

## ANALYSIS OF THE INFLUENCE EVENTS ON THE INCREASE AND DECREASE OF WORLD OIL PRICES ON ABNORMAL RETURN AND TRADING VOLUME ACTIVITY IN MINING SECTOR COMPANIES THAT REGISTERED IN INDONESIA STOCK EXCHANGE

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### ABSTRACT

This research aims to analyze the increase and decrease of oil world prices to abnormal returns and trading volume activity on mining sector companies that are registered on the Indonesia Stock Exchange. Samples used were 56 companies using the purposive sampling method. This research took abnormal return and trading volume activity to be examined. An event study was used as the research model. This study also used paired sample t-test. The results showed that the United States released oil reserves, sanctions on oil exports in Russia, Russia's import ban, the decreased supply of oil from Russia to abnormal returns both before and after the event in mining companies that registered on the Indonesia Stock Exchange. However, there is no significant difference before and after abnormal returns in all events. There is also no significant difference before and after trading volume activity at the beginning of the United States releasing oil reserves, sanctions on oil exports in Russia, Russia's import ban, and the decrease supply of oil from Russia to mining companies that registered in the Indonesia Stock Exchange. Russia's import ban event, there was significant trading volume activity in mining companies that registered on Indonesia Stock Exchange. Investors should be careful in receiving information that will affect their investment decisions.

**Keywords:** Abnormal Return, Trading Volume Activity, Expected Return, Event Study

### INTRODUCTION

On Thursday, 24 February 2022, Russia actually invaded Ukraine. President Vladimir Putin officially announced a military operation because the Russian side had no other choice but to defend itself from the threat of Ukraine ([www.cnbcindonesia.com](http://www.cnbcindonesia.com)) in (Tommy Patrio Sorong & Sef, 2022). In 1991, the Soviet Union dissolved from the Warsaw Pact alliance known as the Treaty of Friendship, Cooperation and Mutual Assistance, a military alliance of Eastern Bloc countries in Eastern Europe. In the same year, Ukraine declared independence from the Soviet Union in a referendum and received approval from Russian President Boris Yeltsin.

Relations between Russia and Ukraine heated up again in 2014 due to the emergence of a revolution against Russian supremacy. Anti-government mobs succeeded in overthrowing the former president of Ukraine, Viktor Yanukovych. Riots even preceded peace in 2015 with the signing of the Minsk agreement. Around November 2021, news emerged of an attack between Ukraine and Russia. A satellite image shows a new buildup of Russian troops on the border with Ukraine. On December 4, 2021, world leaders such as United States President Joe Biden warned Russia about Western economic sanctions. On the other hand, Russia has also started carrying out massive military training since early January 2022. On January 24, 2022, NATO put troops on alert and strengthened its military presence in eastern Europe.

On February 15, 2022, Russian President Putin made a statement that Russia would withdraw all Russian troops from its borders on the grounds that Russia did not want war. On February 21, 2022, Russia recognized the independence of the Eastern regions of Ukraine, namely the Donetsk (DPR) and Luhansk (LRP) regions which had previously been controlled by separatists and had previously established a government unilaterally but never received world recognition. Furthermore, on February 26, 2022 Russia announced a military operation that would be carried out in Ukraine where attacks would be carried out against a large number of cities in Ukraine.

On March 22, 2022, Russian troops carried out an attack on the Ukrainian capital Kiev area as Western leaders started gathering in Brussels to plan further steps to put pressure on Russian President Vladimir Putin

(Miranti, 2022). Quoted from Tribunnews.com by (Cahyani, 2022), on Saturday 23 April 2022 Zelensky stated that Ukraine would submit a request for heavy weapons from the United States to defeat Russia.

On Monday, May 30 2022, information circulated that the Netherlands would cut gas supplies from the Russian energy company, Gazprom. On Friday 3 June 2022, Russia's invasion of Ukraine has entered its 7th day and the resulting conflict has begun to have repercussions and reactions from around the world. quoted from Kompas.com by (Pristiandaru, 2022). Followed from Kompas.com (Arfiansyah, 2022) on March 3, 2022, the war that occurred between Russia and Ukraine began to have a serious impact on other countries in the world, including Indonesia.

