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Islamic Stocks and Russia – Ukraine War: Evidence from the Jakarta Islamic Index

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ABSTRACT: Previous research revealed that non-economic variables affected stock returns. War is one of the non-economic factors. All international stock markets were under pressure because of the conflict between Russia and Ukraine. The purpose of this study was to investigate returns and the liquidity of Jakarta Islamic Index (JII) stocks around the President Putin's announcement the war Russia – Ukraine on 24th of February 2022 using an event study. JII stocks are sharia-compliant stocks with a high market capitalization, high level of liquidity, and low volatility. According to these findings, even though the abnormal return had a significant negative on the sixth day before the event date, the paired sample t test indicated that the abnormal return was not significant. However, JII's liquidity was significantly impacted on this shock. This demonstrates that the incident had little effect on the price of JII stocks. These characteristics lead to the prediction that the JII be able to withstand this shock. This study also has practical implications for investors, such as taking external shocks into account when selecting stocks.

Keywords: Stock return, abnormal return, liquidity, sharia stock, war Russia-Ukraine.

I. INTRODUCTION

Stock prices in the stock market always fluctuate because of changes in trading activity. The stock price is determined by supply and demand for the stock. While supply and demand are influenced by factors both specific to the stock such as company performance and industry in which the company operates; and macro factors such as interest rates, exchange rates, inflation, and non-economic factors such as social and political conditions and other factors. It is well known that stock prices react to economic news. Previously, the effect of economic and non-economic events on capital market reaction has been investigated. Nonetheless, it is still worth investigating right now. Several studies have discovered a relationship between non-economic forces and stock returns [1–9].

Stock prices are influenced by a wide range of national and international events, with some, such as political and sporting events, having a greater impact than others [4]. The COVID-19 pandemic also had an impact on the stocks market [6,7,10]. It implies that non-macroeconomic shocks affect the stock market. Other studies discovered that the Iraqi invasion of Kuwait influenced stock returns. From day 0 to day 5, the invasion of Kuwait resulted in significant abnormal losses, as well as an increase in unsystematic risk for transportation firms [2].

The conflict between Russia and Ukraine, which is currently receiving attention on a global scale, is still going on. The current conflict between the two countries has a historical foundation. The story begins in

1991, the year the Soviet Union collapsed in Ukraine. The conflict escalates from that point on until 2022. Westerners are starting to worry more and more about a possible Russian invasion of Ukraine, starting as early as February 2022. All global stock markets were impacted by the conflict between Russia and Ukraine. Table 1 shows trading activity on Tuesday, February 20, 2022. Stock exchanges from the Asia-Pacific region to Europe have experienced a sharp decline. Concerns among investors over the escalating hostilities between Russia and Ukraine. The Composite Stock Price Index (JCI) from the Indonesian Stock Exchange (IDX) closed at 6,861.994, a decrease of 40.97 points (-0.59%), or 6.861.994. In the Asia-Pacific region, numerous important stock exchanges are currently "on fire," not just the JCI. Tokyo's Nikkei 225 index fell 1.71%, for instance. The biggest decline, or minus 2.69%, was seen in the Hang Seng index [11].

Table 1. Performance of Stock Indices on Domestic Exchanges to Europe 20th February 2022

Stock Indices	Positions	% Daily Change
IHSG	6,861.99	-0.59
Nikkei 225 (Japan)	26,449.61	-1.71
Hang Seng (Hong Kong)	23,520	-2.69
Shanghai Composite (China)	3,457.15	-0.96
STI (Singapura)	3,400.58	-1.04
TOPIX (Japan)	1,881.08	-1.55
Kospi (South Korea)	2,706.79	-1.35
ASX 200 (Australia)	7,161.30	-1
FTSE 100 Index (England)	7,451.72	-0.44
DAX Frankfurt (German)	14,554.12	-1.2
Stoxx 600 (Europe)	451.96	-0.63

Source: IDX, RTI, Refinitiv

On Thursday, 24th of February 2022, Russian President Vladimir Putin announced in a public address that he had authorized a military operation in Ukraine, and NBC News reported explosions in Kyiv. Putin claimed that the US and its allies disregarded Russia's request to stop Ukraine from joining NATO and provided security guarantees to Moscow, which led to the attack. The West refers to it as an invasion. Russia, according to the US and its allies, violates other countries' sovereignty [12].

