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Determinant of Stock Return in Plastic and Packaging Subsector Before and During COVID-19 Pandemic

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ABSTRACT

It is feared that the excise issue will have an impact on plastic sales. While the excise issue has not subsided yet, in 2020 the Covid-19 pandemic has hit the world, including Indonesia. This study aims to analyze the effect of excise issues and the Covid-19 pandemic on stock returns in the plastic and packaging subsectors. The method used in this research is descriptive analysis and panel data regression with one macroeconomic variable, which is inflation, nine financial performance variables, and two partially calculated dummy variables, which are the issue of plastic excise and the Covid-19 pandemic. This research was conducted at 9 companies listed on the Indonesia Stock Exchange (IDX). The data used are quarterly data from 2012 to 2020. The research period is divided into three periods. They are before and after the emergence of excise issues, the continuation period until the Covid-19 pandemic, and finally before and during the pandemic. The test results show that the excise issue has a negative effect on stock returns in the plastic and packaging subsector. In the second period, the negative effect of the excise issue on stock returns was higher than before the Covid-19 pandemic. The presumption of the influence of the Covid-19 pandemic in the second period was strengthened by the results of the prediction model in the third period. As a result, the Covid-19 pandemic has a negative effect on stock returns.

Keywords: covid-19 pandemic; excise issue; financial report; plastic and packaging

INTRODUCTION

Indonesian government is currently formulating a plastic excise policy to reduce the amount of plastic waste. As many as 16 industry associations that are members of the Cross-Industry Association Forum for Plastic Producers and Users rejected the policy plan (Pebrianto 2019). The rejection and postponement of application of the excise, which has been proposed since 2016, creating uncertainty. In fact, investors really need certainty, both certainty of yield and legal certainty that supports investor confidence.

If plastic excise is applied, the price of plastic will certainly increase because of the excise component that is imposed on consumers. It is feared that rising prices could reduce sales. If sales decline, under other conditions considered constant (ceteris paribus), revenue will certainly decline compared to the previous period. This condition could be decreasing profits.

The declining profit in the plastic and packaging sub-sector is not necessarily due to the issue of plastic excise, but it should be assumed that the emergence of the issue of plastic excise has led a number of local governments to implement a policy to prohibit the use of plastic bags as an early effort to protect the environment from plastic waste, while waiting for the certainty of the plastic excise policy. It should also be suspected that the implementation of this plastic bag ban policy resulted in decreased profits. Then, a decrease in profit results in a

decrease in stock returns. The decline in stock returns can be seen in Figure 1. Figure 1 shows the average movement of stock returns for plastic and packaging companies from 2012 to 2020.

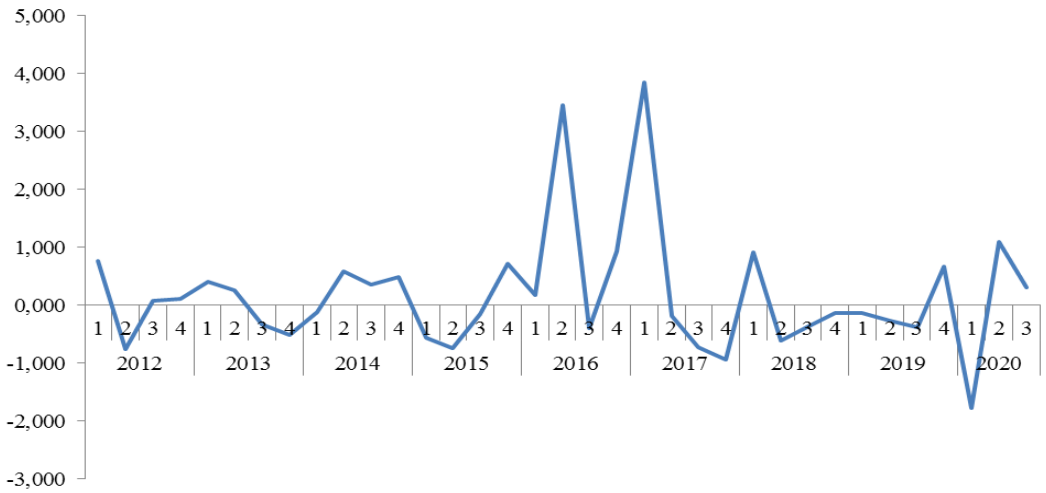

Figure 1. Stock return movements in plastic and packaging subsector in 2012-2020

While the excise issue has not yet been resolved, the Indonesian capital market was hit by the Covid-19 pandemic in early 2020. On March 23, 2020, the Composite Stock Price Index (IHSG) experienced a sharp correction of 4.9% to the level of 3,989.52 or the lowest level in the last eight years (IDX, 2020). The study analyzed the effect of excise issue on the plastic and packaging sub-sector stock returns, both before the pandemic and during the Covid-19 pandemic.

