

# The Effect of Stock Liquidity and Bid-Ask Spread on Price Reversal Around the Announcement of the Russian Invasion in LQ-45 Companies Listed on the Indonesian Stock Exchange

Karimannisa Alieni\*, Nur Aida Arifah Tara

Mataram University, Mataram, Indonesia

\*Corresponding author. Email: [krmnissalieny@gmail.com](mailto:krmnissalieny@gmail.com)

## ABSTRACT

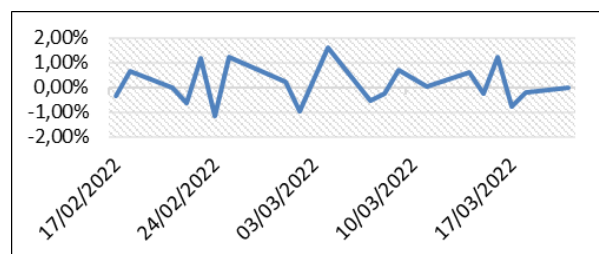
This study aims to examine and analyze the effect of Stock Liquidity and Bid-Ask Spread on Price Reversal around the announcement of Russia's invasion of Ukraine for companies listed in the LQ-45 index on the Indonesia Stock Exchange. The announcement of the invasion is a significant event with major impacts on the global financial market. In this context, this research wants to understand how Stock Liquidity and Bid-Ask Spread affect reversible price changes following the announcement of Russia's invasion. The type of research is associative research with data collection methods namely survey samples. The population in this study were 50 companies listed in the LQ-45 index on the IDX from January to March 2022, using the sampling method namely purposive sampling. Based on the established criteria 40 sample companies were obtained. The data analysis method used is multiple linear regression. The result of this study shows that Stock Liquidity by proxy Trading Volume Activity has a positive and significant effect on Price Reversal, Bid-Ask Spread by proxy the Relative Average Bid-Ask Spread has a positive but not significant effect on Price Reversal.

**Keywords:** Stock Liquidity, Bid-Ask Spread, Price Reversal, Russia's Invasion of Ukraine

## 1. INTRODUCTION

The development of the investment world in Indonesia is currently experiencing a rapid increase in connection with the increasing knowledge of the public about the instruments in the capital market. In reality, the capital market often shows inefficient movements in obtaining profits (abnormal returns). According to Bond and Thaler (1990), anomalies in the capital market are indicated by the fact of stock price reversals which indicate that in stock transactions there has been irrational behavior of market participants.

Global conditions in the capital market show information related to the efficiency of the market. The occurrence of global political tensions caused unrest for the international community, which began in February 2022. The military attack carried out by Russia to Ukraine put pressure on most stock indices on the Indonesia Stock Exchange (IDX). In this case the index stock price shows a negative trend that dives sharply, on the other hand the volume of shares has increased by showing a positive trend.



**Figure 1.** Development of LQ-45 Shares Around the Period

The dissemination of information has the potential to affect movements in the capital market. According to Rahmawati and Soenarso (2022), coinciding on February 24, 2022 when the military operation was announced the JCI number decreased sharply by -1.48% at 6,817.82. Then seen from the movement activity of the LQ-45 index decreased by -1.16%. Then the day after the invasion it increased again by 1.22%. The sudden change in direction of stock prices showing trend fluctuations indicates a price reversal. Some other factors that are thought to cause price reversals are

stock liquidity and bid-ask spread. In relation to stock price reversals (price reversal) companies that have a high level of liquidity describe stocks that are actively traded so that they are easy to trade. If the trading volume decreases, then the current stock price trend is likely to change or a stock price reversal (Pamela, 2015).

Another factor that affects price reversal besides stock liquidity is the bid-ask spread. If the smaller the spread value (difference), the more liquid a stock is. So that investor interest in selling shares will increase which can then cause the phenomenon of stock price reversal and vice versa (Emma, 2014). Research conducted by Dinawan (2007) shows that there is an overreaction from investors in stock price reversals which indicates that the market is not efficient. In addition, winner and loser stocks show that company size, liquidity, and bid-ask spread have a significant effect on stock price reversal.

