Comparison of Abnormal Return and Share Liquidity in 2019 Election of President and Vice President of Indonesia
(Event Study of LQ45 and PEFINDO25)

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Abstract:- This study is conducted to scrutinize political event effect towards the stock liquidity and market reaction in Indonesia. 2019 Presidential Election is being the focus of the study and using both abnormal return and bid-ask spread as the parameter of the study. The samples of this study are listed stocks from both LQ45 and PEFINDO25 Index that are actively traded on April 3, 2019 to May 1, 2019. Parametric t-test and paired sample t-test are being utilized to measure the hypotheses. Overall, the results of the study explain that the market is not significantly react to the presidential election and this can be understood because market has already hypothetically known the winner of the election previous of the announcement in media. This study also strengthens the major studies that Indonesia Stock Market is not an efficient market.

Keywords:- component; Abnormal return; bid-ask spread; paired sample t-test; Indonesian president and vice-president election.

I. INTRODUCTION

In the era of the 20th century, investment experts say that the era of this century is an era of investment without time and space boundaries. This era is also a very good momentum for investors to invest their funds. When an investor invests, there is a goal the investor wants to achieve. The aim of investors in investing is to maximize returns, without forgetting the investment risk factors they must face [1]

Shareholders desire for liquidity can change from day to day and from month to month resulting in random price changes. To help detect random price changes, investors use one of two types of investment analysis, namely fundamental analysis and technical analysis [2]

The capital market has an important role in economic life, especially in the process of allocating public funds. The capital market provides parties who have a surplus of funds in society (savers or investors), a higher level of liquidity, and also move those who need funds (companies) to obtain the funds needed for investment [3]

As one of the drivers of a nation's economy, the capital market can be influenced by various environmental influences, both economic and non-economic. The influence of the microeconomic environment such as company performance, changes in corporate strategy, announcements of financial statements or company dividends always receives responses from capital market players. In addition, changes in the macroeconomic environment also have an impact on capital market conditions such as changes in savings and time deposit rates, foreign exchange rates, inflation, and various economic regulations and deregulations issued by the government.

The influence of the non-economic environment, although not directly related to the dynamics occurring in the capital market, cannot be separated from the activities of the stock exchange. Such non-economic environment, such as green movements, cases of human rights (HAM), and political events are often the main factors triggering fluctuations in stock prices on the stock exchange.

Political events such as presidential elections (pilpres), legislative elections (pileg), changes of government, cabinet ministerial announcements, national unrest, conflicts between regions greatly affect stock prices on the stock exchange because political events are closely related to the stability of the country's economy.

Stock exchange activities, especially activities on the stock exchange, as part of economic activity, did not escape the effects of the political turmoil. Political events do not directly interfere with the stock market, but this incident is one of the information that is absorbed by capital market players and is used by these players to obtain the expected profits in the future.

According to Tandelilin (2017) [4], there are three main types of information that need to be known. The first is fundamentally related to the condition of the company, the second is information related to technical factors that are important for securities trading intermediaries and investors to know and information, the third is related to environmental events or factors including economic, political and security conditions of the State. One of the political

events whose information content is to be tested on stock exchange activity is the events of the Indonesian presidential and vice-presidential election on April 17, 2019.

To see and test the relationship between investment risk and stock price volatility, the researchers conducted an event study regarding the relationship between abnormal returns and stock liquidity with the 2019 presidential and vice-presidential election events with the aim of testing the strength of the information content of an event against an event in the form of intervention. from stakeholders regarding policies that must be taken in reducing panic in the stock exchange.

This study aims to first, analyze the development of abnormal returns and stock liquidity before and after the 2019 general election for the president and vice president of Indonesia. Second, to analyze how is the difference between the abnormal returns of companies listed on the LQ-45 index and PEFINDO25 index during the 2019 general election for the president and vice president of Indonesia and to analyze how How is the difference in the liquidity of LQ-45 and PEFINDO25 shares during the 2019 general election for president and vice president of Indonesia.