LITERATURE REVIEW

This research refers to a number of related previous studies. Regarding the relationship between inflation and stock returns, this study refers to research conducted by Ozlen (2014) and Dirga (2015) showed that the impact of inflation varies on stock returns through the selected sectors. This research is also supported by a number of studies that show different results. Research by Dewi et al. (2019) and Osamwonyi and Michael (2014) showed that inflation has no effect on profitability. It is in line with the results of research by Guruswamy and Hedo (2014), showed that inflation does not have a significant relationship with financial performance. This research is confirmed by Purnama et al. (2013) which showed that macroeconomic performance has no effect on financial performance and stock returns. Kirui et al. (2014), Gunawan (2017), and Jayadin (2012) also have the same research results, showed inflation has no effect on stock returns. In contrast to Ismanidar's (2017) research and Mirayanti and Wirama's (2017) research, inflation has a positive effect on stock returns. Mubarok (2014), Khan et al. (2017), and Kharisma (2019) have different research results, showed that inflation has a negative effect on stock returns.

The relevance of this study in examining the impact of financial performance variables such as liquidity refers to research conducted by Durrah et al. (2016) showed that there is a positive relationship between the liquidity ratio and profitability. The higher the liquidity, the better the company profits. It can give confidence to investors to own company's shares, so that can increase stock returns. In contrast to research by Babi (2015) and Stefano (2015), it showed that the liquidity ratio has no effect on stock returns. The research of Setyandari (2012) and Atmadiputra (2017) also showed that the current ratio has no effect on stock returns. This study was confirmed by Angellia et al.

(2018) which showed that the liquidity ratio has no effect on profitability.

The relevance of this research in examining the impact of financial performance variables such as solvency refers to the research of Gharaibeh (2014) and Nurdin (2017) showed that DER has no impact on stock returns. Different results in Nugroho's (2009) study showed that DER has a significant positive effect on stock returns. The results of this study are confirmed by Bustami and Heikal (2019) which show that DAR and DER have a positive effect on stock returns.

The relevance of this research in examining the impact of financial performance variables such as profitability refers to the research of Heryanto (2018) and Ahmad et al. (2013) showed that there is a positive influence between profitability and stock returns. The results of this study are confirmed by Fardiansyah (2016) showed that ROA and ROE have a positive effect on stock returns. If the company's financial performance in generating profits increases, it will show an attraction for investors and potential investors in investing in the company, so that stock returns increase. Research by Musallam (2018) and Antonius (2012) stated different results. They showed that profitability has no effect on stock returns. This research is reinforced by Utami (2015) and Djibran (2016) showed that ROE has no effect on stock returns. This research shows that not all investors invest only in terms of their fundamentals. Anwaar's (2016) research results showed that NPM has a positive effect on stock returns.

The relevance of this research in examining the impact of financial performance variables such as profitability refers to the research of Bustami and Heikal (2019) showed that TATO has a positive effect on stock returns. The higher the activity ratio number indicates that the company has good prospects because with positive sales it is expected that the company's profit will increase. It is different with the research results of Setiyawan and Rusmana (2013) which showed that FATO has no effect on the price of a share. The research results of Vincent et al. (2018) also showed that FATO has no effect on return on assets, while the price per share and return on assets is directly proportional to stock returns. This research is different when seen from previous studies that have not discussed much about the issue of excise and Covid-19 in the plastic and packaging sub-sector.

Signaling Theory

Signaling Theory was developed by Ross (1977). Signaling Theory explains why companies must provide positive information, especially financial reports, to investors or potential investors. Through positive information, the company can increase the value of the company's shares. If there are outstanding issues such as excise issues, a good quality company will give a signal to the market, such as by showing a high level of profitability, so that investors can distinguish which companies are performing well and can become recommendations for stock investment.

