is an important element in the distribution of financial capital, which occurs between providers of capital or investors (creditors) and those who need capital (debtors). For a long time academics and practitioners have been interested in how stock returns that have been listed on the capital market are influenced by various factors, both economic and non-economic [1].

The value that is formed from how investors consider and calculate an issuer is called Stock Return. This can be measured from various approaches. An approach initiated by [2] assesses that Stock Return can be measured from Dividend Yield. Stock Return is of course formed by various factors as well, one of which is Stock Liquidity. Liquidity has the meaning that it is easy for these shares to rotate or be traded between one investor and another [3]. Stock Liquidity has been quantified a lot in order to know how to measure it. Indicators that

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support this include investors' view of each cash flow from each company, namely the amount of trading volume carried out by investors when conducting transactions on the stock exchange, and the consumer confidence index which can influence the decision to buy and sell shares [4].

Derivatives are contracts between two parties to sell and purchase a number of things (including commodities and securities) at an agreed-upon price on a specified date in the future [5]. Hedging can be accomplished via foreign currency derivative instruments, such as forward contracts, future contracts, currency options, and currency swaps, to mitigate the risk of foreign exchange swings [6] Hedging can also enable companies to forecast future cash disbursements and receipts more accurately, thereby enhancing the quality of cash budgeting decisions [7]

2 Literature Review

2.1 Stock Return

Stock Return is a reflection of the price of ordinary shares; this is because the market price of ordinary shares shows a measure of the level of prosperity of shareholders. The purpose of a company according to the Theory of Firm is to earn profits and maximize Stock Return [7]. The higher the Stock Return, the prosperity for shareholders will also increase so as to convince investors to invest their capital. In this study, Stock Return is the dependent variable as measured using Dividend Yield [2].

2.2 Stock Liquidity

Stock Liquidity is defined as the speed at which an investment vehicle (asset) is liquidated into cash (money) or exchanged for a value. [3] Meanwhile, according to [8] Stock Liquidity is the ease with which a share owned by someone can be converted into cash through the capital market mechanism.

2.3 Macroeconomics

In the book Fundamental Concepts of Economic Development and Growth [9], macroeconomics is defined as the study of a country's economy in its whole. The causal linkages between aggregative variables that are investigated in macroeconomics. An economic crisis can cause high inflation rates and this can cause low or sometimes minus economic growth and cause an increase in the unemployment rate [10].

2.4 Derivative Activities

Derivatives are a form of investment instrument that are clearly listed on the Indonesia Stock Exchange (IDX), apart from mutual fund instruments, stocks and debentures. [11] Basically derivatives are derivative products from all types of investments.

3 Methodology

This study uses quantitative analysis techniques to explain the causal relationship between variables using the linear regression method. The research analyzes the effect of macroeconomics and derivative activities on stock return, with stock liquidity as an

intervening variable. The derivative activity variable is proxied by data for regression using the binomial logistic or logit method. Logistic regression is used to solve classification problems in parametric methods. Data analysis is carried out using the Eviews application version 10, and the research is conducted on LQ45 indexed companies with the most stable financial status for 3 years from 2019-2021.

4 Results and Discussion

This study employs a sample of LQ-45 indexed businesses listed on the Indonesia Stock Exchange (IDX) between 2019 and 2021. Purposive sampling was utilized to choose the samples. In this study, there were several criteria used by the authors in selecting non-random samples. Sampling criteria in this study are Companies listed on the LQ45 index for the period January 2019 – December 2021 and Companies that present a complete annual financial report with notes to the financial statements. Apart from banking companies. Based on predetermined criteria, a sample of 28 companies was obtained.

Table 1. Sampling Criteria

Explanation	Amount
Companies counted in the LQ45 Index	45
Subtracted by companies that don't explain all the variables in the study	(11)
Subtracted by Banking Sectors	(6)
Total	**28**

Source: Results of data processing (2022)

Based on the results of the descriptive statistical test in table 5 the dependent variable in this study is Stock Return as measured by Dividend Yield showing an average value (mean) of 0.725 which indicates that in the period 2019-2021 the average LQ-45 indexed company in Indonesia take action to have good growth prospects for shareholder profits from the company by increasing the value of the Dividend Yield. The lowest (minimum) value of 0.02 indicates that there is action to increase the Dividend Yield value. While the highest value (maximum) of 1.771 indicates an increase in the value of the Dividend Yield so that this can indicate that the company has good growth prospects for shareholder profits. And the other variables are shown below.

