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Capital Market Reaction in Asean Member Countries Against Market Shock: Russia and Ukraine War

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Abstract

This study aims to find the reaction of capital markets in ASEAN member countries due to the emergence of war between Russia and Ukraine by comparing the values of abnormal returns, cumulative abnormal returns and trading volume activity before and after the Russian attack on Ukraine. This research is an event study research. Event study was developed to analyze market reaction to an event whose information is published. The event used in this study is the market shock condition from the war between Russia and Ukraine. The observation period uses the event window, which is 14 trading days before and after the Russian attack on Ukraine. The analytical tools used in this study were descriptive statistics, normality tests and different tests using the Paired Sample t-Test or the Wilcoxon Signed Rank Test. The results of the first stage of different tests show that overall there was no capital market reaction in ASEAN member countries as seen from the values of abnormal returns, cumulative abnormal returns and trading volume activity at the time of the war between Russia and Ukraine. The results of the second stage of the different test show that the reaction of the capital market seen from the abnormal return value can be seen that the capital market in Cambodia reacted at the time of the war between Russia and Ukraine, from the cumulative abnormal return value, the capital markets in all ASEAN member countries did not react to war incidents.

Keywords: Capital Market Reaction, Abnormal Return, Cumulative Abnormal Return

Introduction

The capital market is one of the investment options for people in a country. The capital market is a market that brings together capital owners and those seeking capital. The capital market is also a source of long-term financing in the business world as well as an optimal allocation of funding sources for the creation of national development. Therefore, the capital market is said to be a leading indicator for a country's economy because the capital market is a source of funding for the implementation of development so that the capital market can facilitate the economic development of a country with the private sector as the engine for economic activity.

The capital market is a market that moves very quickly and is vulnerable to economic and non-economic information. The economic conditions themselves are divided into macro and micro conditions. Macroeconomic conditions include changes in savings and deposit interest rates, foreign exchange rates, inflation, as well as various economic regulations and deregulations issued by the government. While micro conditions are conditions that are directly related to the company such as announcements of financial statements, dividends, stock splits, etc. Non-economic conditions, although not directly related to the dynamics that occur in the capital market, cannot be separated from capital market activities. The non-economic environment, such as various issues regarding concern for the environment, human rights, and political events, are often the main factors triggering stock price fluctuations and changes in currency exchange rates. The increasing importance of the role of the capital market in economic activity, makes the exchange more sensitive to various events around it, whether related or not directly related to economic issues (Yusniar & Jikrillah, 2018).

Market shocks are unwanted and surprising events for the capital market. Market shocks can bring market stress and cause behavior changes and can bring negative sentiment to investors in the capital market (Kawedar, Handayani, & Chistianingrum, 2011). Several shocking economic and non-economic events can be described as a market shock in the capital market. Several studies on market shock have also been carried out. These studies examine different events, whether they originate from economic events or political events. (Yusniar & Jikrillah, 2018) conducted research on the reaction of world capital markets and financial markets to the 2016 United States Presidential election, where the results showed that there was no significant difference in the combined stock price index before and after the event. However, there are significant differences in currency exchange rates before and after the event. (Halimatusyadiyah, 2020) conducted research on the reaction of the Indonesian capital market to the announcement of the first case of the Corona virus in Indonesia, stating that there was a difference in the average abnormal return before and after the event and there was also a difference in the average trading volume activity before and after the event. There is a relationship between the Announcement of the First Corona Virus Case in Indonesia and Abnormal Return. (Satria, Artini, & Rahyuda, 2017) conducted research on the reaction of the capital market in Indonesia to China's Black Monday which showed the results that China's Black Monday (CBM) had an effect on eight Sectoral Indices on the Indonesia Stock Exchange. (Costa & Sukartha, 2020) conducted research on a comparison of market reactions in the US, China and Indonesia to the US-China Trade War negotiations, with the results of the study namely that there were differences in reactions between the American, Chinese and Indonesian stock markets to the announcement of the results of the US trade war negotiations -China. (Pratiwi & Yusuf, 2015) conducted research on capital market reactions before, during and after the 2014 world cup events on the ASEAN capital market, resulting that the Indonesian and Thai capital markets strongly reacted to the 2014 world cup events.

