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THE EFFECT OF STOCK PRICE AND TRADE VOLUME OF BID ASK SPREAD IN LQ 45 INDEX Period 2018-2019

Parulian
parulian@pelitabangsa.ac.id
Department of Management, Pelita Bangsa University

Keywords : Stock Prices, Trading Volume, Bid Ask Spread.

Abstract : Analysis of market behavior towards investment decisions in the capital market by looking at the bid ask spread movement. Stock price movements affect the trading volume of shares on the basis of differences in buying and selling prices at a certain time. Trading volume can be seen from the large number of shares traded. This study aims to determine the effect of stock prices and trading volume on the bid ask spread in the LQ 45 index. The population used is all companies incorporated in the LQ 45 index during 2018-2019. The number of samples that meet the requirements of 35 companies. The research method uses panel data with Chow test, Hauman test, t test, F test, and determination with the help of eviews 10. The results show that stock prices affect the bid ask spread and trading volume does not affect the bid ask spread in the LQ45 index. In other words, this condition is due to variations in trading volume that is not too large during the observation period.

1 INTRODUCTION

The capital market is very big role for the economy of a country, especially Indonesia. It is time for Indonesian people to be successful in their own country, for example by saving shares. The large number of Indonesian people who are still laymen by saving shares and prefer saving programs. The importance of studying fundamental analysis and technical analysis in Indonesian society before investing, so that Investors take certain considerations before investing their money, for example market behavior. One of the market behaviors is bid ask spread. Bid ask spread representative costs that are not always clear to the initial investor. The bid itself represents the difference in the highest price the buyer is willing to pay. Transaction occurs when the seller takes the offer price or the buyer accepts the asking price. Bid ask spread is an important thing to consider because some investors when trading securities have hidden costs when trading stocks, bonds or foreign currencies, if the Bid ask spread is very wide then it can erode trading profits and the impact can be reduced by using a limit order, Evaluate the percentage spread and spend around the narrowest spread.

Bid ask spread is the difference between the value of the highest demand an investor wants to sell and the lowest bid of a daeller wants to buy (Ni Made Wahyuliantini, 2015). Spread has two models, market spread and dealer spread. Determination of the amount of spread by the market maker is compensation to cover the existence of three types of costs including the cost of share ownership, order costs and information costs. Stocks with a large bid-ask spread (small) holding period that will be conducted by investors will also be longer (shorter), this is to take into account the return on costs incurred and realize the expected large return (Dwi ratih, 2018).

Stock prices depend on the strength of supply and demand. High stock prices and fierce competition will cause selling prices to decline and purchase prices continue to rise. The stock price also shows the value of the company itself. The price of the shares prevailing in the capital market is determined by market participants who are conducting their share trading with the price of the shares determined automatically trading shares on the stock exchange will run. The effect of stock prices on bid ask spread according to Pantoni and lasmana (2015) that stock prices have no effect on bid ask spread. Stock prices negatively affect the bid ask spread. When the stock price is high, it means that the stock is actively traded, so the dealer will not keep the stock for too long. This will have an impact on the bid-ask spread and lower ownership costs, which in turn will lead to higher stock prices and smaller bid-ask spreads (Wahyuliantini and Suarjaya, 2015).

The volume of stock trading is used to measure whether investors know the information released by the company and use it in buying or selling shares so that they will get above normal profits. The trading volume is partly the size of the activity of the number of shares traded on a certain day. Not only stock prices but the trading volume of shares also affects the bid ask spread. Trading volume is an indicator of stock liquidity or information available on the capital market. A small trading volume tends to show investors' uncertainty about a stock being traded in contrast to a large trading volume indicating that the stock is in demand by investors. Trading volume activity is used to measure the liquidity of a stock, the value of trading volume activity shows that the stock is more liquid. According to Aprilia (2015), Delaer will change its share ownership position (not holding shares for too long) so that the cost of ownership will be lower (reducing bid-ask spreads). Stock prices and trading volumes affect the bid ask spread before and after the financial statements on the IDX find if the trading volume has a positive influence on the bid-ask spread.

