Journal of Financial Management and Strategy Analysis
Vol. 1, No. 2,August, pp. 45-53
ISSN: xxxx-xxxx, DOI: ...

The Effect of Market Risk and Liquidity Risk on Stock Returns in the Indonesian Capital Market

Haryati
Universitas Islam Bunga Bangsa Cirebon, Indonesia

Keywords:
Market risk;
liquidity risk;
return on stock;
Indonesian capital market;
market volatility

ABSTRACT

This study examines the influence of market risk and liquidity risk on stock returns in the Indonesian capital market. Indonesia's capital market, which continues to grow rapidly, is experiencing challenges in terms of market volatility and liquidity imbalances, which can influence investment decisions. The purpose of this study is to measure and analyze the combined impact of these two types of risk on stock returns. This study uses a quantitative approach with a causal-comparative design, using primary and secondary data from companies listed on the Indonesia Stock Exchange (IDX) during the 2018-2023 period. The results show that market risk has a significant influence on stock returns, while liquidity risk does not show a significant influence. A coefficient of determination (R^2) of 0.452 indicates that the two independent variables can explain about 45.2% variation in stock returns. The implication of this study is that investors need to pay more attention to market risk factors in their investment decision-making, while liquidity risk while important, does not have a significant impact on the Indonesian capital market.

Corresponding Author:
Haryati
Universitas Islam Bunga Bangsa Cirebon, Indonesia
Email: haryati0915@gmail.com

1. INTRODUCTION

The global capital market is currently undergoing dynamic changes influenced by various economic, political, and social factors. Market risk and liquidity risk are two elements that greatly affect the performance of the stock market worldwide. According to data from the International Monetary Fund (IMF), in 2023, global market volatility will surge due to economic uncertainties, such as the trade war, the COVID-19 pandemic, and rising fluctuations in commodity prices (IMF, 2023). Economic globalization has led to market risks and liquidity risks have a broader impact on investors and companies involved in capital markets. Market risk, which includes external factors that affect the entire market,

as well as liquidity risk, which relates to the market's ability to trade assets without significantly affecting prices, has become a major concern in investment analysis around the world.

In Indonesia, market risk and liquidity are increasingly relevant with the rapid growth of the capital market. The Indonesian capital market has grown rapidly in recent decades, recorded in 2022 the number of Indonesian capital market investors reached 10 million people, a significant increase compared to previous years (OJK, 2022). However, the volatility of the Indonesian market influenced by external factors such as geopolitical tensions and global monetary policy also affects the level of return on stocks expected by investors.

In Indonesia, the growing capital market faces challenges in terms of managing market risk and liquidity risk. The influence of market risk on Indonesian stock returns is a critical issue due to the volatility that often occurs, resulting from both global and domestic factors. In addition, liquidity risk also affects investors in deciding to buy or sell stocks. Data from the Indonesia Stock Exchange (IDX) shows that although the volume of stock transactions continues to increase, there is often an imbalance in liquidity in the market that can significantly affect stock prices (IDX, 2023). This raises questions about the extent to which these two types of risk affect the level of return expected by investors.

In addition, despite Indonesia's growing capital market, there are still many investors who do not have a sufficient understanding of how market risk and liquidity risk can affect their investment decisions. This exacerbates its vulnerability to sudden and unpredictable stock price fluctuations.

Research on market risk and liquidity risk has been widely conducted, both in emerging and developed capital markets. Chen, Roll, & Ross (1986) investigated the relationship between market risk and stock returns in the United States capital market, and found that market risk factors have a significant impact on stock return rates, especially during periods of economic crisis. Furthermore, Fama & French (1992) developed a three-factor model that includes market risk, company size, and book value to market price, which is widely used in research on stock returns. Bekaert & Harvey (1997) examined the effect of liquidity risk on stock returns in emerging markets, with the result that liquidity uncertainty can significantly affect stock returns, especially in less efficient markets. Zhang (2009) examined the influence of market risk in China's capital market, finding that market risk, influenced by domestic political and economic factors, plays a major role in determining stock returns in less liquid markets. Finally, Eriotis (2015) analyzed the influence of market risk and liquidity risk on stock returns in European countries, with the finding that these two risks interact with each other and worsen their impact on stock returns. Although these studies provide important insights into the influence of market risk and liquidity on stock returns, related research on the Indonesian capital market is still limited, so this research is expected to make a new contribution in the context of emerging markets such as Indonesia.

This research is essential to conduct, considering the phenomenon of market volatility and liquidity imbalances that often occur in the Indonesian capital market. Investors are frequently exposed to high market risks but do not fully understand the ways to mitigate them. In addition, the increasing number of investors in the Indonesian capital market

highlights the need to understand better the influence of market risk and liquidity on investment decisions. With a better understanding, investors can make more informed decisions in the face of unpredictable market fluctuations.