Furthermore, oil futures rose and Asia-Pacific shares fell as investors monitored the escalating situation between Russia and Ukraine [12]. Additionally, on Wall Street, the three major indexes fell further overnight. The S&P 500 fell 1.8 percent and entered a deeper bear market, while the Dow Jones Industrial Average fell 1.38 percent to 33,131.76. The Nasdaq Composite, which focuses on technology, fell 2.6 percent to 13,037.49. In addition, Asian stock markets were seen to have declined because of the attack this afternoon on Thursday 24th of February 2022. The Hang Seng Index dropped 760 points (3.37%) to 22,899, the Shanghai Index dropped 53 points (2.5%) to 3,435, and the Straits Times Index dropped 106 points (3.12) to 3,286. The Nikkei Index dropped 509 points (1.81%) to 25,940 [13].

An earlier study discovered a negative and significant AAR in the event windows on the European stock market in response to Russia's recognition of the Donetsk and Luhansk regions of eastern Ukraine as two autonomous states on February 21, 2022 [14]. In addition, previous study found a significant negative impact of the Ukraine-Russia war on global stock indices between 22 January 2022 and 24 March 2022 using daily data on stock returns for a sample of 94 countries [15].

Significant economic and financial shocks have already been brought on by the war, particularly in the markets for commodities where the prices of wheat, oil, and gas have skyrocketed (16). The war on Russia and Ukraine put pressure on all global stock markets, including into the Indonesian stock market. In trading on Thursday, 24th of February 2022, as of 11.24 WIB, the Jakarta Composite Index (JCI) immediately fell more than 1.7% to a level of 6,782.36. Trade data showed that transactions reached RP 11.53 trillion with a volume of 19.95 billion shares (17). Likewise, the sharia stock index such as Jakarta Islamic Index (JII) on IDX also experienced a decline. The escalating geopolitical tensions in Ukraine increased volatility risks from the external side as the market gradually recovered from the COVID pandemic. When there is risk and uncertainty, the bid-ask spread tends to rise, but this eventually leads to a decrease in market liquidity [18].

Sharia compliant stocks in particular are low leverage stocks with higher asset backing than their conventional counterparts, and it is generally accepted that firms with low leverage have lower distress risk as a result of their decreased exposure to the credit market [19]. In the Indonesia context, the JII stock index, which includes 30 sharia stocks with high liquidity, market capitalization, low leverage and low volatility is one of the indices that are resistant to non-macroeconomic shocks [20]. According to a previous study, Islamic markets were less affected by the 2008–2009 global financial crisis than were conventional markets. This finding suggests that investors should keep an eye on Islamic financial products to take advantage of some exciting investment opportunities [21]. Furthermore, prior research in Indonesia aims to investigate how the Islamic stock market for the energy sector reacted to Russia's invasion of Ukraine. The results show that the abnormal returns differed for the 3-day and 14-day observation periods, but not for the 7-day observation period, where there were no discernible differences. In addition, activity levels varied on average over the three, seven, and fourteen days before and after Russia's invasion of Ukraine [22]. As a result, the purpose of this research was to examine how President Putin's declaration of war against Ukraine on February 24, 2022, on JII stock returns and liquidity, whether JII survived a fall due to their characteristics. Considering this, the current study is different from the earlier one.

II. LITERATURE REVIEW

1. NON-ECONOMIC FORCES ON STOCK RETURN AND LIQUIDITY

Several studies have found a link between non-economic forces and stock returns. Non economics forces such as presidential elections, the 921earth quake, the 2003 Iraqi war, the outbreak of SARS, sports mega-events, the Asian financial crisis, the 911 terrorist attacks and COVID-19 pandemic (1–9). It indicates that non-economic shocks influenced the stock market.

Non-economic force such as the war on Russia and Ukraine also to be concerned. Russia and Ukraine's conflict put pressure on all stock markets around the world. Russia and Ukraine's hostilities are becoming more intense. The three major Wall Street indexes also declined more overnight. In contrast to the Dow Jones Industrial Average, which dropped 1.38 percent to 33,131.76, the S&P 500 fell 1.8 percent and entered a deeper bear market. Focusing on technology, the Nasdaq Composite dropped 2.6 percent to 13,037.49. Additionally, it appeared that the attack this afternoon on Thursday (24/2/2022) had a negative impact on Asian stock markets. This also influenced the Indonesian stock market, as evidenced by the Jakarta Composite Index (IHSG) and the rupiah's Thursday (24/2/2022) weakening [25, 28, 29].

