



## Stock Market Reaction to The Announcement of 2022 Fuel Price Increase on JII-30

### Reaksi Pasar Saham terhadap Pemberitaan Kenaikan Harga BBM 2022 Pada JII-30

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#### ABSTRACT

This study aimed to determine the response of Jakarta Islamic Index 30 (JII-30) investors to the price increase (BBM) by observing the differences in abnormal returns and trading volume activity between before and after the news of fuel price increase in 2022. This was quantitative research using the event study method, and the data source was secondary data. This study used companies listed in Jakarta Islamic Index 30 (JII-30) as research objects. Based on the research obtained results that between before and after the event occurred, abnormal return, and Trading Volume Activity (TVA); there was no significant difference affected by the increase in fuel prices. This shows that there is no investor reaction to the news of fuel price increase. Investors can be wiser and more cautious in responding to news information, which will be applied in investment and oriented to the long term. The limitations of this research were faced with a window period that is not long enough and further researchers can use other Sharia indices.

**Keywords:** Abnormal Return, Stock Liquidity, Trading Volume Activity, Event Study.

#### ABSTRAK

Penelitian ini bertujuan untuk mengetahui respon investor Jakarta Islamic Index 30 (JII-30) terhadap kenaikan harga (BBM) dengan melihat perbedaan abnormal return dan trading volume activity antara sebelum dan sesudah berita kenaikan harga BBM tahun 2022. Penelitian ini merupakan penelitian kuantitatif dengan menggunakan metode event study, dan sumber data yang digunakan adalah data sekunder. Penelitian ini menggunakan perusahaan yang terdaftar di Jakarta Islamic Index 30 (JII-30) sebagai objek penelitian. Berdasarkan penelitian diperoleh hasil bahwa antara sebelum dan sesudah peristiwa terjadi, abnormal return, dan Trading Volume Activity (TVA); tidak terdapat perbedaan yang signifikan yang dipengaruhi oleh kenaikan harga BBM. Hal ini menunjukkan bahwa tidak ada reaksi investor terhadap berita kenaikan harga BBM. Investor dapat lebih bijak dan berhati-hati dalam menanggapi informasi berita yang akan diaplikasikan dalam investasi dan berorientasi pada jangka panjang. Keterbatasan penelitian ini dihadapkan pada periode jendela yang kurang panjang dan peneliti selanjutnya dapat menggunakan indeks syariah yang lain.

**Kata Kunci:** Abnormal Return, Likuiditas Saham, Volume Aktivitas Perdagangan, Event Study.

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## I. INTRODUCTION

Investing is a way to build wealth and achieve long-term financial goals. In practice, investment is usually associated with the exchange of money for various assets, either in the form of financial assets such as stocks, mutual funds, and bonds, or in the form of real assets such as gold, land, or real estate (Tandelilin, 2010). Thus, investments made appropriately and intelligently can help develop finances and achieve long-term goals. One of the investment vehicles that is growing quite rapidly in Indonesia is the capital market. According to a report by KSEI, the growth of investors in the capital market from 2021 increased by 15.96% from 3,451,513 investors to 4,002,289 investors in June 2022 (KSEI, 2022). When investing in the capital market, investors can choose properties with different investment levels and risks. Meanwhile, companies can raise funds to support long-term business continuity through the capital market (Sagita, 2017).

Stock indices can be affected by other factors such as political stability of a country, global economic conditions, global energy price levels, and changes in central bank interest rates (Sagita, 2017). The increase in fuel prices is inseparable from stock market activity (Fithriyana et al., 2014). This is because the increasingly important role of the capital market in economic activity makes it sensitive to the events surrounding it, both those directly related to economic issues and those unrelated. The government's fuel price policy will affect other sectors of the economy, this is possible seeing that oil plays a role as a factory fuel and production process material, so an increase in oil prices causes the cost burden on the industry to increase, as a result weakening the fundamental side of the industry (Veronica & Pebriani, 2020). So, on this basis, the information on the increase in fuel oil prices can be used as one of the information references and considerations for investors in the investment. The response of the market to the announcement of the increase in fuel prices. can be seen as a change in return to be abnormal, also called abnormal return on stocks, this is because there are fluctuations in stock prices, causing abnormal returns to appear (Chorilayah et al., 2016). According to Putri et al., (2020) abnormal return is usually used as a basis or aims to test market efficiency or investment performance. The abnormal return of a company has 2 directions, namely positive and negative. A positive abnormal return indicates that the company's shareholders get a stock return above the market return on the trading day and vice versa (Putri et al., 2020). Stock liquidity is the second variable that can be influenced by information or announcements other than abnormal returns. Liquidity can be interpreted as a measure of the amount of trading that occurs in the financial market during a specific time period, and the more liquid a stock is, the higher the frequency of trading and the number of transactions (Octavio & Lantara, 2014). According to Husnan et al., (1996), measuring stock trading activity using the TVA indicator to see whether individual investors evaluate financial reports informatively, in the sense of whether the information makes trading decisions above normal trading decisions. This can prove that investors' interest in these stocks is increasing. According to Febriyanti & Rahyuda (2016) the announcement event of fuel price change is one of the available information that investors respond to and is used in analyzing market conditions or reactions. Therefore, if the fuel price increase occurs and the market responds to the event, the liquidity of the stock will be affected by the market's response to the event.

