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# THE EFFECTS OF FINANCIAL RATIOS ON SHARE PRICES (AN EMPIRICAL STUDY OF AGRICULTURAL SECTOR COMPANIES PLANTATION SUBSECTOR LISTED ON THE INDONESIA STOCK EXCHANGE (IDX) FOR THE 2013-2019 PERIOD)

*Syifa Refianti[1], Dian Weningsih[2], Nur Aswa Rahmadani[3], Renny Vutezah[4], Debbie Christine[5]*

[12345]Faculty of Economics and Business, Widyatama University

[1]syifa.refianti@widyatama.ac.id, [2]Dian.weningsih@widyatama.ac.id, [3]Nur.aswa@widyatama.ac.id,

[4]Renny.vutezah@widyatama.ac.id, [5]debbie.christine@widyatama.ac.id

**ABSTRACT**

This study aims to determine whether Return on Assets (ROA), Debt to Equity Ratio (DER), and Price Earnings Ratio (PER) affect the share prices in agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange (IDX) for the 2013-2019 period, both partially and simultaneously. This research uses a quantitative method with a secondary data analysis approach. The data used in this study are documentation data or secondary data. Data collection method used is document collection method. The population in this study is agricultural sector companies' plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period, amounting to 19 companies. The selected research sample includes 11 agricultural sector companies plantation subsector. The research sample was selected using one of the sampling techniques, namely nonprobability sampling with purposive sampling method. The independent variables in this study consist of ROA, DER, and PER. In addition, the dependent variable referred to in this study is the share price. The method used for data analysis in this study is multiple linear regression analysis. The results of this study indicate that partially, ROA and DER affect the share prices, while PER does not affect the share prices. Simultaneously, ROA, DER, and PER affect the share prices.

**Keywords:** Return on Assets (ROA), Debt to Equity Ratio (DER), Price Earnings Ratio (PER), share prices.

## INTRODUCTION
### *Background*
Indonesia is an agrarian country whose agricultural sector has become the foundation for improving the welfare of the country and its people. According to Latumaerissa (2015: 308), an agrarian country is characterized by the existence of the agricultural sector as a strategic sector which has an important role in the survival of the community and the national economy. The agricultural sector in Indonesia has been the focus of meeting domestic food supply needs for decades. In addition, economic growth in Indonesia is supported by one of the businesses in the agricultural subsector, namely plantations.

Agricultural companies can take advantage of the vast opportunities of Indonesia's strategic natural wealth to develop even greater. This requires adequate funds to produce large returns in the future. One of the ways by which companies can raise funds is to become a company listed on the Indonesia Stock Exchange (IDX) (Widoatmodjo, 2016: 27). Agricultural companies that have been listed on the IDX have an obligation to publish their financial statements on the Stock Exchange. According to Kasmir (2019: 6), financial statements have the purpose of providing financial information of a company at a certain time or certain period to internal and external parties who have an interest in the company. Therefore, investors can use financial statements to analyze and evaluate the ability of the company in a certain period. The instrument that can be used by investors to understand financial statements is financial ratios because they are beneficial for investors to make the right investment decisions.

This research focuses on financial ratios especially Return on Assets (ROA), Debt to Equity Ratio (DER), and Price Earnings Ratio (PER). This decision is made because financial ratios are considered as the factors that influence share prices (Samsul, 2015: 210). ROA is one part of the profitability ratios that illustrates the extent to which the ability of assets owned by the company can generate profits (Tandelilin, 2017: 374). ROA is important to be observed by investors because this ratio shows the level of return that will be received by investors from assets owned by the company. DER is a part of the leverage ratio. This ratio is used to explain the extent to which debt funding is used when compared to equity funding (Van Horne & Wachowicz Jr., 2017: 190). Investors can also use PER to analyze financial statements. Based on Brigham and Houston (2018: 144), this ratio is a part of the market value ratio that is used to show the amount of money paid by investors for each current income reported by the company. In addition, the company's share price according to Brigham and Houston (2018) can describe the wealth of shareholders. Therefore, maximizing the company's share price can be interpreted as maximizing shareholder's wealth. The share price itself is very dependent on management actions and economic and political conditions.