Viewed from an investor's point of view, the issue of excise gives a signal to investors about the condition of the plastic and packaging industry. Certainly, investors will judge how the company is performing. The issue of plastic excise in circulation has resulted in investors getting a signal that if the excise tax has been applied, there will be a potential decline in sales. Meanwhile, when viewed from the company side, if there are issues circulating such as excise issues, a good quality company will provide a signal to the market, such as by showing a high level of profitability, so that investors can distinguish which companies are performing well and can become recommendations for stock investment.

Investment Theory

According to Brilliand et al. (2016), investors need to carry out technical and fundamental analysis to obtain an estimate of the value of shares whether the value is

below the market price (undervalued) or above the market price (overvalued). Generally, investors will invade stocks whose value is below the market price. They hope that the share value will increase in the future. In conducting technical analysis, Bodie et al. (2014) explained that the indicators used include moving averages, RSI, stochastic and other indicators. Meanwhile, fundamental analysis is carried out to determine the prospect value of income generated by the company. It can be seen from the country's economic prospects and the company's business environment to seek a fair share price.

Efficient Market Hypothesis (EMH) Theory

An efficient market is measured from the relationship between the price of securities and existing information, both fundamental and from the company itself. Efficient markets occur when there is a fast and accurate reaction to a new equilibrium price that fully reflects the available information. For example, if there is information on excise issues so that there is a decrease in profit, it is considered bad news. Investors will react quickly after receiving this information, so the market reacts quickly and a new price will form that reflects this information. Haugen (2001) distinguished the Efficient Market Hypothesis (EMH) into three. They are past stock price information or also called the weak form hypothesis, all public information is also called the semi-strong form hypothesis, all available information includes inside information or also known as the strong form hypothesis.

Stock Return

Stock returns resulting from investment activities in the form of dividends are not easy to predict, because companies have different dividend policies. Dividend policies sometimes have to take into account the company's funding and investment. Dividend policy cannot be separated from other related policies. According to Fahmi and Yovi (2009) stock returns are obtained from investment activities carried out by companies, individuals, or institutions. In the stock returns obtained by investors, there are expectations and realization. Realization of stock returns is important because it is useful as a measure of company performance. The value of stock returns reflects the results of the investment made. The higher the stock return, the better the investment results. Conversely, the lower the stock return or even minus indicates that the investment is not going well. It shows that the determination of stock returns in the form of dividends must pay attention to other factors that influence it.

Excise

Indonesian government imposes excise on certain goods that can have negative effects on society and the environment. Examples include ethyl alcohol or ethanol, beverages containing ethyl alcohol of any kind, and tobacco products. The existence of negative effects on certain goods causes these goods to need to be controlled and monitored on the level of consumption and circulation (DJBC 2015). One way to control these goods is to impose state levies. The nature or character of goods subject to excise is described in more detail in the excise law. It is Undang-undang 11 of 1995 as amended by Undang-undang 39 of 2007 concerning Excise.

Literature review should be written here with proper citation.

MATERIALS & METHODS

The type of data in this study uses secondary data. The population of this study consists of companies in the plastic and packaging sub-sector listed on the Indonesia Stock Exchange (IDX) whose financial reports have been audited and published quarterly. Financial report data is obtained by downloading company financial reports that have been published through the official portal of the Indonesia Stock Exchange. Data on macroeconomic variables such as

inflation are obtained from the release of the Central Statistics Agency. Other supporting data were obtained from literature studies either through text books or the internet. The sampling technique used in this study was purposive sampling. The sample selection considerations such as:

1. Company that are still active which are the plastic and packaging sub-sector listed on the Indonesia Stock Exchange during the research period.
2. The company did not exit or delisted on the Indonesia Stock Exchange during the research period.
3. Companies that have published their shares for more than seven years.
4. The company shows complete and detailed financial reports from 2012-2020.

On December 31, 2017, this subsector amounted to 14 issuers (listed companies). Based on the sample selection criteria, researchers only took 9 companies for further investigation. These companies can be seen in Table 1.

This research covers the time period before and after the emergence of excise issues to illustrate the impact of the excise tax issue on stock returns. This research also illustrates the impact of the Covid-19 pandemic on stock returns, when the issue of excise was still a concern for plastic and packaging industry players. In detail, this study is divided into 3 study periods:

1. The period before and after the emergence of excise issues, the first quarter of 2012 to the fourth quarter of 2019
2. The period before and after the emergence of excise issues, plus the Covid-19 pandemic, the first quarter of 2012 to the third quarter of 2020
3. The period before and after the Covid-19 pandemic, namely the first quarter of 2018 to the third quarter of 2020.