II. LITERATURE REVIEW

A. Random Walk Theory

The results of research conducted by Maurice Kendall in 1953 stated that stock price patterns were unpredictable because they moved randomly (random walks). Stock prices move randomly means that stock price fluctuations depend on new information to be received, but the information is not known when it will be received so that new information and share prices cannot be predicted.

B. General Election (Pemilu) of President and Vice President 2019

General elections are a means of conveying aspirations by citizens in the form of electing candidates for political power in a country and also a form of democratic "party". The election of the President and Vice President is a large-scale political event that has a very large national influence in a country and even affects foreign countries. Such as research conducted by Tufte in 1978 which examined the effect of presidential elections in America on the economy. Tufte in Chrétien and Coggins [5] found that presidential elections in the United States can closely and effectively affect economic growth in Canada, France, Germany, Japan and the UK (United Kingdom). In addition, they also found that the presidential election event in the United States had a major impact or impact on 18 international stock returns, including stocks from Canada.

C. Efficient Market Hypothesis

The theory relating to the information in the capital market is the efficient market hypothesis (EMH) [6]. According to Fama (1970) [7], a market is said to be efficient if security prices "fully reflect" the information available (a security market is efficient if security prices "fully reflect" the information available "). Foster (1986) [8]

states that the efficient price of the capital market is related to a certain item of information. To facilitate research on market efficiency has classified efficient market forms into three efficient market hypotheses (EMH), as follows:

➤ *Efficient in weak form (Weak form)*
An efficient market in weak form means that all past information will be reflected in current prices. Therefore, such historical information (such as trading prices and volumes, as well as past events) can no longer be used to predict future price changes, as they are already reflected in current prices.

➤ *Efficient in the form of a half strong (semi strong)*
An efficient market in a semi-strong form means that the current stock market price reflects historical information plus published information (such as earnings, dividends, stock split announcements, issuance of new shares, financial difficulties experienced by the company, and other published events which impact on the company's future cash flow).

➤ *Efficient in strong form*
Efficient market in strong form means that the current stock market price reflects added historical information and all published information is added with unpublished information. In a strong form of efficient market there is no investor who can get an abnormal return.

D. Stock Price Index

According to the Indonesia Stock Exchange on the website www.idx.co.id, the stock price index is an indicator or reflection of stock price movements and the index is one of the guidelines for investors to invest in the capital market, especially stocks. Because the index involves a number of facts as well as a certain amount that describes the changes in the price of shares in the past that are considered, it is a form of historical information that is very appropriate to describe stock price movements in the past and to provide a description of stock prices at a certain time or in a certain period.

➤ *LQ-45 index*
The LQ-45 index consists of 45 stocks on the IDX with high liquidity and large market capitalization and has passed the selection according to several selection criteria. The following criteria are used to select the 45 stocks that are included in the LQ-45 index based on the website www.idx.co.id are as follows: Included in the order of 60 largest share transactions in the regular market (average transaction value for the last 12 months);

Furthermore, the stock exchange regularly monitors the performance development of each of the 45 stocks included in the calculation of the LQ-45 index. Shares replacement is carried out every six months, namely in early February and August. If there are shares that do not meet the selection criteria, those shares will be removed from the index calculation and replaced with other shares that meet the criteria.

➢ *PEFINDO25 index*

PEFINDO25 is a stock price index with members consisting of small and medium-sized companies (SME) selected with certain criteria. PEFINDO25 was introduced on 18 May 2009 and is reviewed 2 times a year, namely every January and July. PEFINDO25 is the Stock Price Index of issuers that are regularly selected based on financial performance and liquidity performance, which are representatives of medium-sized issuers with the best development potential, based on the selection criteria specified above.