Table 2. Descriptive Statistics

Variables	Mean	Maximum	Minimum	Std. Dev.
Stock Return	0,725777	1,771156	0,02	0,484314
Stock Liquidity	0,635757	1,832986	0,01	0,642987
INF	1,3016	2,684829	0,174387	0,602354
GDP	0,582407	1,772418	0,017263	0,21451
BI	23,30995	32,77689	12,63388	5,55785
DERIV	0,687499	5,696575	0,018493	0,715374
Sample (N)	28			

Source: Results of data processing on Eviews (2022)

In this section, a panel regression model will be tested which will be used in research on the effect of inflation, GDP, the BI Rate, and Derivative Activities on Stock Liquidity and their implications for Stock Return. Testing will be carried out through several stages as follows; (1) pooled model test or Chow test, (2) Hausman specification test, (3) interpretation

of the estimation results of multiple linear regression models, (4) coefficient of determination, and finally (5) test of significance of the results. Hypothesis testing is carried out with the following criteria:

Hypothesis : Ho : $\rho = 0$ (No significant effect)
H1 : $\rho \neq 0$ (there is a significant effect) α : 5 %

Table 3. Common or Fixed Effect Test Results

Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.056352	(49,546)	0.0000
Cross-section Chi-square	234.812683	49	**0.0000**

Source: Results of data processing on Eviews (2022)

Table 4. Fixed or Random Effect Test Results

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	3.761689	4	**0.0031**

Source: Results of data processing on Eviews (2022)

The results of the Hausman test with Eviews Software show that the Fixed Effect is the most appropriate choice to perform panel data regression calculations in this study. This can be seen from the Hausman test results which are significant at the 5% level (probability value 0.003 <0.050) in this study, which indicates the rejection of the assumption that Random Effects is a better model than Fixed Effects to be used in this study. In addition, because the Fixed Effect is the right model for this study, the classical assumption test was not carried out because the Fixed model directly states that all data to be tested is free from classical assumptions.

4.1 Multiple Linear Regression and Analysis

This study will employ a multiple regression analysis to examine the impact of Inflation, GDP, BI Rate, and Derivative Activity on Stock Liquidity and its implications on Stock Return.

The regression coefficient value of each independent variable in this study indicates that if the value of the independent variable (X1, X2, X3, X4) increases by one unit and the values of the other independent variables are estimated to remain constant (other things being equal), then the value of the dependent variable (Y) is estimated to increase or decrease based on the sign of the independent variable regression coefficient.

4.2 Simultaneous Testing (F-Test)

The F test is utilized to assess if all independent variables included in the model have a combined effect on the dependent variable.

Table 5. Results of Simultaneous Hypothesis Testing (Test F)

Prob(F-statistic) 1st Model	**0.000000**
Prob(F-statistic) 2nd Model	**0.000000**

Source: Results of data processing on Eviews (2022)

Using the Eviews software to calculate linear regression, it was determined that the independent variable in model 1 had a Prob F-Statistic value of 0.0000. (as shown in the table). A number less than 0.05 (0.0000 0.05) suggests that H0 can be rejected and H1 can be accepted, indicating that there is an influence between all independent variables on Stock Liquidity or at least one variable.

In model 2, the independent variable was found to have a Prob F-Statistic value of 0.0000. (as shown in the table). A p-value less than 0.05 suggests that H0 may be rejected and H1 can be accepted, which states that there is an influence between all independent factors on Stock Return or at least one variable.

4.3 Partial Test (T-Test)

The purpose of this test is to determine whether the independent factors have an effect on the dependent variables, assuming that the other independent variables have constant values. This test's hypothesis can be stated as follows:

Table 6. Partial Hypothesis Testing Results (t test) Model 1

Variable	Coefficient	Std. Error	t-Statistic	**Prob.**
C	-136.1420	80.07522	-1.949829	0.0244
X1	10.06736	0.011854	5.758732	**0.0000**
X2	2.416492	0.995909	2.416276	**0.0177**
X3	0.549109	1.606335	0.329638	**0.7425**
X4	-0.000771	0.000135	-6.450357	**0.0000**

Source: Results of data processing on Eviews (2022)

Table 7. Partial Hypothesis Testing Results (t test) Model 2

Variable	Coefficient	Std. Error	t-Statistic	**Prob.**
C	26.83621	5.339299	5.026167	0.0002
X1	0.214291	0.090696	2.362741	**0.0331**
X2	0.000026	0.000759	-3.473445	**0.0037**
X3	3.122484	1.253296	-2.411006	**0.0302**
X4	12.52162	3.615162	-3.498740	**0.0038**
X5	9.262380	3.958292	-2.334314	**0.0346**

Source: Results of data processing on Eviews (2022)

It can be observed from the table above that the F test or simultaneous test demonstrates a significant effect between the independent factors and the dependent variables, thus rejecting H0 and accepting H1. Then, a partial or t-test reveals that X1, X2, X4, X5, X6, X7, X8, and X9 each demonstrate a statistically significant relationship between one of the independent variables and the dependent variable. This is demonstrated by the rejection of H0 and the acceptance of H1. Only X3 has no influence on the relationships between the independent and dependent variables.

5 Conclusion

The study found that Inflation, GDP, and Derivative Activities have a significant effect on Stock Liquidity, while BI Rate has no effect on Stock Liquidity. Similarly, Inflation, GDP, BI Rate, Derivative Activity and Stock Liquidity each have a significant effect on Stock Return. These results are consistent with previous studies and suggest that these macroeconomic variables and measures to protect companies from risk through derivative activities and stock liquidity play a crucial role in forming the value of stock returns and are important indicators for investors in choosing which company to invest in.

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