The recent war between Russia and Ukraine is one of the events that illustrates market shock conditions. The military operation announced by Russian president Vladimir Putin on February 24, 2022 saw Russia actually attack Ukraine. This is a market shock condition that is influenced by non-economic factors. Even though the war between Russia and Ukraine is classified as a non-economic factor, the impact of a war between the two countries will still have an impact on the economic conditions of other countries. Disruption to the supply of a number of commodities is predicted to occur if the conflict between Russia and Ukraine continues. The reason is that Russia has been known as an exporter and producer of several key commodities for the global industrial ecosystem. Russia is the third largest oil producing country and the second largest natural gas producer in the world (CNBC Indonesia, 2022). China buys about a quarter (27 percent) of Russia's total $34 billion oil exports. However, given China's enormous energy needs, it accounts for only 16 percent of the country's oil imports. The countries most dependent on Russian oil include: Belarus, Cuba, Curacao, Kazakhstan, Latvia, each of which imports more than 99 percent of their crude oil from Russia. At least 48 countries imported Russian crude oil in 2019 (Kompas, 2022).

Based on the table, it can be seen that of the 10 countries that are members of ASEAN, there is 1 country that does not have a capital market, namely Brunei Darussalam. So that there are 9 countries that have capital markets. The data also shows the movement of the composite index on each exchange at the time the Russian military operation was announced against Ukraine, namely February 24, 2022 and data one day before the announcement. Of the 9 exchanges, 8 exchanges showed negative movement or decreased composite index numbers, while only 1 exchange, namely the Philippines Stock Exchange, showed positive movement or an increase from the previous day. This shows an indication of market shock that occurred in the capital market in ASEAN member countries.

The data presented in table 1 is also supported by several news reports regarding the impact of Russia's attack on Ukraine on capital markets both in Indonesia and globally. The Russian attack on Ukraine has shaken the world economy, including world capital markets. The Indonesian Stock Exchange's daily statistical report noted that of the 36 markets monitored, 34 of them entered the red zone. Capital markets that have succeeded in being in the green zone are the Merval Index in Argentina and the Colcap Index in Colombia (Market Bisnis, 2022). The decline in the Global Initial Public Offering continued in the first quarter of 2022 due to volatility triggered by the war in Ukraine and soaring inflation. Bloomberg listed IPOs of around US$65 billion in the first three months of 2022, down 70 percent from US$219 billion compared to the same period last year. The increase in interest rates due to heating up inflation and investors' concerns about the wars between Russia and Ukraine have caused turmoil in the global capital market (Business Economics, 2022). The Russian-Ukrainian conditions are now getting hotter and chaotic after Russian President Vladimir Putin ordered military operations in Eastern Ukraine. The impact of this geopolitical tension, global financial markets immediately responded negatively. In fact, today the JCI closed down 1.48% to a level of 6,817.82. PT Manulife Asset Management Indonesia (MAMI) Chief Economist & Investment Strategist Katarina Setiawan said that the market immediately showed a negative reaction. In addition to corrections in financial market indices in various countries, oil and gold prices have also increased. This happens because Russia is one of the largest exporters of energy, agricultural products and metals in the world (Cash Investment, 2022).

There are several indicators in determining the reaction of the capital market. Capital market reactions can be measured by abnormal returns and cumulative abnormal returns (Özbebek, Canikli, & Aytürk, 2011). According to (Aharon & Siev, 2021) capital market reactions are assessed from Historical prices, returns and global market portfolios, Abnormal returns, Non-synchronous trading. In addition, according to (Xu, Li, & Wei, 2022) capital market reactions are measured using several indicators, namely the cumulative sum of squares of the stock and bond returns, abnormal returns, and cumulative abnormal returns. Other indicators of capital market reactions can be measured by actual daily stock returns, market returns, daily Average Expected Returns, and average abnormal returns (Dwianto & Yulita, Indonesian Capital Market Reaction to North Korean Missile Launches, 2019).

Based on the background that has been described, this study tries to examine the extent of the reaction caused by the Russian attack on Ukraine to movements in the capital markets of ASEAN member countries. This is in line with the theory of market anomalies where the action of an event will provide information to investors in determining their investment decisions. In this study, market reaction was measured using abnormal returns, cumulative abnormal returns, and trading volume activity.

Methods

This research is an event study research. The event used in this research is the market shock condition from the war between Russia and Ukraine. return and trading volume activity before and after the military operation events announced by the President of Russia on 24 February 2022. The observation period uses the event windows, which are 14 trading days before and after the Russian attack on Ukraine.