E. Stock Liquidity

Liquidity is the company's ability to convert assets into cash or the ability to obtain cash easily and quickly (Ross et al, 2007). So, a stock is said to be liquid if the stock is easy to exchange or make money. Stock liquidity is a measure of the number of transactions of a share in the capital market in a certain period. Holmstrom and Tirole (1997) [9] define stock liquidity as the difference in the bid-ask spread and the amount traded. The bid-ask spread is inversely related to stock liquidity. If the liquidity of a stock is high, the bid-ask spread is low. The bid price or the buying rate is the highest price paid by a buyer of a particular security. The ask price (selling rate) is the lowest price a seller is willing to offer to a buyer of securities. This offer is made by the broker. The spread is the difference between the selling rate and the buying rate. This difference represents the costs incurred plus the expected return by the broker.

F. Expected Return

Expected return is the return that occurs at time t which is the difference in current prices relative to the previous price or can be calculated by the formula (Pi, t - Pi.t-1) / Pi, t-1. Meanwhile, the predicted return is the return that must be estimated (Jogiyanto,2010) [10]. Tandelilin (2017)[4] estimate predicted returns using three estimation models as follows:

➢ *Mean-Adjusted model*

This mean-adjusted model assumes that the predicted return is constant, which is the same as the previous average realized return during the estimation period, as follows:

➢ *Market model*

The calculation of the predicted return using the market model is carried out in two stages, namely (1) forming a predictive model using the realization data during the estimation period and (2) using this expected model to estimate the predicted return in the window period.

➢ *Market-Adjusted Model*

The market-adjusted model assumes that the best predictor for estimating the return of a security is the current market index return. By using this model, it is not necessary to use the estimation period to form an estimation model, because the estimated security return is the same as the market index return.

➢ *Abnormal return*

Abnormal return is the return obtained from investors that is not in accordance with the return expectations desired by investors. Abnormal return is the difference between the expected return and the expected return. The difference in return will be positive if the return obtained is greater than the expected return or the return that is calculated.

➢ *Actual Return*

Realized return is the return that has occurred, while the expected return is the return expected by investors in the future. The sources of investment returns consist of yields and capital gains (losses). According to Jogiyanto (2009: 557-558) returns are divided into normal returns and abnormal returns. The normal return is the return on investment expected by investors.

Based on the above conclusions and the results of previous research, as well as in accordance with the research objectives previously mentioned, a theoretical framework is built as shown in the following figure:
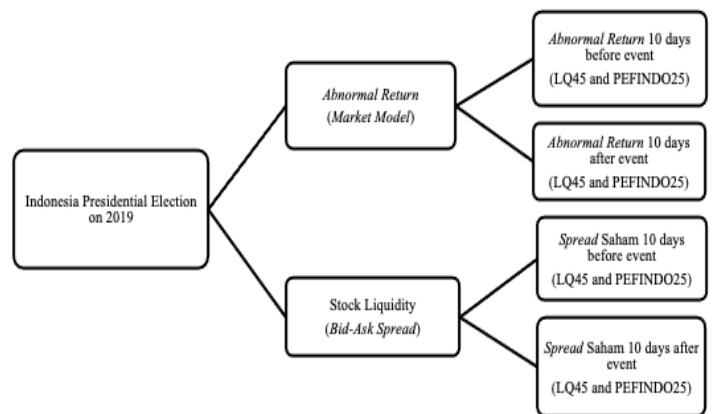

Fig. 1. Framework

Hypotheses Development:

H1: there is a significant difference in average abnormal returns before and after the 2019 presidential and vice-presidential election events in LQ-45 stocks

H2: There is a significant difference in the average abnormal return before and after the 2019 presidential and vice-presidential election events in PEFINDO stocks25

H3: There is a significant difference in stock liquidity in LQ-45 shares before and after the 2019 presidential and vice-presidential election events.

H4: there is a significant difference in stock liquidity in PEFINDO25 shares before and after the 2019 presidential and vice-presidential election events.