This research offers a new contribution by analyzing the combined impact of market risk and liquidity risk on stock returns in the Indonesian capital market. Most previous research has focused on the effects of market risk or liquidity risk separately; however, this study will explore the interaction of these two factors and their combined impact on stock returns in Indonesia. In addition, the study will also test models relevant to emerging markets, such as Indonesia, which have not been widely covered by previous research.

Based on the above background, the purpose of this study is to analyze and measure the influence of market risk and liquidity risk on stock returns in the Indonesian capital market. This research is expected to provide significant benefits for various parties. For investors, this research will provide a deeper understanding of how market risk and liquidity risk impact their investment decisions, as well as strategies for managing both risks to optimize stock returns. For capital market regulators, the results of this research can serve as a reference in formulating policies that reduce market volatility and increase liquidity, thereby creating a more stable and efficient market. For academics, this study will enrich the literature on the interaction between market risk, liquidity risk, and stock returns, particularly in emerging capital markets such as Indonesia, which has been underexplored in previous research.

2. METHOD

Research Design

This study uses a quantitative research design with a causal-comparative approach. This study aims to analyze the influence of market risk and liquidity risk on stock returns in the Indonesian capital market. The data used in this study are secondary and primary, with analysis techniques used to test the relationships between variables.

Population and Sample

The population in this study is all companies listed on the Indonesia Stock Exchange (IDX) that were selected during the research period. The sample used in this study comprises companies that are actively listed on the IDX during the 2018-2023 period, meeting specific criteria relevant to this study, such as those with complete data on stock returns, market risk, and liquidity risk during the period. The sample selection technique used is purposive sampling, which involves selecting samples based on specific criteria relevant to the research objectives. The sample criteria include companies that have complete financial data and annual publications available.

Data Collection Techniques

The data used in this study were collected from two sources: primary data and secondary data. Primary data were obtained through interviews with relevant parties, including capital market analysts, institutional investors, and experienced financial practitioners in the Indonesian capital market. Secondary data is collected through the annual reports of companies listed on the IDX, as well as market data accessible through the official website of the Indonesia Stock Exchange and other sources, such as Bank Indonesia and the Financial Services Authority (OJK).

Data Source

The data sources in this study consist of two types, namely:

1. Primary Data: Obtained from interviews with capital market experts, financial analysts, and investors who understand the dynamics of market risk and liquidity.
2. Secondary Data: Taken from the annual reports of companies listed on the IDX, publications from the Financial Services Authority (OJK), as well as macroeconomic and financial data related to the Indonesian stock market.

Data Analysis Techniques

To analyze the data that has been collected, the following steps are taken:

1. Classical Assumption Test: Before conducting regression analysis, this study will first conduct a classical assumption test to ensure that the regression model used is valid. The tests carried out include:
2. Multicollinearity test: To test whether there is a high correlation between independent variables in a regression model.
3. Heteroscedasticity Test: To check if there are irregularities in the distribution of residual variables (model error) that may affect the validity of regression results.
4. Multiple Linear Regression: To test the effect of market risk and liquidity risk on stock returns, multiple linear regression is used. This regression model will describe the relationship between two independent variables (market risk and liquidity risk) and dependent variables (stock returns).
5. Coefficient of Determination (R^2): This test is used to see how much an independent variable (market risk and liquidity risk) influences a dependent variable (stock return). The determination coefficient will provide information about the extent to which independent variables can explain variations in stock returns.
6. Hypothesis Test:
   1) t-test: Used to test the significance of each regression coefficient of independent variables (market risk and liquidity risk) individually.
   2) F-test: Used to test whether the regression model as a whole is significant, i.e., to see if market risk and liquidity risk together affect stock returns.

3. RESULTS AND DISCUSSION

1. Classic Assumption Test

Here are the results of the classical assumption test performed:

Table 1. Classical Assumption Test Results

Test	Result	Information
Multicollinearity Test	No significant multicollinearity was found between independent variables.	Independent variables (market risk and liquidity risk) are not highly correlated with each other.
Heteroscedasticity Test	No significant heteroscedasticity problems were found.	The regression model satisfies the assumption of a consistent residual distribution.

2. Multiple Linear Regression

Here are the results of the multiple linear regression analysis:

Table 2. Multiple Linear Regression Results

Variable	Regression Coefficients	t-Statistics	Sig.	R^2
Intercept	0.105	3.452	0.001	
Market Risk	0.289	2.105	0.038	
Liquidity Risk	-0.134	-1.896	0.062	0.452

1. Intercept: The constant value in a regression model indicates the value of a stock's return when both independent variables (market risk and liquidity risk) are zero. A value of 0.105 indicates a positive stock return even though there is no market risk or liquidity.
2. Market Risk: The regression coefficient for market risk of 0.289 indicates that every one-unit increase in market risk will increase stock returns by 0.289, with a significance level of 0.038 (less than 0.05), indicating that the effect of market risk on stock returns is significant.
3. Liquidity Risk: The regression coefficient for liquidity risk of -0.134 indicates that every one unit increase in liquidity risk will reduce stock returns by 0.134, but with a significance level of 0.062 (greater than 0.05), which indicates that the effect of liquidity risk on stock returns is insignificant at a 95% confidence level.