The population used is 9 capital markets from ASEAN member countries, namely: Indonesia Stock Exchange, Yangon Stock Exchange, Stock Exchange of Singapore, Laos Stock Exchange, Hanoi Stock Exchange, Stock Exchange of Malaysia, Philippine Stock Exchange, Cambodia Stock Exchange, The Stock Exchange of Thailand. All populations are used as samples.

Descriptive statistics that will be used in this study are the mean, minimum, maximum, variance and standard deviation. In descriptive statistics will look for the average value, standard deviation, maximum and minimum. The variables used are abnormal returns, cumulative abnormal returns, and trading volume activity before and after the announcement. The data is processed and then interpreted in an easy-to-understand description.

Results and Discussion

Descriptive Statistical Analysis

The results of descriptive statistics to see an overview of the maximum and minimum values in the data can be seen in the following table:

Table 1. Descriptive Statistics

	N	Minimum	Maximum
AR_ Before	126	-0.03159	0.06544
AR_ After	126	-0.04106	0.07243
CAAR_ Before	126	-0.04106	0.07243
CAAR_ After	126	-0.04106	0.07243
TVA_ Before	126	1032	29041009658
TVA_ After	126	708	37369445823

Based on the results of the descriptive statistical test, it can be seen that the abnormal return value between before and after the war between Russia and Ukraine has a different value where the minimum abnormal return value has decreased while the maximum value has increased. The cumulative abnormal return value between before and after the war between Russia and Ukraine did not change where the minimum and maximum values were the same. Meanwhile, the value of trading volume activity between before and after the war between Russia and Ukraine for the minimum value decreased and the maximum value increased.

Normality Test

Table 2. Normality Test One-Sample Kolmogorov-Smirnov Test

		AR_Before	AR_After	CAAR_Before	CAAR_After	TVA_ Before	TVA_ After
N		126	126	126	126	126	126
Normal Parameters[a]	Mean	.00333266433	.00035542978	.00035542978	.00035542978	2.72E9	2.73E9
	Std. Deviation	.013314902088	.012524224213	.012524224213	.012524224213	7.747E9	7.862E9
Most Extreme Differences	Absolute	.161	.094	.094	.094	.520	.517
	Positive	.161	.094	.094	.094	.520	.517
	Negative	-.087	-.079	-.079	-.079	-.363	-.364
Kolmogorov-Smirnov Z		1.810	1.050	1.050	1.050	5.842	5.798
Asymp. Sig. (2-tailed)		.003	.220	.220	.220	.000	.000

a. Test distribution is Normal.

Normality test can be done using the Kolmogorov-Smirnov method. The purpose of doing the normality test is to see whether the distribution of the data used is normal or not. The different test uses the Paired Sample t-Test if the data used is normally distributed and the Wilcoxon Signed Rank Test if the data used is not normally distributed.

Based on the results of the normality test, it can be seen that not all data is normally distributed. Based on the results of this normality test, the decision to test differently uses the Wilcoxon Signed Rank Test.

Difference Test

In this study a different test was carried out using the Wilcoxon Signed Rank Test. The different test was carried out in two stages. The first phase of the different test was carried out to see the overall reaction of the capital markets in ASEAN member countries to market shock conditions, namely the war between Russia and Ukraine. The second stage of the differential test was used to see the reaction of the capital markets of each country to market shock conditions, namely the war between Russia and Ukraine. The results of the first stage different test can be seen in the following table:

Table 3. Wilcoxon Signed Rank Test (Stage 1)

No	**Information**	**Significance**
1.	Abnormal Return	0,015
2.	Cumulative Abnormal Return	1,000
3.	Trading Volume Activity	0,859

Based on the results of the first stage different test, it can be seen that the significance value is 0.015 <0.05. These results indicate that for the reaction of the abnormal return value between before and after the war between Russia and Ukraine there is a difference or this value reacts to the war that took place between Russia and Ukraine. As for the cumulative abnormal return and trading volume activity values where each significance value is 1.000 > 0.05 and 0.859 > 0.05, it can be concluded that the occurrence of war between Russia and Ukraine did not change the cumulative abnormal return and trading volume activity values. so as not to cause a difference in value between before and after the war between Russia and Ukraine.