Jakarta Islamic Index 30 (JII-30) was present to meet the needs of Muslims in Shariah-based investment, so PT Danareksa Investment Management collaborated with the Indonesia Stock Exchange (IDX) to establish the JII-30 on July 3, 2000 (Beik & Fatmawati, 2014). The JII-30 has several advantages, and since its establishment, the JII-30 has continued to experience positive growth (Prianto & Darwanto, 2021). In addition, JII-30 has been selected twice a year based on the criteria set by Daftar Efek Syariah (DES) (Otoritas Jasa Keuangan, 2019). In terms of capitalization and liquidity, JII-30 has advantages over other Islamic indices because JII-30 is 30 Islamic stocks that have good fundamental characteristics, liquidity, and large market capitalization (Zaimsyah et al., 2019). Based on Otoritas Jasa Keuangan (2022) the capitalization of 30 companies listed as members of the JII-30 has a capitalization of Rp. 2,060 trillion or 48.3% of the total capitalization of the Indeks Saham Syariah Indonesia (ISSI) and there are 111,500 Islamic investors with an increase of 4.94% from 2021 it makes it easier for investors to make buying and selling transactions. On this basis, researchers made the JII-30 the object of this research because the companies listed in the JII-30 index have greater stock liquidity than companies listed in other Islamic indices so investor responses generally tend to be more sensitive to the JII-30 than other Islamic indices, so that announcement and events that affect the capital market are more likely to have a significant impact on stock prices in the index.

Studies on this topic have been discussed by several previous researchers, including Laksmi & Ratnadi (2015); Febriyanti & Rahyuda (2016); Chorilayah et al., (2016); Utami & Purbawangsa (2021); Tiswiyanti & Asrini (2015); Anita & Veronica (2016); Femianita & Asandimitra (2014); Chandra (2013); Liogu & Saerang (2015); Fitriaty & Saputra (2022). First, Laksmi & Ratnadi (2015) discovered the announcement of a fuel price decrease that occurred specifically on January 1, 2015, found no difference in abnormal returns of transportation companies between before and after the announcement of the decrease occurred. The research of Tiswiyanti & Asrini (2015) discovered the announcement of the fuel price escalation on November 17, 2014 found no difference in TVA and abnormal returns before and after the announcement of the increase occurred. Chorilayah et al., (2016) found that the announcement of the April 1, 2016 fuels price reduction showed a significant difference in TVA and abnormal return on transportation industry sector stocks throughout the duration preceding and following the announcement of the fuel price decrease. Research conducted by Febriyanti & Rahyuda (2016) discovered the announcement of the fuel price escalation that occurred at the beginning of the Jokowi and Jusuf Kalla administrations showed significant differences in TVA and abnormal return of companies including LQ 45 before and after the announcement of the fuel price increase, but there was no significant change in TVA or abnormal return of the industry including LQ 45 Before and after the announcement of the fuel price reduction. Utami & Purbawangsa (2021) found the results of the 2020 fuel price reduction event showed no significant difference in the abnormal return of companies listed on the IDX 30 before and after the 2020 fuel price reduction event. Other studies such as those conducted by Anita & Veronica (2016) found no difference in abnormal returns and TVA on fuel price increases during the Susilo Bambang Yudhoyono administration. Liogu & Saerang (2015) found differences in abnormal returns and TVA of LQ 45 stocks on the announcement of the 2014 fuel price escalation. Research conducted by Femianita & Asandimitra (2014) found that there were significant differences in abnormal returns and Trading Volume Activity (TVA) during the 2013 fuel price increase. Based on research by Fitriaty & Saputra (2022) found there were differences in abnormal returns and TVA in companies listed in the Composite Stock Price Index (JCI) on the 2022 fuel price increase. Chandra (2013) found that there were no differences in abnormal returns and TVA of LQ 45 companies during the announcement of the 2013 fuel price increase.

