

**THE EFFECT OF LEVERAGE AND LIQUIDITY ON STOCK RETURNS
WITH COMPANY SIZE AS A MODERATION IN FINANCIAL SECTOR
COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE IN THE
2020-2023 PERIOD**

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Abstract

The financial industry in Indonesia continues to grow through the provision of increasingly competitive investment services, opening up opportunities for companies to attract investors. This study aims to analyze the effect of leverage and liquidity on stock returns, as well as to assess whether company size strengthens this relationship. The research was conducted on non- bank financial sector companies listed on the Indonesia Stock Exchange during the period 2020–2023. A quantitative approach was used with secondary data taken from annual financial reports. The sample was determined purposively according to specific criteria, resulting in 40 observations. Data processing was performed using Eviews-13 software. Data analysis included descriptive tests, panel data regression, and moderation interaction tests (MRA). Independent variables included leverage (Debt to Equity Ratio) and liquidity (Current Ratio), with stock returns (price return) as the dependent variable, and company size (ln total assets) as the moderating variable. The results show that, both before and after MRA, leverage does not have a significant effect on stock returns (probability 0.86 & $0.56 > 0.05$), and liquidity does not have a significant effect on stock returns (probability 0.12 & $0.90 > 0.05$). Simultaneously, both before and after the MRA, leverage and liquidity do not have a significant effect on stock returns (probability 0.26 & $0.44 > 0.05$). Furthermore, firm size does not function as a moderator in this research model, in the interaction between leverage and stock returns (probability $0.82 > 0.05$), and in the interaction between liquidity and stock returns (probability $0.60 > 0.05$). The coefficient of determination before MRA was 1.8% with an epsilon of 98.2% , and the coefficient of determination after MRA was 0% , indicating that the addition of moderation worsened the previous model.

Keywords: leverage and liquidity, stock returns, moderation, financial sector companies

Abstrak

Industri keuangan di Indonesia terus berkembang melalui penyediaan layanan investasi yang semakin kompetitif, membuka peluang bagi perusahaan untuk menarik investor. Studi ini bertujuan untuk menganalisis pengaruh leverage dan likuiditas terhadap return saham, serta untuk menilai apakah ukuran perusahaan memperkuat hubungan ini. Penelitian ini dilakukan pada perusahaan sektor keuangan non-bank yang terdaftar di Bursa Efek Indonesia selama periode 2020–2023. Pendekatan kuantitatif digunakan dengan data sekunder yang diambil dari laporan keuangan tahunan. Sampel ditentukan secara purposif berdasarkan kriteria tertentu, menghasilkan 40 observasi. Pengolahan data dilakukan menggunakan perangkat lunak Eviews-13. Analisis data meliputi uji deskriptif, regresi data panel, dan uji interaksi moderasi (MRA). Variabel independen meliputi leverage (Rasio Utang terhadap Ekuitas) dan



likuiditas (Rasio Lancar), dengan return saham (price return) sebagai variabel dependen, dan ukuran perusahaan (ln total aset) sebagai variabel moderasi. Hasil penelitian menunjukkan bahwa, baik sebelum maupun setelah MRA, leverage tidak memiliki pengaruh signifikan terhadap pengembalian saham (probabilitas $0,86 \text{ \& } 0,56 > 0,05$), dan likuiditas tidak memiliki pengaruh signifikan terhadap pengembalian saham (probabilitas $0,12 \text{ \& } 0,90 > 0,05$). Secara simultan, baik sebelum maupun setelah MRA, leverage dan likuiditas tidak memiliki pengaruh signifikan terhadap pengembalian saham (probabilitas $0,26 \text{ \& } 0,44 > 0,05$). Lebih lanjut, ukuran perusahaan tidak berfungsi sebagai moderator dalam model penelitian ini, dalam interaksi antara leverage dan pengembalian saham (probabilitas $0,82 > 0,05$), dan dalam interaksi antara likuiditas dan pengembalian saham (probabilitas $0,60 > 0,05$). Koefisien determinasi sebelum MRA adalah 1,8% dengan epsilon 98,2%, dan koefisien determinasi setelah MRA adalah 0%, menunjukkan bahwa penambahan moderasi memperburuk model sebelumnya.