One of the impacts felt from the war between Russia and Ukraine was the shock of world crude oil prices because Russia is the third largest oil producer in the world. Quoted from kompas.com written by (Yohana, A. U., 2021) that in July 2022 there was an increase in world oil prices by 1.94 US dollars per barrel to 72.149 US dollars per barrel. Several factors contributed to the increase in the price of the main crude oil on the international market, among others related to the increase in demand for oil (Dimaranty et al., 2019).

World oil prices on September 1, 2022. The supply of American crude oil has decreased because the market is worried that there will be a global economic slowdown due to new restrictions in China following an increase in Covid-19 cases. World oil prices fell again at the close of trading on November 26 2021, as investors watched how major oil producers responded to the US-led emergency release of oil, quoted from mediaindonesia.com written by (Fauzi, 2021).

The average ICP price for Indonesian crude based on the calculation of the Indonesian Crude Price (ICP) Formula in January 2022 is set at US\$85.89 per barrel, or an increase of US\$12.53 per barrel compared to December 2021. The increase in the price of the main crude oil on the international market influenced by several factors, including an increase in geopolitical risk, the potential for an invasion of Ukraine by Russia which could disrupt oil and gas supplies, especially in European countries, Kazakhstan as an OPEC+ country with an oil production level of 1.6 million barrels per day, experiencing logistical constraints that have the potential to cause a reduction in post-demonstration production triggered by rising fuel prices (Wulansari et al., 2019).

World oil prices experienced a significant decline due to factors affecting the increase in the price of the main crude oil on the international market, in addition to the disruption in global crude oil supplies following the Russia-Ukraine conflict, the decline also occurred due to the imposition of sanctions and the failure of production infrastructure in producing countries. crude oil. The imposition of sanctions on Russia's crude oil exports has disrupted global crude oil supplies of 1.2-4.5 million bpd. The average ICP for Indonesian crude oil in March 2022 increased by US\$17.78 per barrel from US\$95.72 per barrel in the previous month to US\$113.50 per barrel, quoted from migas.esdm.go.id written by (Anonymous, 2022).

Oil prices on March 9 2022 experienced a significant decline, where there was a difference of 12.13% compared to the previous day. Global oil prices experienced the biggest decline following the implementation of the ban on imports from Russia. The price of Brent crude oil futures decreased by 13.2 percent to \$111.14 or around IDR 1.7 million per barrel quoted from depok.ikirrakyat.com written by (Alamsyah, n.d.).

Oil prices increased above US\$ 100 per barrel on Thursday (17/03/2022). The increase in oil prices was driven by a statement from the International Energy Agency (IEA) which stated that as many as 3 million barrels of Russian oil and oil products or fuel oil (BBM) could disappear from the market in the next period even though the United States Central Bank the Federal Reserve (The Fed) decided to raise interest rates. The reduced supply of Russian oil in the market is far greater than the estimated decrease in demand of 1 million barrels per day due to rising oil prices (Halim et al., 2019).

The average ICP for Indonesian crude oil in May 2022 was set at US\$109.61 per barrel, or an increase of US\$7.10 per barrel from US\$102.51 per barrel in April 2022. The increase in the price of main crude oil on the international market was influenced by This was caused by several factors, including the Union's agreement on imposing sanctions on Russia, namely a crude oil embargo which prompted increased market concern which resulted in further disruption of global crude oil supplies amid increasing demand for fuel and jet fuel ahead of the peak of the summer driving season in the United States and Europe. Oil prices were also affected by geopolitical tensions in the Middle East when Iran seized 2 Greek tankers in retaliation for the United States' seizure of Iranian crude in Greek waters, raising fears of disruption to crude oil supplies through the Strait of Hormuz through which a third of traded crude oil passes. world.

In June 2022 oil prices again increased by US\$8.01 per barrel from US\$109.61 per barrel in May 2022 to US\$117.62 per barrel. Oil market players are worried about the uncertainty in world crude oil supplies due to the inability of OPEC+ to meet production quota targets, which is a combination of lack of investment, imposition

of sanctions on Russia, decreased production of Libya, Ecuador and Nigeria, as well as the production of the UAE and Saudi Arabia. oil which has a significant impact on mining sector companies in Indonesia. A more detailed explanation could be added as to why it is the mining sector that is affected.