Table 1. List of plastic and packaging sub-sector issuers listed on the IDX

No	Stock Code	Company	IPO Date
1	AKKU	Anugerah Kagum Karya Utama Tbk	1 November 2004
2	AKPI	Argha Karya Prima Industry Tbk	18 Desember 1992
3	APLI	Asiaplast Industries Tbk	1 Mei 2000
4	BRNA	Berlina Tbk	6 November 1989
5	FPNI	Lotte Chemical Titan Tbk	21 Maret 2002
6	IGAR	Champion Pasific Indonesia Tbk	5 November 1990
7	IPOL	Indopoly Swakarsa Industry Tbk	9 Juli 2010
8	TRST	Trias Sentosa Tbk	2 Juli 1990
9	YPAS	Yana Prima Hasta Persada Tbk	15 Maret 2008

This study uses macroeconomic variables, such as inflation and financial performance such as Cash Ratio, Current Ratio, Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), Return On Assets (ROA), Return On Equity (ROE), Net Profit Margin (NPM), Total Asset Turnover (TATO), and Fixed Asset Turnover (FATO) as independent variables. This study also uses dummy variables that show the issue of plastic excise and Covid-19. Meanwhile, the dependent variable in this study uses stock returns represented by capital gains. The variable data collected in this study is quarterly data, from 2012 to 2020.

The dummy variable used in this study is a proxy for the issue of government regulations on the imposition of a customs tariff of IDR 30,000/ kg since 2016 and the Covid-19 pandemic.

1. **Period I:** the dummy has a value of 1 if the observation data period is in 2016-2020, when there is an excise issue. The dummy has a value of 0 if the observational data is not in the period of the excise issue, before 2016.
2. **Period II:** the dummy has a value of 1 if the observation data period is in the first quarter of 2016 to the third quarter of 2020, after the emergence of excise issues, plus the Covid-19 pandemic. The dummy has a value of 0 if the observational data is not in the period of

the excise issue, the first quarter of 2012 to the fourth quarter of 2015.

3. **Period III:** the dummy has a value of 1 if the observation data period is in the first quarter to the third quarter of 2020, when the Covid-19 pandemic occurs. The dummy has a value of 0 if the observational data starts from the first quarter of 2018 to the fourth quarter of 2019.

The data processing method uses panel data regression with the help of EViews 10 software and worksheets using Microsoft Excel. The statistical program was used to test the significance of panel data regression analysis and Microsoft Excel was used for the creation of tables and graphs.

Panel Data Regression Model

Period I and II:

$$RS_{it} = \beta_0 + \beta_1 INF_t + \beta_2 CASHR_{it} + \beta_3 CR_{it} + \beta_4 DAR_{it} + \beta_5 DER_{it} + \beta_6 ROA_{it} + \beta_7 ROE_{it} + \beta_8 NPM_{it} + \beta_9 TATO_{it} + \beta_{10} FATO_{it} + \beta_{11} D_1 + e_{it}$$

Period III:

$$RS_{it} = \beta_0 + \beta_1 INF_t + \beta_2 CASHR_{it} + \beta_3 CR_{it} + \beta_4 DAR_{it} + \beta_5 DER_{it} + \beta_6 ROA_{it} + \beta_7 ROE_{it} + \beta_8 NPM_{it} + \beta_9 TATO_{it} + \beta_{10} FATO_{it} + \beta_{11} D_2 + e_{it}$$

Hypothesis: $\beta_2; \beta_3; \beta_6; \beta_7; \beta_8; \beta_9; \beta_{10} > 0$

$\beta_1; \beta_4; \beta_5; \beta_{11} < 0$

Information:

β_0 = a constant

β_i = regression coefficient of the independent variable (*slope*)

RS_{it} = stock return i on quarter t

INF_t = inflation on quarter t

$CASHR_{it}$ = cash ratio (CASH R) stock i on quarter t

CR_{it} = current ratio (CR) stock i on quarter t

DAR_{it} = debt to asset ratio (DAR) stock i on quarter t

DER_{it} = debt to equity ratio (DER) stock i on quarter t

ROA_{it} = return on asset (ROA) stock i on quarter t

ROE_{it} = return on equity (ROE) stock i on quarter t

NPM_{it} = net profit margin (NPM) stock i on quarter t

$TATO_{it}$ = total asset turnover (TATO) stock i on quarter t

$FATO_{it}$= fixed asset turnover (FATO) stock i on quarter t

D_1 = *dummy* (0: before excise issue 1: during excise issue),

D_2 = *dummy* (0: before pandemic 1: during pandemic)