According to Sri Utami Ady (2010) states that the share price variable has a significant positive effect if long registered and will not have a significant negative effect, while Aprilia's (2015) research and Widhyawati and Damayanthi (2015) found that trading volume has a negative effect on the bid-ask spread. Dewi and Kartika (2015), Perdana and Kristanti (2014) and Surya (2016) found that there was no effect of trading volume on bid-ask spreads. Increased trading volume will cause stocks to become more liquid, so dealers do not need to keep stocks for too long, then the cost of share ownership goes down and the bid-ask spread narrows. While the variable price volatility has a significant negative effect on the bid-ask spread (Hamidah, 2018).

2 LITERATURE REVIEW

Stock Price

Share price is the price determined on a stock when the stock market is in progress by taking into account the demand and supply of these shares (Sunarko, 2016). When the stock price is high, it means that the stock is actively traded, so the dealer will not keep the stock for too long. This will have an impact on the bid-ask spread and lower ownership costs, which in turn will lead to higher stock prices and smaller bid-ask spreads (Wahyuliantini and Suarjaya, 2015). High stock prices indicate increasingly intense competition among market participants (especially market makers). This tighter competition causes the selling price (ask) which tends to fall and the purchase price (bid) which tends to rise, so that the spread narrows (Ady, et al in Hamidah, 2018).

Stock Trading Volume

Trading volume is defined as the large number of shares traded. With a large trading volume, it shows that these stocks are favored by investors. These conditions will encourage dealers to not own shares in a long period of time so that it will reduce ownership costs. Bid-ask spread has a positive effect on the cost of ownership. This means that the wider the bid-ask spread of shares will cause the higher cost of ownership, and vice versa, the lower the cost of ownership which will have an impact on the smaller bid-ask spread. So, by itself the more active trading of a stock or the greater the trading volume, the bid-ask spread will be smaller. So it can be said if the stock trading volume has a negative effect on the bid-ask spread (Stoll in Dewi and Kartika, 2015).

Bid Ask Spread

Bid ask spread is the difference between the highest price the buyer wants to pay (bid) for security and the lowest price the seller wants to receive. Bid ask spread is an important consideration for investors when trading securities, because of the hidden costs that arise when trading. According to Stoll in Hamidah (2018), the bid-ask spread is a function of three cost components, namely inventory holding costs, order processing costs and information asymmetry costs. Spreads cannot be separated by activities carried out by bourse members which can affect the amount of securities transactions in the capital market. According to Kevin Immanuel (2017) Bid ask spread is the difference between buying and selling prices at a certain time. The distance or difference in buying and selling prices is often used as an indication of market liquidity. That is, if the spread decreases, the higher the liquidity of the market at that time. One way to increase stock liquidity is to take stock split.

Framework

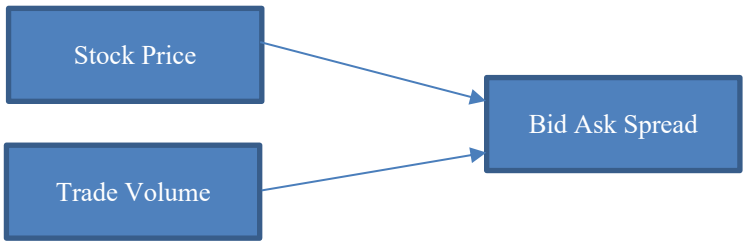

Figure 1. Research Framework

Source: Researcher data, 2019.

Hypothesis 1

Stock prices have a significant effect on bid ask spread, which in this hypothesis is supported by Ni Made Wahyuliantini and Anak Agung Gede Suarjaya's research, in the article entitled Influence of stock prices, stock trading volume, and volatility of retrun shares on bid ask spread: Vol. 9, 146 No. 2, August 2015 produced the conclusion that the results of the study showed that stock prices had a negative and significant effect on the bid-ask spread.

Hypothesis 2

Trading volume will have a significant effect on the bid ask spread. This hypothesis is supported by Aida Yulia and Ikramaturrabiah's research in the article entitled The Effect of Internal Control, Stock Volatility, and Trading Volume on Bid-Ask Spreads in Companies Listed in the LQ45 Index Year 2011-2015 published in the journal Education accounting and finance Vol. 6, No. 1, 2018 yields the conclusion that trading volume has a significant negative on bid-ask spreads.