After the first stage of different test was carried out, the second stage of different test was also carried out to see the results of each capital market in ASEAN member countries. The results of the second stage test can be seen in the following table:

Table 4. Wilcoxon Signed Rank Test (Stage 2)

No	**Nama Negara**	**Significance**		
		Abnormal Return	**Cumulative Abnormal Return**	**Trading Volume Activity**
1.	Indonesia	0,470	1,000	0,638
2.	Myanmar	0,638	1,000	0,300
3.	Singapura	0,551	1,000	0,167
4.	Laos	0,074	1,000	0,952
5.	Vietnam	0,198	1,000	0,004
6.	Malaysia	0,422	1,000	0,594
7.	Filipina	0,551	1,000	0,140
8.	Kamboja	0,008	1,000	0,041
9.	Thailand	0,925	1,000	0,826

Based on table 4 it can be seen that the results of the second stage of the different test show the reaction of the capital market in ASEAN member countries. For the reaction of the capital market as seen from the abnormal return indicator, it can be seen that of the 9 ASEAN member countries, only Cambodia has a significance value of 0.008 <0.05 which indicates that the capital market in Cambodia reacted to the war that took place between Russia and Ukraine. In addition, the other eight countries have a significance value greater than 0.05 which proves that the capital markets in Indonesia, Myanmar, Singapore, Laos, Vietnam, Malaysia, the Philippines and Thailand did not react to the war between Russia and Ukraine. There is no abnormal return reaction because there is no significant change in stock prices during the study period. Therefore, it can be said that the capital markets of these eight countries are characterized by efficient markets. The abnormal return reaction that occurred in Cambodia could have been due to investors being slow in processing the available information so that the market became inefficient in the span of the study period. The results of this study are the same as research conducted by Kawedar, Handayani, & Chistianingrum (2011), Halimatusyadiyah (2020), Satria, Artini, & Rahyuda (2017).

The results of the different test for cumulative abnormal returns can be seen that the significance obtained for all countries studied has a value greater than 0.05. This shows that the reaction of the capital market seen from the value of the cumulative abnormal return is not a reaction to the war between Russia and Ukraine. This could be caused by several factors, namely the sentiment of market participants that tends to be stable, events that have been known by investors in the capital market so that it becomes a common event that can be anticipated by investors, or the constant inflow of foreign funds into the capital market and becomes a driving force. stock index stability. The results of this study are the same as the research conducted by Raya & Paramita (2020).

When viewed based on the trading volume activity of nine countries, there are two countries that have reactions to the wars between Russia and Ukraine. These countries are Vietnam and Cambodia. The results of the significance of each of these countries were 0.004 <0.05 and 0.041 <0.05 which indicated that there were differences in the value of trading volume activity before and after the Russian and Ukrainian wars. This indicates that the capital markets in Vietnam and Cambodia reacted at the time of the war between Russia and Ukraine. This shows that in the capital markets of these two countries there were significant changes in trading activity that occurred during the study period. This is in line with research conducted by Halimatusyadiyah (2020). In addition, for seven other countries, namely Indonesia, Myanmar, Singapore, Laos, Malaysia, the Philippines and Thailand, it has a significance value greater than 0.05 which indicates that there was no reaction in the capital market as seen from the value of trading volume activity at the time it occurred. war between Russia and Ukraine. This indicates that there is no significant change in trading activity in the capital markets of these countries. This is because investors can read the information very well.

Conclusion

Based on the results of the first stage of different test, it can be seen that overall there was no capital market reaction in ASEAN member countries as seen from the value of abnormal return, cumulative abnormal return and trading volume activity at the time of the war between Russia and Ukraine.

Based on the results of the second stage of the differential test, we can see the reactions of each capital market in ASEAN member countries. The results of the study show that the reaction of the capital market as seen from the abnormal return value can be seen that the capital market in Cambodia reacted at the time of the war between Russia and Ukraine, while the capital markets in eight other countries did not react to the war. When viewed from the cumulative abnormal return value, the capital markets in all ASEAN member countries did not react to the incident of war between Russia and Ukraine. Meanwhile, when viewed from the value of trading volume activity, it can be seen that the capital markets in Vietnam and Cambodia reacted at the time of the war between Russia and Ukraine. Whereas for the other seven countries, there was no reaction in the capital markets in these countries when the war between Russia and Ukraine occurred.

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