The war Russia and Ukraine put pressure on all global stock markets, including into the Indonesian stock market. On Thursday, February 24, 2022, the Jakarta Composite Index (JCI) quickly dropped more than 1.7% to his level of 6,782.36. The Jakarta Composite Index (JCI) or The Jakarta Stock Exchange Composite Index (JKSE) is an indicator that reflects stock price movements of Indonesia Stock Exchange (IDX). One index in IDX which has impact on this event is The Jakarta Islamic Index [25, 28, 29].

Accordingly, the objective of this study is to study the impact of a non-economic shock, in this case, President Putin's declaration of the Russia-Ukraine war on 24 February 2022 on stock return and liquidity of

JII stocks. Furthermore, most liquidity proxies require market microstructural data such as bid-ask spreads, daily or intraday rates, and or accurately calculated trading volumes [23]. Although there is no definitive list of dimensions, the extensive liquidity literature agrees that different aspects of liquidity define different dimensions. Liquidity dimensions such as trading volume, which accounts for depth, and bid-ask spread, which measures tightness, were used in this study.

The event study method is a powerful tool to help researchers evaluate the financial impact of changing corporate policies, economic events, and non-economic events. With this method, researchers determine if there are 'abnormal' stock prices contingency effects [24]. This clause researchers can infer the meaning of the event.

2. ISLAMIC STOCKS

The Islamic business model differs from the traditional one in several ways. Due to the ban on dealing with interest, Islamic banks are asset based and asset driven. Sharia-based screens for Islamic equity investments favor growth and small-cap stocks and restrict investment to specific industries [25]. Conventional banks, in contrast, are interest-based and debt-driven, and traditional stock markets favor value and mid-cap stocks without these investment screens. Comparatively to conventional financial instruments, which frequently isolate risk of the underlying assets, Islamic financial instruments tend to reduce and manage systematic risk [26]. Furthermore, the Sharia Supervisory Board of Dow Jones seems to have established its standards as the norm for the investment sector. It includes the following financial standards to which businesses must adhere in order to be recognized as halal (allowed under Islamic law): Total debt divided by the trailing 12-month average market capitalization must be less than 33%. Cash plus interest-bearing securities must also be divided by the trailing 12-month average market capitalization with a minimum 33% requirement. Accounts receivable must also be less than 33% of the trailing 12-month average market capitalization [27].

Jakarta Islamic Index (JII) is one of the Islamic indices which is in Indonesia Stock Exchange (IDX). In Indonesia context, currently, the criteria for selection of Islamic shares by OJK are as follows: The company that satisfies the following financial ratios: a. The ratio of interest-based liabilities to total assets is not more than 45% (forty five percent); or b. The ratio of interest income and other non-Islamic income to total revenue is not greater than 10% (ten percent) [28]. With the Dow Jones Sharia Supervisory Board, these requirements are slightly different.

3. JAKARTA ISLAMIC INDEX

The first Islamic stock index, the Jakarta Islamic Index (JII), was introduced to the Indonesian stock market on July 3, 2000. The 30 most liquid Islamic shares listed on IDX make up JII's constituents. In addition to ISSI, OJK modified the DES review schedule by reviewing Islamic shares on JII constituents twice a year, in May and November [29]. Islamic shares on JII constituents were determined and chosen by IDX. Following are the liquidity requirements applied to the 30 Islamic shares on JII: Last six months' worth of data on the sharia stocks that make up the Indonesia Sharia Stocks Index (ISSI); The top 60 stocks by average market capitalization over the previous year, chosen as a group; Using the 30 stocks with the highest average daily transaction value on the open market out of the 60, the remaining stocks were chosen; The chosen stocks still have 30 stocks left. The Jakarta Islamic Index (JII) is an Indonesian Islamic Index that is based on Sharia compliance, changes in market capitalization, and liquidity [20]. It is made up of 30 stocks with a high market capitalization and liquidity. The JII, as a percentage, experienced significant growth in investment, and this is because the Islamic index adheres to Islamic principles and practices. The phenomenon of the conflict between Ukraine and Russia influences macro variable fluctuations, which can empirically affect the rise of the Islamic indices. This study seeks to analyze the effects of change brought on by the war sentiment as a result. Since there is evidence that Islamic stocks can serve as a hedge and safe-haven during crises, this study

focuses primarily on them. Therefore, it will be interesting to investigate how shocks impact Islamic stock markets in the presence of significant global event. Based on these characteristics, it is expected that the JII can survive from this shock.

