

## Analysis of Asset Growth, Capital Structure to Profitability in Plantation and Food Crop Industry Sub-Sector Companies Listed on IDX

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**Abstract.** The objective of this study is to examine and evaluate the relationship between Asset Growth, Capital Structure, and Profitability. This research is conducted at the Plantation and Food Crop Industry Sub-Sector Company, which is publicly traded on the Indonesian Stock Exchange. The data utilized is secondary data, specifically in the form of financial reports. The employed methodology for data analysis is panel data regression analysis. The sample for this research consists of all companies in the Plantation and Food Crops Industry Sub Sector that are registered on the IDX. There are a total of 23 companies, and a total of 92 financial reports. The research examines the independent factors of asset growth and debt to equity ratio (DER). The dependent variable is quantified using the metric of return on equity (ROE). The research findings indicate that there is a positive and statistically significant relationship between the increase of assets and the debt to equity ratio (DER) and the return on equity (ROE). At the same time, both the Asset Growth and debt to equity ratio (DER) factors have a positive and considerable impact on return on equity (ROE). The overall impact of all variables is 65.73%.

**Keywords:** Profitability, Asset Growth, Capital Structure.

**Article history:** Received: Mar 2024; Revised: Apr 2024; Accepted: Apr 2024; Available online: Apr 2024

**How to cite this article:** Siregar, H.F., Sari, P.B. (2024). Analysis of Asset Growth, Capital Structure to Profitability in Plantation and Food Crop Industry Sub-Sector Companies Listed on IDX. *Journal of Community Research and Service*, 8(1).

### 1. Introduction

Increasingly uncertain economic conditions make many companies experience funding problems in financing their operational activities. Funding issues refer to capital where capital is the residual right to an entity's assets after deducting debt. Capital is needed both when the company is establishment, when the company is running normally, and when the company is expanding its business [1]. The source of funding can come from self-funding by the owner or come from external parties in the form of debt. When it comes to being able to compete with other businesses, having a healthy firm that reflects efficiency in corporate performance will prove to be the most important requirement. In order for the firm to be successful in achieving its intended goals, it is dependent on the capacity of its managers to manage the organization through the application of strategy as well as means that are both effective and efficient. To achieve greater profitability is the objective of any business. In this particular piece of research, the author makes use of return on equity, which demonstrates that return on equity is the capacity of capital to measure profit after tax using its own capital that has been invested in the venture. As a result of the rise in the company's profitability, the company is able to generate substantial profits, which enables the company to expand its operations and fulfill its commitments.

With large assets, it is very possible for a company to develop its business so that the company can expand its market. By expanding the market, it is anticipated that profits will increase, which will allow the company to be able to pay its obligations and distribute dividends to shareholders. Therefore, the growth of assets owned by the company always increases, which means that the asset is getting bigger. The quantity of assets that are owned by the firm, which includes not only the rights of the company but also rights from

third parties, due to the fact that some of these rights originate from loans or debts paid by the company. Every corporation is required to meet its funding requirements in appropriate quantities, using both its own capital and debt as sources of funding. Whenever there is an increase in the operations of the firm, it is imperative that the availability of sufficient cash to finance the activities of the company be met immediately in order to eradicate any potential barriers. On the other hand, when the operations of the company decrease, it will result in an excessively big cash quantity, and there will be an excess of capital that will become a burden for the entire organization. Consequently, management is required to develop capital structure rules in order to ensure that its funding is both effective and efficient.

The relationship between a company's debt and its own capital is referred to as the capital structure, and it plays a significant part in the financing of the company's operational activities. It is essential for each company organization to make judgments concerning their capital structure in order to remain competitive in a market that is becoming increasingly competitive. According to Margareta (2011), the decision about finance is one of the significant decisions that financial managers must make in respect to the operational operations of the organization. The financial management of the firm must therefore exercise caution when defining the capital structure that is anticipated by the company. This is necessary in order to enhance the value of the company and to achieve a competitive advantage in the face of other businesses. The contribution that plantations make to the Gross Domestic Product (GDP), the number of jobs they create, the amount of money they bring in from exports, and the amount of money they bring in from taxes are all examples of the significant role that plantations play in the national economy. Plantations are considered to be the backbone and support of the national economy. The production of palm oil is a plantation commodity that plays an important part in the broader economic growth of Indonesia. In addition to being the greatest producer of palm oil in the world, the palm oil business has directly and indirectly been responsible for the employment of sixteen million people.