Kata kunci: leverage dan likuiditas, imbal hasil saham, moderasi, perusahaan sektor keuangan

I. INTRODUCTION

As a fundamental part of the overall economic system, the Indonesian financial sector plays a strategic role in supporting national economic sustainability. This sector encompasses various entities, such as banks and non-bank financial institutions, that manage and distribute funds. In a media release published on November 1, 2023, the Financial Services Authority (OJK) stated that the national financial services sector has grown significantly, driven by increasing public demand for better financial services and broader access to investment products. This growth not only creates opportunities for companies in the financial sector but also attracts the attention of domestic and foreign investors to invest in the Indonesian capital market, particularly the Indonesia Stock Exchange (IDX).

According to the official publication of the Financial Services Authority, the Capital Market Semester Statistics Report for the first half of 2023, the financial sector experienced a decline in shares in the first half of 2022, with a year-to-date (YTD) decline of -5.86%, followed by a further decline in the second half of 2022, with a year-to-date (YTD) decline of -7.33%. However, in the first semester of 2023, stock prices showed signs of recovery with modest growth of 0.20% year-to-date. Investors frequently face threats from various external factors, such as monetary policy shifts, global economic conditions, and the impact of the COVID-19 pandemic. This phenomenon presents challenges for financial sector companies to maintain their performance and deliver optimal returns to shareholders.

This study assumes two independent factors: leverage and liquidity. Stock returns are identified as the dependent variable, and company size is used as a moderating variable. These variables will be measured using indicators. The leverage variable, assessed using the Debt to Equity Ratio (DER) approach, is designed to illustrate the percentage of debt used as a reference by business entities in developing their capital structure. This ratio provides an overview of the proportion of a company's capital structure dominated by financial liabilities to assets, which can affect the risk and return expectations of investors. Furthermore, the liquidity variable will be measured using the ratio of short-term debt to current assets, proxied by the Current Ratio (CR), which is designed to illustrate a corporation's ability to cope with temporary financial burdens. It is an evaluative instrument used by investors to analyze a company's financial stability. Then, to measure the stock return variable, the price return will be used, measured by capital gains received by shareholders during the study period. The company size factor is then calculated through total assets using a logarithmic (natural log) transformation.

II. THEORETICAL STUDIES

Financial Reports

Financial reports are a means by which businesses account to the public for their financial performance. Companies must be able to publish financial reports containing highly reliable financial information (Faadillah Herindraningrum & Yuhertiana, 2021). These reports serve as a system of indicators that demonstrate the results of a company's financial and economic activities over a specific period, such as monthly, quarterly, or annually. Financial reports are prepared based on accounting data that has been specifically processed, grouped, and processed, thus becoming the final stage in the accounting cycle, aimed at meeting the information needs of report users, both internal and external to the company. Based on PSAK 201 of 2022, which became effective on January 1, 2024, the structure of financial reports is composed of several elements: the statement of financial position, the income statement, the statement of changes in equity, the statement of cash flows, and the notes to the financial statements.

Financial Report Analysis

Financial documents prepared and published by a company's accounting and finance departments will not be maximally useful if not analyzed. To gain in-depth insight into

financial reports, financial ratio analysis can be used, which is considered a standard method for analyzing the data contained in financial reports. The analysis aims to elucidate the relationships between financial report components, enabling comparisons between companies and across periods within the same company (Siswanto, 2021:25).

Leverage

Leverage is a funding strategy that utilizes external sources in the form of loans to support corporate activities and investments. Leverage has the potential to increase potential returns on equity, but also carries the consequence of increased financial risk (Buntu, 2023). In this study, the measurement used to estimate the leverage ratio uses the Debt to Equity Ratio (DER) as a measure of the amount of collateral provided to investors, namely by comparing accumulated financial liabilities to total capital (Wahyu Hidayat, 2018:47).

Liquidity

Financially, liquidity indicates the capability of individuals and corporations to meet short-term financial obligations in a timely manner (Dwi Erdianti & Sapari, 2024). Assets are considered liquid if they can be converted into cash without causing a significant loss in value. This is an indicator for assessing liquidity (Alamiyanti, Muhyidin, Riyani, & Rizki, 2023). If the ratio of current assets to current liabilities is greater, the corporation is generally in a liquid position due to its ability to meet short-term financial obligations in a timely manner. Conversely, if the ratio of current liabilities to current assets is greater, it indicates that the corporation is illiquid due to its inability to meet financial obligations as they fall due. In this study, the measurement applied to estimate the liquidity ratio is the Current Ratio (CR), commonly used to measure a company's ability to meet short-term financial obligations by comparing short-term assets with short-term financial obligations (Wahyu Hidayat, 2018:46).

