EFFECT OF FREE FLOAT AND VOLATILITY ON STOCK LIQUIDITY IN INDONESIA STOCK EXCHANGE

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Abstract:
Liquidity is one of the essential things when investing in the stock market. The Indonesia Stock Exchange, as a regulator, makes and establishes regulations in the capital market to conduct trading in an orderly, fair and efficient manner. One of the amended provisions in the regulation regards the free Float, or the percentage of the number of shares outstanding in the public, which increases the liquidity of the listed shares. In addition to free Float, the risk in investing also needs to be considered. Behind a high return, there is a high risk as well. High risk in the Volatility of stock returns. High Volatility attracts investors to invest in the stock market. Investors with risk-taking tendencies prefer this high-volatility condition because it allows them to earn higher returns, thereby increasing liquidity through the trading volume of these shares. This study involves several control variables that determine market liquidity: stock return, firm Size, and price. The analysis was conducted on property and construction sector companies listed in 2016-2020. The analytical method used is multiple linear regression analysis using the E-Views 10 application. The analysis results found that free Float and Volatility positively affect stock liquidity, either by including or including control variables. These results indicate that information about free Float and Volatility is a consideration in capital market investment decisions.
Keywords: Indonesia Stock Exchange, Liquidity, Free Float, Risk, Return, Firm Size and Stock Price

INTRODUCTION

The liquidity aspect is important for investors when deciding which stocks to invest in. Liquidity in stock trading is the ease of selling assets without drastic changes in the selling price (Jones, 2014). Based on the number of liquid and idle shares, trading data on the IDX still shows serious market liquidity problems. By looking at these conditions, the IDX implements regulations on free floats to increase market liquidity. This is stated in Regulation No. Kep-00101/BEI/12-2021 (stipulation V.1). Free Float is the total shares owned by the public with ownership of less than 5%, excluding controlling and strategic shareholders. The Free Float ratio is calculated by comparing the number of shares relative to the total listed shares. In addition to free Float, the risk of investing in stocks must also be considered. Behind a high return, there is a high risk as well. High risk is reflected in the Volatility of stock returns. High Volatility attracts investors to invest in the stock market, especially investors with a risk-loving profile; this can increase liquidity through the trading volume of these shares (Sutrisno, 2017).Several studies have been conducted in various countries examining the effect of free Float and Volatility on market liquidity. Research that discusses the impact of Free Float on market liquidity, among others, by Chan et al. (2004), Brockman et al. (2009), Sioud & Yosra (2011), Bostanci & Kilic (2010), alişkan & Kerestecioğlu (2013), Tahernia & Reazei (2013), Wang & Zhang (2015), Ding et al. (2016), Nader G (2018), Fitriani et al. (2020), while research that discusses the impact of Volatility on market liquidity was carried out by Wang et al. (2000), Fong and Chan (2000), Chung & Brockman (2002), Pereira & Zhang (2010), Nayak & Kalimipalli