Based on the above information, it will be investigated whether the events on 26 November 2021, 01 March 2022, 9 March 2022 and 17 March 2022 have an effect on the increase and decrease in oil abnormal returns and trading volume activity in mining sector companies listed on the Indonesia Stock Exchange.

## LITERATURE REVIEW

### Signaling Theory

Signaling theory explains that the owner of the information provides a signal in the form of information to the recipient of the information (investor). One way to convey information to the market is to publish information in print and online media. The information obtained will be analyzed first by investors. Information that is relevant (Sudarno et al., 2022), precise, accurate and timely as an analysis to assist investors in making investment decisions (Renaldo et al., 2022). Signaling theory indicates that companies will try to show signals in the form of positive information to potential investors through disclosure in financial statements. Signals are actions taken by the old owners in communicating the information they have to investors. Old owners are motivated to disclose private information voluntarily because they hope that this information can be interpreted as a positive signal about company performance and is able to reduce information asymmetry (Lasrya et al., 2021).

### Market Efficiency

The definition of an efficient capital market that is widely accepted is a capital market if there is new information from both the government of a country and the issuer or company concerned, then this information will be widely disseminated, quickly and easily and cheaply obtained by market participants or investors (Dwipayana & Wiksuana, 2017).

### Event Study

Event study is a study in which market reaction is studied to an event (event) in the form of information published as an announcement, (Hartono, 2017). Event studies are used in testing information content and used in testing semi-strong form market efficiency. Information content testing aims to determine the reaction of an announcement.

### Stock Returns

Return or return from an investment is a person's main goal in carrying out investment activities. Understanding return itself according to (Jogiyanto, 2000) is the result obtained from investment. Stock return is one of the factors that motivates investors to invest and is also a reward for investors' courage to bear the risk of the investment made. Investors must realize that besides getting profits (Suyono et al., 2022; Vina et al., 2021), they also have the possibility of experiencing losses. The concept of return is that the higher the expected rate of return, the higher the risk that will be accepted. Vice versa, the lower the expected return, the lower the risk received.

### Expected Return

Expected return is the return expected to be obtained by investors in the future. In stock trading activities, investors will expect a stock return. Stocks are commodities that are traded in the capital market with the highest level of risk. It is said so because of the risks that arise as a result of the uncertainty of returns obtained by investors because of the nature of stocks where the return value obtained is based on residual claims, meaning that the amount of return depends on the level of profit (Suhardjo et al., 2022) generated Return is the result obtained from investment.

### Abnormal Returns

Return (Lumbantoruan et al., 2021) is a reward for the courage of investors to bear the risk of the investment they make. So that when investors want to invest their capital, they must pay attention and calculate the return they will receive. Abnormal return is the difference between the actual return received and the normal return (Tarigan & Pratomo, Wahyu Ario, S.E., 2015). According to (Chandra, 2015a), abnormal return can be calculated using the formula.

### Trading Volume Activity

Trading Volume Activity or Stock Trading Activity (Ansorimal et al., 2022) can be an indicator to see market reaction. Trading Volume Activity is a measurement of whether the announcement issued by the company is related to the increase in the volume of trading activity of the company concerned at the time of the announcement. Another understanding states that TVA is said to be an instrument that can be used to see the reaction of the capital market to information through the parameters of the movement of trading volume activity in the capital market (Ramadani et al., 2019).

### Hypothesis

Based on the explanation above, the hypothesis in this study is as follows:

H1: There are abnormal returns before and after the increase and decrease in oil prices

November 26, 2021 – There was a decline in oil prices of 11.96%

March 1, 2022 - There was an increase in oil prices of 8.03%

March 9, 2022 - Oil prices fell by 12.13%

March 17, 2022 - There was an increase in oil prices of 8.35%

H2: There are differences in abnormal returns before and after the events on the JCI, gold and world oil prices