Stock Returns

Stock returns reflect financial achievements derived from investment activities in capital market instruments. The capital market is a financial institution that functions to intermediate the flow of public funds to productive sectors that carry out investment activities. In the capital market, shares represent ownership of a portion of capital in a corporation, along with information on the nominal value, corporate identity, and the rights and responsibilities of shareholders (Handini & Astawinetu, 2020:75). Stock returns are

interpreted as percentage profits obtained based on changes in stock prices from the previous year to the current year, reflecting the financial benefits that investors receive as a consequence of their investment (Parawansa, Rahayu, & Sari, 2021). This study applies specific measurement techniques to evaluate stock returns. Using the Rate of Return measurement technique without considering the yield obtained: $Price\ Return = \frac{Pt - (Pt - 1)}{Pt - 1}$ (Handini & Astawinetu, 2020) (Pt: Current year's stock price. (Pt-1): Previous year's stock price)

Company Size

Company size is used as an important parameter to represent the size of a business entity. Large corporations tend to have more access to funding than smaller entities that lack credibility or guarantees of delivering reliable returns. Criteria for determining a corporation's scale can be measured through indicators such as cumulative sales volume, average sales volume over a given period, total asset value, and average asset value (Setiawan, 2022). Large corporations offer advantages in operational flexibility and access to capital market funding, thus supporting competitiveness and business continuity amidst competition.

(Nabila Amro & Fadjrih Asyik, 2021). Company scale can be reflected through firm size measurements. Firm size is divided into two categories: large and small. Classifying corporations according to size can be an important reference for investors in evaluating and establishing investment strategies. In this study, the measurement used to measure company size utilizes the transformation of total assets or the entity's assets to the natural logarithm (Ln). Measuring company size using Ln(total assets) is considered more stable when compared with other alternative indicators (Tanjaya & Nazir, 2021).

III. RESEARCH RESULTS

Table 1. List of Sample Companies

No	Kode	Perusahaan
1	ADMF	Adira Dinamika Multi Finance Tbk.
2	AMAG	Asuransi Multi Artha Guna Tbk.
3	WOMF	KDB Tifa Finance Tbk.
4	CASA	Capital Financial Indonesia Tbk.
5	TUGU	Asuransi Tugu Pratama Indonesia Tbk.
6	LIFE	MSIG Life Insurance Indonesia Tbk.
7	ABDA	Asuransi Bina Dana Arta Tbk.
8	ASRM	Asuransi Ramayana Tbk.

9	DNET	Indoritel Makmur Internasional Tbk.
10	SMMA	Sinarماس Multiartha Tbk.

Source: Research Notes (2025)

DESCRIPTION STATISTICS

Table 2. Descriptive Statistics of Variables After Outlier Treatment and Centering

	X1	X2	Y	Z
Mean	0.000100	0.000175	0.008375	0.000107
Median	-0.247000	-0.654500	0.004000	0.364638
Maximum	2.301000	5.611000	0.486000	2.311275
Minimum	-1.323000	-1.128000	-0.457000	-2.488000
Std. Dev.	1.034249	1.591696	0.217142	1.327133
Skewness	0.621999	1.987432	0.192622	-0.171635
Kurtosis	2.302823	6.075633	2.712383	2.232309
Jarque-Bera	3.389314	42.09844	0.385229	1.178641
Probability	0.183662	0.000000	0.824800	0.554704
Sum	0.004000	0.007000	0.335000	0.004300
Sum Sq. Dev.	41.71715	98.80631	1.838873	68.69000
Observations	40	40	40	40