This research was conducted with reference to previous studies which discussed similar factors. The research conducted by Saputra, Veny and Mayangsari (2018) shows the results that ROA and DER do not have a significant positive effect on share prices. However, PER has a significant positive effect on share prices. Similar results were obtained from studies conducted by Wildatunjanah and Suparningsih (2019)

where DER has no significant effect on share prices while PER shows a significant effect on share prices. In another study conducted by Samsuar & Akramunnas (2017), different things were found. This study shows the results that ROA and DER affect the share prices. Furthermore, Anwar and Rahmalia's research (2019) shows that PER has no effect on share prices.

### Research Problems
Furthermore, the research problems associated with this research are:

1. Whether ROA affects the share prices in agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

2. Whether DER affects the share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

3. Whether PER affect the share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

4. Whether ROA, DER, and PER affect the share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

### Research Objectives
The objectives of this research are listed as follows:
5. To find out whether ROA affects the share prices in agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

6. To find out whether DER affects the share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

7. To find out whether PER affects the share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

8. To find out whether ROA, DER, and PER affect the share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

### Research Benefits
The research is expected to provide the benefits for the following stakeholders:

1. Agricultural Companies
   This research is expected to benefit companies, especially in the agricultural sector, in developing their business in terms of company operations and financial reporting so as to attract investors to invest.

2. Investors
   This research is expected to provide benefits to investors in the form of knowledge and information about stock investments so that investors can take the right stock investment decisions and get the expected return.

3. Academics
   This research is expected to provide benefits for academics in the form of additional knowledge about the effect of financial ratios on share prices. In addition, this research is expected to provide motivation for academics to make further observations for science development.

4. Research
   This research is expected to contribute as the basis in developing further research in the field of finance.

## LITERATURE REVIEW
### *Theoretical Basis*
Return on Asset

Return on Assets (ROA) is a ratio that illustrates the extent to which the ability of assets owned by the company can generate profits (Tandelilin, 2017: 374). This ratio is used to evaluate the overall effectiveness of the company. Investors look at ROA to determine whether their investment will make a profit or not, especially because ROA can indicate the rate of return that investors will get from company-owned assets. By knowing ROA, investors can have information about the company's current and future income and the stability of the income which can then be used as a reference for making investment decisions. According to Van Horne & Wachowicz Jr. (2017: 154), corporate income information obtained from ROA is considered important in making investment decisions because this factor affects the company's ability to pay dividends to investors. The ROA formula according to Ritz & Pizzica (2015) is as follows:

$$\text{Return on Asset} = \frac{Net\ Income}{Total\ Assets} \qquad (1)$$

Debt to Equity Rasio

Debt to Equity Ratio (DER) according to Ritz & Pizzica (2015: 42) is interpreted as a financial ratio used to measure how much a company is funded by creditors compared to how much funding provided by shareholders. DER is a measure that determines the financial condition of a company, which means that companies which have a lower DER generally have lower risk than companies that have a higher DER level. Furthermore, based on Schroeder, Clark, & Cathey (2020), "when the ratio of debt to company ratio increases, the market perception of risk in company shares will also increase." In other words, if a company has an increased DER, then stock investors will assume that the risk inherent in the company shares also increases because the share price becomes cheap and unprofitable. The formula for calculating DER according to Van Horne & Wachowicz Jr. (2017) is as follows:

$$\text{Debt to Equity Ratio} = \frac{Total\ Liabilities}{Shareholders'\ Equity} \qquad (2)$$

Price Earnings Ratio

Price Earnings Ratio (PER) based on the exposure of Brigham & Houston (2018) is one of the standards that can be used to determine whether a share has been appropriately valued. PER can provide information about the prices that investors

need to pay for each profit reported by the company. If the PER of a company's shares is much higher than the industry average and if the company's potential for growth and risk is considered relatively the same as other companies in the same industrial area, then it can be assumed that the share price is considered too high. Conversely, if a company's PER is too low below the average, then there is no change in the company's growth prospects and risks, and overall market PER is constant or even increasing. Furthermore, it can be concluded that there are indications that the company's shares have the value which is too low. The PER formula based on Brigham & Houston (2018) is as follows:

$$\text{Price Earnings Ratio} = \frac{\text{Share Price}}{\text{Earnings per Share}} \qquad (3)$$