From the results of previous studies that have been conducted and the Efficiency Market Hypothesis (EMH) theory, the authors found inconsistencies in research results. In addition, from the object of research from previous studies, there had been no research using an index that describes or measures the performance of Islamic stock price movements in Indonesia, the majority of new studies used the general stock price index. So that the formulation of the problem raised by the researcher was whether there are differences in abnormal returns and TVA before and after the news of the price increase in fuel on September 03, 2022. The novelty of this recent study was to focus on the research Islamic indices since previous studies have not focused on Islamic indices such as the Jakarta Islamic Index 30 (JII-30) and also no study observed the latest fuel price increase on September 03, 2022. This research can provide benefits for various parties, including investors, government, and academics. The implications are as follows: the investors can consider buying or selling shares in JII-30; the government can additionally consider measuring the impact of policies on fuel prices in the future; and for academics, this research was conducted to understand the effect of the news of the fuel price increase on the Indonesian capital market. Therefore, based on the novelties and implications, this research is important to conduct.

## **II. LITERATURE REVIEW**

### **Efficiency Market Hypothesis**

Fama's (1970) theory of market efficiency, or the efficiency market hypothesis (EMH), is a condition in which the market is a reflection of the information available (Asif & Frömmel, 2022). The EMH itself is based on a random walk model, where the price of a stock is difficult to estimate by fundamental reports alone because the information in the market is random and unpredictable (Andharini et al., 2022). Information can affect a stock price because the information event provides a negative or positive signal to investors when making an investment decision (Febriyanti & Rahyuda, 2016). Fama (1970) stated that capital market efficiency can be divided into three categories: weak form efficiency (weak form efficiency), semi-strong form efficiency (semi-strong form efficiency), and strong form efficiency (strong form efficiency). These forms are categorized based on the type of information content available in them.

Market participants take into account all information related to current events or conditions. Capital markets with efficient characteristics will react quickly to all relevant information, which shows that changes in stock prices beyond reasonable situations can lead to abnormal results (Bash & Alsaifi, 2019). The available information is also retained by investors, which changes the fluctuations in daily stock trading volume and frequency of stock trading transactions (Nicola et al., 2020). Therefore, it can be concluded that the role of information can cause abnormal returns and affect TVA.

The efficiency market hypothesis has been used by various researchers as a fundamental theory in the financial literature for almost five decades (Kiky, 2018). In the research conducted by Andrianto & Mirza (2016) who studied the evidence of EMH in Indonesia by examining the hypothesis of stock prices in Indonesia following the random walk theory, it shows that the capital market in Indonesia is still classified as a weak form efficient capital market. According to Andrianto & Mirza (2016), the Indonesian market is categorized as weak because the results of his research show that there is no correlation between the current stock price of the company and the price in the previous period. However, when compared to other ASEAN stock markets such as the Singapore Exchange, the Philippine Stock Exchange, and the Stock Exchange of Thailand, the Indonesian stock exchange is categorized as having a high level of efficiency when compared to stock exchanges in ASEAN countries (Kartika et al., 2017). In an efficient market, company prices should reflect information about risk and expected returns but if the market is inefficient, companies will generate returns that are higher than normal (Tandelilin, 2010). Thus, testing for market efficiency is essentially testing for abnormal returns.

### **Investor Behavior**

According to Barber & Odean (2013), empirical evidence shows that individual investors, as a whole, have poor long-term returns and would be better off investing in index funds. Investors tend to make mistakes in investing due to several things such as asymmetric information, overconfidence, sensation seeking, and investor bias towards a company (Barber & Odean, 2013). According to Agustin & Mawardi (2014) investors who invest still consider rational aspects such as neutral information, which is information that is generally useful in stock transactions, accounting information such as company financial reports, and relevance, which is the position of related stocks, whether blue chip or second-line. While Islamic capital market investors, according to Taufik & Rusmana (2023) Islamic capital market investors have good confidence in the validity of stocks traded in the Islamic capital market and the behavior of Muslim investors can be influenced by several factors such as investor ethics, motivation, investment patterns and religious factors. Based on Ammy & Soemitra (2022) Muslim investors certainly do not always think about aspects of rationality, but prioritize moral spirituality to filter out something forbidden in investing in stocks. In addition, Muslim investors are more interested in long-term investments and companies that are included in the Sharia index (Agustin & Mawardi, 2014).