3 METHODOLOGY

The design of this study uses a quantitative approach to obtain empirical evidence of the effect of stock prices and trading volumes on the bid ask spread in the LQ 45 index. This research is associative in nature which aims to determine the causal relationship arising between two or more variables, the method of analysis of this study uses panel data regression method with the help of Eviews 10 application in processing data. This research is associative in nature which aims to find out the causal relationship arising between two or more variables. The method of analysis of this study uses panel data regression method, using secondary data on the IDX and when the study was conducted in May to September 2019.

4 FINDINGS AND DISCUSSION

Research Data Analysis

The object of this research is the LQ 45 index company. This study uses secondary data on the bid price, ask price, tradable share, outsanding share, and complete stock prices for the period February 2018 - January 2019. This study aims to analyze the effect of stock prices and trading volume against the bid sk spread in LQ 45 for the period 2018-2019. Based on the estimation technique the regression model with panel data can be estimated using three methods, namely PLS, FEM, or REM.

Descriptive Statistics

Descriptive statistics aim to provide a description or description of data that is seen from the minimum value, maximum value, mean value, and standard deviation value. Based on the results of data analysis can be described as follows:

Table 1. Descriptive Statistical Test Results

	N	*Minimum*	*Maximum*	*Mean*	*Std.Deviation*
Bid ask spread	35	-0,048330	0,016600	0,004167	0,003048
Stock Price	35	327,0000	83217,00	8686,817	14982,64
TVA	35	8,00e-05	0,041200	0,001836	0,002713

Source: Eviews 10 output, processed by researchers, data processed by Eviews 10.

Based on the results of the descriptive statistics in table 1, an overview of each variable can be seen as follows:

1. Bid ask spread of shares of companies listed in the LQ 45 index for the period 2018-2019.

Table 1 shows that the magnitude of the company's bid ask spread from 35 data ranges from -0.048330 to 0.016600 with a mean of 0.004167 at a standard deviation of 0.003048. Mean is greater than the standard deviation (0.004167> 0.003048) means that the bid ask spread data distribution is good, namely the value of the data deviation from the mean is smaller. The highest bid ask spread is at TPIA companies with a value of 0.01276 while the lowest bid ask spread is at BBCA companies with a value of 0.00136.

2. The company's stock price listed in the LQ 45 index for the period 2018-2019.

Table 1 shows that the magnitude of the company's stock price from 35 data ranges from 327,0000 to 83217.00 with a mean 8686,817 at a standard deviation of 14982.64. The mean is smaller than the standard deviation (8686,817 <14982.64) means that the value of the distribution of stock price data is good, namely the value of the data deviation from the mean is greater. The highest share price in the GGRM company with a value of 83217 while the lowest share price in the SRIL company with a value of 327.

3. Trading Volume of Stocks of companies listed in the LQ 45 index for the 2018-2019 Period.

Table 1 shows that the size of the company's Trading Volume from 35 data ranges from 8.00 e-05 to 0.041200 with a mean of 0.001836 at the standard deviation of 0.002713. The mean is smaller than the standard deviation 0.001836 <0.002713) means that the value of the distribution of trade volume data is good, namely the value of the data deviation from the mean is greater. The highest trading volume was in SRIL companies with a value of 0.04120 while the lowest trading volume was in TPIA companies with a value of 0.00008.

Panel Data Regression Model Determination Test

The selection of the test model on panel data regression is an analysis to determine which estimation method is the best between the common effect model, fixed effect model and random effect model.

Chow Test

A Chow Test is performed to determine the fixed effect model or common effect model to be used. If the results show a significant chi square probability (less than 0.05), the model used is a fixed effect, and vice versa if the chi square probability value is more than 0.05, then the model used is the common effect (Ghozali in Hamidah, 2018)

Table 2. Chow Test Results

Redundant Fixed Effects Tests			
Equation: FEM			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.

Cross-section F	1.847607	(34,383)	0.0034
Cross-section Chi-square	63.788427	34	0.0015

Source: Eviews 10 output, processed by researchers, data processed by Eviews 10.

Based on the results listed in the Chow test table shows the chi-square probability value of 0.0015 <0.05 then Ho is rejected and H1 is accepted, so it can be said if the Chow Test results show that the most appropriate analytical model used is the fixed effect model. Because the chosen model is Fixed effect, it can then be done with Husman Test to determine between the fixed effect or random effect model that will be used.