(2012) and Wahyuliantini & Suarjaya (2015). Each of these studies uses different methods to give different conclusions. Chan et al. (2004) examined the relationship between Free Float and market liquidity on Hong Kong government intervention in August 1998; the results of this study indicate that government intervention that causes a decrease in Free Float affects the liquidity of the HSI index shares. Brockman et al. (2009) explained that there is an adverse relationship between Block Ownership and liquidity; Block Ownership significantly reduces market trading activities, which reduces liquidity. Meanwhile, high Volatility can increase liquidity. Sioud & Yosra (2011) tested the relationship between Free Float and Volatility with Liquidity in shares on the Tunisian Stock Exchange, with the results showing that companies with concentrated ownership (low Free Float) and high Volatility can cause a decrease in liquidity. Bostanci & Kilic (2010) examined the effect of the Free Float ratio on stock returns, Volatility and liquidity on the Istanbul Stock Exchange. The results show that the market appreciation is higher for stocks with a higher floating ratio. Çalişkan & Kerestecioğlu (2013) examined the effect of the Free Float ratio on the daily average stock return, stock price volatility and transaction activity on the Istanbul Stock Exchange. They found that a higher Free Float ratio value would affect a higher price return value, lower price volatility, and increased transaction activity or liquidity. Research conducted by Tahernia and Reazei (2013) on company shares on the Iran Stock Exchange (TSE) shows that the greater the company's Free Float ratio, the greater the liquidity. Wang & Zhang (2015) examined the effect of trading activities carried out by retail investors on the market liquidity of stocks in the NYSE index with the result that trading activities carried out by retail investors could increase market liquidity by reducing information asymmetry, while also explaining that high volatility increase market liquidity. Ding et al. (2016) examine the relationship of Free Float with stock market liquidity in several parts of the world. The results show that stocks with higher Free Float have higher liquidity. The study also explains that Volatility has a negative relationship to liquidity. El-Nader (2018) examines the relationship between Free Float and market liquidity in the U.K. stock market and finds that stocks with high Free Float positively affect liquidity levels. Research conducted on domestic objects by Fitriani et al. (2020) on manufacturing companies on the IDX by adding other variables such as EPS, Stock Return, PBV and PER, found that Free Float has a positive effect on increasing market liquidity on the IDX. Wang et al. (2018) conducted research on two financial futures and two metal futures in the U.S.; The results show that there is a positive relationship between trading volume and Volatility. Fong & Chan (2000) examined the role of the number of trades, trade size, and the Balance Order in explaining the relationship between volume and Volatility, with the results of research explaining that Volatility has a positive and significant relationship to transaction volume (liquidity). This is in line with the results of research conducted by Pereira & Zhang (2010) and Nayak & Kalimipalli (2012), which explain that high Volatility can increase liquidity in company shares and corporate bonds. This differs from the results of the research of Chung and Brockman (2002) and Wahyuliantini and Suarjaya (2015), which explain that Volatility has no relationship to liquidity. Chan (2000) examines the role of the number of trades, trade size, and Balance Order in explaining the relationship between volume and Volatility. The research results explain that Volatility has a positive and significant relationship to transaction volume (liquidity). This is in line with the results of research conducted by Pereira & Zhang (2010) and Nayak & Kalimipalli (2012), which explain that high Volatility can increase liquidity in company shares and corporate bonds. This differs from the results of the research of Chung and Brockman (2002) and Wahyuliantini and Suarjaya (2015), which explain that Volatility has no relationship to liquidity. Chan (2000) examines the role of the number of trades, trade size, and Balance Order in explaining the relationship between volume and Volatility. The research results explain that Volatility has a positive and significant relationship to transaction

volume (liquidity). This is in line with the results of research conducted by Pereira & Zhang (2010) and Nayak & Kalimipalli (2012), which explain that high Volatility can increase liquidity in company shares and corporate bonds. This differs from the results of the research of Chung and Brockman (2002) and Wahyuliantini and Suarjaya (2015), which explain that Volatility has no relationship to liquidity. Moreover, Balance Order explains the relationship between volume and Volatility, with the study's results explaining that Volatility has a positive and significant relationship to transaction volume (liquidity). This is in line with the results of research conducted by Pereira & Zhang (2010) and Nayak & Kalimipalli (2012), which explain that high Volatility can increase liquidity in company shares and corporate bonds. This differs from the results of the research of Chung and Brockman (2002) and Wahyuliantini and Suarjaya (2015), which explain that Volatility has no relationship to liquidity. Moreover, Balance Order explains the relationship between volume and Volatility, with the study's results explaining that Volatility has a positive and significant relationship to transaction volume (liquidity). This is in line with the results of research conducted by Pereira & Zhang (2010) and Nayak & Kalimipalli (2012), which explain that high Volatility can increase liquidity in company shares and corporate bonds. This differs from the results of the research of Chung and Brockman (2002) and Wahyuliantini and Suarjaya (2015), which explain that Volatility has no relationship to liquidity. Zhang (2010) and Nayak and Kalimipalli (2012) explain that high Volatility can increase liquidity, whether company shares or corporate bonds. This is in contrast to the results of the research of Chung & Brockman (2002) and Wahyuliantini & Suarjaya (2015), which explain that Volatility has no relationship to liquidity. Zhang (2010) and Nayak and Kalimipalli (2012) explain that high Volatility can increase liquidity, whether company shares or corporate bonds. This is in contrast to the results of the research of Chung & Brockman (2002) and Wahyuliantini & Suarjaya (2015), which explain that Volatility has no relationship to liquidity.