III. MATERIAL AND METHOD

The daily closing prices of JII stocks, the daily Composite Stock Price Index, the daily TVA of JII stocks and TVA of a Composite Index from 10th of February up to 23rd of March 2022 were used in this study. All data is sourced from Indonesia Stock Exchange (IDX). JII stocks contain 30 stocks with the highest market capitalization and high liquidity. The company list is shown in Table 2. JII is Indonesia's first sharia index, consisting of 30 stocks with a large market capitalization and high liquidity. The JII is the world's first Islamic stock index, debuting on the Indonesian stock exchange on July 3, 2000. The JII is made up of the 30 most liquid Islamic shares listed on IDX. OJK modified the DES review schedule to include a review of Islamic shares on JII constituents twice a year, in May and November.

Next, an event study methodology used in this study. Event study is a methodology used to measure the impact of an event, both economic and non-economic events on the value of the company [30]. The goal of an event study is to determine whether security holders earned abnormal or excess returns as a result of specific events (e.g., earnings announcements, merger announcements, stock splits), where an abnormal or excess return is the difference between the observed return and that appropriate given a specific return generating model [31].

Table 2. List of JII stocks

Code	Company Name
ADRO	Adaro Energy Tbk
ANTM	Aneka Tambang Tbk.
BRIS	Bank Syariah Indonesia Tbk.
BRPT	Barito Pacific Tbk.
BUKA	Bukalapak.com Tbk.
CPIN	Charoen Pokphand Indonesia Tbk
EMTK	Elang Mahkota Teknologi Tbk.
ERAA	Erajaya Swasembada Tbk.
EXCL	XL Axiata Tbk.
ICBP	Indofood CBP Sukses Makmur Tbk.
INCO	Vale Indonesia Tbk.
INDF	Indofood Sukses Makmur Tbk.
INKP	Indah Kiat Pulp & Paper Tbk.
INTP	Indocement Tunggal Prakarsa Tbk.
ITMG	Indo Tambangraya Megah Tbk.
JPFA	Japfa Comfeed Indonesia Tbk.
KLBF	Kalbe Farma Tbk.
MIKA	Mitra Keluarga Karyasehat Tbk.
MNCN	Media Nusantara Citra Tbk.
PGAS	Perusahaan Gas Negara Tbk.
PTBA	Bukit Asam Tbk.
PTPP	PP (Persero) Tbk.
SMGR	Semen Indonesia (Persero) Tbk.

TINS	Timah Tbk.
TKIM	Pabrik Kertas Tjiwi Kimia Tbk.
TLKM	Telkom Indonesia (Persero) Tbk.
TPIA	Chandra Asri Petrochemical Tbk.
UNTR	United Tractors Tbk.
UNVR	Unilever Indonesia Tbk.

Source: IDX, 2022

This research examined the abnormal return and liquidity of JII stocks before and after the Russian President Vladimir Putin announced in a public address that he had authorized a military operation in Ukraine. The event study methodology was employed in this study. The investigation period is 21 days and can be explained as follows: 1) Ten days before the events (t-10 up to t-1); 2) One day of events (t0); 3) Ten days after the events (t1 until t10). Furthermore, are as follows:

1. The event date is 24th February 2022
2. The event period is ten days before the event (t-10) from February 10th, 2022 to March 23rd, 2022 and ten days after the event (t + 10) from February 25th, 2022 to March 14th, 2022.

According to Figure 1, President Putin's declaration of war on Ukraine was an event that could have an impact on capital market activity. This is since the announcement contains information that may influence the decisions of investors. The market will react to information-containing events. Abnormal returns will be used to gauge market reaction. The market reaction is indicated not only by changes in stock prices as reflected in abnormal returns, but also by changes in stock liquidity as reflected in the company's stock trading volume or the bid-ask spread. This study examined the abnormal returns and liquidity of JII stocks before and after Russian President Vladimir Putin declared war on Ukraine.