e_{it} = *error term*

RESULT AND DISCUSSION

This study uses panel data analysis using EViews 10 software to analyze the effect of each variable. Meanwhile, to determine the chosen model approach, previously carried out the chow test, Hausman test, and lagrange multiplier test. Chow test results show a probability of more than 0,05, so that the common effect model is better used than the fixed effect. The lagrange multiplier test results also show the same thing with a probability of more than 0,05, so that the common effect model is better used than the random effect model. Based on these three tests, the pooled least square or common effect model was chosen with a one-sided test as an approach to the panel data regression model.

This study discusses two macroeconomic conditions that occurred during the study period, namely the emergence of excise issues and the Covid-19 pandemic in Indonesia. To illustrate these two conditions, the research period is divided into three periods, namely the first quarter of 2012 to the fourth quarter of 2019, the first quarter of 2012 to the third quarter of 2020, and the first quarter of 2018 to the third quarter of 2020. The first period describes the conditions before and during excise issues, without Covid-19 pandemic. The second period describes a combination of three conditions, before the excise issue, after the excise issue, and pandemic conditions. In this second period, it is suspected that the Covid-19 pandemic has

an effect on stock return. Therefore, a third period included in the study. The third period describes the conditions before and during the Covid-19 pandemic.

This study measures the impact of excise issues and the Covid-19 pandemic on stock returns partially, in periods 2 and 3. It is because the excise and pandemic issues do not coincide and have a long time interval. The third period is included with a shorter observation duration because the Covid-19 pandemic has only occurred in the first quarter of 2020. In order for the Covid-19 pandemic dummy to reach a high significance value, the length of time before and after the Covid-19 pandemic must be balanced or not far apart.

Before and During Excise Issue Period

In the first period, the research period when the excise issue arose, the results of the estimation of the model are shown in Table 2. The estimation results of the model show that the excise issue represented by the dummy variable has a probability value of 0,0186. This means that the issue of excise has a significant effect on the return of shares in the plastic and packaging subsector using a 5 percent significance level.

Table 2. Panel data test results (2012Q1 - 2019Q4)

Variable	Coefficient	t-statistic	Probability
C	0,1746	2,3655	0,0093
INFLASI	-0,0217	-2,2099	0,0139
CASHR	0,0341	0,9541	0,1704
CR	-0,0182	-1,4020	0,0810
DAR	-0,0056	-0,0836	0,4667
DER	0,0004	0,6989	0,2426
ROA	-0,0431	-0,2635	0,3961
ROE	0,0382	7,4825	0,0000
NPM	0,0048	0,3496	0,3634
TATO	0,0052	0,1816	0,4280
FATO	0,0003	0,4289	0,3341
EXCISE ISSUE	-0,0734	-2,0933	0,0186
R-Squared	0,2561		

The inflation variable has a probability value of 0,0139 so that it has a significant effect on the return of shares in the plastic and packaging subsector using a 5 percent significance level. This shows that inflation is one of the factors that influence investors in investing in companies in the plastic and packaging sub-sector. This result is similar to Mubarok (2014), Khan et al. (2017), and Kharisma (2019) research showed that inflation has a negative effect on stock returns.

Table 2 shows that liquidity ratio has no effect on stock return. Probability value of CASHR and CR are more than 5 percent. It is similar to research by Babi (2015) and Stefano (2015), it showed that the liquidity ratio has no effect on stock returns. The research of Setyandari (2012), Atmadiputra (2017) and Angellia et al. (2018) also showed that the current ratio has no effect on stock returns.

Solvability ratio such as DAR and DER has no effect on stock return. Those values are more than 5 perent. This result is similar to research of Gharaibeh (2014) and Nurdin (2017).

The relevance of this research in examining the impact of financial performance variables such as profitability refers to the research of Heryanto (2018) and Ahmad et al. (2013) showed that there is a positive influence between profitability and stock returns. The results of this study are confirmed by Fardiansyah (2016) showed that ROA and ROE have a positive effect on stock returns. Table 2 shows probability value of ROE is less than 5 percent, which means significant.