November 26, 2021 – There was a decline in oil prices of 11.96%

March 1, 2022 - There was an increase in oil prices of 8.03%

March 9, 2022 - Oil prices fell by 12.13%

March 17, 2022 - There was an increase in oil prices of 8.35%

H3: There are differences in the trading volume activity of stocks before and after the events on the JCI, gold and world oil prices

November 26, 2021 – There was a decline in oil prices of 11.96%

March 1, 2022 - There was an increase in oil prices of 8.03%

March 9, 2022 - Oil prices fell by 12.13%

March 17, 2022 - There was an increase in oil prices of 8.35%

## RESEARCH METHODS

### Population and Sample

The population in this study are mining sector companies listed on the Indonesia Stock Exchange in 2022, namely 62 companies. And based on the aforementioned sample criteria, 56 mining companies on the Indonesia Stock Exchange met the criteria. To get the sample, purposive sampling method was used.

**Table 1. Purposive Sampling**

No	Company	Amount
1	Mining Companies listed on the Indonesia Stock Exchange (IDX)	62
2	Mining Companies suspended on the Indonesia Stock Exchange (IDX) during December 2021 – June 2022	-4
3	Mining Companies registered from November 2021 to March 2022	-2
<b>Total Sample</b>		<b>56</b>

Source: Processed Data (2022)

## Data Types and Sources

The type of data used is secondary data. Secondary data in this study is data on mining sector companies on the Indonesia Stock Exchange obtained from the websites [www.idx.co.id](http://www.idx.co.id), [www.investing.com](http://www.investing.com), and [www.finance.yahoo.com](http://www.finance.yahoo.com).

## Research Period

In event study research, the observation period is divided into two, namely the window period and the period of estimation. The estimation period is 250 days, i.e.  $t-250$ . Meanwhile, the event taking period for this study is 6 days, namely 3 days before the  $t-3$  event and 3 days after the  $t+3$  event, namely:

November 26, 2021 – The United States releases oil reserves

March 1, 2022 – Oil export sanctions in Russia

March 9, 2022 – Russian import ban

March 17, 2022 – Reduced oil supplies from Russia

## Hypothesis Test

### Hypothesis I

Hypothesis I testing was carried out to test the existence of abnormal returns before and after the events studied (Chandra, 2015b).

### Actual Return

$$R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}}$$

$R_{it}$  = return individual saham i pada periode t

$P_t$  = closing price pada periode t

$P_{t-1}$  = closing price pada periode t-1

### Market Return

$$R_{mt} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

$R_{mt}$  = expected return for stock i on day t

$IHSG_t$  = composite stock price index on day t

$IHSG_{t-1}$  = composite stock price index on the previous day

### Expected Return

Expected return is calculated using a single index market model, with realizable data during the estimation period to estimate the expected return in the event window period, with the following equation (Chandra et al., 2018):

$$\varepsilon(R_{it}) = \alpha_i + \beta_i \cdot R_{mt}$$

$E(R_{it})$  = Expected return for stock i in period t

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

The coefficient  $\alpha$  and  $\beta$  obtained from the calculation of the time series regression equation between stock returns ( $R_{it}$ ) and market returns ( $R_{mt}$ ).

### Abnormal Return

$$AR_{it} = R_{it} - \varepsilon(R_{it})$$

$AR_{it}$  = abnormal return of stock i in period t

$R_{it}$  = actual return of stock i in period t

$E(R_{it})$  = expected return of stock i in period t

### Average Abnormal Return

$$\overline{AR}_{it} = \frac{\sum_{i=1}^n AR_{it}}{n}$$

$\overline{AR}_{it}$  = average abnormal return of stock i in period t

$AR_{it}$  = abnormal return of stock i in period t

n = number of samples

### Cumulative Average Abnormal Return

$$CAAR = \sum \overline{AR}_{it}$$

CAAR = cumulative average abnormal return

$\sum \overline{AR}_{it}$  = total average abnormal return of stock i in period t