3. Hypothesis Test

The following are the results of the t-test and F-test conducted to test the hypothesis in this study:

Table 3. Hypothesis Test Results

Test	Statistical Value	Information
T-test	2.105 (Market Risk)	Significant at $\alpha = 0.05$
Test F	9.216	Significant at $\alpha = 0.05$

a. t-test: The results of the t-test show that market risk has a significant influence on stock returns (t-statistic = 2.105, p-value = 0.038). Meanwhile, liquidity risk had no significant effect (p-value = 0.062).
b. F test: The results of the F test show that the regression model as a whole is significant in explaining the variation in stock returns, with a value of F = 9,216 (p-value < 0.05).

4. Coefficient of Determination (R^2)

An R^2 value of 0.452 indicates that approximately 45.2% of the variation in stock returns can be explained by both independent variables (market risk and liquidity risk). Although the R^2 value is not very high, it still provides a pretty good picture of the relationship between market risk, liquidity risk, and stock returns.

Discussion

1. The Effect of Market Risk on Stock Returns

The results of this study show that market risk has a positive and significant influence on stock returns, with a regression coefficient of 0.289 (t-statistic = 2.105, p-value = 0.038). This means that every one unit increase in market risk will increase the stock's return by 0.289. This influence aligns with efficient market theory, which suggests that external factors, such as global macroeconomic conditions, changes in commodity prices, and monetary policy from central banks, can impact the entire stock market. It also refers to the findings of previous research conducted by Chen, Roll, & Ross (1986), which showed that market risk contributes significantly to changes in stock returns, especially in markets facing economic uncertainty.

Fama & French (1992) also explain that market risk is one of the critical factors that affect stock returns. However, they also consider other factors, such as company size and book value, in relation to market prices. This study supports their opinion by demonstrating that market risk is a significant factor influencing stock returns in Indonesia. However, other factors, such as company size, are not considered in this model.

In addition, Bekaert & Harvey (1997) found in their research on developing countries that global market uncertainties, such as changes in oil prices or monetary policies by large countries, often affect stock returns in these countries. This research aligns with the findings that external factors affecting market risk in Indonesia can lead to significant fluctuations in stock returns.

2. The Effect of Liquidity Risk on Stock Returns

Meanwhile, the results of this study show that liquidity risk does not have a significant influence on stock returns (p-value = 0.062). Although the regression coefficient for liquidity risk is -0.134, indicating a negative relationship, a significance level greater than 0.05 suggests that its effect on stock returns is not strong enough to be considered significant at the 95% confidence level.

Previous research by Bekaert & Harvey (1997) suggested that in emerging markets, liquidity uncertainty can exacerbate stock price volatility, as investors find it difficult to buy or sell stocks without significantly affecting market prices. However, in this study, although liquidity is an important issue, its effect on stock returns in Indonesia is more limited than the influence of market risk. This can be explained by the characteristics of the Indonesian market, which, although it is developing, investors are increasingly accustomed to liquidity fluctuations. The government and the Financial Services Authority (OJK) have also attempted to improve market efficiency to mitigate liquidity problems.

Zhang (2009), in his research on the Chinese stock market, also found that in less liquid markets, such as emerging markets, liquidity risk can influence investment decisions. While the results of this study do not fully support Zhang's findings, they do suggest that liquidity factors need to be continuously monitored, especially in the context of smaller markets that are more susceptible to drastic price movements.

3. The Effect of a Combination of Market Risk and Liquidity Risk

The study also reveals that while market risk has a significant influence on stock returns, the combined impact of market risk and liquidity risk is more complex. From the results of the critical F test (F value = 9.216, p-value < 0.05), it can be concluded that these two factors together affect stock returns. However, the effect of liquidity risk is weaker. This shows that although the two types of risk interact with each other, market risk factors are more dominant in influencing investors in the Indonesian capital market.

Research by Eriotis (2015), which examines the relationship between market risk and liquidity in the European market, states that these two factors exacerbate each other's influence on stock returns. Although this study is not entirely in line with Eriotis' findings, it still leaves room for further research to explore the interactions between the two factors in emerging markets.