### **Market Reaction**

The market reaction is indicated by the fluctuations in the company's stock price, which is determined by abnormal returns (Lesmana & Sumani, 2022). According to Hartono (2017) abnormal returns are earned by investors but are not in line with what was previously expected. Abnormal returns can be found by finding the difference between the expected return and the earned return. According to Hartono (2017) abnormal return refers to the excess of actual return over expected return, while normal return represents the return expected by investors when investing funds (expected return). In the field of event study, stock prices in the financial market are observed to determine whether investors earn abnormal returns as a result of certain events. Therefore, the difference between the actual return and the expected return can be called abnormal return. Research conducted by Febriyanti & Rahyuda (2016) reported that the increase in fuel prices affected abnormal returns. This can be seen by the difference in abnormal returns before and after the announcement. According to research by Choriliyah et al., (2016) the decline in fuel prices also has an impact on abnormal returns. Based on Femianita & Asandimitra (2014) the increase in fuel prices affects abnormal returns. The following table summarizes the results of previous research on abnormal returns.

**Table 1.** Results of Previous Research on Abnormal Returns

<b>Author</b>	<b>Measure</b>	<b>Significance (+/-)</b>
Febriyanti & Rahyuda (2016)	Abnormal Return	+
Choriliyah et al. (2016)	Abnormal Return	+
Femianita & Asandimitra (2014)	Abnormal Return	+
Laksmi & Ratnadi (2015)	Abnormal Return	-
Utami & Purbawangsa (2021)	Abnormal Return	-

H1: There is a significant difference in the average abnormal return before and after the announcement of the 2022 fuel price increase.

### Stock Liquidity

According to Octavio & Lantara (2014) liquidity is a measure of the amount of trading in the capital market in a given period, and the more liquid a stock is, the higher the frequency of transactions and the number of transactions. According to Thalib (2017) Trading Volume Activity (TVA) stocks can measure the level of liquidity of a stock. In the secondary market, available public information and trading volume have a strong relationship with each other (Cellier & Louhichi, 2011). According to Napitupulu & Syahyunan (2013), information plays an important role for investors in stock analysis because the level of profit to be achieved and investment risk are considered by investors when making investment decisions. Stock liquidity in the form of TVA can be seen with changes in investor confidence caused by published information. According to Chorilayah et al., (2016), TVA can be used to observe the market in responding to information in the capital market through changes in the volume of trading activities. Trading Volume Activity (TVA) can reflect the extent to which information affects changes in stock prices. When a stock has a high TVA, it tends to produce high stock returns as well (Suparsa & Ratnadi, 2014). TVA can be used to evaluate how the market reacts to information obtained from the difference in TVA (Chorilayah et al., 2016). Research conducted by Liogu & Saerang (2015) on the announcement of fuel price increases affects Trading Volume Activity (TVA). This can be seen by the difference in Trading Volume Activity (TVA) before and after the announcement. According to Fitriaty & Saputra (2022) the increase in fuel prices has an impact on Trading Volume Activity (TVA). The following table summarizes the results of previous research on TVA.

**Table 2.** Results of Previous Research on TVA

Author	Measure	Significance (+/-)
(Liogu & Saerang, 2015)	Trading Volume Activity	+
(Fitriaty & Saputra, 2022)	Trading Volume Activity	+
(Chorilayah et al., 2016)	Trading Volume Activity	+
(Femianita & Asandimitra, 2014)	Trading Volume Activity	+
(Tiswiyanti & Asrini, 2015)	Trading Volume Activity	-
(Chandra, 2013)	Trading Volume Activity	-

H2: There is a significant difference in average stock liquidity before and after the announcement of the 2022 fuel price increase.

### III. RESEARCH METHODS

The author used a quantitative approach with the Event Study method. Studies that examine the market response to an event whose data is reported as information can be called event studies or event studies (Hartono, 2017). Event Study is one method that can be used to examine the impact of certain events on Trading Volume Activity (TVA) and abnormal returns (Białkowski et al., 2012). If there is valuable information in an event, the market would respond before and after the announcement was received by the market, so that the response produced an abnormal return and then was measured using the event study method. According to Brown & Warner (1985), There are several statistical models in estimating returns that can be used, namely the market model, mean-adjusted return, and market-adjusted model. There were several stages in analyzing the data in this study, namely determining the estimation period and the research window period, calculating the TVA and abnormal return for each company, calculating the average abnormal return, conducting a normality test, and ending with a different test for each variable. The first step was to determine the estimation period and the event period. The estimation period was taken for this research in 30 days. The event period of the research that was examined was 10 days long, including 5 days of market activity before the incident and 5 days of market activity after the announcement.

