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Analysis Stock Returns of the Automotive Sector on the Indonesia Stock Exchange

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***Abstract*—As is known the impact of the trade war caused investors to tend to reconsider the funds they invested in Indonesia. The purpose of this study is to look at the effect of price wars on stock returns in the automotive sector. The method used in this research is quantitative descriptive method that explains the events that occur in the form of meaningful numbers. The population taken in this study is the automotive sector, which is listed on the Indonesia Stock Exchange. The sampling method uses purposive sampling with the criteria of automotive companies that report financial statements and are not in a financial distress during the study period, August 24 to September 13, 2018, so the number of companies that sample in this study are 10 companies out of 13 listed automotive companies. On the Indonesia Stock Exchange. The type of data used is quantitative data from automotive sector stock price data that is listed on the Indonesia Stock Exchange. The results of the study found differences in abnormal returns before the depreciation of the Rupiah against the US dollar and after the depreciation of the Rupiah against the US dollar due to the American and Chinese trade wars.**

Keywords: automotive, Indonesia Stock Exchange, return, stocks, trade war

I. Introduction

Economic competition, especially the capital market, which is one of the economic instruments, cannot be separated from various influences of the macroeconomic environment. Changes in the economic environment such as foreign exchange rates, especially the dollar, are becoming more expensive due to interactions in global trade. The occurrence of foreign exchange, buying and selling that occurred in developing countries triggered increased demand for the United States dollar. Various economic regulations issued by the government, especially protectionist policies on international trade commodities, trigger the occurrence of trade wars between countries in the world that will affect the price and volume of international trade in the capital market [1].

International trade is a process of exchange based on the voluntary will of each country. The motive is to obtain trade benefits or gains off-trade. Trade is a very important economic activity at this time, therefore there are no countries in the world that are not involved in international trade both bilateral and regional trade [2].

The benefit of international trade is to enhance cooperative relations both in bilateral and multilateral relations. But on the other hand, increasing international cooperation in trade can cause friction between the countries that cooperate with each other. The superiority of the country in carrying out trade, warfare through resources, the expansion of products to other countries resulted in friction between countries, such as workers from China who flooded the United States [3] and the United States implemented an increase in import duties on Chinese products of almost Rp. 3,000 Trillion [4].

Trade war is a conflict of countries conducting international trade and also one of the economic events which is the concern of world financial institutions such as the IMF and World Bank, this is because the effects of the trade war can bring economic instability in other countries due to accumulation from protectionist policies to international trade commodities. The cause of the trade war between the United States and China is the policy of protectionism issued by the United States. One of them is the imposition of tariffs on all products and an increase in interest rates made by the Fed making investors withdraw their capital from developing countries to invest in the United States, so that the economic growth of the United States in terms of capital inflow is getting stronger and ultimately encouraging economic growth to become better.

This policy has caused many companies to reconsider distribution channels, production lines and costs, this has resulted in slower volume of world trade. In this case, the trade war of these two influential countries, could trigger a depreciation of the world economy and also the Indonesian economy [5].

The impact of macroeconomic instability due to the American-Chinese trade war creates pressure for investors who invest their capital in Indonesia. Investors tend to reconsider the funds they invest in Indonesia, including automotive companies listed on the Indonesia Stock Exchange, where several automotive companies experience fluctuations caused by the event. There are several companies in the automotive sector that experience very significant fluctuations and some are not too significant, this is caused by the events of the trade war and the current depreciation of the rupiah which can affect the selling price and spare parts of vehicles [6]. This is due to automotive raw materials still imported and using foreign currencies. If the condition of the exchange rate weakens it will reduce margins so that the automotive industry will increase the selling price of production. This condition is certainly reflected in the movement of stock prices of automotive sector companies on the Indonesia Stock Exchange. If the automotive company's stock price will certainly increase the level of return received by the company, but vice versa if the automotive company's stock price decreases, the return obtained will decrease. This condition is certainly not wanted by investors, because it would pose a risk due to the depreciation of the rupiah due to the US and China trade wars. The shares of automotive companies have experienced price declines, this has an impact on the domestic automotive industry where there has been a decline in the volume of car sales. This is caused by the decreasing of people's purchasing power.