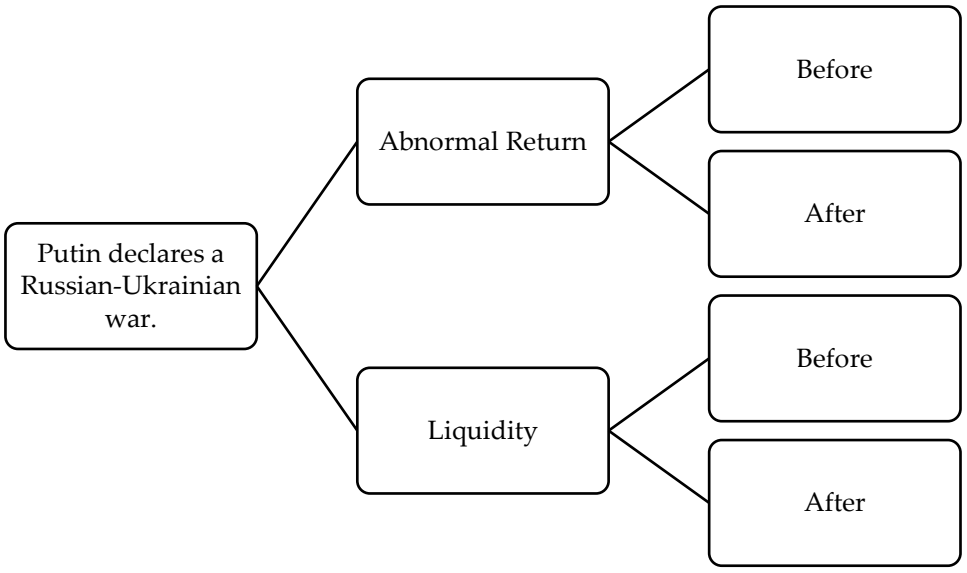

FIGURE 1. Theoretical framework authors' own elaboration.

The t-test and regression were used for data analysis in this study The term "abnormal return" is used to determine whether an event influences the stock's return. The excess return (also referred to as the abnormal stock return) for an individual stock for a given period is the difference between the observed return for that

period and the expected or predicted return for that period. Equation calculates abnormal return [31] are as follow:

$$Arit = Rit - Rmt \quad (1)$$

Where AR_{it} = Abnormal return or prediction error for stock i in period t;
R_{it} = Return on stock i in period t; and
R_{it^*} = Expected or predicted return on stock i in period t.

This study employed market adjusted model to calculate expected return. The market-adjusted model assumes that the best predictor of returns for a given stock is the current return on the market [31]. Therefore, market-adjusted is:

$$Rit = Rmt \quad (2)$$

where R_{mt} is the return on the market for day t within the event period.

Furthermore, this study also investigated this event from liquidity perspective. Trading volume activity and bid-ask spread conducted on this issue. Following that, TVA is an equation that compares the number of shares traded at a given time to the number of shares outstanding at that same time. While bid-ask spread was employed Corwin-Schultz bid-ask spread based on the previous study [32]. All equation models are as follows [33]:

$$S = \frac{2(e^{\alpha}-1)}{1+e^{\alpha}} \quad (3)$$

Where bid-ask spread denoted S and exponential denoted as e.

$$\alpha = \frac{\sqrt{2\beta}-\sqrt{\beta}}{3-2\sqrt{2}} - \sqrt{\frac{\gamma}{3-2\sqrt{2}}} \quad (4)$$

$$\beta = \sum_{j=1}^{1}[In(\frac{H_{t+1}^{0}}{L_{t+1}^{0}})]^2 \quad (5)$$

which is the sum of the expected squared ratios of high and low prices for two days in a row Gamma (γ) equals to $[In(\frac{H_{t+1}^{0}}{L_{t+1}^{0}})]^2$ a squared ratio of high and low prices a range of two days.

Next, this study, conducted a regression analysis on JII stocks to investigate how the market reacted to the event. The equations of the regression model were used to examine the effect of the event on abnormal return (AR), Trading Volume Activity (TVA), and bid-ask spread (BAS):

$$Arit = \alpha i + \beta Rmt + \varepsilon it \quad (6)$$
$$TVAit = \alpha i + \beta TVAmt + \varepsilon it \quad (7)$$
$$BASit = \alpha i + \beta iBASmt + \varepsilon it \quad (8)$$

Where AR_{it}, TVA_{it}, BAS_{it} α_i, β_i, R_{mt}, TVA_m, BAS_{mt}, ε_{it} are abnormal return, trading volume activity, bid-ask spread, Constanta, beta coefficient market return, beta coefficient market TVA, beta coefficient market bid-ask spread, and an error term respectively. The data used is JII stocks from December 2021 to May 2022, with a total of 30 stocks. All data was obtained from the Indonesian Stock Exchange (IDX).