After determining the event period, the next were to calculate the TVA and abnormal return before and after the event period. Abnormal return is expressed in decimal numbers and uses a ratio scale. Abnormal return can be formulated as follows (Hartono, 2017):

$$AR_{it} = R_{it} - ER_{it} \quad (1)$$

Description:

AR<sub>it</sub> = Abnormal return of the i-th stock at time t

R<sub>it</sub> = Actual return of the i-th stock at time t

ER<sub>it</sub> = Expected return of the i-th stock at time t

Actual return is obtained from the current daily stock price and the daily stock price at the previous time, divided by the daily stock price at that time. So the actual return can be formulated as follows (Hartono, 2017):

$$Ri_t = \frac{Si_t - Si_{t-1}}{Si_{t-1}} \quad (2)$$

Description:

$Ri_t$  = Return of stock  $i$  at time  $t$

$Si_t$  = Stock price of the  $i$ -th company at time  $t$

$Si_{t-1}$  = Stock price of the  $i$ -th company at time  $t-1$

Meanwhile, in finding the expected return, you can use the market model or single index market model.

The expected return can be found with the following model equation (Hartono, 2017):

$$ER_{it} = \alpha_i + \beta_i R_{mt} e_i \quad (3)$$

Description:

$ER_{it}$  = Expected return of stock  $i$  in period  $t$

$R_{mt}$  = JII return in period  $t$

$\alpha_i$  = Constant of company return to market return

$\beta_i$  = The coefficient that measures the change in  $R_i$  due to a change in  $R_m$

$e_i$  = Residual error

In calculating the expected return  $\alpha$  and  $\beta$  were generated by calculating the regression between the return of the related stock and the return of the JII-30 index during the estimation period. After calculating  $\alpha$  and  $\beta$ , the calculation of the expected return was done. While in calculating Trading Volume Activity (TVA) can be formulated as follows (Hartono, 2017):

$$TVA = \frac{\Sigma \text{stock } i \text{ traded at time } t}{\Sigma \text{ shares outstanding at time } t} \quad (4)$$

The subsequent step involved computing the mean abnormal return and TVA. After finding the average value, the next stage was to conduct a normality test using the Kolmogorov-Smirnov test, and then a different test on abnormal returns and TVA could be carried out to test the hypothesis. This was done to determine whether there is a significant difference before and after the event. When carrying out the t-test, the paired sample t-test was used when the information obtained was normally distributed. However, if the information was not normally distributed then the Paired samples Wilcoxon signed rank test was used.

The population and sample were constituent stocks listed on JII-30. Researchers used the JII-30 as the object of research because the companies listed in the JII-30 index have greater stock liquidity than companies listed in other Islamic indices, so investor responses generally tend to be more sensitive to the JII-30 than other Islamic indices. According to Beik & Wardhana (2011) the performance of the Jakarta Islamic Index, which consists of 30 of the most liquid stocks and has a very large capitalization value, is empirically proven to be more stable than the performance of other stock markets. The research period studied was August 29, 2022, to September 2, 2022, for pre-announcement and September 5, 2022, to September 9, 2022, for post-announcement, while the estimation period was 30 market days before the event period from July 15, 2022, to August 26, 2022. The selection of this particular time was made since these 30 days can be considered sufficient to estimate returns during the 2022 fuel price increase event period. According to Peterson (1989) there are no standard rules regarding the length of the estimation period, it can be interpreted that the length of the period depends on the consideration of the researcher, the previous literature, or the type of event. In determining the 30-day estimation period, it is intended to look for trends or patterns of individual stock price changes from the sample Ellysa & Wardoyo (2009) besides that the 30-day estimation period is usually carried out in similar studies, especially in the event of news of fuel price changes. The method used for sample collection was purposive sampling. The benchmark used in collecting samples was that the company does not conduct mergers, dividend announcements, rights issues, or stock splits during the study period. This is done with the aim that stock returns and Trading Volume Activity (TVA) are clean from other events so that this research can be more targeted and focused on the influence that arises due to the increase in fuel prices.

#### IV. RESULTS AND DISCUSSION

##### Results

In conducting descriptive analysis test, researchers used Statistical Package for Service Solutions (SPSS) for Windows. The data used was the result of calculating the average abnormal return before and after the event and TVA before and after the event. The following table shows the results of the descriptive analysis.