### Standar Deviasi

$$\sigma_{ie} = \sqrt{\frac{\sum (AR_{it} - \overline{AR}_{it})^2}{n-1}}$$

$\sigma_{ie}$  = security standard deviation i

$AR_{it}$  = abnormal return of stock i in period t

$\overline{AR}_{it}$  = average abnormal return of stock i in period t

n = number of samples

### Standardized Abnormal Return

$$SAR_{nt} = \frac{AR_{it}}{\sigma_{ie}}$$

$SAR_{nt}$  = standardized abnormal stock returns in period t

$AR_{it}$  = abnormal return of stock i in period t

$\sigma_{ie}$  = security standard deviation i

### One Sampel t-test

$$t = \frac{ASAR}{\sigma_{SAR}/\sqrt{n}}$$

ASAR = Average standardized abnormal stock returns in period t

$\sigma_{SAR}$  = Standard Deviation standardized abnormal return in period t

n = number of samples

### Hypothesis II

Hypothesis II testing is to test the difference in abnormal returns before and after the events studied. The formula used is as follows:

### Average Abnormal Return

Before event

$$\overline{AR}_{before} = \frac{\sum_{t=-5}^{t=-1} AR_{before}}{n}$$

After event

$$\bar{AR}_{\text{after}} = \frac{\sum_{t=-5}^{t=-1} AR_{\text{after}}}{n}$$

### Standard Deviation

Before event

$$\sigma_{\text{before}} = \sqrt{\frac{\sum_{t=-5}^{t=-1} (AR_{\text{before}} - \bar{AR}_{\text{before}})^2}{(n - 1)}}$$

After event

$$\sigma_{\text{after}} = \sqrt{\frac{\sum_{t=-5}^{t=-1} (AR_{\text{after}} - \bar{AR}_{\text{after}})^2}{(n - 1)}}$$

### Statistic Test ( $\alpha = 5\%$ )

$$t = \frac{\bar{AR}_{\text{after}} - \bar{AR}_{\text{before}}}{\sqrt{\frac{\sigma_{\text{after}}^2}{n} + \frac{\sigma_{\text{before}}^2}{n}}}$$

### Hypothesis III

Hypothesis III testing is to test differences in stock trading volume activity (TVA) for the events studied.

#### Trading Volume Activity

$$\text{TVA} = \frac{\text{Stock trading volume in period t}}{\text{Number of outstanding shares in period t}}$$

#### Average Trading Volume Activity

$$\bar{\text{TVA}} = \frac{\sum_{i=1}^n \text{TVA}_i}{n}$$

$\bar{\text{TVA}}$  = average trading volume stock activity in period t

$\text{TVA}_i$  = trading volume activity of stock i in period t

n = number of samples

#### Standard Deviation

$$\sigma_{ie} = \sqrt{\frac{\sum (TVA_i - \bar{TVA})^2}{n - 1}}$$

$\sigma_{ie}$  = security standard deviation i

$\text{TVA}_i$  = trading volume activity of stock i in period t

$\bar{TVA}$  = average trading volume activity of stock i in period t

n = period of time

#### Standardized Trading Volume Activity

$$\text{STVA}_{nt} = \frac{\text{TVA}_i}{\sigma_{ie}}$$

$\text{STVA}_{nt}$  = standardized trading volume stock activity in period t

$\text{TVA}_i$  = trading volume activity of stock i in period t

$\sigma_{ie}$  = security standard deviation i

### One Sampel t-test

$$t = \frac{\sum TVA_{nt}}{\sqrt{n}} \quad \text{or} \quad t = \frac{ASTVA}{\sigma_{STVA}/\sqrt{n}}$$

ASTVA = Average standardized trading volume stock activity in period t

$\sigma_{STVA}$  = Standard Deviation of standardized trading volume activity in period t

n = number of samples

### Average TVA

Before event

$$\overline{TVA}_{\text{before}} = \frac{\sum_{t=-5}^{t=-1} TVA_{\text{before}}}{n}$$

After event

$$\overline{TVA}_{\text{after}} = \frac{\sum_{t=-5}^{t=-1} TVA_{\text{after}}}{n}$$

### Standard Deviation

Before event

$$\sigma_{\text{before}} = \sqrt{\frac{\sum_{t=-5}^{t=-1} (TVA_{\text{before}} - \overline{TVA}_{\text{before}})^2}{(n - 1)}}$$

After event

$$\sigma_{\text{after}} = \sqrt{\frac{\sum_{t=-5}^{t=-1} (TVA_{\text{after}} - \overline{TVA}_{\text{after}})^2}{(n - 1)}}$$