Activity ratio in Table 2 shows value more than 5 percent, which mena not significant. This result is relevant with Setiyawan and Rusmana (2013) and Vincent et al. (2018) research showed that FATO has no effect on the price of a share. The coefficient value of the dummy variable is -0,0734, indicating that the excise issue has a negative relationship to stock returns in the plastic and packaging subsector. This result means that prior to the excise issue, stock returns were 0,0734 times higher than after the excise issue in 2016. This shows that the issue of plastic excise gives a signal to the market about the condition of the plastic and packaging industry. Investors caught the signal that if the excise tax was applied, there would be a drop in sales. This decrease can be caused by the excise

imposed on consumers, so that the price of goods with plastic packaging becomes more expensive. Higher prices will make consumers limit their spending, then result in decreased sales. If the other conditions are considered the same, the decline in sales will cause the company's profit to fall. The decline in the company's profits then has an impact on the decline in stock returns.

Before and After Excise Issue Period with Covid-19 Pandemic

For the second research period, the results of the model estimation are shown in Table 3. In this model, the dummy used is the excise issue only.

The result of the estimation model shows that the dummy variable has a probability value of 0,0093 so that it has a significant effect on stock return using a 5 percent significance level. This value is higher than the conditions before Covid-19. This means that the emergence of Covid-19 further strengthens the dummy effect on stock returns. The high influence of this dummy can also be caused by other influences, not only the excise issue. The coefficient value of the dummy variable is -0,0820, indicating that the excise issue has a negative relationship to the return of shares in the plastic and packaging subsector.

Table 3. Panel data test results (2012Q1 - 2020Q3)

Variable	Coefficient	t-statistic	Probability
C	0,1406	1,9570	0,0256
INFLASI	-0,0201	-2,1763	0,0151
CASHR	0,0093	0,2627	0,3964
CR	-0,0073	-0,5398	0,2948
DAR	0,0182	0,2541	0,3997
DER	0,0003	0,5275	0,4791
ROA	-0,0416	-0,2525	0,4004
ROE	0,0375	7,1544	0,0000
NPM	0,0070	0,7889	0,2154
TATO	0,0153	0,4672	0,3202
FATO	0,0003	0,3465	0,3645
EXCISE ISSUE	-0,0820	-2,3632	0,0093
R-Squared	0,2193		

The results of the other determinants are the same with first period. Inflation, liquidity, profitability, and activity ratio show same effect on stock return.

During Pandemic Period

The model in the second period is thought to have other components that affect stock returns, the Covid-19 pandemic. To prove this conjecture, the Covid-19 pandemic was included in the model as a dummy variable. The third period is made shorter so that the length of time before and during the Covid-19 pandemic is balanced.

As listed in Table 4, the results of the estimation of this third model indicate that the dummy variable has a probability value of 0,0014 so that it has a significant effect on the return of the plastic and packaging sub-sector stocks using a 5 percent significance level. These results prove that during the pandemic, it was not only the excise issue that affected the performance of stock returns, but also the Covid-19 pandemic itself. The dummy variable coefficient value of -0,0772 shows that the Covid-19 pandemic has a negative relationship with the return of shares in the plastic and packaging subsector.

In this period, there are several determinants show different effect with previous periods. Liquidity ratio in this period has a significant effect on stock return. Liquidity refers to research conducted by Durrah et al. (2016) also showed that there is significant relationship between the liquidity ratio and stock return. Solvability ratio also shows a significant effect on stock return. This result is confirmed by Nugroho's (2009) and Bustami and Heikal (2019) study showed that DAR and DER has a significant positive effect on stock returns.

Table 4. Panel data test results (2018Q1 - 2020Q3)

Variable	Coefficient	t-statistic	Probability
C	-0,4239	-3,1357	0,0011
INFLASI	-0,1013	-6,9438	0,0000
CASHR	-0,0787	-3,7748	0,0001
CR	0,0863	4,4368	0,0000
DAR	2,4815	5,5662	0,0000
DER	-0,6034	-5,3412	0,0000
ROA	3,1367	4,1034	0,0000
ROE	-1,5075	-3,3951	0,0005
NPM	-0,0140	-3,8966	0,0001
TATO	0,0113	0,4508	0,3266
FATO	-0,0006	-0,3515	0,3630
COVID19	-0,0772	-3,0769	0,0014

This result can be confirmed by the profit performance of each plastic and packaging company included in this study. Table 5 shows the profit performance of plastic and packaging companies from before the excise issue emerged until the Covid-19 pandemic hit. Table 5 consists of three observation periods. The first period is from the first quarter of 2012 to the fourth quarter of 2015, the second period of the first quarter of 2016 to the fourth quarter of 2019, and the third period of the first quarter of 2016 to the third quarter of 2020. The first period describes the conditions before the emergence of excise issues. In this period, there were 5 companies whose profit changes were positive, while the negative ones were 4 companies.