Source: Eviews-13 statistical test

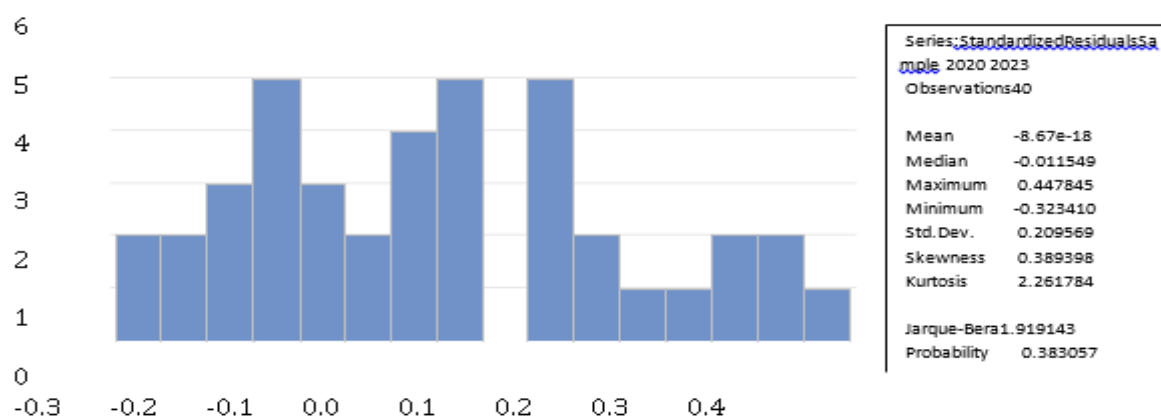
The leverage variable (X1) is estimated based on the Debt to Equity Ratio (DER) calculation. The data distribution shows a minimum value of -1.323000 for Indoritel Makmur International Tbk (DNET) in 2022. The maximum value of 2.301000 was for Sinarماس Multiartha Tbk (SMMA) in 2021. The average leverage level is 0.000100, with a standard deviation of 1.034249. The relatively high standard deviation value compared to the mean indicates that the leverage values in the sample are widely distributed and not concentrated close to the mean, reflecting significant data variation.

The liquidity variable (X2) is estimated based on the Current Ratio (CR) calculation. The data distribution shows a minimum value of -1.128000 for Indoritel Makmur International Tbk (DNET) in 2022. The maximum value was 5.611000 for Indoritel Makmur International Tbk (DNET) in 2020. The average liquidity level is 0.000175, with a standard deviation of 1.591696. The relatively high standard deviation compared to the average indicates that the liquidity values in the sample are widely distributed and not concentrated close to the average, reflecting significant data variation.

The stock return variable (Y) is estimated using price returns. The data distribution shows a minimum value of -0.457000 for Asuransi Tugu Pratama Indonesia Tbk (TUGU) in 2020. The maximum value of 0.486000 was for Asuransi Multi Artha Guna Tbk (AMAG) in 2021. The average return was 0.008375, while the standard deviation reached 0.217142. This indicates a fairly high return variation relative to the average, as reflected in the high coefficient of variation. However, large fluctuations are a common characteristic of financial return data, so these values can still be considered reasonable in the context of market analysis or investment performance.

The company size variable (Z) is estimated based on the natural log transformation calculation (total assets). The data distribution shows a minimum value of -2.488000 for Asuransi Bina Dana Arta Tbk (ABDA) in 2022. The maximum value of 2.311275 was for Sinarmas Multiartha Tbk (SMMA) in 2021. The average firm size is 0.000107, with a standard deviation of 1.327133. The relatively high standard deviation value compared to the mean indicates that the liquidity level in the sample is widely distributed and not concentrated close to the mean, reflecting significant data variation.

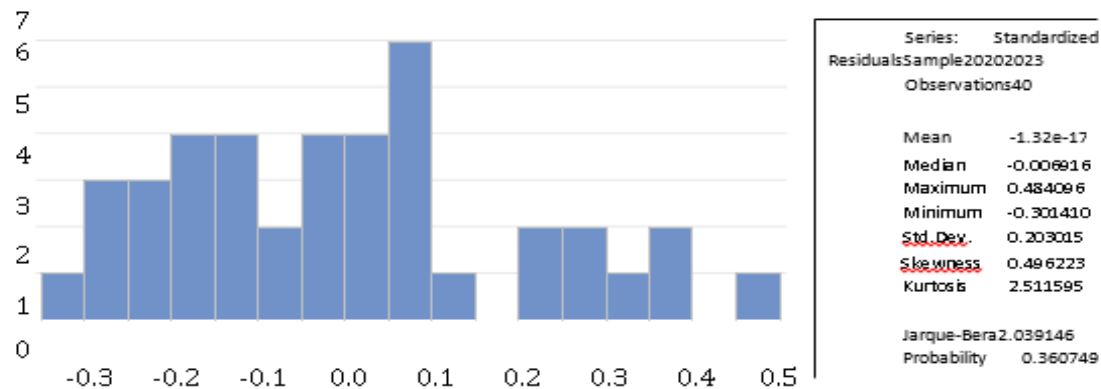
CLASSICAL ASSUMPTION TEST OF NORMALITY



Source: Eviews-13 statistical test

Figure 1. Normality Test

From the results of the normality analysis in Figure IV.6 using the Jarque-Bera Test, the output probability of 0.3830, or 38.3%, is above the upper threshold of the normality statistical criterion of 0.05 or 5%. Based on these findings, it can be concluded that the data has a normal distribution pattern according to the established statistical criteria.