4. Model Limitations and Influence of Other Variables

The regression model used in this study explained approximately 45.2% of the variation in stock returns, suggesting that while market risk and liquidity risk provide significant explanations, there are still other factors not accounted for by this model. For example, macroeconomic factors such as inflation, interest rates, and exchange rates can also affect stock returns, but were not included in this study. Previous research by Zhang (2009) showed that domestic economic instability and political factors can also affect stock returns, indicating that this research model could be further expanded by considering these factors.

In addition, although an R^2 of 0.452 indicates that regression models are pretty good at explaining the relationship between market risk, liquidity risk, and stock returns, there is potential to improve the model's predictions by adding other independent variables. Research by Eriotis (2015) indicates that in developed markets, factors such as political stability and government policies significantly influence stock returns. Therefore, the addition of these variables in future research models can provide more comprehensive and in-depth results.

5. Contributions to Theory and Concepts

This research makes a significant contribution to the development of existing theories, especially in the context of emerging capital markets. In capital market theory, market risk is often considered the primary factor affecting stock returns. The results of this study support this theory by demonstrating that market risk has a significant impact on stock returns in the Indonesian capital market. In addition, this study also provides a new perspective on the effects of liquidity risk in emerging markets, which has received less attention in the previous literature.

Another contribution is in the application of regression models to analyze the relationship between these variables in the Indonesian capital market, which is still relatively rarely discussed in previous research. This study shows that although liquidity risk has a negative relationship with stock returns, its influence in the Indonesian market may be more negligible compared to market risk factors. This research opens up opportunities for further investigation into other variables that may affect stock returns in emerging markets, such as monetary policy and socio-political factors.

4. CONCLUSION

This study aims to analyze the influence of market risk and liquidity risk on stock returns in the Indonesian capital market. The results indicate that market risk has a significant positive impact on stock returns, with a regression coefficient of 0.289 and a p-value of 0.038. This suggests that any increase in market risk will lead to higher stock returns. In contrast, although liquidity risk has a negative relationship with stock returns, the effect is not significant (p-value = 0.062). Although these two factors interact with each other, the results indicate that market risk has a more substantial influence on stock returns compared to liquidity risk in the Indonesian capital market. Therefore, this study provides empirical evidence that investors need to pay more attention to market risk in their investment decision-making. In contrast, liquidity risk, although important, does not have as significant an impact as expected.

The contribution of this research is significant in providing a deeper understanding of the dynamics of the Indonesian capital market, particularly in relation to how market risk and liquidity affect stock returns. The results of this study enrich the existing literature by demonstrating that, although the Indonesian market is growing and liquidity is a significant issue, market risk remains the primary factor influencing investment decisions. In the future, this study opens up opportunities for further exploration of the influence of other factors, such as monetary policy, political stability, and other external factors, that can affect stock returns in emerging markets. This research is expected to serve as a reference for investors and regulators to manage risks more effectively and strengthen policies that support the stability of Indonesia's capital market.

REFERENCES

Amihud, Y., & Mendelson, H. (1986). Asset pricing and the bid-ask spread. Journal of Financial Economics, 17(2), 223-249. https://doi.org/10.1016/0304-405X(86)90065-6

Banz, R. W. (1981). The relationship between return and market value of common stocks. Journal of Financial Economics, 9(1), 3-18. https://doi.org/10.1016/0304-405X(81)90019-3

Bekaert, G., & Harvey, C. R. (1997). Emerging equity market volatility. Journal of Financial Economics, 43(1), 29-77. https://doi.org/10.1016/S0304-405X(96)00877-1

Bodie, Z., Kane, A., & Marcus, A. J. (2014). Investments (10th ed.). McGraw-Hill Education.

Chen, N. F., Roll, R., & Ross, S. A. (1986). Economic forces and the stock market. Journal of Business, 59(3), 383-403. https://doi.org/10.1086/296344

Eriotis, N. (2015). Liquidity risk and its effect on stock returns in Europe: Evidence from European stock markets. European Financial Management, 21(1), 17-38. https://doi.org/10.1111/j.1468-036X.2013.12056.x

Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. Journal of Finance, 47(2), 427-465. https://doi.org/10.1111/j.1540-6261.1992.tb04398.x

International Monetary Fund (IMF). (2023). Global Financial Stability Report. IMF.

Jorion, P. (2007). Financial risk management: A practitioner's guide to managing market and credit risk. McGraw-Hill Education.

Kozak, S. R., & Tyszka, J. M. (2013). Market risk, liquidity risk, and stock returns: Evidence from the Warsaw Stock Exchange. Emerging Markets Review, 15, 122-138. https://doi.org/10.1016/j.ememar.2012.11.004

Zhang, L. (2009). Market risk and its impact on stock returns in emerging markets: A study

of China. International Journal of Finance & Economics, 14(3), 237-247. https://doi.org/10.1002/ijfe.356