**Table 3.** Descriptive Analysis Results

	N	Minimum	Maximum	Mean	Std. Deviation
AR_Before	30	-0.020476	0.015916	-0.00192016	0.009320259
AR_After	30	-0.014981	0.02044	-0.0009114	0.00692098
TVA_Before	30	0.000175	0.006947	0.00206575	0.00178698
TVA_After	30	0.000165	0.007557	0.00206796	0.001793353

The chart above shows a descriptive analysis of the average abnormal return and TVA before and after the event took place. It can be proven that the abnormal return in the observation period before the announcement of the increase in fuel prices, namely from August 29, 2022, to September 2, 2022, the companies listed on JII-30 had an average of -0.00192016 with a standard deviation of 0.009320259. This indicates a negative average abnormal return, where the actual return is smaller than the expected return. In the observation period before the announcement of the fuel price escalation, PT Perusahaan Gas Negara Tbk generated the lowest average abnormal return of -0.020476 while PT Mitra Keluarga Karyasehat Tbk generated the highest average abnormal return of 0.015916. On the other hand, in the abnormal return analysis after the event, namely from September 5, 2022, to September 9, 2022, there was an average abnormal return of -0.0009114 with a standard deviation of 0.00692098. This explains the negative average abnormal return. so that the actual return is not more than the expected return. The lowest average abnormal return in the post-event occurred at PT Japfa Comfeed Indonesia Tbk, whose average value reached -0.014981, while PT Chandra Asri Petrochemical Tbk was the company with the highest average abnormal return in the JII-30 index.

The trading Volume Activity (TVA) of companies listed on the JII-30 days before the event had an average trading volume activity of 0.00206575 with a standard deviation of 0.00178698. This indicates an increase in the average volume of stock trading. Five days before the event occurred, PT Bank Syariah Indonesia Tbk was listed as the company with the lowest average TVA of 0.000175 while PT Perusahaan Gas Negara Tbk was listed as the company with the highest average TVA of 0.006947. While 5 days after the event, the TVA of companies listed on JII-30 had an average TVA of 0.00206796 with a standard deviation of 0.001793353. These results illustrate the existence of a positive average TVA, so it can be interpreted that there is an average increase in TVA. On the five days after the event PT Bank Syariah Indonesia Tbk was listed as the company with the lowest average TVA of 0.000165 while PT Perusahaan Gas Negara Tbk was listed as the company with the highest average TVA of 0.007557.

When using the event study method, the first step was to take the normality test. The normality test is very important because it tests the variables under study whether they are normally distributed or otherwise (Sugiyono, 2017). The variables used are tested using the Kolmogorov-Smirnof testing method. Data can be said to be normal if  $Sig > 0.05$  and vice versa can be considered abnormal if  $Sig < 0.05$ .

**Table 4.** Normality Test Result

	AAR_Before	AAR_After	ATVA_Before	ATVA_After
N	30	30	30	30
Test Statistic	0.064	0.160	0.182	0.208
Asymp. Sig. (2-tailed)	0.200	0.048	0.012	0.002

The results of the normality test show that the average abnormal return value before the event had a normal distribution, with an Asymp Sig (2-tailed) value of  $0.200 > 0.05$ . The results of the normality test of the average abnormal return, the average pre-event TVA, and the average post-event TVA are not normally distributed because the results of the normality test show that the results obtained were less than 0.05. Therefore, the researchers conducted tests using nonparametric analysis, namely the Paired Sample Wilcoxon Signed Rank Test, to test the hypothesis.

The next step was to conduct hypothesis testing to find out whether or not there is a significant difference before and after the event. Hypothesis testing for abnormal returns was done by applying the Paired Sample Wilcoxon Signed Rank Test because most of the normality test results are not normally distributed.



**Table 5.** Hypothesis Test Result

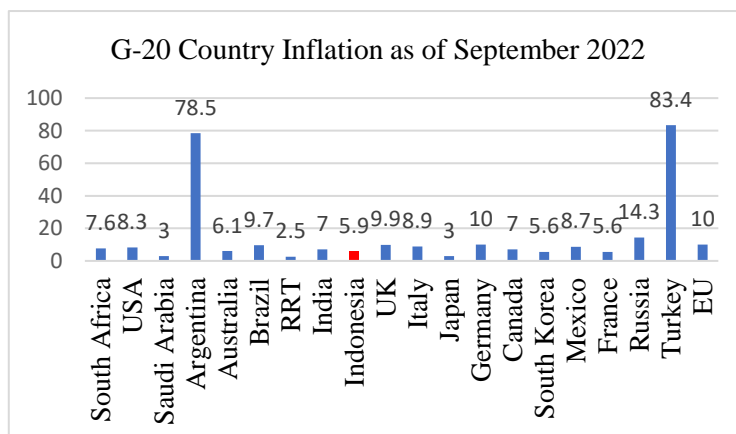
	AAR_After – AAR_Before	ATVA_After – ATVA_Before
Z	-0.812	-0.216
Asymp. Sig. (2-tailed)	0.417	0.829

The table above shows the test results by conducting a different test of the average abnormal return both before and after the event and the TVA before and after the event. The test results showed that the average abnormal return of each company listed in the JII-30 Index did not have a significant change in the interval covering the period before and after the announcement of the fuel price increase with an Asymp Sig (2-tailed) value of  $0.417 > 0.05$ . Therefore, the average value of abnormal returns between the period before and after the announcement of rising fuel prices in companies listed in JII-30 did not show significant changes. In addition, the average TVA also shows no significant difference after testing, where the Asymp Sig (2-tailed) value was  $0.829 > 0.05$ . Based on these results, it is explained that there is no change in the average TVA between the pre-event and post-event announcement of fuel price increase in companies listed in JII-30.