II. Literature Review

The capital market is a market for a variety of long-term financial instruments that can be traded, both bonds, equity (stocks), mutual funds, derivative instruments and other instruments. The capital market is a means of funding for companies and other institutions (for example the government), and as a means for investing activities. Thus, the capital market facilitates various facilities and infrastructure of buying and selling activities and other related activities (IDX). While Fahmi [7] defines the capital market as a place where various parties, especially companies sell shares and bonds with the purpose of the proceeds from the sale are used as additional funds or to strengthen business capital.

According to Law No. 21 of 2011 concerning OJK, the capital market is an activity concerned with public offerings and securities trading. Public companies related to securities issued, and institutions and professions related to securities. Thus the capital market is a meeting place between parties who will provide funds as capital for a company listed on the Stock Exchange, where the funds are used as capital for companies to carry out their industrial activities.

Investors will certainly be motivated to invest in an instrument with the hope of getting a high level of return. The higher the stock price, the higher the rate of return obtained. Widioatmodjo defines stock prices as selling prices from one investor to another after the shares are listed on the stock exchange, both the main stock exchange and the OTC (Over The Counter Market) [8]. If the stock exchange market is closed, then the market price is the closing price (Closing Price). So this is the market price which states the ups and downs of a stock. The stock price is the money spent to obtain evidence of ownership or ownership of a company [9].

There are several factors that can affect stock price movements. According Iskandar differentiate these factors by origin, namely internal factors, including [10]: (a) announcements about marketing, production, sales; (b) announcement of funding; (c) announcement of the board of directors of management; (d) announcement of a diversification takeover ; (e) investment announcements; (f) employment announcements and (g) announcement of company financial statements. While external factors include: (a) announcements from the government, such as changes in interest rates; (b) legal announcement; (c) announcement of the securities industry; (d) domestic political turmoil and exchange rate fluctuations and (e) various other issues both from within and outside the country.

Stock returns are also referred to as stock income and are changes in the value of the stock price period it with t-I [11]. And it means that the higher the stock price changes, the higher the stock return generated. While Eduardus explained that stock returns are one of the factors that motivate investors to invest and also reward for the courage of investors to bear the risk of their investments [12]. Investment return consists of two main components, namely: (a) yield, which is the return component that reflects the cash flow or income periodically obtained from an investment; (b) capital gain, which is the component of return which is an increase or decrease in the price of a profit and loss for investors.

International trade is a process of exchange based on the voluntary will of each country. The motive for international trade is to get benefits or gains of trade. At present, international trade is a very important economic activity, which involves two or more countries, both in one regional and international region. However, international trade activities can cause trade wars between each country involved in international trade. Trade war itself is defined as an economic conflict that occurs when a country adopts a policy related to the export-import policy on goods or services from other countries that can harm one of the parties involved in international trade.

Research related to stock returns and Rupiah depreciation conducted in Indonesia by Aini [13], Dewi [14] Utami et al. [15]. The results of Aini and Utami et al., research revealed that the event of a strengthening of the US dollar against the Rupiah was an event that became a consideration in investment decisions when investing in Indonesia [13,15]. While the results of Dewi research revealed that the weakening of the Rupiah against the US Dollar was caused by differences in the durability of the company as seen from stock prices [14].

III. Methods

This research uses a quantitative descriptive approach with the aim to explain the events that occur. The data used are secondary data, namely the movement of automotive sector stock prices on the Indonesia Stock Exchange during the study period 24 August 2018 - 13 September 2018. The population in this study is the automotive sector, amounting to 13 companies. The sample determination technique is used by using purposive sampling technique based on automotive companies that report financial statements and is not in a financial distress condition, so that the number of companies sampled in this study is 10 companies out of 13 automotive companies listed on the Indonesia Stock Exchange.