Source: Eviews-13 statistical test

Figure 2. Moderated Normality Test

Figure IV.7 shows the Jarque-Bera probability value is $0.360 > 0.05$. This proves that the addition of moderating variables does not disrupt the normal distribution, so the model remains valid for use in regression analysis.

MULTICOLLINEARITY

Table 3. Multicollinearity Test

	Y	X1C	X2C
Y	1.000000	0.080078	-0.260389
X1C	0.080078	1.000000	-0.402665
X2C	-0.260389	-0.402665	1.000000

Source: Eviews-13 statistical test

Table IV.13 above shows that the correlation value between leverage and liquidity is < 0.90 . Therefore, it can be concluded that this data does not indicate an excessive linear relationship between the independent variables.

Table 4. Moderated Multicollinearity Test

	Y	X1C	X2C	ZC	X1ZC	X2ZC
Y	1.000000	0.080078	-0.260389	0.070811	0.009476	-0.253889
X1C	0.080078	1.000000	-0.402665	0.479323	0.479704	-0.683007
X2C	-0.260389	-0.402665	1.000000	0.082678	-0.348703	0.623354
ZC	0.070811	0.479323	0.082678	1.000000	0.295581	-0.672816
X1ZC	0.009476	0.479704	-0.348703	0.295581	1.000000	-0.566607
X2ZC	-0.253889	-0.683007	0.623354	-0.672816	-0.566607	1.000000

Source: Eviews-13 statistical test

The multicollinearity test in Table IV.25 shows that the correlation matrix is <0.90 . The model test results are considered free of multicollinearity for use in MRA regression analysis.

HETEROSKEDASTICITY

Table 5. Heteroskedasticity Test

Heteroskedasticity

Test: White Null

hypothesis:

Homoskedasticity

F-statistic	0.811471	Prob. F(5,34)	0.5497
Obs*R-squared	4.264462	Prob. Chi-Square(5)	0.5120
Scaled explained SS	2.301987	Prob. Chi-Square(5)	0.8060

Source: Eviews-13 statistical test

Based on Table IV.14 above, the heteroscedasticity test results obtained a Probability Obs*R-squared (Chi-Square) value of $0.5120 > 0.05$, indicating no heteroscedasticity issues. Based on these results, the data can be used to predict the dependent and independent variables.

Table 6. Moderated Heteroscedasticity Test

Heteroskedasticity Test:

White Null hypothesis:

Homoskedasticity

F-statistic	0.663802	Prob. F(17,22)	0.8039
Obs*R-squared	13.56138	Prob. Chi-Square(17)	0.6979
Scaled explained SS	7.405378	Prob. Chi-Square(17)	0.9777

Source: Eviews-13 statistical test

The heteroscedasticity test in Table IV.26 shows that all variables have a probability value >0.05 , with a value of 0.6979. Therefore, the addition of moderating variables does not result in heteroscedasticity, and the model remains valid for use in regression analysis.

AUTOCORRELATION

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.235764	Prob. F(2,35)	0.3030
Obs*R-squared	2.638299	Prob. Chi-Square(2)	0.2674

Source: Eviews-13 statistical test

Based on Table IV.15 above, the autocorrelation test results obtained a Probability Obs*R-squared (Chi-Square) value of $0.2674 > 0.05$, indicating no autocorrelation problem.

Table 8. Moderated Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.706110	Prob. F(2,32)	0.1977
Obs*R-squared	3.854285	Prob. Chi-Square(2)	0.1456

Source: Eviews-13 statistical test

The autocorrelation test in Table IV.27 above yielded a Probability Obs*R-squared (Chi-Square) value of $0.1456 > 0.05$, indicating that there are no autocorrelation issues in the MRA regression analysis.

