Indonesian Capital Market Reaction to The Increase of Tobacco Product Excise Rate in Indonesia

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Abstract

The purpose of this research is to analyze the reaction of capital market by conducting research about the differences of abnormal returns, trading volume activity and security return variability before and after the increase in the Tobacco Excise rate on January 1, 2020 and February 1, 2021. This research uses an event study approach, the sample used in this research are 4 companies. Sampling was done by purposive sampling method. This study uses secondary data sources with a quantitative approach. The results of this research showed that the capital market reacts to the increase in the Tobacco Excise rate on January 1, 2020 and February 1, 2021. Based on the results of the different tests, the average abnormal return and the average trading volume activity in the period before and after the event shows that there is a significant difference, while for the different test results, the average security return variability shows that there is no significant difference in the seven days before and seven days after the increase in Tobacco Excise on January 1, 2020 and February 1, 2021.

INTRODUCTION

The capital market has an important role in life, especially for the economy of a country. Gratias (2015) stated that the country's economy can be said to be developing, one of which is seen from the development of the country's capital market. The development of capital market activities cannot be separated from the role of investors who carry out transactions in the capital market (Parmadi, 2014). An investor has an important role in making decisions, especially investment decisions. Before the announcement goes out, investors can create expectations and speculation about the announcement (Syed & Bajwa, 2018).

According to Zaqi (2006) in an efficient capital market, the market will react quickly to all relevant information. Because according to Hendrawaty (2019) an information can provide an explanation in the form of an overview of past, present, or future conditions. Thus, investors usually evaluate and analyze the issuer's performance prospects from announcements or events, whether they contain information or not, so that they can fully understand the risks and returns of invested funds. Return is one of the most important factors for investors in making investment decisions in the stock market (Thuy, 2019).

Through capital market activities, information that is spread on the stock exchange and obtained by investors is usually in the form of market reactions. Tastaftiani and Khoiruddin (2015) said that the market reaction is shown when the stock price is influenced by the market with an increase or decrease that exceeds the actual value. The reaction is shown through the transformation of stock prices. Market reaction can be indicated by changes in stock prices or by using abnormal returns and is expected to affect

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stock returns (Puspaningtyas, 2019). If the market reacts, the price of the security will change.

The current economic condition in Indonesia is influenced by various phenomena, one of the events that can affect it is the increase in tobacco excise rates or cigarette excise by the government. This incident not only had an impact on the economy, but also had an impact on the cigarette industry. Based on SP – 96 / KLI / 2020 it is stated that the government through the Ministry of Finance of the Republic of Indonesia, has decided on the tobacco product excise tariff policy for the period of 2021. The government determines the weighted average of the increase in excise rates based on each type of cigarette is 12.5%. The four shares of the cigarette sub-sector namely GGRM, HMSP, RMBA and WIIM simultaneously experienced an increase in stock prices after the cigarette excise increase on February 1, 2021. If analyzed using efficient market theory, the market is said to be efficient if investors react quickly after the excise rate increase event. This event should give negative sentiment, especially for investors because it is categorized as bad news. Thus, the stock price movement of the four shares of the cigarette sub-sector becomes a gap phenomenon.

According to Hartono (2018) efficient market hypotesis is used to see the speed of market reaction. To test the efficient market is to look at the difference in market reactions before and after the announcement. There are three forms of efficient markets, namely the weak, semi-strong and strong forms. In this study, the efficient market hypothesis focuses on testing market efficiency in a semi-strong form. The market is said to be semi-strong efficiency if the security prices fully reflect the available information (Widyasari, 2018)political and social variables that will impact on the economic stability of a country. In addition, economic stability in a country can be influenced by government policies, one of which is a tax amnesty program that has been enacted since 2016 by legalizing Law no. 11 Year 2016 on Forgiveness of Taxes. This policy can bring reaction to all companies that listed on Indonesia Stock Exchange (IDX.

Akbar (2019) argues that the concept of market efficiency discusses the relationship between the price or value of securities with information, how the market reacts to information, and the extent to which information can affect the movement of stock prices formed. According to Yasar (2020) investors will react to new news. When the information has been announced and then received by all market participants, market participants first interpret, clarify and analyze the information as a good news or a bad news.

Event study research that has been carried out by previous researchers regarding the effect of the increase in tobacco excise or cigarette excise, among others, was carried out by Haslinda (2020) this study concludes that there is a significant difference in the average abnormal return before and after the excise increase. While Jennifer (2019) in his research there is no significant difference. Laili (2017) examined the effect of the increase in excise rates on tobacco products on September 1, 2016 the results of her research showed that there were differences in average trading volume activity before and after the event, this is not in line with research conducted by Prasetyo (2008). Research conducted by Prasetyo (2008) shows that there are differences in average security return variability before and after the excise increase, but this is not in line with research conducted by Tiswiyanti (2015).