IV. DATA ANALYSIS

The conflict between Russia and Ukraine has caused havoc on the financial markets and greatly increased

uncertainty regarding the recovery of the global economy. NBC News reported explosions in Kyiv on February 24, 2022, the day Russian President Vladimir Putin announced in a public address that he had authorized a military operation in Ukraine. In the West, this is known as an invasion. Russia, according to the United States and its allies, violates other countries' sovereignty. Furthermore, as investors focused on the escalating conflict between Russia and Ukraine, oil futures rose while Asia-Pacific stocks fell. Furthermore, the three major Wall Street indexes fell even further overnight. It suggested that this event could cause a downturn in the stock market.

According to the one sample t-test in table 3, there is a negative abnormal return on the first day after the event date, however it was insignificant, the second day after the announcement day is positive but insignificant as well. Similarly, there is no significant abnormal return from the third to the tenth day following the event date. This indicates that the companies in the JII index have strong fundamentals and are stable, implying that stock returns are about average. Investors do not have the opportunity to earn unusually high returns by taking advantage of the early events of the Ukrainian and Russian wars, so investors' attitudes towards analyzing and transacting stocks after the event are not significantly affected compared to before the incident occurred. On the other hand, negative abnormal returns occurred in the second, fourth, sixth, seventh, eighth, ninth, and tenth days prior to the event date. The results of the prior study, which asserted that abnormal returns were generated in the days preceding the event day, diverge slightly from those of the present study. Furthermore, there was a significant abnormal return on the sixth day prior to the event date. This shows that this event has little effect on market stocks.

Furthermore, the Average Trading Volume Activity (ATVA) is significant on the third day before the event date and the third and fourth day after the event date. ATVA decreased on the first day after the event date, but not significantly. Furthermore, ATVA experienced a significant decrease on the third day. And the rest experienced a positive ATVA. It indicates that this event has been anticipated by investors.

Meanwhile, the Average Bid-Ask Spread (ABAS) is significant on the second, seventh, and eighth day before the event date and the fourth, seventh, and tenth days after the event date. The ABAS experienced a lower on the first day after the event date, however, it has been significantly just in the fourth day after the event date. The average bid-ask spread of a stock is lower, this indicates that the stock's liquidity level is increasing. These results were in line with the previous studies that non macroeconomic event influenced the stock market (1).

Based on these findings, the President Putin's announcement the war Russia – Ukraine on 24th February 2022, has information content, as the market reacts to the event, causing changes in prices, trading volume, and bid-ask spreads. The negative abnormal return indicates that investors' returns were lower than expected. This indicates that market participants or investors reacted negatively to the event, resulting in a drop in stock prices. These results support the previous study, which is founded a negative response to a war event (2).

Furthermore, in table 4 shows that the abnormal return, based on the paired sample t-test, shows that there is no difference in abnormal returns 10 days before and after the event date. Meanwhile, in table 5, TVA shows a significant difference before and after the event date on the third and fourth day at the 1% level, and on the seventh and the ninth day at the 5% and 10% levels, respectively.

Table 3. The Result One Sample t-test of Average Abnormal Return (AAR), Average Trading Volume Activity (ATVA), and Average Bid-Ask Spread (ABAS) on the President Putin's announcement the war Russia – Ukraine on 24th February 2022