Based on the descriptions and explanations above, research examining the relationship between Free Float and Volatility in Liquidity has been conducted in many countries. There are different results from several previous studies that need to be more consistent. On this basis, researchers are encouraged to research themes similar to those of different objects and periods. The objects used are property and construction sector companies listed on the IDX for 2016-2020. Research with this group of objects can also add empirical evidence that is considered lacking in this group. Free Float can affect liquidity by changing a company's trading activity. This also applies to Volatility; the higher the risk, the higher the return obtained. It will be attractive to investors with risk-taking tendencies to increase trading volume. The following section will explain the study of theory and formulation of hypotheses, research methods, results of data analysis and hypothesis testing, and ends with a statement of conclusions.

METHODS

This quantitative study examines the causal relationship between the independent variables (free Float and Volatility) and the dependent variable (stock liquidity). Several control variables are controllers: Stock Return, Firm Size and Stock Price. The research data was obtained from the IDX through the website www.idx.co.id. The causal relationship between variables is formulated as a hypothesis formulation, which is then tested based on empirical data. Property and construction sector companies listed on the IDX for the 2016-2020 period as a population obtained a sample of 43 companies, and 215 observation data can be formed. Furthermore, all data were collected and analyzed to determine the significance of the causal relationship between the independent-dependent variables. $Y = \alpha + \beta_1 X_2 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$.

- Y = Liquidity

- α = Constantaβ=Coefisien Parameter
- X_1 = Free Float
- X_2 = Volatiltas/risk
- X_3 = Stock Return
- X_4 = Firm Size
- X_5 = Stock Price
- ε = Error term

Dependent Variable. Stock Liquidity. Measurement of liquidity in this study using Trading Volume Activity, which is the number of shares traded as a percentage of the total number of shares outstanding; referring to the research of Datar et al. (1998), it can be formulated: Trading Volume Activity = (Number of Shares Traded)/(Number of Shares Outstanding)

Independent Variable. Free Float: Outstanding shares excluding ownership by management, government, other companies, and other strategic investors. Referring to the research of Ding et al. (2016), it can be formulated as follows: Free Float = (Number of shares available to be traded on a securities exchange)/(Number of Shares Outstanding).

Volatility (Risk). Volatility is the level of fluctuation in the return of a security or portfolio in a certain period, and it can be used to measure the risk of a stock. Referring to the research of Pereira & Zhang (2010), the measurement of Volatility uses the standard deviation of changes in stock prices and is formulated as follows: Volatility = Std Dev Stock Price Change.

Control Variable. Stock Return: the amount of investment gains and losses over a certain period, measured as a change in the value-added of money distributed over a certain period and expressed as a percentage of the initial investment value. Referring to the research of Biktimirov & Barnes (2003) and Rusliati & Farida (2010), this study uses the HPY (Holding Period Yield) return formula as follows: Stock Return = (HPY) = $(P_t - P_{t-1})/P_{t-1}$.

Information :
- P_t = Share price closing for the current period
- P_{t-1} = Share price closing the previous period

Firm Size. The Size of a company is seen from the equity value, sales value or asset value. The firm size formula referring to Duy & Phuoc's (2016) research is as follows: Firm Size = Ln of Total Aset.

Stock Price. The price formed on the stock exchange can change at any time. The stock price used in this study is the closing price at the end of the year, better known as the closing price. The closing price is considered the most accurate valuation of a stock or security until trading resumes on the next business day and is also used as the basis for calculating a company's stock index.

Data analysis. The data obtained are described in advance to describe each research variable. Descriptive data create a general picture of the trend of research results. Statistics of minimum, maximum, mean, and standard deviation were used. Furthermore, classical assumption tests were performed on the multiple regression model (normality, autocorrelation, multicollinearity, and heteroscedasticity tests).

RESULT AND DISCUSSION

Descriptive statistics. Descriptive data from a sample of 43 companies and 215 observational data are presented in Table 2. It can be seen in the table that the stock liquidity number on the IDX (0.00 – 5.787) has a standard deviation of 0.69. This figure shows that the stock liquidity level on the IDX is still relatively low, only 0.369 on average. The free float variable also shows an identical pattern to the liquidity data, which is between 0.030 and 0.764, with a standard deviation of 0.17.

Meanwhile, the volatility variable also shows a value between 0.00 and 0.572 with a standard deviation of 0.081. To gain confidence that free Float and Volatility affect stock liquidity on the IDX, it is still necessary to test the hypothesis.