IV. RESULTS

The automotive sector stock return analysis is carried out by calculating the stock price movements during the study period, as follows:

The movement of ASII's stock returns has fluctuated during the window period. At t-7, where there is information about an increase in the FED interest rate, investors respond positively to the information about the increase in the rupiah against the US dollar, but after an overvalued market price at t + 6 at the point 0.0271, investors sell their shares to benefit from the increase stock price and continues until t-2 and t-1.Seen on a t-0, investors begin to respond to rupiah depreciation information by selling their shares. This depreciation causes the undervalued stock price at -0.0424, after the depreciation of the rupiah at t + 1.

When the stock price decreases, investors respond back by buying ASII shares that are falling below the normal price, as evidenced by the increase in stock prices at t + 2 and at the peak of overvalues at t + 3, after that, the stock price fluctuated again. This event is likely the existence of short selling by investors to get the maximum return of the stock price which fell due to the weakening of the rupiah against the United States dollar. Changes in ASII stock returns can be seen in figure 1, following.

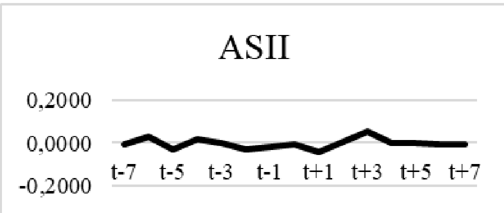

Fig. 1. ASII stock returns.

ASII is one of LQ45's leading shares, which encourages growth that is superior to all share in the automotive sector. ASII controls car sales in Indonesia including Toyota, Honda, Daihatsu, Isuzu, Yamaha, BMW and Peugeot, where Japanese brands are more dominant. This result is in accordance with the Efficiency Market Hypothesis theory, investors respond to all information available. The characteristics of an efficient market, investors react by using information fully and quickly, so that the price of securities changes properly reflecting the information to reach a new balance [16].

AUTO stock return movements in the window period did not experience a significant change at t-7 or when the announcement of the FED interest rate increase, when t-3 AUTO had responded to the information, depreciation of the rupiah against the US dollar as evidenced by weakening AUTO share prices and undervaluation peaks occurred at t-0 which is equal to -0.0209 points.

Investors responded by undervaluing the AUTO share price by buying AUTO shares, as evidenced by an increase in stock prices back at t + 2, but falling back at t + 4 to -0.00217 points and increasing again at t + 6 and t + 7 to 0.0148 points. Investors are very responsive to rupiah depreciation information, because the company's stock price is highly dependent on fluctuations in the rupiah because raw materials are imported and sales of final goods from AUTO companies are exported overseas. In addition, because there are short selling games by investors. The change in AUTO stock returns due to the United States-China trade war can be seen in Figure 2, as follows.

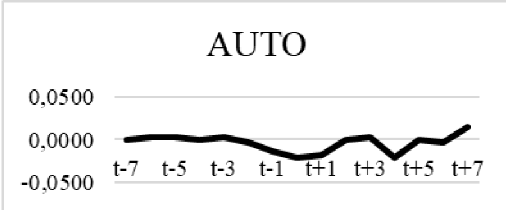

Fig. 2. AUTO stock returns.

With the rupiah depreciation information, the AUTO company responded to this information quite well, this is evidenced by the ever-improving movement of AUTO stock prices, thanks to investors who are always interested in having their shares here in accordance with the Efficiency Market Hypothesis theory. The market hypothesis always reflect information to find a new balance.

BRAM is one of the companies incorporated in the Kordsa Global Group business group from Turkey, which is a marketing company for tires, yarns, finances (nylon, polyester, rayon fiber), nylon tire cables and polyester raw materials. BRAM's products are marketed domestically and abroad, in Asia and the Middle East. BRAM's stock return when the window period did not change at all, only increased at t + 6 by 0.1500 points and then dropped back at t + 7. BRAM has not responded with enough information coming into the capital market.

