

PROFITABILITY AND MARKET PERFORMANCE OF AGRICULTURE INDUSTRY IN INDONESIA DURING PANDEMIC PERIOD JANUARY TO AUGUST 2020

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ABSTRACT

Many countries are suffered because of the sudden pandemic attack that causes many parties lose the opportunity to do their work and business, including firm owner, employees, and entrepreneurs. Governments placed a massive lock-down on their population and ordered the closure of business activities. In this situation, companies have to adjust their operational costs and labor costs by cut off the employees. This cause to the sharp decrease in consumption and output of economic. People's purchasing power is greatly reduced and the companies lose their revenue from selling its products. This paper examines the Indonesia's agriculture industry that unexpectedly have benefited during this pandemic, while other countries might have increased performance in other industries related with this situation such as pharmacy, food & beverage, telecommunication, and so on. Thirteen companies in agriculture industry that listed in Indonesia capital market will be used to make this research and those financial data during January to August 2020 will be taken to determine the influence of earning per share, return on asset, price earnings ratio, and firm size to stock return, whereas many theories and research have been developed to determine the exact variable that could increase company's stock return. This study was also to compare result of the previous research which conclude that Indonesian investors are the behavioral finance in respond to market return. Purposive sampling techniques, descriptive statistic, and panel data regression were used to test the hypotheses. This research hopefully gives broader information for corporate in deciding the considered variables to push stock return, also can be used as a reference to conduct next research for academy.

Key words: Earning Per Share, Return on Asset, Price Earnings Ratio, Firm Size, Stock Return

INTRODUCTION

December 2019 was the dramatic situation in all over the world when China announced the spread of the Covid – 19 virus, but people were not too worried and did not think the virus would make it to countries far from China, until March 2020 many governments has to lock-down the activities of its residents to prevent massive spread of the virus, and it caused economic paralysis, including in Indonesia.

Offices, schools, markets, and other public places had to be closed and people could not do the normal activities. Works were done through online media, and made lots of parties should convert the cost of conventional activities to the new ones. Companies had to adjust the number of product and services they serve, time limit for the distribution, and other cost related to the daily activities in company.

In the midst of such situation, there are some industries in Indonesia which still can maintain the production and profits of the company, one of them is agriculture industry. Their stock price relatively decreases during March and April 2020, but move back up on June until August 2020. Government sees the important products provided by these companies are still needed by the citizens during this situation. Different from what was concluded in the study of Thampanya et.al (2020) and added to the result of research from Mazur et al. (2020), agriculture industry in Indonesia is not vey vulnerable in this situation – one of the industries that still can maintain the performance on market, although another industries experienced a very deep declining in sales that effect their stock market price, such as hotels, tourism, restaurants, and aviation industry in Indonesia, and another industries that gain a lot of profit and increase their performance such as healthcare, pharmacy, telecommunication, and software – the similar industries that captured by Mazur et al. (2020) in their research.

Agriculture is one of the mainstay industries in Indonesia. During the second quarter of 2020, contribution of this industry to Gross Domestic Product (GDP) increased to 15.46 % compared to the contribution in the same quarter on 2019 – the only industry from the five main pillars of GDP (manufacturing, agriculture, trade, construction, and mining) that grew positively during this period. We also want to find out what factors that would effect companies' stock return, thus enhance the findings of previous research by Thampanya et al. (2020) that divided investor behavior in responding to market conditions – conventional and behavioral finance, also findings by Zang et al. (2019) that conclude the determination of stock return by many financial area, such as investor sentiment, news- implied volatility, economic policy uncertainty, and technical indicators.

In this paper we investigate the effect of companies' performance on earning per share, return on assets, price earnings ratio, and firm size to stock return as measured by stock price, as concluded by Dai and Zhu (2020), Zhang et.al (2019) and Zarembo et. al (2020).

Data for this study were collected from thirteen out of eighteen firms' financial statement for seven consecutive months, which are January to August 2020 to see the movement of companies' operations during these pandemic periods.

The reminder of this article proceeds as follows. Section 2 reviews the literature review. Section 3 focuses on research methodology, and section 4 concludes the result and discussion.