Share Price
Share prices represent shareholder wealth based on expected cash flows in the coming years, not just in the current year. Therefore, maximizing share prices requires the observation on the company's long-term operations (Brigham & Houston, 2018). However, the company's share price is very easy to increase or decrease over time (Patel, 2007). This happens because of changes in conditions and new information obtained by investors about the company's prospects. In addition, according to Halim (2019: 26) the market price of shares is formed from the selling price from one investor with another investor. In addition, if the market is closed at the end of the share exchange, the market price becomes the closing price.

### Conceptual Framework
The Effect of Return on Assets (ROA) on Share Prices
Return on Assets (ROA) is a ratio used to see the effectiveness of the company in terms of the ability of assets to generate profits. Investors are very interested in the profits made by the company at this time and in the future because this reflects the profit they will get. This ratio is very useful for investors because it can help assess how their investment in companies is managed so as to produce the amount of expected return. When the company succeeds in increasing the value of ROA, investors will respond positively to this because the company has the ability to generate good profits from the use of maximum assets. Investors will feel confident in investing their funds because they will get the expected return. This will cause the company's share price to increase. Furthermore, it can be concluded that the higher the company's ROA, the higher the company's share price. Research on ROA conducted by Samsuar & Akramunnas (2017) also shows the results that ROA has a positive and significant effect on share prices. In addition, research by Ilmiyono (2019) and Haryanti & Murtiasih (2019) also shows the same result proving that ROA affects share prices.

The Effect of Debt to Equity Ratio (DER) on Share Prices
Debt to Equity Ratio (DER) is a ratio that shows how much a company is funded by debt compared to equity. If the company's funding from debt increases, this can cause the DER value to increase. This situation will cause the company to have very high financial risks. High risks will cause investors to think the company is not healthy or not in a favorable condition to be a place to invest. Thus, investors will release their shares because they are considered to be incapable of providing the expected returns. This will cause the company's share price to fall. Therefore, the higher the company's

DER, the lower the company's share price. In a study conducted by Samsuar & Akramunnas (2017), the results show that DER has a positive and significant effect on share prices. Haryanti & Murtiasih's research (2019) also shows the results that DER has an effect on share prices.

The Effect of Price Earnings Ratio (PER) on Share Prices

Price Earnings Ratio (PER) is a part of the market value ratio that shows how much money is willing to be paid by investors for each profit reported by the company. Investors are interested in using this ratio because they consider companies that have the ability to generate profits are seen as companies that have good prospects and do not have a large risk. Investors like to invest in profitable companies and this is shown by companies that have a high PER value. The more investors investing in a company, the higher the company's share price. Thus, it can be concluded that the greater the PER, the higher the share price of a company. Research on PER conducted by Astuty (2017) shows the results of Price Earnings Ratio (PER) which has a significant effect on share prices. Research conducted by Saputra, Veny, & Mayangsari (2018) shows the same results as the previous study in which the results, namely PER, has a positive and significant effect on share prices.