III. RESEARCH METHODS

This type of research, when viewed from the analysis and type of data, is a type of quantitative research. The type of data in this research is secondary data. The data used in this study is secondary data sourced from the Indonesia Stock Exchange (BEI). Secondary data required in this study are daily stock trading data for the LQ-45 company that made transactions on the Indonesia Stock Exchange (IDX) in the period January 4, 2019 – May 1, 2019.

A. Sample

The sample selection is done by using purposive sampling method, which means that the population that will be used as the research sample is a population that meets certain sample criteria according to what the researcher wants. The criteria for stocks that will be conducted by the research to be used as research samples are as follows:

➢ Issuers - issuers listed on the Indonesia Stock Exchange (IDX) during the research period
➢ Registered as a member of the LQ45 and PEFINDO25 Index during the research period which lasted from 7 April 2019 - 27 April 2019
➢ Record stock trading transactions during the research period

Based on the sample selection criteria above, the total sample size is 45 LQ-45 companies and 25 PEFINDO25 companies.

B. Data Collection Method

The method of collecting data in this research is the documentation method. According to Cooper and Schindler (2013) [11], the method of documentation is looking for data about things or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, leggers, agendas and so on. The data used in this study consisted of from the closing price of each company's daily shares included in the LQ-45 and PEFINDO25 shares which are actively traded from January 4, 2019 – May 1, 2019., daily data on the Jakarta Composite Index (IHSG) from January 4, 2019 – May 1, 2019., and daily Bid and Offer data of both LQ45 and PEFINDO25 shares from January 4, 2019 – May 1, 2019.

C. The Data Analysis Technique

The data analysis technique in this research is to use an event study. The information content of the events to be examined in this study is the 2019 presidential and vice-presidential election events in Indonesia. In this study, this study observes stock price movements on the Indonesia Stock Exchange to analyze the difference in the average abnormal return and bid-ask spread obtained by investors between before and after the event, and analyze the difference in the average stock spread before and after the event. The window period of this study has a window period of 21 days and an estimated period of 100 days. The 21 days span of the study consisted of 10 days before the election event, 1 day of the election event (defined in number 0), and 10 days after the event.

IV. RESULT

A. Descriptive Analysis of Abnormal return

An analysis of the impact of the capital market reaction on the presidential and vice-presidential elections can be seen from the average amount of abnormal returns during the study window period, namely from April 3, 2019 (t-10) to May 1, 2019 (t+10). The way to calculate the average amount of abnormal return is by adjusting the actual return with the expected return. The expected return in this study uses a market model calculation with an estimated period of 100 days.

In addition to calculating abnormal returns, to see whether the presidential and vice-presidential election events in 2019 have an impact on changes in abnormal returns is to look for the t-count value. By using the t-test, it will be known whether the market reacts or not to the information. The following is a table of calculating the results of the average abnormal return and the results of the t-count significance test on LQ45 stocks:

Periode	Average Abnormal Stock Return (%)	T-Value
t-10	-0,0673	0,1944
t-9	0,3446	1,4861
t-8	0,0865	-0,6891
t-7	0,2475	0,6942
t-6	-0,4030	-1,0530
t-5	**0,3267**	**1,8665***
t-4	**0,8480**	**2,4963****
t-3	0,4151	0,4613
t-2	**0,8513**	**2,6987*****
t-1	-0,2940	-1,5933
t0	0,0234	0,1551
t+1	-0,0762	-0,6166
t+2	-0,2720	-0,7941
t+3	0,0654	-0,0042
t+4	0,0034	-0,5917
t+5	**0,4348**	**3,6250*****
t+6	-0,4037	-0,4342
t+7	**0,1729**	**1,8225***
t+8	0,4551	0,2793
t+9	-0,1360	-0,2228
t+10	0,1586	1,2294

* = Significant at the 10% level (t> 1.6802)
** = Significant at the 5% level (t> 2.0154)
*** = Significant at the 1% level (t> 2.6923)

Table 1:- Result of average abnormal return and T-value (LQ45)

During the 2019 presidential and vice-presidential election events, the LQ45 stock market was an inefficient market. It is said that the market is inefficient in the semi-strong form because the findings in this calculation contradict the semi-strong form of the market because there are 5 same time periods giving a very significant t-value. In principle, market efficiency in a semi-strong form is proven if there are only one or two observations that are proven to produce abnormal returns [4] .

