SOC-OR-005

EVENTS STUDY: THE EFFECT OF OIL PRICE CHANGES IN JOKOWI'S GOVERNMENT TO SHARE PRICE ON MANUFACTURING COMPANIES LISTED IN INDONESIA STOCK EXCHANGE

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The Indonesian government led by Jokowi within 5 months, starting from 18 November 2014 to the beginning of March 2015, had made four significant changes in oil prices. It is the first time in the history of Indonesia in changes of fuel prices in a short time period. Changes in fuel prices are events that are able to influence investment decisions as the rising fuel prices will increase the company's operating costs, thereby it reduces corporate profits. This also applies reverse the decline in fuel that will increase its profits. Changes in corporate profits will affect the response of the capital market, as it will affect investment decisions. The population involved in this study is the company's shares listed on the Indonesia Stock Exchange. Selected samples in the study are the shares belonging to the manufacturing company. The methodology of this research is to analyze the four events of oil price changes to see the abnormal return on the shares of manufacturing companies. This study aims to analyze the effect of the increase and the decline in oil prices on stock price movements on manufacturing company and clarify that the changes in oil prices in a short period of time can affect the reaction of the capital market in Indonesia. Events change in oil prices in general are responded faster before the date of the event which is an average on t-3. This shows that the information about changes in fuel prices has been known to the market fast. Therefore, the reaction does not need to wait until the time of the incident.

Keywords: Changes in Oil Prices, Investment Decisions, Corporate Profit

1. INTRODUCTION

Indonesia Stock Exchange (IDX) that exists today is a combination of the Surabaya Stock Exchange and Jakarta Stock Exchange. The Stock Exchange was inaugurated in November 2007 after the holding of the EGM (General Meeting of Shareholders Extraordinary). IDX trade a wide range of investment products that can be purchased by investors such as stocks, Stock Option (KOS), Exchange Traded Funds (ETFs), bonds, and futures contracts consist of Nikkei 225 Futures or LQ- 45 Futures (Hartono, 2013).

The number of shares listed on the Stock Exchange by the end of 2007 reached 383. They increased until quarter of 2012 reaching 442 kinds of stocks (Hartono, 2013). The latest data obtained from IDX in 2014, there were 509 shares of the company which were composed of manufacturing, services and banking. Capital market activities experiencing unstable conditions, for example in times of crisis experienced by Indonesia in 2008 made activities in the capital market

decrease. However, with the improvement of economic conditions conducted by the Indonesian government, transactions on the Stock Exchange have increased until today (Hartono, 2013).

An analysis conducted by investors in making an investment decision is influenced from relevant events. One of the events associated with the making of an investment decision is the changes in oil prices. Capital market activities in Indonesia are influenced by the nature of the micro and the macro. Changes in oil prices are the macro factors that can affect activities in the capital market. In particular, it will affect the company's share price (Suryawijaya and Setiawan, 1998).

During Jokowi's government within 5 months from November 18 2014 until early March 2015, the change in oil prices had happened four times. This is the first time in the history of Indonesia that changes in oil prices occurred in a short time period. Changes in oil prices occur for several reasons, namely subsidies on fuel are too high for the government, subsidies on oil are able to absorb 20% of the Indonesian national budget and the amount is large funds. Changes in oil prices that occurred in a short time will certainly lead to instability of economic conditions. Purwoko (1997) explains that the changes in oil prices have a big effect, because fuel prices will affect the price - the price of goods and services, for example, raising the prices of basic commodities and rising transportation costs.

Changes in oil prices is an event that can influence investment decisions, due to the rising fuel price will increase the company's operating costs, thereby reducing corporate profits, this applies also reverse the decline in fuel price that will increase its profit. Decrease and increase in profit resulting from changes in fuel prices will be responded by the capital market, so that market participants will react according to publicly available information.

Research conducted by Fama (1991) explains that the condition of an efficient market is stock price able to reflect the information, and the conditions of efficient market are divided into 3 sections seen from the type of information that is absorbed by the stock price. Efficient market according to Hartono (2005) is not only seen from how information is absorbed by the stock price, but also the sophistication of market participants in analyzing the available information which also affects the efficiency of the market.

Oil prices change events that increase and decrease are conditions that can provide gain or loss for capital market participants. Kahneman and Tversky (1979) explain that a person will react more when experiencing loss conditions, so that there will be differences in stock returns when compared to the increase in oil price reduction for companies that have high relevance to the event.