The Effects of ROA, DER, and PER on Share Prices

In the previous discussion it was explained that based on theories, ROA, DER, and PER partially show an influence on share price movements. This situation shows that the three of them also have a great opportunity to influence the share price simultaneously. This can occur because investors in conducting an analysis, generally see three main factors consisting of profitability, corporate funding, and also the market value of the company, all of which are used to determine the company's financial condition and performance. This is supported by the previous research conducted by Saputra, Veny, & Mayangsari (2018) which shows the results that ROA, DER, and PER together can affect stock prices.
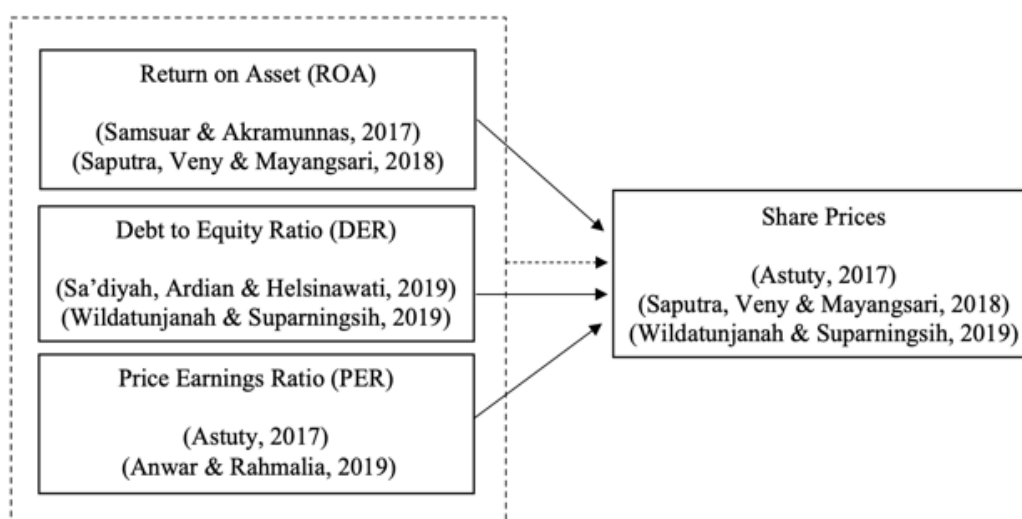


Figure 1: Conceptual framework

### Research Hypotheses

H1 ROA affects the share prices in agricultural sector companies plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

H2 DER affects the share prices in agricultural sector companies plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

H3 PER affects the share prices in agricultural sector companies plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

H4 ROA, DER, and PER affect the share prices in agricultural sector companies plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

## RESEARCH METHOD

This research uses a quantitative research method by means of a secondary data analysis approach. The data used in this study are documentation data or secondary data providing financial information in the form of financial statements and share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period. Research data were obtained from www.idx.co.id and www.id.investing.com. Data collection method used in this research is document collection method. The population referred to in this study are 19 companies which are included in the agricultural sector - the plantation subsector listed on the Indonesia Stock Exchange. The research sample was determined using a nonprobability sampling technique namely the purposive sampling method, so that 11 companies that met the criteria were selected. Below are the criteria used as a basis for conducting purposive sampling:

1. Agricultural sector companies - the plantation subsector published annual financial reports consistently in the 2013-2019 period on the Indonesia Stock Exchange.

2. Agricultural sector companies - the plantation subsector published annual reports consistently in the 2013-2019 period on the Indonesia Stock Exchange.

3. Agriculture sector companies - plantation subsector that have negative equity values.

The independent variable of this study consists of Return on Assets (ROA), Debt to Equity Ratio (DER), and Price Earnings Ratio (PER), while the dependent variable is share prices. Analysis of the data in this study used Eviews 10. Data analysis was carried out including descriptive statistics, selection of regression models, multiple linear regression analysis, classic assumption tests, F statistical tests, and statistical tests t.

## FINDINGS AND DISCUSSION
### *Descriptions of Research Results*
Analysis of Multiple Linear Regression

Table 1: Results of multiple linear regression analysis

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 702.0936 | 1669.367 | 0.420575 | 0.6753 |
| X1_ROA | 15020.50 | 4825.076 | 3.113008 | 0.0026 |
| X2_DER | 1333.044 | 558.5866 | 2.386459 | 0.0196 |

| X3_PER | -0.279110 | 1.380205 | -0.202223 | 0.8403 |
|--------|-----------|----------|-----------|--------|

Source: Data Analysis Results of Eviews 10

$$\text{Share Price} = 702{,}0936 + 15020{,}50 \text{ ROA} + 1333{,}044 \text{ DER} - 0{,}2911 \text{ PER} + 1669{,}367$$
(4)

In reference to table 1, the panel regression model arrangement is obtained based on multiple linear regression analysis as follows.