MULTIPLE LINEAR REGRESSION

Table 9. Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.008382	0.034020	0.246391	0.8067
X1C	- 0.006207	0.036393	-0.170560	0.8655
X2C	- 0.037147	0.023647	-1.570872	0.1247
R-squared	0.068535	Mean dependent var		0.008375
Adjusted R-squared	0.018185	S.D. dependent var		0.217142
S.E. of regression	0.215158	Akaike info criterion		-0.162846
Sum squared resid	1.712847	Schwarz criterion		-0.036180
Log likelihood	6.256912	Hannan-Quinn criter.		-0.117047
F-statistic	1.361179	Durbin-Watson stat		2.144881
Prob(F-statistic)	0.268896			

Source: Eviews-13 statistical test

Based on the results of the multiple linear regression analysis test in table IV.24 above, the following is the multiple linear regression equation in this study:

$$Y = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + e$$

$$\text{Return saham} = 0.008382 - 0.006207 * \text{DER} - 0.037147 * \text{CR} + e$$

Diketerangan:

Y: Variabel dependen (*return saham*)

α : Konstanta

β_1, β_2 : Koefisien regresivariabel independen

χ_{1it} : *Leverage* (DER)

χ_{2it} : Likuiditas (CR)e:

e: *Error*

Table 10. MRA Multiple Linear Regression Analysis

Dependent Variable: Y

Method: Panel Least Squares

Date: 06atau15atau25 Time: 12:07

Sample: 2020 2023

Periods included: 4

Cross-sections included: 10

Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.046517	0.045919	1.013015	0.3182
X1C	- 0.027406	0.046744	-0.586304	0.5615
X2C	0.007209	0.058380	0.123486	0.9024
ZC	- 0.042507	0.074803	-0.568254	0.5736
X1ZC	- 0.028797	0.027874	-1.033109	0.3088
X2ZC	- 0.115459	0.108397	-1.065143	0.2943
R-squared	0.125885	Mean dependent var		0.008375
Adjusted R-squared	- 0.002661	S.D. dependent var		0.217142
S.E. of regression	0.217431	Akaike info criterion	-	0.076393
Sum squared resid	1.607386	Schwarz criterion		0.176939
Log likelihood	7.527863	Hannan-Quinn criter.		0.015204
F-statistic	0.979301	Durbin-Watson stat		2.386796
Prob(F-statistic)	0.444497			

Source: Eviews-13 statistical test

From table IV.28 above, the results of the Moderated Regression Analysis (MRA) obtained the following equation:

$$Y = \alpha + \beta_1 \chi_{1it} + \beta_2 \chi_{2it} + \beta_3 Z_{it} + \beta_4 (\chi_1 * Z)_{it} + \beta_5 (\chi_2 * Z)_{it} + e$$

$$\begin{aligned} \text{Return saham} = & 0.046517 - 0.027406 * \text{DER} + 0.007209 * \text{CR} - 0.042507 * \text{SIZE} - \\ & 0.028797(\text{DER} * \text{SIZE}) - 0.115459(\text{CR} * \text{SIZE}) + e \end{aligned}$$

Diketerangan:

Y: *Return Saham*

A: Konstanta

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: Koefisien Regresi

χ_{1it} : *Leverage*(DER)

χ^2_{it} : Likuditas (CR)

Z_{it} : Ukuran Perusahaan (SIZE)_e:

e : Error

COEFFICIENT OF DETERMINATION

Table 11. Coefficient of Determination Test

R-squared	0.068535	Mean dependent var	0.008375
Adjusted R-squared	0.018185	S.D. dependent var	0.217142
S.E. of regression	0.215158	Akaike info criterion	-0.162846
Sum squared resid	1.712847	Schwarz criterion	-0.036180
Log likelihood	6.256912	Hannan-Quinn criter.	-0.117047
F-statistic	1.361179	Durbin-Watson stat	2.144881
Prob(F-statistic)	0.268896		

Source: Eviews-13 statistical test

Based on Table IV.17 above, the coefficient of determination test yielded an Adjusted R-square value of 0.018185. This coefficient of determination indicates that the independent variable components, including leverage and liquidity, can explain 0.018185, or 1.8%, of stock returns. The remaining 98.2% can be attributed to external variables not included in the analysis model structure of this study.

Table 12. Moderating Coefficient of Determination Test

R-squared	0.125885	Mean dependent var	0.008375
Adjusted R-squared	- 0.002661	S.D. dependent var	0.217142
S.E. of regression	0.217431	Akaike info criterion	-0.076393
Sum squared resid	1.607386	Schwarz criterion	0.176939
Log likelihood	7.527863	Hannan-Quinn criter.	0.015204
F-statistic	0.979301	Durbin-Watson stat	2.386796
Prob(F-statistic)	0.444497		

Source: Eviews-13 statistical test

Based on Table IV.29 above, company size does not contribute to improving the model, as indicated by the adjusted r-square value of -0.002661. The adjusted r-square value decreases after moderation, indicating that the addition of moderation is unable to explain variation in stock returns.