Hausman Test

The Hausman test is used to determine the most appropriate fixed effect model with the random effect. If the results show that Ho is rejected (the probability is significant or less than 0.05), the model used is fixed effect. But if H1 is rejected (probability is more than 0.05) then the model used is random effect. (Ghozali in Hamidah, 2018).

Table 3. Hausman Test Results

Correlated Random Effects - Hausman Test			
Equation: REM			
Test cross-section random effects			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random	0.201641	2	0.9041

Source: Eviews 10 output, processed by researchers, data processed by Eviews 10.

Based on the results listed on the Hausman test table shows a probability value of 0.9041. Because the probability value is 0.9041> 0.05 then Ho is accepted and H1 is rejected, so it can be said if the Hausman test results show that the panel data regression analysis model for this study is the most appropriate to use is the Random Effect Model.

Lagrange Multiplier Test (LM Test)

LM test is used to choose which method is the most appropriate between the common effect model and the Random Effect Model.

Table 4. Lagrange Multiplier Test

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	9.004438	0.043189	9.047627
	(0.0027)	(0.8354)	(0.0026)
Honda	3.000740	-0.207820	1.974892
	(0.0013)	--	(0.0241)
King-Wu	3.000740	-0.207820	1.302962
	(0.0013)	--	(0.0963)
Standardized Honda	3.389175	-0.013079	-2.695937

	(0.0004)	--	--
Standardized King-Wu	3.389175	-0.013079	-2.874692
	(0.0004)	--	--
Gourierioux, et al.*	--	--	9.004438
			(< 0.01)

*Mixed chi-square asymptotic critical values:

1%	7.289
5%	4.321
10%	2.952

Source: Eviews 10 output, processed by researchers, data processed by Eviews 10.

Based on the model specification test using the Lagrange Model (LM) test. If the LM value is greater than the Chi-Square critical value, then the Random Effect Model is selected or the probability value is smaller than 5%, then the Random Effect Model is chosen.

Panel Data Analysis

The following are the results of the panel data regression test using the Random effect model for the variable Stock Prices and Trading Volume Against the Bid Ask Spread shown in the table. Panel Data Regression Test Results with Random Effect Model.

Table 5. Panel Data Regression Test Results with the Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.004457	0.000265	16.79503	0.0000
HS	-3.15E-08	1.35E-08	-2.342394	0.0196
TVA	-0.008413	0.061204	-0.137452	0.8907

Source: Eviews 10 output, processed by researchers, data processed by Eviews 10.

Information:
C is Bid Ask Spread
HS is the Share Price
TVA is the trading volume

Based on the data above, the probability of HS (share price) of 0.0196 is smaller than the significant value of 0.05 so that the HS variable (stock price) has a significant effect. While the probability value of TVA (Trading Volume) of 0.8907 is greater than the significant value of 0.05 so it has no significant effect.

Based on table 5.5 above, the panel data is obtained using eviews 10 for windows as follows:

BIDAS = 0.004457 - 3,158-08 HS - 0.008413 TVA

1. A constant of 0.004457 means that if HS and TVA are constant, then an increase in probability (BIDAS) is 0.004457.
2. Regression coefficient for HS (stock price) is -3.15E-08 meaning that every increase in HS (stock price), it will be predicted to increase the value of BIDAS (Y) by -3.15E-08 assuming other variables are constant.
3. Regression coefficient for TVA (trading volume) is -0.008413 meaning that every increase in TVA (trading volume), it will be predicted to decrease the value of BIDAS (Y) by -0.008413 assuming other variables are constant.

According to Agus Widarjono in his book entitled Ekonometrka, the random effect method is derived from a disturbance variable consisting of two components, namely the overall disturbance variable which is a

combination of time series and cross section and individual interruption variables. Random effects are also called the Error component Model (ECM). Assumptions relating to interference as follows:

1. The expected value of the zero disturbance variable
2. Variants of homoskedatic disorders
3. There is no correlation between two different companies.
4. Interference variables from the same company in different periods.
5. Interference variables from different companies at different times are not correlated.

The superiority of panel data causes panel data to be able to detect and measure impacts better which this cannot be done by cross section or time series methods. The classic assumption test is not needed in panel data analysis because panel data can minimize what is most likely to appear in the analysis results, provide a lot of information, variations, and degrees of freedom. Panel data allows more complex study of the behavior that exists in the model, so testing panel data does not require a classic assumption test (Gujarati 2012 in Kasmiarno (2017)).