The descriptive statistics table also shows that the average value of free Float is around 31.8%. From this value, it can be said that the average company engaged in the property and construction sector in Indonesia has implemented the provisions regarding the number of shares owned by non-controlling shareholders and non-major shareholders of at least 7.5% of the total shares in the paid-up capital, as stated in regulation Number Kep-00101/BEI/12-2021.

Table 1. Descriptive statistics

	Mean	Maximum	Minimum	Std. Dev	Observation
Liquidity (Y)	0.369	5.787	0.00001	0.694	215
Free Float (X1)	0.318	0.764	0.030	0.171	215
Volatility (X2)	0.125	0.572	0.000	0.081	215
Return (X3)	-0.010	6.727	-0.886	0.592	215
Size (X4)	29.380	32.454	23.245	1.581	215
Price (X5)	1,869	36,500	50	4,517	215

Table 1 also describes the descriptive analysis of other independent variables (control variables), namely Return, Size and Stock Price. All control variables have the same pattern as the free float pattern and stock liquidity. The similarity of this pattern can indicate a causal relationship between the control variable and the independent variable.

Empirical Results. This research focuses on testing the effect of free Float and Volatility on stock liquidity on the IDX. Therefore, the formulated hypothesis states that free Float and Volatility positively affect market liquidity in the Indonesia Stock Exchange. Reviews in the descriptive statistics section indicate that the effect is natural and positive. The validity of these indications is tested using statistical data and tools.

Table 2. F test

Weighted Statistics			
R-squared	0.347215	Mean dependent var	0.217483
Adjusted R-squared	0.331599	S.D. dependent var	0.598280
S.E. of regression	0.489129	Sum squared resid	50.00263
F-statistic	22.23337	Durbin-Waston stat	1.593668
Prob (F-statistic)	0.000000		

Based on Table 2, the Prob-F value is 0.0000, smaller than the significant value (alpha), which is 5%. So, the independent variables (free Float and Volatility) and all other control variables used in this study (return, Size and Price) positively and significantly affect stock liquidity.

Table 3. T-test

Variable	Coefficient	Std. Error	t-Statistic	Prob
X1 (Free Float	1.2322	0.3150	3.9120	0.0001
X2 (Volatility)	2.0777	0.4561	4.5552	0.0000
X3 (Return)	0.4853	0.0609	7.9641	0.0000
X4 (Size)	0.0050	0.0346	0.1457	0.8843
X5 (Price)	0.0000	0.0000	-1.5026	0.1345

Based on Table 3, it is known that the independent variables X1 (Free Float) and X2 (Volatilty) partially have a positive and significant effect on the dependent variable with prob-values of 0.0001 and 0.000 because the prob-values in the independent variables are less than the significant level value (alpha) 5%. Based on these results, the free float ratio and Volatility positively and significantly impact stock liquidity in the secondary market. So, the free float ratio and Volatility positively and significantly affect stock liquidity by being tested simultaneously (F-test) or separately (T-test).

This study also includes several control variables to determine other variables that affect stock liquidity: return, Size and Price. Based on the regression results, the Return variable has a positive and partially significant effect on liquidity because its prob-value is smaller than the significant alpha value of 0.005 (5%). Meanwhile, Size and Price have a prob-value greater than a significant value of 0.005 (5%), which shows that company size and stock price do not have a positive relationship with stock liquidity.

CONCLUSION

This study seeks empirical evidence that free Float and Volatility positively influence increasing stock liquidity on the IDX by involving several independent variables that function as controls, including Return, Size and Price. Based on the test results, Free Float significantly positively affects stock liquidity on the Indonesia Stock Exchange. Free Float is one of the things that investors consider when making investment decisions in the Indonesian capital market. The higher the Free Float ratio, the more shares are available in the market, increasing trading activity and liquidity. Volatility variables also positively affect stock liquidity on the Indonesia Stock Exchange. High Volatility attracts investors, especially investors with an aggressive/enthusiastic profile. Risk seekers to invest in the stock market to increase the trading volume of these shares.

Free Float and Volatility positively affect stock liquidity by testing independently or including control variables such as Return, Size and Price. The competent authorities can consider research results in determining capital market policies to create orderly, fair and efficient securities trading, especially regarding limiting the minimum number of shares owned by non-controlling and non-major shareholders. In addition, this study's results can be considered when deciding company policies, especially when deciding the free float ratio of shares listed on the IDX. For investors, the free float ratio can be one of the main factors to consider when making investment decisions on the IDX.

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