Goodness of Fit

Table 2: The results of goodness of fit with the coefficient of determination

| R-squared | 0.132438 | Mean dependent var | 302.2151 |
|-----------|----------|--------------------|----------|
| Adjusted R-squared | 0.096785 | S.D. dependent var | 1475.190 |
| S.E. of regression | 1401.985 | Sum squared resid | 1.43E+08 |
| F-statistic | 3.714622 | Durbin-Watson stat | 0.700277 |
| Prob(F-statistic) | 0.015168 | | |

Source: Data Analysis Results of Eviews 10

Based on table 2, the coefficient of determination ($R^2$) of 0.132438 is obtained, meaning that the contribution of the ROA variable (X1), the DER variable (X2), and the PER variable (X3) during the study period starting from 2013-2019 had an effect of 13,24% of the variable Share Price (Y). The remaining 86.76% is influenced by other variables not included in the study.

The F-test

Table 3: Simultaneous test results (F-test)

| R-squared | 0.132438 | Mean dependent var | 302.2151 |
|-----------|----------|--------------------|----------|
| Adjusted R-squared | 0.096785 | S.D. dependent var | 1475.190 |
| S.E. of regression | 1401.985 | Sum squared resid | 1.43E+08 |
| F-statistic | 3.714622 | Durbin-Watson stat | 0.700277 |
| Prob(F-statistic) | 0.015168 | | |

Source: Data Analysis Results of Eviews 10

Based on table 3 it is known that the calculated F value (F-statistic) is 3.714622 and the F-statistic probability value is 0.015168. F value (F-statistic) of 3.714622 > F table of 2.73 and F-statistic probability value of 0.015168 < 0.05 then H0 is rejected and Ha is accepted. Therefore, it is concluded that all independent variables (X) consisting of the variables ROA (X1), DER (X2), and PER (X3) simultaneously have a significant effect on the dependent variable namely Share Price (Y).

The t-test

Table 4: Partial test results (t-test)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|-------|
| C | 702.0936 | 1669.367 | 0.420575 | 0.6753 |
| X1_ROA | 15020.50 | 4825.076 | 3.113008 | 0.0026 |
| X2_DER | 1333.044 | 558.5866 | 2.386459 | 0.0196 |
| X3_PER | -0.279110 | 1.380205 | -0.202223 | 0.8403 |

Source: Data Analysis Results of Eviews 10

Based on table 4 it is known that the ROA variable (X1) has a calculated t-value (t-statistic) of 3.113008 and a probability value of t-statistic of 0.0026. The t value (t-statistic) of 3.113008> t table value of 1.99254 and t-statistic probability value of 0.0026 < 0.05 then H01 is rejected and Ha1 is accepted. Therefore, it can be concluded that the ROA variable (X1) partially has a significant effect on the dependent variable, namely the Share Price (Y).

Furthermore, the DER variable (X2) has a calculated t-value (t-statistic) of 2.386459 and a probability value of t-statistic of 0.0196. The t value (t-statistic) of 2.386459 > t table value of 1.99254 and t-statistic probability value of 0,0196 < 0.05 then H02 is rejected and Ha2 is accepted. Therefore, it is concluded that the DER variable (X2) partially has a significant effect on the dependent variable, namely the Share Price (Y).

On the other hand, the PER variable (X3) has a t-value (t-statistic) of -0.202223 and a probability value of t-statistic of 0.0026. The t value (t-statistic) of -0.202223 < t table value of 1.99254 and t-statistic probability value of 0.8403 > 0.05 then H03 is accepted and Ha3 is rejected. Therefore, it is concluded that the variable PER (X3) partially has no significant effect on the dependent variable, namely the Share Price (Y).

### *Discussion of Research Results*
The Effect of ROA on Share Prices
The partial test results show that statistically, the effect that ROA has on the share price is significant because the t-statistic probability value of 0.0026 is smaller than 0.05 and t value of 3.113008 is greater than t table of 1.99254. In addition, the company whose ROA variable is found the most influential on the share price was PT Sawit Sumbermas Sarana Tbk. in 2014, and the company that has the least ROA effect on the share price was PT Provident Agro Tbk in 2013.