In addition to analyzing abnormal returns and calculating the t value of LQ-45 stocks, this study also analyzes the same thing in stocks listed in PEFINDO25. The shares in PEFINDO25 are medium and small stocks that have the potential to be invested in an investment portfolio. The following are the results of the average abnormal return and the t-calculated significance test:

Periode	Average Abnormal Stock Return (%)	T-Value
t-10	-0,3347	-0,5147
t-9	0,1012	0,1968
t-8	**0,6934**	**2,2092****
t-7	-0,4526	-1,3855
t-6	-0,7311	-1,4962
t-5	0,2353	1,5177
t-4	0,5149	1,2621
t-3	-0,0151	-0,2868
t-2	0,3089	1,1341
t-1	-0,6774	-1,5553
t0	0,0078	0,5284
t+1	1,3076	1,4553
t+2	-0,6985	-1,6958
t+3	-0,0082	0,2440
t+4	0,5034	0,7235
t+5	**0,6840**	**4,3478*****
t+6	-0,3946	-0,2687
t+7	**0,3169**	**1,8358***
t+8	0,5116	1,0968
t+9	-0,6692	-2,2970
t+10	**1,1211**	**4,0781*****

* = Significant at the 10% level (t> 1.7101)
** = Significant at the 5% level (t> 2.0639)
*** = Significant at the 1% level (t> 2.7969)
Table 2:- Results of average abnormal returns and T-value (PEFINDO25)

Table 2 shows that in general during the study window period was dominated by positive abnormal returns on stocks (PEFINDO25) and there were 4 days that gave a significant abnormal return value. Thus, overall, it can be concluded that during the market research window period responded positively to information (good news) during the 2019 Indonesian presidential and vice-presidential election events, so that the PEFINDO25 stock market during this study period was said to be an inefficient capital market in a half-strong form. In principle, market efficiency in a semi-strong form is proven if there are only one or two observations that are proven to produce abnormal returns [4].

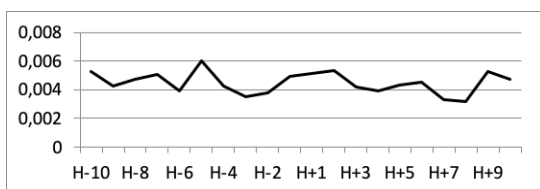B. *Descriptive Analysis of The Liquidity of Stocks*

Fig. 2. Chart of Average Bid-ask Spread for LQ-45 shares

From Figure 1 it can be seen that the trend of decreasing spread numbers occurs from t-10 to t-9, t-7 to t-6, t-5 to t-3, t + 2 to t + 4, t + 6 to t + 8, and t + 9 to t t + 10. This downward trend indicates that during the period of the stock event window - LQ-45 shares were intensely traded and stock dealers - LQ-45 stocks kept a lot of their stock before selling them at their desired price. In addition to the predominant downward trend of this period of events, traders also took part in the rising trend of the stock spread - LQ-45 stocks where the uptrend occurred from t-6 to t-5, t-3 to t. +2, and t + 8 to t + 9 (around the official KPU announcement). The following is also a table of the average bid-ask spread figures for the LQ-45 stock. Apart from observing the bid-ask spread of LQ45 shares, this research also observes the movement of the bid-ask spread on PEFINDO25 stocks. The following chart shows the movement of the average bid-ask spread on PEFINDO25 stocks:
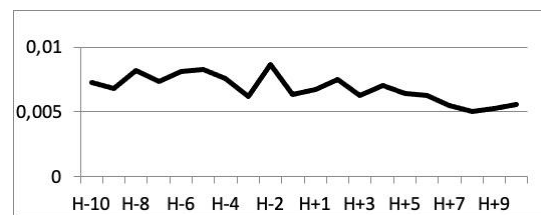