Time	AAR	CAAR	ATVA	ABAS
t-10	-0.001843	-0.001843	0.259008	0.0333457
t-9	-0.019513	-0.021356	0.258334	0.0324038
t-8	-0.016463	-0.037820	0.261574	**0.0306482
t-7	-0.000756	-0.038576	-0.231068	***0.0257135
t-6	**-0.001762	-0.040338	0.654019	0.0293772
t-5	0.026049	-0.014289	0.301240	0.0365015
t-4	-0.003359	-0.017648	0.191894	0.0332661
t-3	0.016703	-0.000944	**0.038358	0.0314976
t-2	-0.014011	-0.014956	0.307766	*0.0325269
t-1	0.012566	-0.002390	0.449477	0.0539649
0	0.005150	0.002760	0.569696	0.0557834
t+1	-0.018513	-0.015753	0.184669	0.0446288
t+2	0.043763	0.028010	0.268647	0.0439494
t+3	-0.002424	0.025586	***-0.335471	-0.0024071
t+4	0.023592	0.049178	***0.753637	***0.0138073
t+5	-0.038657	0.010521	0.237586	0.0594695
t+6	-0.038039	-0.027518	0.089233	0.0553709
t+7	0.007007	-0.020511	0.060810	***0.0467955
t+8	0.020809	0.000298	0.222164	0.0464988
t+9	0.000165	0.000463	-0.092844	0.0452465
t+10	0.010738	0.011201	0.242295	***-0.0016321

Notes: *** Indicates statistical significance at the 1% level
** Indicates statistical significance at the 5% level
* Indicates statistical significance at the 10% level

According to Table 4, the different test shows the President Putin's announcement the war Russia – Ukraine on 24th February 2022, for an abnormal return show that there was no significant difference on abnormal return before and after the President Putin's announcement the war Russia – Ukraine on 24th February 2022. This results in line with the previous study (34). It indicates that investors have been looking forward to this event. As a result, no one investor can benefit from this event.

Table 4. The Paired Sample t-test of Average Abnormal Return (AAR) of JII

Day	AAR		t-*Value*	p-*Value*
	Before	After		
1	0.01257	-0.01851	-0.422	0.673
2	-0.01401	0.04376	-0.648	0.517
3	0.01670	-0.00242	0.015	0.988
4	-0.00336	0.02359	-0.018	0.986
5	0.02605	-0.03866	-0.295	0.770
6	-0.00176	-0.03804	-0.689	0.491
7	-0.00076	0.00701	-0.257	0.797
8	-0.01646	0.02081	-0.031	0.975

9	-0.01951	0.00017	0.089	0.930
10	-0.00184	0.01074	-0.196	0.845

Notes: *** Indicates statistical significance at the 1% level
** Indicates statistical significance at the 5% level
* Indicates statistical significance at the 10% level

According to Table 5, the paired sample t-tests show that the President Putin's announcement the war Russia – Ukraine on 24th February 2022, for ATVA, the third, fourth, seventh, and ninth days show a significant difference, indicating that there was a significant difference on ATVA before and after the President Putin's announcement the war Russia – Ukraine in four days. This result supported the previous theory in where the volume increases caused by an informational event persist after the event period. This is consistent with existing empirical evidence, implying that markets do not immediately clear all orders or that investors have demanded to reconstruct (35).

Table 5. The Paired Sample t-test of Average Trading Volume Activity (ATVA) of JII

Day	**ATVA**		**t-*Value***	**p-*Value***
	Before	**After**		
1	0.44948	0.25901	-0.586	0.558
2	0.30777	0.25833	-1.059	0.289
3	0.03836	0.26157	-3.358	***0.002
4	0.19189	-0.23107	3.053	***0.005
5	0.30124	0.65402	-0.154	0.877
6	0.65402	0.30124	-1.327	0.185
7	-0.23107	0.19189	-2.129	**0.033
8	0.26157	0.03836	-0.175	0.861
9	0.25833	0.30777	-1.756	*0.010
10	0.25901	0.44948	-0.062	0.951

Notes: *** Indicates statistical significance at the 1% level
** Indicates statistical significance at the 5% level
* Indicates statistical significance at the 10% level

Table 6 shows a difference before and after the event date from the first to the tenth day, which is significant at the 1% level on the second, third, fifth, sixth, and seventh days, as well as the seventh, eighth, and tenth days, while the other days are significant at the 10% level. This occurrence demonstrated that investors had a negative reaction to the President Putin's announcement the war Russia - Ukraine. This finding backs up the previous study (3).