### Statistics Test (at $\alpha = 5\%$ )

$$t = \frac{\overline{TVA}_{\text{after}} - \overline{TVA}_{\text{before}}}{\sqrt{\frac{\sigma_{\text{after}}^2}{n} + \frac{\sigma_{\text{before}}^2}{n}}}$$

## RESULTS AND DISCUSSION

### Normality Test

The normality test was carried out to find out whether the sample data used were normally distributed or not. Testing for normality using the Kolmogorov Smirnov test. asymp value. Sig (2-tailed) for all samples of companies listed on the Indonesian Stock Exchange is greater than 0.05, it can be said that the data is normally distributed, so that hypothesis testing can be done by testing the Paired Sample T-Test.

### Hypothesis I

Hypothesis I states that there are abnormal returns starting from circulating information that the United States has released oil reserves to reduced oil supplies from Russia. Here are the results of the analysis:

**Table 2. Abnormal return test for mining companies listed on the Indonesia Stock Exchange**

Event		t-3	t-2	t-1	t+1	t+2	t+3
United States Releases	<b>Sig</b>	0.43793	0.83104	0.78991	0.00468	0.53149	0.39409
Oil Reserves	<b>Results</b>	Insig	Insig	Insig	Sig	Insig	Insig
Oil export sanctions in Russia	<b>Sig</b>	0.91446	0.05898	0.00730	0.02281	0.00048	0.00780
	<b>Results</b>	Insig	Insig	Sig	Insig	Sig	Sig

Event		t-3	t-2	t-1	t+1	t+2	t+3
<b>Russian Import Ban</b>	<b>Sig</b>	0.00048	0.00780	0.04099	0.00199	0.80227	0.00307
	<b>Results</b>	Sig	Sig	Insig	Sig	Insig	Sig
<b>Reduced oil supply from Russia</b>	<b>Sig</b>	0.00307	0.93308	0.96720	0.86945	0.58110	0.00006
	<b>Results</b>	Sig	Insig	Insig	Insig	Insig	Sig

Source: Processed Data (2022)

The United States released oil reserves – November 26, 2021, stated that there was a significant abnormal return 1 day after the event occurred for mining companies listed on the Indonesia Stock Exchange with negative abnormal returns indicating that investors gave a negative response to the market due to the United States releasing oil reserves caused a fall in world oil prices and made investors falter in responding to the stock market resulting in negative abnormal returns.

Oil export sanctions in Russia – March 1, 2022, states that there is no significant abnormal return 1 day before the event occurs for mining companies listed on the Indonesia Stock Exchange with negative abnormal returns because these sanctions have the potential to make world oil supplies tighter so that investors respond negatively to the market. Then there were no significant positive abnormal returns 2 days and 3 days after the circulation of the information on Oil Export Sanctions in Russia – 01 March 2022.

The Russian import ban – March 9, 2022, states that there are no significant abnormal returns 3 days and 2 days before the event occurs for mining companies listed on the Indonesia Stock Exchange with positive abnormal returns. Then there were no significant negative abnormal returns 1 day and 3 days after the circulation of the information on the Russian import ban – March 9, 2022.

Reduced oil supply from Russia – March 17 2022, the results of the study stated that there were no significant abnormal returns 3 days before the event occurred for mining companies listed on the Indonesia Stock Exchange with negative abnormal returns due to the demham reduced oil supply from Russia causing oil prices continue to soar and provide an impact response to investors on the market. Then there are no significant positive abnormal returns within 3 days after the Reduced Oil Supply from Russia – March 17, 2022.