2. THEORY AND HYPOTHESIS

Hartono (2010) explains that if information has contents, it will affect the stock price movement in the capital market. If the information has contents, it will make the market react in accordance with the content of that information. Fama (1970) explains that the price of a security will reflect the information that is available in the past, present and a confidential way.

Changes in oil prices is usable information for capital market participants in the transaction, Gunasih (2013) examined the impact of rising oil prices on Indonesia on June 21, 2013 of LQ-45 share index which is 45 shares with transaction levels that are high. The result of events that resulted negative abnormal returns on stocks LQ-45 index. The results of this study are also supported by research conducted by Wibisono (2013) who found that there negative abnormal

returns on stocks in Indonesia. Research conducted by Wibisono (2013) is also a similar study, which tested the impact of the events on increasing the oil price.

Research studies of other events were conducted Hall and Kenjegaliev (2009), which examines the impact of oil price changes on stock prices of oil companies in the world, such as British Petroleum, Chevron, Exxon Mobil, Total, Eni and Royal Dutch Shell, which is listed on the stock exchange in China and Russia, the results of these studies are going on a negative abnormal return at the time of rising oil prices. Research by Elnaby (1998) conducted a study of the events of the control region by Iraq against Kuwait and the Persian Gulf, the areas are regions with a high oil source. The impacts of these events make negative abnormal returns on the shares prices of oil companies on August 1991. These studies are included in the category of harm (bad news).

Results of these events contain positive abnormal returns at the time of the incident, which are statistically proven to be significant. The study by Hall and Kenjegaliev (2009) on the impact of falling oil prices on stock prices oil companies registered in China and Russia showed a positive abnormal return at the time of the incident. Malhotra et. al (2007) conducted a study on the impact of the events of the rights issue of 35 companies listed on the Indian Stock Market. The results show that positive an abnormal return for 35 manufacturing company share prices. These studies portray favorable conditions for shareholders (good news), so that such events can lead positive abnormal return on stocks studied.

Changes in oil prices during Jokowi's government give two different conditions. The Conditions are good conditions and bad conditions for the owners of shares of manufacturing company. Based on the results of previous studies, this research's hypotheses are as follows:

H1a: There is a negative abnormal return when there is an increase in oil prices for the shares of companies listed on the Stock Exchange.

H1b: There is a positive abnormal return when there is a decrease in oil prices for the shares of companies listed on the Stock Exchange.

Kahneman and Tversky (1979) explains that the person will better respond to the adverse conditions, so if it is linked to the capital market that will lead to a greater response when facing a loss of capital market participants. Research by Abdellaoui (2000) discusses the preferences of a person in comparing between losses and gains. One of the results of this study indicates that a person is more focused on the adverse conditions. The study by Lim (2006) examines how investors set up the losses and gains that they get when they have a portfolio. The results of this study found that when investors are faced by adverse conditions they will respond immediately to sell their shares despite a loss and by the time they get profits will tend to hold the stock.

The study explains that investors would be more focused on the adverse conditions themselves, than to think about the advantages that they obtained. Linville and Fischer (1991) conducted research on the preferences of investors in the face of conditions in their trading activities. The investors will prefer the adverse conditions in advance compared with favorable conditions. The reason is the face of adverse conditions in advance they would be easy to know how much of their losses, so that in the future they will be easy to calculate the aggregate gains that would later they can. Investors have a preference to think about the adverse conditions in advance compared to the thought of favorable conditions, so that it can be concluded that the adverse conditions would be immediately responded compared with favorable conditions.

Domenech and Silvestre (2006) who conducted an experiment to test whether a person would behave differently when facing with adverse conditions or benefits based on prospect theory.

The results of these study show the asymmetry between the responses when one is confronted between adverse and favorable conditions. When a person is faced with adverse conditions, she/he will make them likely take a risky decision and it is the opposite when one is confronted with favorable conditions, she/he will tend to resist risks. The results of this study are consistent with the theory that describes the prospect of that happening preference asymmetry between adverse and favorable conditions.