Hypothesis Testing

Hypothesis testing is a test conducted with the aim of deciding whether to accept or reject the hypothesis.

Partial Test (Statistical Test t)

This statistical test T is used to partially test whether each independent variable influences the dependent variable significantly to the Y variable.

Table 6. T Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.004457	0.000265	16.79503	0.0000
HS	-3.15E-08	1.35E-08	-2.342394	0.0196
TVA	-0.008413	0.061204	-0.137452	0.8907

Source: Eviews 10 output, processed by researchers, data processed by Eviews 10.

Based on table 6, the regression results can be concluded as follows:

1. Effect of stock prices on Bid Ask Spread

Based on the results of the t test (partial) X1 probability value obtained (stock price) of 0.0196, It can be concluded that H0 and Ha are accepted, because the probability value obtained 0.0196 <0.05 means that X1 (stock price) has an influence on the Bid ask spread.

2. Effect of Trading Volume on Bid ask spread.

Based on the value of the T test (partial) X2 probability obtained (TVA) of 0.8907, it can be concluded that Ha is rejected and H0 is accepted, because the probability value obtained is 0.8907> 0.05 meaning X2 (Trading Volume) has no effect on the Bid Ask spread.

Determination Coefficient Test

In the panel data regression results obtained coefficient of determination which shows the ability of variations of the independent variable (independent variables) together in explaining the dependent variable, where the coefficient of determination is very low with a value of 0.008471.

The effect of stock prices on the bid ask spread

Based on partial test (T test) shows that X1 (stock price) has a significant effect on bid ask spread. It can be seen that the significance value is 0.05> 0.0196. Then it can be concluded that H1 is accepted or X1 (stock price) affects the bid ask spread. This means that an increase or decrease in stock prices affects the decrease or increase in the bid ask spread. The results of this study also theoretically support that high stock prices indicate

increasingly intense competition among market participants. Increasing competition causes selling prices to fall and purchase prices to rise, so that the spread narrows (Ady et al., 2010). High stock prices indicate that the stock price is actively traded or preferred by investors. Therefore, dealers do not need to hold or store shares for too long, so as to reduce the cost of ownership of shares which will then reduce the bid ask spread (Ni Made Wahyuliantini, 2015).

Effect of trading volume on bid ask spread.

Based on partial test (T test) shows that X2 (trading volume) does not significantly influence bid ask spread. It can be seen that the significance value is 0.05 <0.8907, it can be concluded that H2 is rejected or X2 has no effect on bid ask spread. The results of the analysis of this study do not support that stock trading volume significantly influences the bid ask spread, this means that the stock trading volume does not significantly influence the bid ask spread in the LQ45 index. In other words, this condition is due to variations in trading volume that is not too large during the observation period. There is no significant change in the stock trading volume variable. There is also the possibility that investors are not paying attention to trading volume, because they consider companies incorporated in the LQ45 index are actively traded shares, according to the results of Chadijah's research in Ni Made Wahyuliantini (2015). in companies that do delisting.

5 CONCLUSION

This study aims to determine the effect of stock prices and trading volume on Bid Ask Spread on companies listed in the LQ 45 index for the period February 2018 - January 2019. The results of hypothesis testing using panel regression data analysis show that stock prices have a significant effect on Bid ask spread . This is evidenced by the value of the stock price regression coefficient of 1.35E-08 with a probability of 0.0196. Significance value is smaller than the significance value used that is 0.05 (Ha accepted) This means that an increase or decrease in stock prices affect the decrease or increase in the bid ask spread. The results of this study also theoretically support that high stock prices indicate increasingly intense competition among market participants. Stock trading volume does not significantly influence Bid ask spread. This is evidenced by the value of the regression coefficient of the trading volume of shares of 0.061204 with a probability value of 0.8907. Significance value is greater than the significance level used which is more than 0.05 (Ha rejected), this means that the trading volume of shares does not significantly influence the bid ask spread in the LQ45 index. In other words, this condition is due to variations in trading volume that is not too large during the observation period. There is no significant change in the stock trading volume variable. There is also the possibility that investors will pay less attention to trading volume, because they consider that companies incorporated in the LQ45 index are actively traded stocks.

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