The lack of market sentiment with the movement of BRAM stock prices due to the lack of productivity of this company promotes the image of the company in the community, can be seen the lack of information or news about the BRAM company causes investors to not respond to the rupiah depreciation information against the US dollar. The Efficiency Market Hypothesis theory, BRAM companies do not respond to outside information that is used to obtain abnormal returns Changes in BRAM stock returns can be shown in Figure 3, as follows.

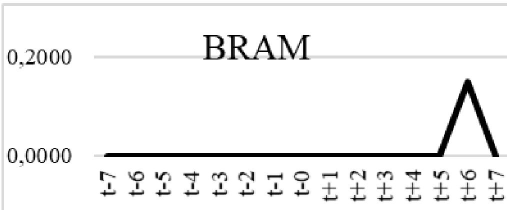

Fig. 3. BRAM stock returns.

Almost the same as a BRAM's stock return, GDYR only experienced an increase in stock returns at t-4 at point 0.0476 due to an increase in the FED interest rate, but the response from investors was rather long. The weakening of GDYR's share price occurred at t + 1 at -0.0136, caused by the depreciation of the rupiah against the US dollar. When there is an undervalue, investors respond by buying shares, but they are not desirable. The increase occurred at t + 7 by 0.0046 points, but not significantly. In the theory of Efficiency Market Hypothesis proposed [16], where investors are recipients of prices, which means that as market participants, investors cannot influence the price of a security. Changes in GDYR stock returns are shown in Figure 4 below.

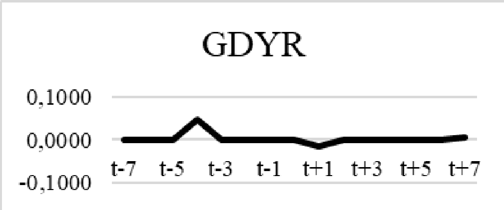

Fig. 4. GDYR stock returns.

Furthermore, the return movement of GJTL is very volatile during the window period. Before GJTL's t-0 responds to the FED interest rate increase information with positive stock price increases, this is one way investors respond by buying GJTL shares from existing information. Investors are aware of information about the depreciation of the rupiah, so investors have retained GJTL shares. The change in GJTL stock returns is shown in figure 5, as follows.

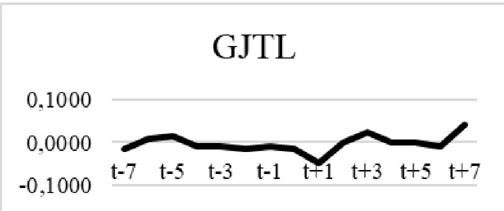

Fig. 5. GJTL stock returns.

After the depreciation of the rupiah at t-0, investors responded by selling their shares at t + 1, as evidenced by GJTL's share price decline at -0.0484, undervaluation was also responding by investors by buying GJTL shares as evidenced by an increase in share price at t + 3, then weakening and back up at t + 7 at the point 0.0417. This fluctuation can be caused by an indication of investors doing short selling, where short selling is an investor buying shares at a broker and waiting for the stock price to fall to get the price below the market. In accordance with the Efficiency Market Hypothesis theory where stock prices are based more on all information that appears on the market, the information that appears here is the depreciation of the rupiah against the US dollar.

Stock returns from IMAS when the window period weakened at t-7 by -0.0217 points. This is because the information about the FED interest rate hike, then the interest rate hike was responding positively by investors who knew there would be a depreciation of the rupiah against the US dollar, as evidenced in the t-4 until the t-1 price fluctuated where investors bought IMAS shares.