## 2. RESEARCH METHODOLOGY

This type of research is an associative type of research with a quantitative approach. This study aims to test and analyze the effect of independent or independent variables, namely Stock Liquidity and Bid-Ask Spread on the dependent or bound variable, namely the Price Reversal of stocks in the LQ-45 Index Listed on the Indonesia Stock Exchange (IDX) Around the Announcement of the Russian Invasion.

The population in this study were 50 LQ-45 index companies listed on the Indonesia Stock Exchange (IDX) January-March period in 2022. The sampling technique is purposive sampling with certain criteria, so as to obtain a sample of 40 sample companies.

## 3. RESULTS AND DISCUSSION

### 3.1. Descriptive Statistics

**Tabel 1.** Descriptive Statistical Analysis

	Min (%)	Max (%)	Mean (%)	Std. Dev (%)
CAR (Y)	-59,30	46,10	-0,72	24,00
TVA (X1)	0,10	0,60	0,30	0,12
BAS (X2)	0,40	1,50	0,47	0,25

Table 1 shows that during the period surrounding the Russian Invasion of Ukraine, the dependent variable, namely Price Reversal proxied by Cumulative Abnormal Return (CAR), has a minimum value of -59.30% and a maximum value of 46.10%. Then the average value shows negative results of -0.72% and a standard deviation value of 24.00%. Furthermore, the independent variable, namely Stock Liquidity proxied by Trading Volume Activity (TVA), shows a minimum value of 0.10% and a maximum value of 0.60%. Then the average value shows a result of 0.30% and a standard deviation value of 0.12%. Finally, judging from the second independent variable, namely the Bid-Ask Spread (BAS), it shows a minimum value of 0.40% and a maximum value of 1.50%. Then the average value shows a result of 0.47% and a standard deviation value of 0.25%.

**Tabel 2.** Multiple Linear Regression, t Test, F Test and Coefficient of Determination

Coefficients <sup>a</sup>				
Model		B	t	Sig
1	(Constant)	70,737	2,519	0,030
	TVA (X1)	2,474	5,305	0,000
	BAS (X2)	1,584	1,174	0,268
a. Dependent Variable : CAR				
F Test			F	Sig
			14,205	0,001b
Determination Coefficient Test			R Square	Adj. R square
			0,740	1,721

### 3.2. Model Feasibility Test Results (F)

Based on table 2, it can be seen that the significance value for the regression model equation in the study of the effect of Stock Liquidity and Bid-Ask Spread on Price Reversal is  $0.001 < 0.05$  and the calculated F value of  $14.114 > F$  table 4.459 which means that the regression model equation in this study is feasible to use.

### 3.3. Determination Coefficient Test Results

Based on the results of the calculation of table 4.12, the Adjusted R Square value is 0.686, which means that 68.8% of changes in the Price Reversal variable are influenced by Stock Liquidity and Bid-Ask Spread while the remaining 31.2% is influenced by other factors outside this study.

### 3.4. Multiple Linear Regression Test Results

Based on the results of multiple linear regression testing in table 2, the effect of independent variables on firm value can be determined by the following equation:

$$Y = 20.737 + 2.474X1 + 1.584X2 \quad \dots\dots\dots (1)$$

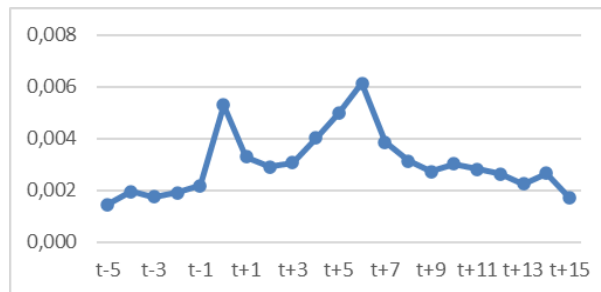
Equation 1 is the equation used in this study. Y is Price Reversal, X1 is Stock Liquidity, and X2 = Bid-Ask Spread.