Table 5. Profit movements of plastic and packaging companies (in thousand rupiah)

	2012Q1-2015Q4	**2016Q1-2019Q4**	**2016Q1-2020Q3**
AKKU	47,898	-4,220,431	-2,480,573
AKPI	79,621	-216,889	-574,423
APLI	135,223	-976,293	-679,060
BRNA	-2,487,119	-5,585,876	-3,152,784
FPNI	5,095,543	-938,357	-1,640,517
IGAR	672,549	-122,620	-493,399
IPOL	-1,336,839	425,954	374,776
TRST	-2,163,554	1,566,355	1,087,876
YPAS	-2,079,959	434,714	618,619

In the second period, when the excise issue started, only 3 companies had positive changes in their profits. Not only that, these 3 companies also experienced an increase in profit, from negative to positive. Another company experienced a decline in profit and showed a negative number. Based on the financial statements of the six companies, expenses increased during this period. As a result, the profits of these companies decreased. The decline in profit then results in a decrease in the interest of investors to maintain shares or to buy shares of the company, so that stock returns have decreased. In this period, the company's earnings performance strengthened the results of the model's estimation. It shows that the excise issue had a negative effect on stock returns.

In the third period, the Covid-19 pandemic occurred in March 2020. During the first quarter of 2016 to the third quarter of 2020, there were 4 companies that experienced improved profits, namely AKKU, APLI, BRNA, and YPAS. Among of four companies, only one company had positive profits, it is APLI. The other three companies still posted negative profits. Thus, in this period, only APLI was able to maintain its performance, while other companies had to bear losses. AKPI, FPNI, and IGAR are the three companies that experienced a decline in profits and still recorded negative profits. IPOL and TRST were companies that experienced a decline in profits, but their profits were still positive. Thus, the company's earnings performance in this period strengthens the results of the prediction model. It shows that the Covid-19 pandemic has a negative effect on stock returns.

Managerial Implications

Investors are expected to pay attention to issues that are circulating or government plans in formulating policies, before starting to invest or make transactions in the capital market This research proves that the plastic excise tax, which is just an issue, has an impact on the industry. Investors should actively monitor stock movements and financial performance because most companies in the plastic and packaging sub-sector experienced a decline in stock returns after the issue of plastic excise entered the capital market. The results of this study indicate that there are 7 companies that experienced a downward trend in profit after the issue of plastic excise on the market. Profit is a fundamental concern for stock investors. Investors can also consider their investment decisions by looking at the company's trading activities. Companies whose products are mostly exported are resilient to excise issues.

For the companies, positive signals must always be built to attract transactions in the capital market. The ideal signal is through a complete and profitable financial report. Ross (1977) wrote a book about Signaling Theory. He explained that

companies must provide positive information, especially financial reports, to investors or potential investors. Through positive information, the company can increase the value of the company's shares.

The last thing for government, as the party proposing the regulation on the application of plastic excise to the DPR, government must immediately make a decision, whether it is canceled or passed. This certainty is the hope of investors and issuers in the capital market. The government could initiate this decision by reviewing some research on the impact of imposing excise or similar taxes on controlling consumption. The government can also make further research related to the application of this plastic excise tax.

CONCLUSION AND RECOMMENDATIONS

Conclusions

In the first period, the issue of excise had a negative effect on stock returns in the plastic and packaging subsector. Investors get the signal that if the excise tax has been applied, there will be a decrease in sales which will then have an impact on the decline in company profits. In the second period, the negative effect of the excise tax issue on stock returns was higher than before the Covid-19 pandemic. The presumption of the influence of the Covid-19 pandemic in the second period was strengthened by the results of the prediction model in the third period. As a result, the Covid-19 pandemic has a negative effect on stock returns.

Recommendations

From the results of this study, the researchers suggest that there be further research on the effect of the Covid-19 pandemic on stock returns in the plastic and packaging subsector. The Covid-19 pandemic has not yet subsided, so the duration of the study could be longer. Researchers also provide suggestions that for the next research there is an estimation model that can calculate the effect of excise issues and the Covid-19 pandemic simultaneously, as well as a longer research period.

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