At t-0, investors respond to the depreciation of the rupiah by selling their shares to a slump during the t-0 and t + 1 period at -0.1000. After investors find out the price of IMAS shares cannot go down again, the investor responds quickly to buy back IMAS shares. This led to an increase in stock prices at t + 2, arose at the point 0.0330, and fluctuated again. In accordance with the Efficiency Market Hypothesis theory, IMAS responds to all information during the window period, from the increase in the interest rate of The FED which resulted in the depreciation of the rupiah in the United States dollar. The following changes in IMAS stock returns are shown in figure 6.

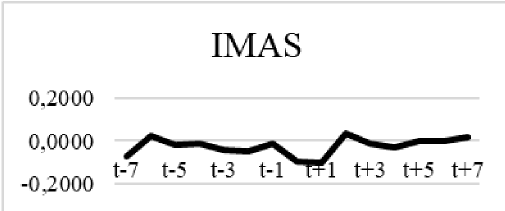

Fig. 6. IMAS stock returns.

INDS 'stock returns at the window of this period were very positive, even though there was information about an increase in the FED interest rate. This can be seen from the movement of returns at t-7 up to t-3 which moves stable. However, at time t-2, t-1 and t-0, information about the depreciation of the rupiah was responded by investors by selling their shares to weaken at -0,1063 points, as shown in Figure 7.

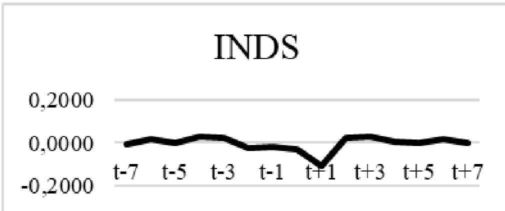

Fig. 7. INDS stock returns.

When the stock price is undervalued, investors respond again with a proven increase in stock prices at t +2 and t +3 to rise to the point 0.0317, then return to stable at t +4 to t +7. It can be seen that INDS only responds to information when depreciating the rupiah on t-2 to t +1. Investor sentiment at INDS is very strong to maintain the stability of stock prices on the stock exchange. In the Efficiency Market Hypothesis theory information that enters the market and is related to a stock, security will result in the possibility of a new equilibrium price shift.

While MASA fluctuations in stock returns often occur during the window period. MASA has responded positively to the information increase in the interest rate of The FED, this is evidenced at t-5 when the stock price rises to touch 0.0256 points, investors sell their shares to get a return. At the time t-2 and t-1, the price of MASA's stock fluctuated again, this was due to the depreciation of the rupiah against the US dollar.

When t-0 the stock price drops to -0.0370 points, causing the stock price to go undervalued, this triggers the investor's reaction by buying shares again at t + 1 and t + 2. Investor resumes selling at t + 3 until the stock price drops at -0.0497. MASA's stock price fluctuated again at t + 5 tot + 7. On the Efficiency Market Hypothesis theory, changes in stock prices in the market efficiently follow a random walk pattern, where the estimation of stock prices cannot be done by looking at past prices of the shares, but rather is based on all information available and appearing in the market. This can be seen from Figure 8 which shows the change in MASA stock returns during the study period.

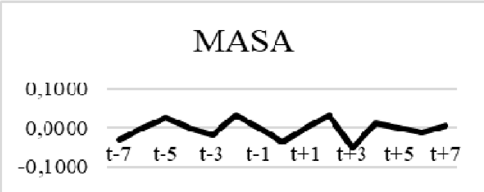

Fig. 8. MASA stock returns.

PRAS responded to the FED's interest rate hike with an increase in share prices up to t-5 at 0.0606 and down at t-3 by -0.0714 points. Investors responded to the rupiah depreciation information against the US dollar, by selling shares which resulted in a decrease in PRAS share prices at t-0 and t +2 by -0.0476 points. The significant increase in t +2 at 0.1667 due to information on the depreciation of the rupiah against the US dollar, the response from investors tended to be slow because investors were still watching and observing the stability of the economy from the impact of the depreciation of the rupiah. The stock price fell back to t +3 and then fluctuated to t + 7.