HYPOTHESIS TEST F TEST

R-squared	0.068535	Mean dependent var	0.008375
Adjusted R-squared	0.018185	S.D. dependent var	0.217142

S.E. of regression	0.215158	Akaike info criterion	-0.162846
Sum squared resid	1.712847	Schwarz criterion	-0.036180
Log likelihood	6.256912	Hannan-Quinn criter.	-0.117047
F-statistic	1.361179	Durbin-Watson stat	2.144881
Prob(F-statistic)	0.268896		

Source: Eviews-13 statistical test

Based on Table IV.18 above, the simultaneous test results obtained a Prob (F-statistic) value of $0.268896 > 0.05$. Based on these results, it can be concluded that there is no significant effect on stock returns.

Table 14. Moderating F-Test

R-squared	0.125885	Mean dependent var	0.008375
Adjusted R-squared	-0.002661	S.D. dependent var	0.217142
S.E. of regression	0.217431	Akaike info criterion	-0.076393
Sum squared resid	1.607386	Schwarz criterion	0.176939
Log likelihood	7.527863	Hannan-Quinn criter.	0.015204
F-statistic	0.979301	Durbin-Watson stat	2.386796
Prob(F-statistic)	0.444497		

Source: Eviews-13 statistical test

Table IV.30 above shows the results of the probability test (F-statistic) of $0.444497 > 0.05$. It can be concluded that leverage, liquidity, and company size have no effect on stock returns.

T-TEST

Table 15. T-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.008382	0.034020	0.246391	0.8067
X1C	-0.006207	0.036393	-0.170560	0.8655
X2C	-0.037147	0.023647	-1.570872	0.1247

Source: Eviews-13 statistical test

Leverage has a t-statistic of -0.170560 with a probability (sig) of $0.8655 > 0.05$, indicating that leverage has no significant effect on stock returns. Therefore, H01 is accepted and H1 is rejected. Liquidity has a t-statistic of -1.570872 with a probability (sig) of $0.1247 > 0.05$, indicating that liquidity has no significant effect on stock returns.

Table 16. Moderated T-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.046517	0.045919	1.013015	0.3182
X1C	-0.027406	0.046744	-0.586304	0.5615
X2C	0.007209	0.058380	0.123486	0.9024
ZC	-0.042507	0.074803	-0.568254	0.5736
X1ZC	-0.028797	0.027874	-1.033109	0.3088
X2ZC	-0.115459	0.108397	-1.065143	0.2943

Source: Eviews-13 statistical test

Leverage, in the e-views output, obtained a t-statistic of -0.586304 with a probability (sig) of $0.5615 > 0.05$, indicating that leverage has no statistical effect on stock returns. Liquidity, in the e-views output, obtained a t-statistic of 0.123486 with a probability (sig) of $0.9024 > 0.05$, indicating that liquidity has no statistical effect on stock returns. Company size, in the e-views output, obtained a t-statistic of -0.568254 with a probability (sig) of $0.5736 > 0.05$, indicating that company size has no statistical effect on stock returns. Testing Hypothesis IV, regarding the effect of company size on the relationship between leverage and stock returns, obtained a t-statistic of -1.033109 in the e-views output with a probability (sig) of 0.3088. This indicates that company size has no moderating effect on the relationship between leverage and stock returns. Testing the hypothesis of the effect of company size on the relationship between liquidity and stock returns, using e-views, yielded a t-statistic of -1.065143 with a probability (sig) of 0.2943. This indicates that company size has no moderating effect on the relationship between liquidity and stock returns.

The results of the classical assumption test of the regression model before and after the MRA met the requirements for further analysis. The analysis can be concluded as follows:

1. The normality test shows that the data is normally distributed both before and after the MRA, with prob.sig values of 0.383 and 0.360 (>0.05). This indicates that the normality test before the MRA is better, with stronger confidence in normality.
2. The multicollinearity test shows that the data does not show any signs of multicollinearity either before or after the MRA, with correlation matrix values of (-0.40 to 0.08) and (-0.68 to 0.47), respectively. This indicates that the multicollinearity test before the MRA is better, minimizing the correlation between the independent variables.