Based on domestic palm oil consumption data from 2017-2021 taken through the GAPKI website, it is known that domestic palm oil consumption in 2021 reached 18.42 million tons, up 6% from 2020 consumption of 17.34 million tons. Consumption for food rose 6%, oleochemicals jumped 25%, and biodiesel rose 2% from 2020 (GAPKI, 2021). In the decline in palm oil production and consumption growth in Indonesia, it has an impact on the decline in Indonesian palm oil exports in 2021 and many companies operating in the field of raw material income are reducing their activities including reducing labor.



Figure 1. Development of Palm Oil Exports in 2017 – 2021

Source: Central Bureau of Statistics ([www.bps.go.id](http://www.bps.go.id))

Based on the above palm oil export data taken from the Central Statistics Agency, it is known that in terms of palm oil export volume during 2016 to 2020 tends to fluctuate. The largest export was in 2020 which increased significantly since 2019, but in 2021 it increased only 0.6% from the previous year. Based on the above problems, researchers are interested in conducting research with the theme Analysis of Asset Growth and Capital Structure on Profitability in Plantation and Food Crop Industry Sub-Sector Companies Listed on the IDX.

## 2. Literature Review

### 2.1. Signaling Theory

The theory of signaling refers to the actions that management takes in order to offer investors with hints about how management perceives the possible future outcomes of a company. The information that is supplied by the firm in the form of financial statements serves as a signal or announcement to investors on the financial condition of the company. Furthermore, this information will be utilized by investors in the future when making investment decisions regarding the company. Investors will process and interpret any announcements regarding financial data and company conditions that they hear. These announcements will be perceived as either receiving positive or negative news. In the event that the signal is positive, there will be an increase in the volume of trading that occurs for the company's shares. (Brigham & Houston, 2016) explained that signals are indications offered by the company connected to management actions in the company's project assessment efforts. This information was provided by the company.

### 2.2. Profitability Ratio

It is possible to obtain information regarding the financial performance of the company by utilizing the profitability ratio. The purpose of this calculation is to calculate the level of profit that the company has acquired depending on the components that are included in the company. This profitability ratio is being used. In a general sense, the goal of every business is to generate a profit or profit. It is necessary for the management of the organization to be capable of accomplishing the goals that have been planned. The ability of a corporation to generate profits in relation to its sales, total assets, and own capital is what is meant by the term "profitability ratio," as stated by Sartono (2016). Therefore, investors that hold a long-term perspective will be particularly interested in this examination of profitability. Return on equity is the metric that is used to determine the profitability ratio in this study. The return on equity, also known as the profitability of own capital or return on equity, is a ratio that is used to assess the ratio of a company's net profit after taxes to its own capital. The efficiency with which one uses one's own capital is demonstrated by this ratio (Kasmir, 2017). It would be preferable if this ratio was higher. That is to say, the owner of the company is attaining a more powerful position, and vice versa. According to Kasmir (2017), the formula is as follows: (Kasmir, 2017):

$$ROE = \frac{\text{Earning After Interest and Tax}}{\text{Equity}}$$

### 2.3. Asset Growth

The term "company growth" refers to a change in total assets that can take the shape of either a decline or an increase that the firm experiences over the course of a given time period. When a company's wealth increases on average, this is referred to as asset growth. If a company's starting wealth is a fixed quantity, then a high asset growth rate indicates that the size of the company's end wealth is increasing. This is because the original wealth of the company is constant. According to Yulius (2010), if the amount of end wealth is great, it indicates that the original wealth was low. This is the opposite of what happens when the asset growth rate is high. A company's asset growth can be defined as the percentage change in the assets of the company in comparison to the assets of the preceding year. As per his assertions (Brigham & Houston, 2016), businesses that experience rapid expansion will be reliant on finances obtained from sources external to the organization. This is due to the fact that revenues generated within the organization are insufficient to sustain such rapid expansion. Since this is the case, businesses that have high growth rates will rely on debt as a source of capital more frequently than businesses that have low growth rates. It is as follows that the formula is used:

$$\text{Asset Growth} = \frac{\text{Total Asset}_n - \text{Total Asset}_{n-1}}{\text{Total Asset}_{n-1}}$$