The purpose of this research is to find out whether there is a market reaction which is measured using abnormal returns, trading volume activity and security returns variability in the period before and after the increase in Tobacco Excise on January 1, 2020 and February 1, 2021. No previous research has taken research using these three variables simultaneously in the event of an increase in Tobacco Excise on February 1, 2021.

The market reaction to the increase in excise on tobacco products can be measured by the reaction of stock prices and the level of profit through abnormal returns. According to Hartono (2018), abnormal return is the difference between actual returns and normal returns (expectations). Normal return is defined as the expected return without conditions for the event to occur, calculated by the estimation window (Pacicco, 2019). Expected return is calculated by market-adjusted model so that expected return is market return. The market-adjusted model was chosen because it is simpler than the mean-adjusted and market models (Soejono, 2017). Abnormal returns occur when a number of investors get returns above normal because the speed of obtaining and managing information becomes an investment decision in the capital market (Purwaningsih & Khoiruddin, 2016).

Hypothesis Development

Based on the description above, several hypotheses can be formulated as follows.

H1: There is a significant difference in the average abnormal return on shares of the cigarette sub-sector before and after the increase in the tobacco product excise rate by the government on January 1, 2020 and February 1, 2021.

H2: There is a significant difference in the average trading volume activity on shares of the cigarette sub-sector before and after the increase in the tobacco product excise rate by the government on January 1, 2020 and February 1, 2021.

H3: There is a significant difference in the average security return variability on shares of the cigarette sub-sector before and after the increase in the tobacco product excise rate by the government on January 1, 2020 and February 1, 2021.

METHODS

This research uses quantitative research and uses secondary data. The secondary data needed in this study are in the form of daily closing stock price data, daily stock trading volume data and data on the number of shares outstanding in the observation period. Data collection techniques used are historical data and literature study. The approach used in this research is an event study. Event study is a study that studies the market reaction to an event whose information is published as an announcement (Srianingsih & Khoiruddin, 2015).

This study took as many as 4 samples of cigarettes sub-sector stocks that are actively traded on the Indonesia Stock Exchange. Samples were taken using the saturated sample or census method during the year observation period. The research period used is 7 days before and 7 days after the increase in excise on tobacco products in each event, namely January 1, 2020 and February 1, 2021.
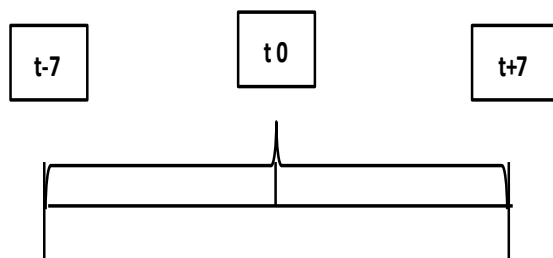

Figure 1. Research Period

The analytical tool used in testing the hypothesis of this study is a different test, but previously tested for normality of the data using the Kolmogorov-Smirnov test. Normality test is used to find out whether the data used is normally distributed or not. If the data is normally distributed, the different test used is the Paired Sample T-test. However, if the data is not normally distributed, use the Wilcoxon Sign rank test. Wilcoxon Sign rank test is a non-parametric statistical test tool, used to find out whether there is a difference before and after the event (Khajar, 2014).

In this research abnormal return is calculated using the following formula.

$$RTN_{i\,t} = R_{i\,t} - E(R_{i\,t})$$

Market reaction from stock trading volume activity can be measured by looking at the trading volume activity indicator (Hernoyo, 2013). Faizati (2014) stated that trading volume activity shows how big the trading transactions are on the exchange seen from the volume realized. According to Alim (1998) in Ningsih and Cahyaningdyah (2014) *trading volume activity* can be calculated by the following formula.

$$TVA = \frac{\sum company\ i's\ shares\ traded\ at\ time\ t}{\sum company\ i's\ shares\ outstanding\ at\ time\ t}$$

Security return variability be another indicator to assess the market reaction to an event. This variable is used to determine whether the market in the aggregate assesses an event as informative or not (Ardiansari & Saputra, 2015). The following is the formula for calculating security return variability according to Tiswiyanti and Asrini (2015). By dividing abnormal return and abnormal return variance.

$$SRV_{it} = \frac{AR_{it^2}}{}$$

RESULT AND DISCUSSION

The step after calculating abnormal returns, trading volume activity, security return variability and the average of each variable is to test descriptive statistics and test for normality. The normality test was carried out with the One

Sample Kolmogorov-Smirnov test showing the following results.