Fig. 3. Chart of Average Bid-ask Spread for PEFINDO25 shares

From Figure 2 it can be seen that the trend of decreasing spread numbers occurs from t-10 to t-9, t-8 to t-7, t-5 to t-3, t-2 to t-1, t + 2 to t + 3, t + 4 to t + 8. This heavy downtrend indicates that during the stock event window period - LQ-45 shares are actively traded and stock dealers - LQ-45 stocks are mostly holding their stock before selling at their desired price. Apart from the predominant downward trend of the period of this event, traders also took part in the rising trend of the stock spread - LQ-45 stocks where the uptrend occurred from t-9 to t-8, t-7 to t. -5, t-3 to t-2, t-1 to t-2, t + 3 to t + 4, and t + 8 to t + 10.

C. *Hypotheses Test*

➢ *First Hypothesis Testing (H1)*
The following are the results of the paired sample t-test average LQ-45 abnormal return:

Variable		Mean	N	Std. Dev	t	Df	Sig. (2-tailed)
Average *abnormal return* LQ-45	Before	0,0024	10	0,0042	1,251	9	0,242
	After	0,0004	10	0,0028			

Table 3:- Paired sample t-test Avg. *abnormal return* LQ45

It can be concluded that there is no significant difference in the average abnormal return before and after the 2019 presidential and vice-presidential election events on LQ-45 stocks because the t-count value is smaller than

the t-table value (1.251 <2.2622) and the significance value is also greater than the α value (0.242> 0.05). Based on the results of this analysis, it can be concluded that Hypothesis I in this study was rejected.

➢ *Second Hypothesis Testing (H2)*
The following are the results of the paired sample t-test mean abnormal return of PEFINDO25:

Variable		Mean	N	Std. Dev	t	Df	Sig. (2-tailed)
Average *abnormal return* PEFINDO25	Before	-0,0004	10	0,0050	-1,093	9	0,303
	After	0,0027	10	0,0067			

Table 4:- Paired sample t-test Average *abnormal return* PEFINDO25

It can also be concluded that there is no significant difference in the average abnormal return before and after the 2019 presidential and vice-presidential election events on PEFINDO25 stocks because the t-count value is smaller than the t-table value (-1.093 <2.2622) and the significance value is also greater than the α value (0.303> 0.05). Based on the results of this analysis, it can be concluded that Hypothesis II in this study was rejected.

➢ *Third Hypothesis Testing (H3)*
The following are the results of the paired sample t-test LQ-45 bid-ask spread:

Variable		Mean	N	Std. Dev	T	Df	Sig. (2-tailed)
Bid-Ask Spread-LQ45	Before	0,4575	10	0,0759	0,466	9	0,653
	After	0,4400	10	0,0776			

Table 5:- Paired sample t-test bid-ask spread LQ45

It can be concluded that there is no significant difference in the average bid-ask spread before and after the 2019 presidential and vice-presidential election events on LQ-45 stocks because the t-count value is smaller than the t-table value (0.466 <2, 2622) and the significance value is also greater than the α value (0.653> 0.05). Based on the results of this analysis, it can be concluded that Hypothesis III in this study is also rejected.