3. The heteroscedasticity test shows that the data does not show any signs of heteroscedasticity either before or after the MRA, with prob.sig values of 0.512 and 0.697 (>0.05). This indicates that the heteroscedasticity test after the MRA is better, with more stable probabilities and a constant distribution.
4. The autocorrelation test indicates that there are no autocorrelation symptoms in the uncorrelated models used over time. Both before and after MRA, with prob.sig values of 0.267 and 0.145 (>0.05), this indicates that the autocorrelation test is better before MRA with a larger correlation matrix value and ensures that the residuals are correct. Overall, the model before MRA performs better in testing classical assumptions, including data normality analysis, multicollinearity detection, heteroscedasticity symptom identification, and evaluation of autocorrelation in the model. However, because this study aims to determine the effect of company size on the relationship between leverage and liquidity on changes in stock returns, the model after MRA is more relevant. To answer the research objective, the model after MRA is preferred, even though the model before MRA has more ideal classical assumptions.

The results of the hypothesis test indicate that in both test I (before MRA) and test II (after MRA), the variables do not show any effect on the dependent variable. In the T-test, leverage does not have a statistical contribution to stock returns either before (prob. 0.8655) or after MRA (prob. 0.5615). Liquidity does not have a statistical contribution to stock returns either before (prob. 0.1247) or after MRA (prob. 0.9025). A probability value of 0.3089 is obtained, indicating that company size does not act as a moderator in the interaction of the leverage ratio and stock return performance. Similarly, the interaction of the liquidity ratio and stock return performance, where the probability of 0.2943 indicates that company size does not provide a significant moderating effect. In the F-test, the model before MRA (prob. 0.268) and after MRA (0.352) which shows both probability values do not indicate that leverage and liquidity contribute statistically to influencing stock return performance. The coefficient of determination (adjusted r-squared) decreased from before MRA (1.8%) to after MRA (-0.02%) or a value of (0). This means that the addition of interaction variables does not increase the model's capacity to represent the dependent variable. Moderating variables were not proven to have a significant moderating effect on the independent variable on the dependent variable. Statistically, moderating variables do not have a moderating effect,

therefore further testing was conducted to prove that company size is not a moderating variable.

IV. CONCLUSION

The aim of this research is to examine how leverage and liquidity affect stock returns, with company size as a moderating factor. A total of 95 data points were used for a sample of 23 non-bank financial sector companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2023 period. However, after handling data indicating outliers, the sample was reduced to 40 data points from 10 non-bank financial sector companies for the four periods of 2020-2023. This resulted in several conclusions that can be drawn based on the research results.

Partially, the statistical results indicate that leverage (Debt to Equity Ratio) has no significant effect on stock returns. This empirical study reveals that investors no longer consider the level of leverage in this industry, as long as the corporation can utilize the leverage (Debt to Equity Ratio) at any given time. This does not indicate that investors completely disregard a company's debt ratio, but rather that they place greater emphasis on other considerations such as profit levels, available accounting information, company reputation, and personal financial situation in their investment decision-making process. Partially, the statistical results provide evidence that liquidity (Current Ratio) has no significant effect on stock returns. This study suggests that investors no longer prioritize the level of liquidity (Current Ratio) in this industry, as a higher company's liquidity level does not necessarily mean higher stock returns. Similarly, a low liquidity level (Current Ratio) does not guarantee low returns. A low current ratio may be due to a company's lack of capital to service debt. However, a high current ratio does not necessarily indicate positive corporate performance, as assets may not be utilized productively.

Simultaneously, the statistical results provide evidence that leverage and liquidity do not significantly impact changes in stock returns earned by investors. This empirical study reveals that the variables analyzed are limited, thus not reflecting external factors that could potentially impact results, such as macroeconomic conditions, market sentiment, and business strategy. This also indicates that leverage and liquidity are not dominant factors considered by investors in the non-banking financial sector or within the four-year time period of this study. In the MRA test, the statistical results provide evidence that company size has no moderating effect on leverage and stock returns. This empirical study reveals that a

company's size does not guarantee its ability to meet its liabilities, as investors assess leverage risk uniformly regardless of company size. Total assets also do not adequately represent management's effectiveness in managing debt, resulting in no significant interaction effect. The MRA test shows that company size has no moderating effect on liquidity and stock returns. This study's findings indicate that investors do not explicitly consider liquidity ratios in investment decisions, particularly in large companies perceived as having high credibility and access to financing. Because liquidity is more relevant to creditors and is short-term in nature, this information is not yet influential enough to alter the intensity of the relationship between company size and stock returns.

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