The first hypothesis in this study is to test whether Stock Liquidity with Trading Volume Activity (X1) has a positive effect on Price Reversal. The test results show that Trading Volume Activity (TVA) has a positive and significant effect on Price Reversal, which is indicated by a regression coefficient value of 2.474 with a significance level of 0.000 smaller than 0.05. So that the first hypothesis of the results of this study is accepted.

The second hypothesis in this study is to test whether the Bid-Ask Spread with Relative Bid-Ask Spread (X2) has a positive effect on Price Reversal. The test results show that the Bid-Ask Spread (BAS) has a positive and insignificant effect on Price Reversal, which is indicated by the regression coefficient value of 1.584 with a significance level of 0.268 greater than 0.05. So that the second hypothesis of the results of this study is rejected.

### 3.5. Effect of Stock Liquidity on Price Reversal

Based on the statistical test on hypothesis 1, it is found that the military declaration of Russia's invasion of Ukraine affects the volume of stock trading on the LQ-45 stock index positively and significantly in the movement of stock prices. In relation to this study, it can be seen that the average trading volume activity (ATVA) in 40 stocks of the LQ-45 index does not experience too much movement but it appears that the average trading volume activity (ATVA) in 40 stocks of the LQ-45 index is not significant fluctuate as shown in Figure 2.



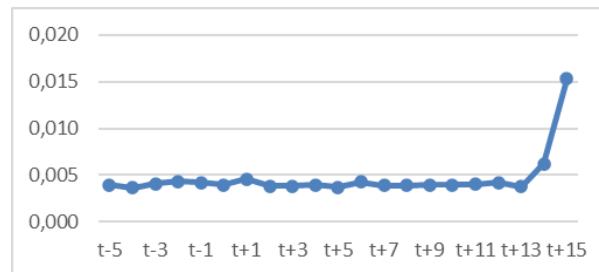
**Figure 2.** ATVA's Movement Around the Russian Invasion

The graph in the figure above shows that there was a sharp increase in ATVA from ATVA at t-1 which amounted to 0.002 and increased at t-0 which amounted to 0.005, then followed by a decrease on the next day (t+1) by 0.003. The activity of stock trading volume movement again increased higher at t+6 by 0.006 and was followed by an increase and decrease during the research time span after the Invasion which ended at t+15 by 0.002. This indicates that a price reversal occurred. A change in stock price in the opposite direction after an extreme change in stock price causes a stock price reversal.

Previous studies suggest that most investors tend to overreact to new information. If an information is considered good, investors will set a high price, otherwise the price will be set low if an information is considered bad. Similarly, in this study, stock trading volume tends to increase after the Invasion declaration because many market participants are interested and assess the good prospects of the stock in providing future returns. The Invasion event is one of the small triggering factors in the increase in average trading volume activity (ATVA). The rest of the investors pay attention to the health of the global economy and company performance in considering a decision. The greater the level of liquidity of a stock, the greater the frequency of transactions that occur, this happens because of the encouragement of investor interest to get a greater return. During the Russian invasion of Ukraine, stock liquidity was able to absorb new information quickly such as the following. This is the case with price reversal events.

### 3.6. The Effect of Bid-Ask Spread on Price Reversal

The test results show that the bid-ask spread has a positive and insignificant effect on price reversal. Bid-ask spread is the difference between the highest purchase price offered by the dealer to buy shares and the lowest selling price offered by the trader. Investors will see the value of the spread which in this case reflects the risk in investing. If an event is considered as positive information in an efficient capital market, the stock will be in demand by investors. This will cause a decrease in liquidity and increase the percentage of bid-ask spread, so that it will affect stock price fluctuations. The graph of the movement of the average bid-ask spread on 40 LQ-45 index stocks below:



**Figure 3.** ABAS Moves Around Russian Invasion

The graph in the figure above shows that there was an increase in ABAS at t+1, which amounted to 0.459. Then followed by a decrease and increase in the following days. On t+14 the increase in bid-ask spread jumped sharply by 0.621. The measurement indicator of bid-ask spread is determined by the strength of supply (bid) and demand (ask) in capital market activities. Price reversal will occur if the level of demand and supply for stocks changes suddenly. However, this is an advantage for investors because with low transaction costs they are able to obtain high liquidity.