**Discussion**

Table 5 shows that the announcement of the fuel price increase does not have a significant impact on the abnormal return of the JII-30 companies. These results indicate that there is no significant change or difference between the average abnormal return before the event and the average abnormal return after the event. The results of the analysis conducted by the researcher showed that the market did not react to the announcement of the fuel price increase in 2022. This is because fuel oil is inelastic, which is a basic item and becomes a necessity for the community and cannot be substituted, so when there is a price change, the demand for fuel does not have a significant impact (Kustiawati et al., 2022). In addition, there are many companies in the JII-30 index that are involved in mining, at least 7 of the 30 companies in the JII-30, especially in coal mining. According to Najib (2019) coal prices have a positive effect on the Indonesian stock exchange. With the condition of coal prices that continue to increase from January to the highest price in September 2022, reaching 464 (USD / T). These conditions will have a positive impact on the profitability of companies in the mining sector. So that investors are interested in investing in mining sector companies, so that the news of fuel price increase that occurs has no impact on the abnormal return of companies listed in the JII-30.

The results of the analysis are in line with the research conducted by Laksmi & Ratnadi (2015) and also Tiswiyanti & Asrini (2015). According to Sagita (2017) investor behavior will also affect the movement of the stock index. A country's inflation rate has a positive effect on the stock market because a low inflation rate will increase investor confidence in investing. the following is a comparative picture of the inflation rate of countries in the G-20.



**Figure 1.** G-20 Country Inflation Chart September 2022

According to Bank Indonesia (2022), the G20 represents more than 75% of global trade and 80% of gross domestic product (GDP), so countries that are members of the G20 can be used as a comparison of economic conditions with Indonesia. From Figure 1, it can be seen that Indonesia's inflation rate can be classified as one of the lowest with Indonesia's inflation rate of 5.85% (yoy) which is the fourth lowest inflation rate after China, Saudi Arabia and Japan. Thus, these conditions will increase investors' confidence to continue investing in Indonesia, so the announcement of fuel price increase that occurred



in September 2022 still did not cause significant changes in abnormal returns between before and after the announcement event occurred. There is no difference in abnormal returns due to investors who did not respond to the fuel price increase in the short term, but this may be different if drawn in the long term due to the increase in operating costs, which can reduce company revenue and weaken the fundamentals of related companies (Veronica & Pebriani, 2020).

In addition, Muslim investors who invest in JII-30 consider transactions in the long term and consider rational aspects and psychological factors in making investment decisions. According to Agustin & Mawardi (2014) rational aspects such as consideration of a Muslim investor in assessing accounting information such as financial statements or financial analysis of related companies to invest, self-image coincidence, namely the public image of related companies, and classical, namely rational aspects such as company dividends and so on. On the other hand, the psychological factors still considered by Muslim investors are representativeness, namely evaluation based on stereotypes, namely two things that have the same quality, such as good companies must be good stocks, and familiarity, namely the tendency of investors to invest in familiar companies (Agustin & Mawardi, 2014). By looking at rational aspects and psychological factors, there is no difference in abnormal returns and TVA on JII-30 because Muslim investors use rational aspects such as accounting information and self-image coincidence of the companies they invest in and psychological factors such as representativeness and familiarity, so that Muslim investors are not affected by temporary news and are oriented to the long term. Thus, this research implied that investors do not make decisions based on temporary news alone or panic selling and are oriented in the long term to maximize investment profits.

The announcement of the fuel price increase had no impact on the Trading Volume Activity (TVA) of the companies listed in the JII-30 index. This is evident from the data presented in Table 5, which indicates no significant disparity between the average TVA observed five days before the event and the average TVA observed five days following the event. The results of this analysis are consistent with the research conducted by Laksmi & Ratnadi (2015) and research by Tiswiyanti & Asrini (2015). The lack of a substantial disparity in TVA during the fuel price increase announcement can be attributed to the dissemination of plans to raise fuel prices before the formalization of the increase. As a result, investor reactions tended to anticipate or gradually capitalize on profits before the announcement, resulting in no significant discrepancy in TVA between the period before and after the fuel price increase announcement (Laksmi & Ratnadi, 2015).