PT Sawit Sumbermas Sarana Tbk. experienced a maximum increase in its ROA value in 2014 compared to other companies in the industry from 2013 to 2019 because the company's total assets in 2014 increased by 8.9% to Rp. 4,032.9 billion. The main contribution to the increase in total company assets came from time deposits and loans to related parties. In addition, an increase in the ROA value of PT Sawit Sumbermas Sarana Tbk. was influenced by the company's net profit in 2014 which increased by 16.8% from the previous year to Rp. 737.8 billion. The company's net profit increased because the company could increase sales throughout 2014 as a result of an increase in the average selling price of Palm Oil and other product prices, and an increase in interest income followed by a decrease in the company's financial burden, as a result of optimizing the company's capital structure. In addition, the increase in ROA of PT Sawit Sumbermas Sarana Tbk. in 2014 was followed by an increase in share prices. This shows that PT Sawit Sumbermas Sarana Tbk. has used its own assets optimally so that it leads to effectiveness in the company which can be seen from the company's ability to generate an increase in net profit. According to Van Horne & Wachowicz Jr. (2017: 154), corporate income or profit information obtained from ROA is considered important in making investment decisions because these factors affect the company's ability to pay dividends to investors. This will directly

affect the increase and decrease in the company's share price. Therefore, the more the company's ROA increases, the more investors believe that the assets owned by the company have been used maximally to generate profits and the company's share price will also increase.

In addition, PT Provident Agro Tbk. in 2013 produced the lowest ROA value compared to other companies in the industry from 2013 to 2019. This condition occurred because PT Provident Agro Tbk. experienced a 21.41% increase in the company's total assets from the previous year with the main contribution coming from increased plant and non-plant fixed assets related to capital expenditure, TBM maintenance, an increase in revaluation surplus on land and plant fixed assets, and an increase in cash and cash equivalents from the remaining funds from the Limited Public Offering. However, this was not followed by an increase in the company's net profit which actually showed a greater negative value than the previous year. The losses incurred were due to the increase in the company's sales expenses which came from the increased transportation costs of sales and also the increase in sales volume of Crude Palm Oil (CPO). In addition, losses were also caused by an increase in foreign exchange expense in 2013 as a result of the weakening of the Rupiah exchange rate against the US Dollar as well as an increase in interest expense on loans due to increasing loans from banks and third parties. The low ROA value of PT Provident Agro Tbk. in 2013 was followed by a small share price of the company. This situation shows that PT Provident Agro Tbk. has not utilized its assets to its full potential to generate large sales throughout 2013 so that net profit in 2013 has not shown expected results which also caused PT Provident Agro Tbk. shares less attractive to investors and the company's stock price has become smaller or decreased from the previous period.

The results of this study are in line with research conducted by Tenriola Samsuar and Akramunnas (2017) where the results of the study show that Return on Assets has a positive and significant effect on share prices. In addition, research by Ilmiyono (2019) and Haryanti & Murtiasih (2019) also shows results that are still in line, namely ROA affecting share prices.

The Effect of DER on Share Prices
The partial test results show that statistically, the effect given by DER to the Share Price is significant because the t-statistic probability value of 0.0196 is smaller than 0.05 and t value of 2.338459 is greater than t table of 1.99254. In addition, the company whose DER variable has the most influence on share prices is PT Tunas Baru Lampung Tbk. in 2016, while the company whose DER variable has the least influence on the Share Price was PT Austindo Nusantara Jaya Tbk in 2013.