➢ *Fourth Hypothesis Testing (H4)*
The following are the results of the paired sample t-test PEFINDO25 bid-ask spread:

Variable		Mean	N	Std. Dev	T	Df	Sig. (2-tailed)
Bid-Ask Spread PEFINDO25	Before	0,7474	10	0,0828	3,972	9	0,003
	After	0,6172	10	0,0803			

Table 6:- Paired sample t-test bid-ask spread PEFINDO25

It can be concluded that there is a significant difference in the average bid-ask spread before and after the 2019 presidential and vice-presidential election events on LQ-45 stocks because the t-count value is greater than the t-table value (3,972> 2, 2622) and the significance value is also smaller than the α value (0.003 <0.05). Based on the results of this analysis, it can be concluded that Hypothesis IV in this study is accepted.

V. DISCUSSION

Based on the results of the t-count significance test on the abnormal return of LQ45 and PEFINDO25 shares, it is concluded that these two stock markets indicate that the stock market in Indonesia is an inefficient market in a semi-strong form. The inefficient market in Indonesia in this semi-strong form is because investors can enjoy abnormal returns for quite a long time. In principle, market efficiency in a semi-strong form is proven if there are only one or two observations that are proven to produce abnormal returns (Tandelilin,2017) [4]. The results of testing hypothesis I show that there is no significant difference between before and after the 2019 presidential and vice-presidential elections in Indonesia. From the results of this test, it can be concluded that investors who play on the stock exchange cannot enjoy the benefits of the abnormal return from t-10 up to t + 10 in quite a long time.

The results of testing the hypothesis I also produce the same conclusion as the results of testing the hypothesis II. In PEFINDO25 stocks where there was no significant change between before and after the 2019 presidential and vice-presidential election events. This also indicates that the market did not overly respond to the events of the 2019 Indonesian presidential and vice-presidential elections. The results of testing hypotheses I and II also had the same results as the research of Chretien and Coggins (2009) [5] who examined the effect of the presidential and vice-presidential election events in Canada. From the results of their research and testing, it can be concluded that there is an average abnormal return around the presidential election. By using the paired sample t-test it can be concluded that there is no difference in the average abnormal return before and after the presidential election.

From Hypothesis III, the research results show that there is no significant difference between before and after the election event. These results indicate that the market responds to the absorption of information in the study window period or the absence of information asymmetry. Different results were obtained when analyzing the spread on the fourth hypothesis. In the results of this test, it can be concluded that there is a significant difference before and after the event in PEFINDO25 shares and the spread results after the event are smaller than the results before the event. These results indicate that the market responds differently to information in this event or information asymmetry occurs. This unequal response was due to the changing perceptions of players in the PEFINDO25 stock market25. But after this election event, the perceptions of the players in these stocks changed because they heard good information for 10 days after the event so that they considered these stocks to have very good liquidity potential going forward. This can be seen from the narrower spread in PEFINDO25 shares after the presidential and vice-presidential election events. In addition,

there are indications that the existence of this asymmetry information is because traders have monopolized and hidden some information.

VI. CONCLUSION

Based on the results of research that has been conducted by researchers, several conclusions have been obtained, namely: In general, the development of the average abnormal return on LQ45 stocks decreased when after the 2019 Indonesian presidential and vice-presidential election events compared to before the same event occurred, however, the development of the average abnormal return on PEFINDO25 stocks increased when after the 2019 Indonesian presidential and vice-presidential elections compared to the previous time. The liquidity of LQ45 shares is considered good by investors because there is no change in spread that is too large on these stocks as a whole. The overall liquidity of PEFINDO25 shares before the election event was considered not very good because these stocks were second liner and third liner stocks, but after the election event PEFINDO25 shares the liquidity of these stocks was getting better because the spread was narrowing.

This study reveals that there was no significant difference before and after the 2019 presidential and vice-presidential election events in Indonesia in LQ45 shares and PEFINDO25 shares and there was no significant liquidity change in LQ45 shares, while significant liquidity change occurred in PEFINDO25 shares.

There are several identified limitations in this study. Future studies should add the expected return using the market-adjusted and mean-adjusted models in order to present the full results of the study. Further research needs to add variables of trading volume activity, depth, and stock fraction to be able to develop findings in future research.

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