Table 1. Normality Test One Sample Kolmogorov-Smirnov

Tobacco excise tax increase January 1, 2020

Variable	Asymp.Sig. (2-tailed)	Sig.
AAR_ before	0.128	p>0.05
AAR_ after	0.200	p>0.05
ATVA_before	0.135	p>0.05
ATVA_ after	0.005	p<0.05
ASRV_before	0.200	p>0.05
ASRV_after	0.007	p<0.05

Tobacco excise tax increase February 1, 2021

Variable	Asymp.Sig. (2-tailed)	Sig.
AAR_ before	0.095	p>0.05
AAR_ after	0.200	p>0.05
ATVA_before	0.200	p>0.05
ATVA_ after	0.010	p<0.05
ASRV_before	0.004	p<0.05
ASRV_after	0.200	p>0.05

Ghozali (2018) stated that the normality test has two methods used in order to find out whether the data is normally distributed or not, namely through graphical analysis and statistical tests. The results of the Kolmogorov-Smirnov test have the provision that if the significance value of the Kolmogorov-Smirnov test is found in a variable greater than (>) than the significance value of 5% ($\alpha = 0.05$) so that the data is normally distributed. On the other hand, if the significance value of the Kolmogorov-Smirnov test variable is less than (<) than the significance value of 5% ($\alpha=0.05$), the data is said to be not normally distributed.

Table 1 describes the results of the Kolmogorov-Smirnov test, it is concluded that there are data that are normally distributed and not normally distributed. So that the different tests carried out are the Paired Sample T-test and the Wilcoxon Sign Rank-test.

Table 2. Paired Sample T-Test on Average Abnormal Return

Variable	Sig.(2-tailed)	Description
AAR_before		
AAR_after January 1, 2020	0.042	Significant
AAR_before		
AAR_after February 1, 2021	0.048	Significant

Based on the table above, a significance value of 0.042 and 0.048 is obtained, which means that it is smaller (<) 0.05, so there is a difference in the average abnormal return on shares of the cigarette sub-sector before and after the increase in Tobacco Excise rates on January 1, 2020 and February 1, 2021.

Table 3. Wilcoxon Sign Rank Test on Average Trading Volume Activity

Variable	Sig.(2-tailed)	Description
ATVA_before		
ATVA_after January 1, 2020	0.042	Significant
ATVA_before		
ATVA_before February 1, 2021	0.018	Significant

Based on table 3, the significance values are 0.042 and 0.018, which means it is smaller (<) 0.05, so there is a difference in the average trading volume activity in the cigarette sub-sector stocks before and after the increase in the Tobacco Excise rate on January 1, 2020 and February 1, 2021.

Tabel 4. Wilcoxon Sign Rank Test on Average Security Return Variability

Variable	Sig.(2-tailed)	Description
ASRV_before		
ASRV_after January 1, 2020	0.398	Not Significant
ASRV_ before		
ASRV_after February 1, 2021	0.866	Not Significant

Based on the table above, the significance values are 0.398 and 0.866, which means that it is greater (>) 0.05, so there is no difference in the average security return variability in the shares of the cigarette sub-sector before and after the increase in Tobacco Excise rates on January 1, 2020 and February 1 2021.

Robustness Analysis

According to Swediati (2015) many statisticians are of the opinion that both the F-test and the t-test are robust, meaning that parametric statistical tests can be used and function properly and will not interfere with the analysis results. Table 5 shows that the market reaction to the increase in excise on tobacco products on January 1, 2020 and February 1, 2021 using abnormal return and trading volume activity variables has the same result, which is significant so that it is proven robust.

Tabel 5. Robustness Analysis

Variable	January 1, 2020	February 1, 2021	Description
AAR_ before and after	0.042	0.048	Significant
ATVA_ before and after	0.042	0.018	Significant

CONCLUSION AND RECOMMENDATION

This research aims to find out the market reaction due to the increase in excise tariffs on tobacco products as indicated by differences in average abnormal return, average trading volume activity and average security return variability. The results found were market reactions indicated by differences in average abnormal returns and average trading volume activity on shares of the cigarette sub-sector before and after the increase in the Tobacco Excise rate by the government on January 1, 2020 and February 1, 2021. While the average security return variability does not show a significant difference. It can be said that the market reaction influenced by the increase in the tobacco excise showed that the market was in a semi-strong form. The limitation of this research is that the object is too narrow. For further researchers, from the limitations of this study, it is necessary to add objects of observation and variables that can provide additional information or using other

hypothesis testing methods such as using the One Sample T-test so as to analyze the market reaction in more detail.

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