PT Tunas Baru Lampung Tbk. in 2016 showed a high DER value compared to other companies in the agricultural sector - the plantation subsector from 2013 to 2019. This was due to the company's total liabilities increasing by 43% from the previous year. The main contribution that causes an increase in corporate liabilities is an increase in bank loans, account payables, and advances received. However, the increase of company's equity of 18% from the previous year, was mainly obtained from an increase in the company's net profit in 2016. Therefore, it can be concluded that the company uses more funds from liabilities compared to funds from equity to finance

investment activities and capital expenditures for land expansion and new oil palm cultivation. In addition, the high DER value from PT Tunas Baru Lampung Tbk. in 2016 was followed by an increase in its share price. This shows that PT Tunas Baru Lampung Tbk. uses the source of funds from liabilities to finance the company's operations, investments and expansion. The DER variable is useful in determining the company's financial condition which has implications for investor decision making as well as the rise or fall of the company's share price. A high DER variable value indicates a higher risk than the one with a low value. Therefore, creditors in general would prefer this ratio to be lower. The lower this ratio, the higher the level of corporate funding provided by shareholders, and the greater the protection for creditors in the event of depreciation of assets or huge losses. Conversely, shareholders prefer this ratio to be higher because they believe it can increase the expected profit (Brigham & Houston, 2018: 138). Thus, the higher the company's DER, the more investors believe that the use of liabilities can maximize the profits of the company so that investors can get dividends. As a result, investors will be interested in buying company shares and the company's share price will also increase.

On the other hand, PT Austindo Nusantara Jaya Tbk. in 2013 showed a small DER value compared to other companies in the industry from 2013 to 2019. The small company DER value was caused by a decrease in total company liabilities as a result of settlement corporate income tax payable, repayment of bank loans, a decrease in post-employment benefit (translation effect) and deferred revenue related to a sale and lease-back transaction in one of the company's subsidiaries. Total equity in 2013 increased compared to before, mainly due to an increase in capital stock and additional paid-in capital related to the Initial Public Offering. The increase in retained earnings from current year's net income was offset by the decrease in other comprehensive income from the cumulative translation adjustment. This situation shows that PT Austindo Nusantara Jaya Tbk. downsized its liabilities because this company is more focused on increasing its ability to meet obligations rather than financing operations, making investments, and expanding business so that the contribution of funding from liabilities is smaller than equity. In addition, the small DER value from PT Austindo Nusantara Jaya Tbk. in 2013 was followed by a small share price of the company. This situation shows that PT Austindo Nusantara Jaya Tbk. in 2013 did not use liabilities to finance operations and investment activities that played a role in increasing the company's net profit. Consequently, investors were less interested in buying shares of PT Austindo Nusantara Jaya Tbk. because it does not provide benefits. This will have an impact on the company's share price to be further decreased.

The results of this study are in line with research conducted by Tenriola Samsuar and Akramunnas (2017) which shows that DER has a positive and significant effect on share prices. In addition, research conducted by Haryanti & Murtiasih (2019) also shows the results that DER has an effect on share prices.

The Effect of PER on Share Prices
Partial test results show that statistically, the effect given by PER to the share price is not significant because the t-statistic probability value of 0.8403 is greater than 0.05, and t value of -0.202223 is smaller than t table of 1.99254. Even so, PER still has an effect on share prices, although the effect is small. The company whose PER variable value is considered the most influential on its share price is PT Salim Ivomas Pratama

Tbk. in 2018, while the company whose PER effect is low on share prices is PT Astra Agro Lestari Tbk. in 2019.

PT Astra Agro Lestari Tbk. in 2019 was known to have a high PER value, causing the company's share price to decrease. Conversely, PT Salim Ivomas Pratama Tbk. in 2018 had a small PER value so that the company's share price increased. This can happen because the shares of both PT Astra Agro Lestari Tbk., and PT Salim Ivomas Pratama Tbk. were influenced by the reaction of investors to the price that must be paid for every profit they can get from investing (Brigham & Houston, 2018). Therefore, according to the results of the study, investors will be more interested in buying shares of PT Salim Ivomas Pratama Tbk. than PT Astra Agro Lestari Tbk., because a small PER indicates that the costs incurred is less, but the generated benefits generated are in accordance with expectations.