PRAS is a company that manufactures two- and four-wheeled vehicle wheels made of aluminum alloy, commonly known as racing wheels or aluminum alloys. The company relies heavily on aluminum raw materials so that during the American and Chinese trade wars, PRAS had an impact on the share price of PRAS. The movement of PRAS stock returns is shown in figure 9 below.

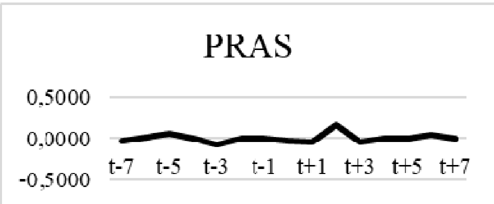

Fig. 9. PRAS stock returns.

SMSM's stock returns have fluctuated during this window period. SMSM investors responded to The FED interest rate hike, which led to a slow but sure rise in share prices up to t-5 and peaked at t-2 at 0.0295 points. Information on the depreciation of the rupiah against the United States dollar has undervalued the share price at -0.0251. Undervalued stock prices encourage investors to buy shares owned by SMSM at t +1. When t +2 investors take advantage of the overvalued share price by short selling, this is evidenced by the weakening of the share price until it drops to -0.0319. At t +5, t + 6 and t +7 stock prices fluctuate again to find a new balance, this is in accordance with the Efficiency Market Hypothesis theory, that information entering the market and relating to a stock's security will result in a possible shift in the equilibrium price the new one,as shown figure 10.

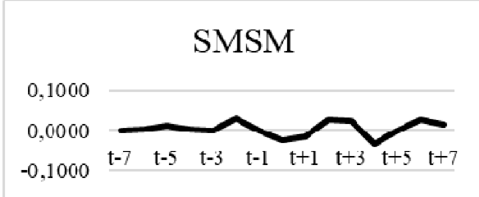

Fig. 10. SMSM stock returns.

V. Discussion

The results of the analysis of 10 companies above, according to the Efficiency Market Hypothesis theory, it can be concluded that the level of information entering the market, including in a half strong market, will cause stock prices to move because public data such as national and international event information includes a country's monetary and fiscal policy, personal data that is, financial statements or changes to the board of directors not because of past stock prices. BRAM, GDYR and PRAS companies responded little to information from outside the market, and the lack of information and also the promotion of the company to the public lure investors to buy the company's shares. In contrast to ASII, AUTO, GJTL, IMAS, INDS, MASA, SMSM which provide information about the company's situation to the public.

With information such as the depreciation of the Rupiah against the United States dollar, investors encourage short selling, which aims to get an undervalued share price. When the stock price is undervalued, investors respond by buying automotive shares at prices below the market price to get high returns in the future.

The occurrence of a trade war between the United States - China has a direct or indirect impact on the Indonesian automotive sector. The direct effect will have an impact on the growth of Indonesia's exports, where the countries that are becoming export destinations will reduce their purchasing power and thus reduce their income. While the indirect impact of this trade war caused the purchasing power in several regions in Indonesia to decline.

VI. Conclusion

Based on the results of this study the abnormal return on the day before the depreciation of the rupiah against the US dollar is smaller than after the depreciation of the rupiah against the US dollar. This difference is caused by the news of the announcement of the FED interest rate increase that led to the depreciation of the rupiah against the US dollar. Investors respond by selling their shares marked by a decline in share prices as seen from a decreased abnormal return.

Stock prices began to rise again after the depreciation of the rupiah against the US dollar, caused by the undervaluation of the stock price when the depreciation of the rupiah against the

US dollar prompted investors to buy shares in the automotive sector at prices below the market to get more profit in the future. come. The market began to fluctuate again proven by an increase in stock returns after the depreciation of the rupiah and seeking a new balance.

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