Table 6. The Paired Sample t-test of Average Bid-As Spread (ABAS) of JII

Day	ABAS		t-*Value*	p-*Value*
	Before	After		
1	0.053965	0.044629	-1.944	*0.052
2	0.032527	0.043949	-2.309	***0.003
3	0.031498	-0.002407	-4.124	***0.000
4	0.033266	0.013807	-2.743	*0.010
5	0.036502	0.059469	-4.124	***0.000
6	0.029377	0.055371	-3.877	***0.000
7	0.025714	0.046795	6.316	***0.000
8	0.030648	0.046499	3.785	***0.001
9	0.032404	0.045247	-2.561	*0.010
10	0.033346	-0.001632	-6.892	***0.000

Notes: *** Indicates statistical significance at the 1% level
* Indicates statistical significance at the 10% level

Furthermore, the results of the simple linear regression test in table 7 reinforce the existing results, where the significance value of market return is significant at the 5% level, indicating that President Putin's announcement the war of Russia - Ukraine had an impact on JII stocks. This study's findings are consistent with previous research (8,36,37). Overall, the test results indicate that most of the days before and after the Ukrainian-Russian War events show insignificance in abnormal returns. The ATVA and Average Bid-Ask Spread tests, though, demonstrate that there are numerous significant differences between before and after the event. In addition, the regression test results in table 7 support existing findings where the significance on TVA is 10%. Table 7 also shows a significant level of 1% on the bid-ask spread. This finding backs up previous research (8,36,37).

Table 7. Regression Results of Abnormal Return, TVA, and BAS

Variable	Coefficient	t-Statistics	p-value
$ARit = \alpha i + \beta Rmt + \varepsilon it$			
Constanta	0.000	-0.101	0.921
Market Return	1.131	2.109	***0.048
$TVAit = \alpha i + \beta iTVAmt + \varepsilon it$			
Constanta	0.228	4.241	0.000
Market TVA	-0.464	-1.847	*0.080
$BASit = \alpha i + \beta iBASmt + \varepsilon it$			
Constanta	0.014	2.393	0.27
Market BAS	1.885	4.249	***0.000

Notes: *** Indicates statistical significance at the 1% level
** Indicates statistical significance at the 5% level
* Indicates statistical significance at the 10% level

According to financial theory, asset prices are widely assumed to respond sensibly to economic news. However, it is considering for investors to anticipate non economics on the capital market to take the right

decision on their investment in relation to non-economics event. This study found that non-economics event such as the Russia – Ukraine war had influences on the JII stocks. This study added to the body of knowledge regarding the impact of non-economic events, like war, on the stock market. Because of this, even though they are somewhat different, the results support earlier studies. For local and international stock investors seeking an investment opportunity in the JII stocks, the empirical findings of this study may be helpful. From a methodological standpoint, this study employed an easy-to-apply Corwin and Schultz formula, with data derived from daily closing stock prices to compute the bid-ask spread. This methodology is appropriate for use on emerging market stock exchanges as well. The estimator is simple to compute, can be used in a variety of research areas, and outperforms other low-frequency estimators in general [38]. This study supports previous research in which events such as war have an impact on the stock market. The following intriguing research would be to extend the estimation period. This is significant because different event windows can result in different results. In addition, investigating the volatility of JII stocks in the study will yield a more comprehensive result. Future study also considers other indices such as conventional stocks, whether have had the same impact on this issue.

V. CONCLUSION

The occurrence of an event provides information to the capital market that can cause a reaction in relation to the level of market efficiency. The events of the Ukrainian-Russian war were global news that affected many developed and developing nations, so this incident contained valuable information and generated sensational capital feeds. This is evidenced by the occurrence of abnormal stock returns, which can influence how investors make decisions. The impact of a non-economic event, namely the Russia-Ukraine war, on JII stocks is investigated in this paper. JII stocks are Sharia-compliant indices with a large market cap and liquidity. The study discovered that the Russia-Ukraine conflict contained information because it was accompanied by significant abnormal returns, albeit only on the seventh day before the event date. This result, however, indicates that this event had an impact on the stock market. These findings back up previous research. In contrast, the paired sample t test was insignificant. However, trading volume and the bid-ask spread differed significantly before and after President Putin declared the Russia-Ukraine war. Furthermore, using the Corwin-Schultz formulation, the results of this study added the liquidity dimension to the bid-ask spread dimension. These results imply that even though the abnormal return experienced a significant negative on the sixth day prior to the event date, the paired sample t test indicated that the abnormal return was not significant. It shows that the event had a minimal impact on stock price of JII stocks. It is predicted that the JII will be able to withstand this shock based on these characteristics. These results also demonstrate that a non-economic event, like a war, requires investors to be concerned.

DISCLOSURE STATEMENT

No potential conflict of interest or any other similar divergence associated with this research article by the authors.

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