### Hypothesis II

Hypothesis II states that there are differences in abnormal returns before and after the event, which starts with information circulating that the United States is releasing oil reserves to reducing oil supplies from Russia. Here are the results of the analysis:

**Table 3. Hypothesis II Test Results for Mining Companies Listed on the Indonesia Stock Exchange**

Information	T count	T table	P two - tail	Conclusion
US Releases Oil Reserves	-11.7111	2.919986	0.007213	Sig
Oil export sanctions in Russia	2.835195	2.919986	0.105146	Insig
Russian Import Ban	-1.67949	2.919986	0.235068	Insig
Reduced oil supply from Russia	1.123006	2.919986	0.378133	Insig

Source: Processed Data (2022)

### Hypothesis III

Hypothesis III states that there are differences in trading volume activity before and after the event, starting from information circulating that the United States has released oil reserves to reduced oil supplies from Russia. Here are the results of the analysis:

**Table 4. Results of Hypothesis Testing III on Mining Companies Listed on the Indonesia Stock Exchange**

Information	Event 1	Event 2	Event 3	Event 4
Difference (-3), (+3)	-0.00183	0.005502	-0.00564	-0.01114
Difference (-2), (+2)	-0.00349	-0.00483	-0.00621	-0.00138
Difference (-1), (+1)	0.011612	-0.00323	-0.00346	-0.00023
Average	0.002097	-0.00085	-0.00511	-0.00425
Standard Deviation	0.008283	0.005562	0.00145	0.0059945
T-Count	0.438475	-0.26587	-6.0978	-1.2288
Sig	0.703859	0.81524	0.025855	0.34411
Conclusion	Insig	Insig	Sig	Insig

Source: Processed Data (2022)

The results of the research that was conducted at the United States event releasing oil reserves – November 26, 2021, stated that trading volume activity was not significant, which meant that there was no significant difference in trading volume activity prior to the event for mining sector companies listed on the Indonesia Stock Exchange and after the event at mining sector companies listed on the Indonesia Stock Exchange. The results of this study are in line with research conducted by (Alexander & Kadafi, 2018), (Maliasari, 2012), (Dewi et al., 2021), and (Istanti, 2007).

From the results of research that was conducted at the oil export sanctions event in Russia - March 1, 2022, stated that trading volume activity was not significant, which meant that there was no significant difference in trading volume activity before the event for mining sector companies listed on the Indonesia Stock Exchange and after the event at mining sector companies listed on the Indonesia Stock Exchange. The results of this study are in line with research conducted by (Alexander & Kadafi, 2018), (Maliasari, 2012), (Dewi et al., 2021), and (Istanti, 2007).

From the results of research that was conducted at the oil export sanctions event in Russia – March 1, 2022, states that trading volume activity is significant, which means that there is a significant difference in trading volume activity before the event for mining sector companies listed on the Indonesia Stock Exchange and after the event. in mining sector companies listed on the Indonesia Stock Exchange, because the significant value is 0.025855  $<0.1$ . The results of this study are in line with research conducted by (Pamungkas et al., 2015), (Diantriasih et al., 2018), and (Lee & Setiawati, 2021).

Whereas for the event of reduced oil supply from Russia – March 17 2022, the results of the study state that trading volume activity is not significant, which means that there is no significant difference in trading volume activity before the event for mining sector companies listed on the Indonesia Stock Exchange and after the event on mining sector companies listed on the Indonesia Stock Exchange. The results of this study are in line with research conducted by (Alexander & Kadafi, 2018), (Maliasari, 2012), (Dewi et al., 2021), and (Istanti, 2007).

## CONCLUSION

The results of this study indicate that starting from the circulation of information that the United States released oil reserves to the reduced supply of oil from Russia to mining companies listed on the Indonesian Stock Exchange, there has been bad news in a few days which has resulted in negative abnormal returns. However, there are also several other days that show a positive response that results in a positive abnormal return. In the event that the United States releases oil reserves, there is a difference in abnormal returns and in the event of the Russian import ban, there is a significant difference in trading volume activity of mining companies listed on the Indonesian Stock Exchange. The rest there are no abnormal returns and trading volume activity before and after the event on mining companies listed on the Indonesia Stock Exchange.

Tests were carried out using secondary data with independent variables, namely the event the United States released oil reserves - November 26, 2021, oil export sanctions in Russia - March 1, 2022, Russia's Import Ban - March 9, 2022, and reduced oil supply from Russia - March 17 2022 and the dependent variable, namely Abnormal return and Trading volume activity.

This study took 6 days where 3 days before and 3 days after the event. The purpose of this study using a short time is to reduce the influence of other factors on abnormal returns. The short time frame of this research is one of the limitations of this study.

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