Previous studies showed consistent results about the prospect theory which explains that a person will be more focused on the adverse conditions, so that the higher a person will respond to it as compared with favorable conditions. The oil price increase is a condition that can cause losses on securities owners of manufacturing companies, manufacturing companies shareowners perceive two conditions are adverse and favorable conditions when changes in oil prices. Under these conditions, the hypothesis in this study is as follows:

H2: The magnitude of abnormal returns during rising oil prices is higher than the current decline in oil prices in shares of companies listed on the Stock Exchange.

3. RESEARCH METHODOLOGY

This study analyzed four events of the oil price changes on November 18, 2014, January 1 2015, January 19, 2015 and March 1, 2015. The samples were 88 companies that listed in Indonesia Stock Exchange from 2014 to 2105. The impact of changes on oil prices was analyzed through abnormal return value at the date of the events. We used t-test to analyze the effect of price oil changes on each event.

Abnormal return= Realized return – E[R.t]

Ri.t : Realized return on t periode
E[Ri.t] : Expected return.

4. RESULTS

A process analysis conducted to test the hypothesis in this study is to look at the significant level of the average abnormal return manufacturing companies as sampled in this study during the window period. An analysis was performed at four events of changes in fuel prices, namely on November 18, 2014, January 1 2015, January 19, 2015 and March 1, 2015.

Table 4.1 shows the average value of abnormal return, t-value results and the accumulated abnormal return for manufacturing companies. The average abnormal return is statistically significant prior to the occurrence of the events on 18 November 2014 on 13 November 2014 in the amount -0.00628 with a t-test value of -2.11540 that is statistically significant with an error rate of 5%. The average abnormal return in the event of oil prices changes event on November 18, 2014 amounted to 0.00194 with a value of 1.95631 t-test is statistically significant at the 5% error rate. The average abnormal return after the occurrence of the event is on November 20, 2014 at -0.00651 with a t-test value of -1.86800 statistically significant with an error rate of 5%. Based on this analysis, there are no negative abnormal returns at the time of the events 1a unsupported hypothesis.

Table 4.1

The average abnormal return on the event 18 November 2014

(Increasing oil price)

Day to	Date	Average abnormal return	t-value
-3	11/13/2014	-0,00628**	-2,11540
-2	11/14/2014	-0,00355	-0,90167
-1	11/17/2014	-0,00015	0,57188
0	**11/18/2014**	0,00194**	1,95631
1	11/19/2014	0,00450	1,80830
2	11/20/2014	-0,00651**	-1,86800
3	11/21/2014	0,00200	0,80577

*   = Significant at level 10 %(t>1,282)
** = Significant at level 5%(t>1,645)
*** = Significant at level 1 %(t>2,326)

Table 4.2

The average abnormal return on the event 1 January 2015

(Decreasing oil price)

Day to	Date	Average abnormal return	t-value
-3	12/29/2014	0,00018***	11,36934
-2	12/30/2014	0,00897	2,23389
-1	12/31/2014	0,00021	0,02023
0	**1/1/2015**	-0,00007	-0,18955
1	1/2/2015	-0,00080	-0,38751
2	1/5/2015	0,00359	0,96372
3	1/6/2015	-0,00352*	-1,50892

*   = Significant at level 10 %(t>1,282)
** = Significant at level 5%(t>1,645)
*** = Significant at level 1 %(t>2,326)

Table 4.3

The average abnormal return on the event 19 January 2015

(Decreasing oil price)

Day to	Date	Average abnormal return	t-value
-3	1/14/2015	-0,00708*	-1,54730
-2	1/15/2015	0,00294	1,02711
-1	1/16/2015	-0,00340	0,41141
0	**1/19/2015**	-0,00521**	-1,76604
1	1/20/2015	-0,00687***	-2,47754
2	1/21/2015	-0,00321***	-4,15519
3	1/22/2015	0,00457	1,70283

*   = Significant at level 10 %(t>1,282)
** = Significant at level 5%(t>1,645)
*** = Significant at level 1 %(t>2,326)

Table 4.4

The average abnormal return on the event 1 March 2015

(Increasing oil price)

Day to	Date	Average abnormal return	t-value
-3	2/25/2015	-0,00356	-0,52237
-2	2/26/2015	0,00325	0,45841
-1	2/27/2015	-0,00024	-0,34342
0	**3/2/2015**	-0,00096	-0,31021
1	3/3/2015	0,00191	0,89883
2	3/4/2015	-0,00879***	-3,35457
3	3/5/2015	0,00363	0,70533