Russia's invasion of Ukraine creates uncertainty about market volatility. Bid-ask spread is a factor that needs to be considered by investors in assessing risks that can reduce market liquidity. In this regard, investors become more cautious in making transactions and reacting to new information received because they avoid the risk of a conflict. Other conditions such as with the withdrawal of capital from assets that are considered risky, aiming to increase the bid-ask spread due to the reduced number of buyers and sellers. in the capital market. As reflected in stock price movements, investors will overreact by selling and buying back shares with the aim of capitalizing on undervalued prices which can lead to price reversals.

## 4. CONCLUSIONS

This study aims to test and analyze the effect of stock liquidity and bid-ask spread on price reversal around the announcement of the Russian Invasion on companies listed in the LQ-45 index on the Indonesia Stock Exchange. The announcement of Russia's invasion of Ukraine became a significant event and had a major impact on global financial markets. The results of research on the effect of Stock Liquidity and Bid-Ask Spread on Price Reversal around the announcement of the Russian Invasion of the LQ-45 Companies Listed on the Indonesia Stock Exchange obtained the results of Stock Liquidity as measured by Trading Volume Activity (TVA) has a positive and significant effect on Price Reversal, and Bid-Ask Spread as measured by Relative Bid-Ask Spread has a positive but insignificant effect on Price Reversal.

## REFERENCES

- Anwar, T., Pribadi, P., & Pramono, A. (2018). Pelatihan Pengelolaan Keuangan Bisnis Berbasis Mobile pada Komunitas Pengusaha LAHECI (Laskar Henna Cilacap). *ABDIMAS BSI*, 1(3), 567-575. Diambil dari <http://ejournal.bsi.ac.id/ejournal/index.php/abdimas/article/view/4147/2550>
- Bremer, M., & Sweeney, R.J. (1991). The reversal of large stock-price decreases. *Journal of Finance* 46, 747-754.
- De Bondt, Werner F dan Richard H. Thaler. 1990. Stock market volatility: Do security analysts overreact?, *American Economic Review* 80, 52-57.
- Darmadji, Tjiptono dan Fachruddin. 2012. *Pasar Modal Di Indonesia*. Edisi Ketiga. Jakarta : Salemba Empat.
- Dinawan, M. R. (2007). *Analisis Overreaction Hypothesis, dan Pengaruh Firm Size, Likuiditas & Bid-Ask Spread Terhadap Fenomena Price Reversal di Bursa Efek Jakarta*. Semarang: Program Pascasarjana Universitas Diponegoro. Retrieved from [http://eprints.undip.ac.id/18283/1/Muhammad\\_Rizkada\\_Dinawan.pdf](http://eprints.undip.ac.id/18283/1/Muhammad_Rizkada_Dinawan.pdf)

- Emma, F., & Asandimitra, N. (2014). Pengaruh Likuiditas, Bid Ask Spread, Earning dan Firm Size Terhadap Fenomena Price Reversal Pada Saham Winner-Losser. *Jurnal Ilmu Manajemen*, 502-512.
- Fama, Eugene F. (May 1970), "Efficient market: A review of theory and empirical work", *Journal of Finance*, 25 (2): 383-417.
- Husnan, Suad. 2010. Manajemen Keuangan Teori & Penerapan (Keputusan Jangka Panjang). Edisi Keempat. Yogyakarta : BPF.
- Jogiyanto, H. (2013). Teori Portofolio dan Analisis Investasi. Edisi kedelapan. Yogyakarta: BPF.
- Rahmawati, W. T. and Soenarso, S. A. (2022) IHSG Merosot Akibat Konflik Rusia Ukraina, Bagaimana Investor Sebaiknya Bersikap?, Kontan.co.id. Available at: <https://stocksetup.kontan.co.id/news/ihsgherosot-akibat-konflik-rusiaukraina-bagaimana-investor-sebaiknya-bersikap>. (Accessed: 16 March 2022).