When considering investment decisions, one of the factors considered by investors is to analyze the trend of the stock. One way to see the occurrence of a cycle can be seen through the process of repeating the graph (Sijabat, 2011). According to Fajri et al., (2019) investing based on the current cycle aims to optimize the returns obtained and anticipate investment decisions. There are 4 phases in the capital market, namely accumulation, participation (markup), distribution, and capitulation (markdown). The accumulation phase begins when the stock price is considered to be at its lowest and investors flock to invest in a stock. As a result, the stock rises and falls equally. The next phase is the participation phase. In this phase, the trend of a company's stock price tends to be up and investors are optimistic about the opportunities, which leads to an increase in transaction volume. This is followed by the distribution phase, where there is profit taking or selling of shares by investors, especially investors who have tended to dominate and accumulate shares in the company, so that the stock price movement tends to begin to decline and stagnate (move sideways). The last phase is the capitulation (mark down), which can be indicated by the movement of the stock price, which decreases because investors have sold. The announcement of the fuel price increase that occurred on September 03, 2022 shows that the stock price trend tends to increase (bullish) and the cycle shows that it is in the participation phase (Mark).

The announcement of the fuel price increase, which took place on September 03, 2022, shows that the trend of the stock price tends to increase (bullish) and the cycle shows that it is in the participation phase (mark). In this phase, the price of the JII-30 index showed a price of 624 on September 06, 2022, and continued to increase to its highest price in 2022, namely on September 13, 2022, which was 637 on September 13, 2022. This shows that the market conditions tend to be optimistic about the economic conditions and the condition of the companies listed in the JII-30 Index, which causes the transaction volume to increase. Thus, the announcement of the fuel price hike that occurred on September 03, 2022 did not cause a significant difference between before and after the event took place. The results of this study are also not in line with the results of Febriyanti & Rahyuda (2016) and Choriliyah et al., (2016).

This is because the information about the event studied by previous researchers showed that the market responded to the event, where the announcement of the fuel price increase was considered relevant and important for the information needs of investors at that time so it resulted in differences in Trading Volume Activity (TVA) between before and after the announcement of the fuel price increase (Febriyanti & Rahyuda, 2016).

This study found a difference in results with several studies that focused on conventional indices, while research on Islamic indices found that the fuel price increase did not affect the JII-30. In addition, the fuel price increase that occurred on September 03, 2022 was different from the fuel price increases in previous years, such as the results of research conducted by Chorilayah et al., (2016); Febriyanti & Rahyuda (2016); Liogu & Saerang (2015); and Femianita & Asandimitra (2014). Therefore, for the executive government to consider the policy of changing the fuel price in the future, these changes may affect the firm's performance and the firm's stock price.

## V. CONCLUSION

According to the results of the research conducted, it was observed that the market reaction and stock liquidity of the companies listed in the JII-30 Index were not affected by the announcement of the fuel price hike on September 03, 2022. This circumstance can be attributed to various factors, one of which is that the announcement of the fuel price increase in September 2022 does not have sufficient informational relevance for investors to make investment decisions, so investors do not respond to these events, and the price performance of the Jakarta Islamic Index 30 (JII-30), which is in the participation phase (mark up). In addition, there is the role of information that was circulated before the announcement of the fuel price increase was published. As well as one of the economic factors such as Indonesia's inflation rate which is quite low, causing investors' confidence to continue investing in companies listed in the JII Index when the fuel price increase announcement event occurs.

So that recommendations can be made to investors to consider long-term investment plans and diversify portfolios when investing. This is because the fuel price increase does not affect the JII-30 stock price in the short term. Although there is no significant difference in market reaction and stock liquidity between the period before and after the announcement of the fuel price increase. It is important to carry out long-term investment plans and portfolio diversification to reduce the risks associated with certain events. In addition, it can pay attention to other economic factors and also be more selective in filtering the information that should be used as a consideration for making information decisions. Sharia investors should also be able to prioritize fundamental analysis before investing. In addition, the executive government to be able to consider the policy of increasing fuel prices in the long term, this is because in this study in the short term, it has no effect on stock prices, but this may be different if studied in the long term.

There are still limitations in this study, such as the range of window periods and estimation periods, which may be longer again. There are still limitations in the sample that uses JII-30, and there are limitations in terms of information that is not publicly available so that it can affect related companies. The suggestions that can be given to future researchers are that they can extend the window period to find out how the news effect of fuel price increase will affect the company comprehensively, and also use an estimation period that can be longer to reduce the company's bias towards sudden events during the estimation period. In addition, future researchers can use stock indices that have more samples, especially on Sharia indices such as ISSI or JII-70, to find out the impact of the news of fuel price increase on the Islamic capital market comprehensively.

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