*   = Significant at level 10 %(t>1,282)
** = Significant at level 5%(t>1,645)
*** = Significant at level 1 %(t>2,326)

Table 4.2 shows the average value of abnormal return, t-value results and the accumulated abnormal return for manufacturing companies. The average abnormal return is statistically significant prior to the events of January 1, 2015 is the date of December 29, 2014 in the amount of 0.00018 with t-count value is the value of 11.36934 that is statistically significant with an error rate of 1%. Average abnormal return upon occurrence of oil price changes on January 1, 2015 amounted -0.00007 with a t-test value of -0.18955, however, it is not statistically significant. The average abnormal return after the occurrence of the event is on January 6, 2015 at -0.00352 with a t-value of -1.50892 that is statistically significant with an error rate of 10%. Based on the analysis above, there is a positive abnormal return at the time of the events 1b unsupported hypothesis.

Table 4.3 shows the average value of abnormal return, t-value results and the accumulated abnormal return for manufacturing. The average abnormal return is statistically significant prior to the events of January 19th 2015 is the date of January 14, 2015 that, for -0.00708 with a t-value of -1.54730 is the value that is statistically significant with an error rate of 10%, average abnormal return in the event of oil price change event on January 19, 2015 amounted -0.00521 with the value of -1.76604 t-value is statistically significant at the 5% error rate. The average abnormal return after the occurrence of the event is on December 20 and January 21, 2015 by -0.00687 and -0.00321 by value t-value each of -2.47754 and -4.15519 that is statistically significant level of an error of 1%. Based on the analysis above, there is no positive abnormal return at the time of the events 1b unsupported hypothesis.

Table 4.4 shows the average value of abnormal return, t-value results and the accumulated abnormal return for manufacturing companies. The average abnormal return upon occurrence of fuel price changes on March 1, 2015 amounted -0.00096 with a t-value of -0.31021 statistically significant. The average abnormal return after the occurrence of the event is on March 4, 2015 at -0.00879 with a t-value of -3.35457 that is statistically significant with an error rate of 1%. Based on the analysis above, there are no negative abnormal returns at the time of the events 1a unsupported hypothesis.

Table 4.5 Comparison of the Average abnormal return for increasing and decreasing of oil prices

Event	Increasing of Oil Price		Decreasing of Oil Price
Increasingof of Oil Price: 18 November 2014 and 1 March 2015	Mean	0,67870	0,92942
	t Stat	1,64747	
Decreasingof of Oil Price: 1 January 2015 and 19 January 2015	P(T<=t) two tail	0,25156	
	T Critical two-tail	1,96403	

Table 4.5 shows a comparison of the average abnormal returns during the event increases and decreases in oil prices. The result is for the increase in fuel prices which has an average value of 0.67870 and the abnormal return when oil prices decline in value by 0.92942. The average value of abnormal return of decrease oil prices is higher, but it is not statistically significant difference (0.25156> 0.05). Based on the results of the analysis, it can be concluded that hypothesis 2 is not supported

5. DISCUSSIONS

Events of oil price changes are not responded well by market participants, so that the effect makes the movement of share price inconsistent with similar previous research. One of the big reasons why the hypotheses are not supported because the capital market participants think heuristically so that they are not able to receive contents of information or events correctly. Fromlet (2001) explains that Heuristic mindset is the mindset that simplifies things, so that a person does not think systematically anymore. Mindset in general heuristics arises when one is confronted with a condition fraught with uncertainty (Kahneman and Tversky, 1987). The mindset of capital market participants that heuristics they lead to one in response to an event or information, so that the average abnormal return occurs when events are not as they should be.

6. CONCLUSION

This study found that changes oil prices impact during Jokowi's government have different results from similar previous research. The reason is that because the market participants are faced with uncertain conditions. Changes of oil prices in a short period of time also make market participants think heuristically when they respond to an event or information. Events of oil prices changes do not have a different impact as seen from the average stock abnormal return of manufacturing companies. This study is also inconsistent with the prospect theory proposed by Kahneman and Tversky (1979) that people react more in loss condition than profit condition. Changes of oil prices by the government have unfavorable impact on activities in the capital market, in particular it will make the performance of the manufacturing company becomes unstable. Governments should not make changes in oil prices too frequent in a short time span. A possible way that the Indonesian government can do is to change the price of oil quarterly or semesterly so that the performance of manufacturing company still becomes stable.

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