LITERATURE REVIEW

Stock return reflects the performance of a company when market has fully information (Zutter and Smart, 2019; Zang et al., 2019), but in the real situation, irrational investors have a significant part to influencing a stock price (Thampanyan et al., 2020). Traditional (conventional) views of stock market participants are unlikely to rely on extremely positive or negative stock return forecasts to trade stocks, since they usually hold on risk averse behavior (Zhang et. al, 2019). Although indicators of macroeconomics such as inflation rate, exchange rate, and interest rate might be considered as the fundamental factors that could move the market (Francis and Soffer in Thampanya et.al, 2020), accounting information of firm such as revenue, earning, and assets also determine the fair value of a stock (Chang and Dong in Thampanya, 2020). Companies would make various efforts so that its financial condition can be relied on to continue to be able to produce, covers costs related to current conditions and meet market demands. According to theory of fundamentals and behavioral finance used on previous research by Thampanya et al. (2019), they concluded that fundamental factors directly related to the countries who have stable economic conditions, established financial market regulations and sysem in developed countries, while in developing and emerging market, stocks are hard to determine and sentiment acts as a systematic factor in determining the price. It is assumed that investors who make decisions considering corporate fundamentals and macroeconomic factors are a rational wealth maximizer.

Based on that appraisalment of a company, earning per share as a representative of companies' financial ratios would drive market movement and is perceived to be unbiased, which could be a measurement for investors who buy the stock of this company that expect the future return (Francis and Soffer in Thampanya, 2020).

Company could also show the performance of its profitability through return on asset which measures the overall effectiveness of company in generating revenue by using its available assets (Gitman and Zutter, 2015).

Investors in market would confident and willing to pay a nominal of a firm's earning, thus make a price earnings ratio of company gets higher, as Zaremba et al., (2020) dan Zhang et al. (2019) formulate this ratio as a representative of economic environment. Firm size can be measured by the large number of its asset used to generate sales and revenue, also as a collateral if they need more capital and borrow the money from bank or other financial institutions (Mazur et al., 2020).

Given the foregoing discussion, our corresponding hypothesis are thus the following:

- Hypothesis 1 : Earning per share would effect stock return of a company.
- Hypothesis 2 : Return on asset would effect stock return of a company.
- Hypothesis 3 : Price Earnings Ratio would effect stock return of a company.
- Hypothesis 4 : Firm Size would effect stock return of a company.

RESEARCH METHODOLOGY

The method used in this article to gather samples from the source of data with requirements or several conditions is Purposive sampling (Sugiyono, 2017). The sampling is confined to specific types of those that can provide the desired information because they conform to some criteria set by the researcher (Sekaran and Bougie, 2016). Therefore, the requirements for the sample of this research are:

- a. The company is agriculture industry listed in Indonesia Stock Exchange.
- b. The company's financial statement reported in Rupiah (IDR) denomination.
- c. The company published its quarterly report and available to access by public.

This research took 13 from 18 companies in agriculture industry listed in Indonesia Stock Exchange and used financial data from each companies' website through January to August 2020. It was analyzed by using multiple regression analysis. The table below shows the list of the company selected:

Table 1: Research Samples

No.	Ticker	Company
1	AALI	PT. Astra Agro Lestari Tbk
2	ANJT	PT. Austindo Nusantara Jaya Tbk
3	BWPT	PT. Eagle High Plantations Tbk
4	DSNG	PT. Dharma Satya Nusantara Tbk
5	LSIP	PT. PP London Sumatra Indonesia Tbk
6	JAWA	PT. Jaya Agra Wattie Tbk
7	MGRO	PT. Mahkota Group Tbk
8	PALM	PT. Provident Agro Tbk
9	SGRO	PT. Sampoerna Agro Tbk
10	SIMP	PT. Salim Ivomas Pratama Tbk.
11	SMAR	PT. SMART Tbk.
12	SSMS	PT. Sawit Sumbermas Sarana Tbk.
13	TBLA	PT. Tunas Baru Lampung Tbk.

The dependent variable in this study is stock return, which is the difference between current price and previous price of a stock (Zhang et.al, 2019). The independent variables are (1) earnings per share, measured by earnings available for common stock holder divided by number of common stock outstanding (Gitman and Zutter, 2015), (2) return on assets is determined by earnings available for common stock holder divided by total assets (Gitman and Zutter, 2015) (3) price earnings ratio refers to market price compared with its earning per share (Gitman and Zutter, 2015), and (4) firm size is measured by total assets of a company (Gitman and Zutter, 2015). The equation for base model may follows as:

$$\text{Stock Return} = \beta_0 + \beta_1 \text{EPS} + \beta_2 \text{ROA} + \beta_3 \text{PER} + \beta_4 \text{Firm Size} + \varepsilon$$

Based on the theoretical review and previous researches, the model framework for this research will be pictured in Figure 1:

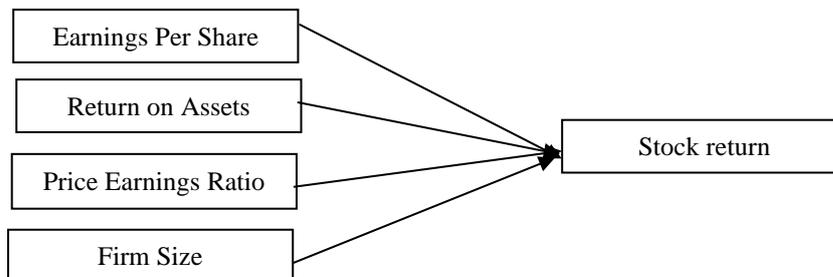


Figure 1 : Research Model

RESULTS AND DISCUSSION

This table below is a hypothesis result.

Table 2: Hypothesis Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-27.020	17.144		-1.576	.118
EPS	.001	.026	.007	.047	.962
ROA	.000	.001	-.119	-.758	.450
PER	.560	.000	.065	.545	.587
FSZ	.024	.011	-.271	2.282	.025

The above table uncovers the regression results. Overall conclusions are: firm size (FSZ) is the only factor that effect stock return. Investors considers the amount of asset company has as a collateral for continuing the production during the precariousness. This is understandable for those companies used as a sample has established dozens even decades ago and consistently provide a basic product for consumer, which is crude and palm oil that used by consumers, even in this difficult situation. Other factors such as earning per share (EPS), return on assets (ROA), and price earnings ratio (PER) are not the important consideration for investors in Indonesia. This result is similar with Thampanya et. al (2020) and also Mazur et. al (2020) found on their research - sentiment acts as a systematic factor in determining the price of the stock. These results make agriculture can survive and even gets big profits during this pandemic period in January to August 2020.

REFERENCES

- Brealey, Richard A., Stewart C. Myers and Alan J. Marcus. 2015. *Fundamentals of Corporate Finance*, Eighth Edition. Singapore: McGraw-Hill Education.
- Brigham, Eugene F., Michael C. Ehrhardt, Annie Koh and Ser-Keng Ang. 2014. *Financial Management Theory and Practice*, An Asia Edition. Singapore: Cengage Learning Asia Pte Ltd.
- Central Bureau of Statistic.
- Dai, Zhifeng, & Zhu, Huan (2020). Stock Return Predictability from a Mixed Model Perspective. *Pacific – basin Finance Journal*, 60 (April), 1 – 18. <https://doi.org/10.1016/j.pacfin.2020.101267>.
- Gitman, Lawrence J. and Chad J. Zutter. 2015. *Principles of Managerial Finance*, Fourteenth Edition. United States: Pearson Education.
- Indonesia Stock Exchange.
- Mazur, M., Dang, M., & Vega, M. (2020). COVID-19 and the march 2020 stock market crash. Evidence from S&P1500. *Finance Research Letters, March*, 101690. <https://doi.org/10.1016/j.frl.2020.101690>
- Ministry of Industry Republic of Indonesia.

Ministry of Trade Republic of Indonesia.

Sekaran and Bougie, 2016. *Research Methods for Business : A Skill Building Approach*, John Wiley and Sons.

Sim, N., & Zhou, H. (2015). Oil prices, US stock return, and the dependence between their quantiles. *Journal of Banking and Finance*, 55(January), 1–8. <https://doi.org/10.1016/j.jbankfin.2015.01.013>

Sugiyono (2017). *Metode Penelitian Bisnis, Edisi Ketiga*. Bandung: ALFABETA.

Thampanya, N., Wu, J., Nasir, M. A., & Liu, J. (2020). Fundamental and behavioural determinants of stock return volatility in ASEAN-5 countries. *Journal of International Financial Markets, Institutions and Money*, 65, 101193. <https://doi.org/10.1016/j.intfin.2020.101193>

The Investment Coordinating Board of the Republic of Indonesia.

The Indonesia Capital Market Institute.

Zaremba, A., Kizys, R., Aharon, D. Y., & Demir, E. (2020). Infected Markets: Novel Coronavirus, Government Interventions, and Stock Return Volatility around the Globe. *Finance Research Letters*, 35(April), 101597. <https://doi.org/10.1016/j.frl.2020.101597>

Zhang, Y., Wei, Y., Ma, F., & Yi, Y. (2019). Economic constraints and stock return predictability: A new approach. *International Review of Financial Analysis*, 63(February), 1–9. <https://doi.org/10.1016/j.irfa.2019.02.007>

Zutter, Chad J., & Smart, Scott. B. 2019. *Principles of Managerial Finance*, Fifteenth Edition. Pearson Education.

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