The results of this study are in line with research conducted by Handayani, R. Riana Dewi, and Suhendro (2018) which shows that PER has a negative and not significant effect on share prices. Other research on PER conducted by Astuty (2017) shows different results where PER has a significant effect on share prices. Research conducted by Saputra, Veny, & Mayangsari (2018) also shows the same results as Astuty's study in which the result is that PER has a positive and significant effect on share prices.

The Effects of ROA, DER, and PER on Share Prices
Simultaneous test results show the F-value (F-statistic) of 3.714622 is greater than the F table of 2.73, and the F-statistic probability value of 0.015168 is smaller than 0.05. This shows that ROA, DER, and PER have a significant influence on the share prices of agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the period of 2013-2019. In addition, the companies whose ROA, DER, and PER affect share prices were PT Sinas Mas Agro Resources and Technology Tbk. in 2013.

PT Sinas Mas Agro Resources and Technology Tbk. generated high share price in 2013 because the company had ROA and DER values that were higher than the average even though the PER value was overvalued compared to the average. This shows that the company has a good ability to generate profits through the use of maximum assets, financing for operations, investment, and expansion using more liabilities even though the price paid by investors for each profit to be obtained is too high.

The results of this study are in line with the research conducted by Saputra, Veny, & Mayangsari (2018) which shows the results that ROA, DER, and PER together can affect share prices.

## CONCLUSION AND RECOMMENDATION
### *Conclusion*
1. Based on the results and discussion, the conclusions are made as follows:

2. ROA has an effect on share prices in agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

3. DER has an effect on the share prices in agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

4. PER has no effect on share prices in agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

5. ROA, DER, and PER affect the share prices in agricultural sector companies - plantation subsector listed on the Indonesia Stock Exchange for the 2013-2019 period.

### *Recommendation*

Recommendations that the author can give based on the results and discussion are listed as follows.

6. For companies in the agricultural sector - plantation subsector

    a. PT Provident Agro Tbk. should always evaluate the company's performance in the periods where the ROA value is small. This is considered important by the company because its assets need to be evaluated as to whether they have been used to the maximum in generating net profit each year.

    b. PT Austindo Nusantara Jaya Tbk. should evaluate the source of capital used to finance the company's operations. Capital originating from liabilities needs to be considered for funding company business activities because company plans such as operations, investments and company expansion can be realized more quickly by being funded by liabilities. As a result, PT Austindo Nusantara Jaya Tbk. can immediately generate profits for the company.

    c. PT Astra Agro Lestari Tbk. should pay attention to the level of profits to be received by investors in addition to continuing to try to increase the company's share price, because the profits obtained by investors come from the net profit generated by the company. Therefore, PT Astra Agro Lestari Tbk. must try to generate a net profit each year so that investors are more interested in investing in the company.

7. For investors

It is recommended that before making a choice to invest in the shares of companies in the agricultural sector - the plantation subsector, firstly investors need to do several things including:

    a. understanding the conditions and growth prospects of the company to be chosen,

    b. analyzing the company's financial statements by using financial ratios such as the ones used in this study, namely ROA, DER, and PER or other financial ratios,

    c. analyzing the factors that can affect a company's share price both internally and externally.

These three things need to be done to choose the right company to be used as a place to invest, or in other words, the companies that can provide high returns with low risk.

8.  For further research

Future studies can consider the following recommendations:
   a.  The chosen research subject should be different from this study. The researcher suggests choosing companies in the mining sector as the new research subjects. The mining sector consists of the coal mining, oil and gas production, soil or rock excavation, and metal and mineral mining subsectors. This sector can be selected for further research subjects because the number of research in this sector is still relatively small.

   b.  Research objects that can be selected or added for further research are sales growth, bond ratings, dividend policies, and others.

   c.  Research variables that can be selected for further research if the research object is the same as this study, are the independent variables including Return on Equity (ROE), Debt to Total Asset Ratio (DAR), Earnings per Share (EPS), Dividend Payout Ratio (DPR), etc.

   d.  The observation period can be extended to 10 periods or even more.

Some of the recommendations above are expected to be able to complete and develop further research in the field of finance in order to provide better results.

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