### 2.4. Capital Structure

In order to develop their products more quickly, manufacturing firms have the capacity to expand their products through a variety of innovations. Additionally, manufacturing companies tend to have a

wider market growth than non-manufacturing companies or service companies. Capital is essential for every company, but it is especially important for manufacturing companies. A component of the financial structure, capital structure can be understood as permanent expenditure that reflects the equilibrium between long-term debt and own capital. This balance is reflected in the capital structure. Long-term debt, preferred stock, and shareholders' capital are the three components that make up a capital structure, as stated by Weston and Copeland (2010), which provides a definition of capital structure as persistent financing. It has been stated by Agus D. and Martono (2013) that It is a comparison or balance of a company's long-term finance, as observed from the comparison of long-term debt to own capital. Capital Structure is a word that describes this comparison or balance.

In this particular investigation, the ratio of debt to equity serves as the measurement of capital structure. Explain that the debt to equity ratio is a ratio that demonstrates the capacity of the company's own capital to satisfy all of its obligations, as stated by Sawir (2015) which states that the ratio is a ratio. It is a ratio that is used to evaluate the ratio of debt to equity, as stated by Kasmir (2017). This ratio can be determined by contrasting all debt, including current debt, with all equity holdings. A debt-to-equity ratio that is relatively low is typically preferred by long-term creditors. The smaller this ratio is, the bigger the amount of assets that are funded by the owner of the company, and the greater the risk buffer that creditors have the ability to provide. Here is the formula in its entirety:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Hutang}}{\text{Total Modal}}$$

### 3. Method

#### 3.1. Research Approach

This study is an example of an associative study because of the level of explanation it provides. According to the explanation provided by Pakpahan and Manullang (2014), associative research, also known as causal research (causal relationship), is study that seeks to determine if a variable that functions as an independent variable has an effect on other variables that are considered to be dependent variables.

#### 3.2. Population and Sample

According to(Pakpahan & Manullang, 2014) describe that a population is a group of research elements, where elements are the smallest units that are the source of the essential data. Populations are a group of research elements. The term "population" refers to the characteristics of the population that is the subject of the research, whereas the term "sample" refers to the characteristics of the sample, including its size, method of sampling, and criteria. All of the companies that are listed on the Indonesia Stock Exchange and are participating in the Plantation and Food Crop Industry Sub-Sector are included in this study's population. There are 23 companies that will be observed during the period of 2019-2022. It is stated in (Sugiyono, 2016) that the sample is a representation of a section of the population in terms of both its number and the qualities it possesses. The entire population that was being studied was used to collect samples. An approach known as nonprobability sampling, in conjunction with saturation sampling approaches, was utilized by the author in this work. In accordance with Sugiyono (2016), what exactly does it mean to be nonprobability? A sampling technique is one that does not provide equal opportunities or opportunities for every element or member of the population that is being sampled. Sampling is therefore a sampling technique. It has been stated by Sugiyono (2016) that the saturation sampling approach is a method of sampling in which all members of the population are employed as samples. Within the scope of this study, the sample was selected from the complete target audience, which consisted of 23 different businesses.

**Table 1.** List of Research Samples

| No | Code | Company Name               |
|----|------|----------------------------|
| 1  | AALI | PT Astra Agro Lestari, Tbk |

| No | Code  | Company Name                                    |
|----|-------|---|
| 2  | ANDI  | PT Andira Agro, Tbk                             |
| 3  | ANJT  | PT Austindo Nusantara Jaya, Tbk                 |
| 4  | BWPT  | PT Eagle High Plantations, Tbk                  |
| 5  | CSRA  | PT Cisadane Sawit Raya, Tbk                     |
| 6  | FAPA  | PT FAP Agri Tbk                                 |
| 7  | GOLL  | PT Golden Plantation Tbk                        |
| 8  | GZCO  | PT Gozco Plantations Tbk                        |
| 9  | JAWA  | PT Jaya Agra Wattie, Tbk                        |
| 10 | LSIP  | PT PP London Sumatra Indonesia, Tbk             |
| 11 | MAGP  | PT Multi Agro Gemilang Plantation, Tbk          |
| 12 | MGRO  | PT Mahkota Group, Tbk                           |
| 13 | PALM  | PT Provident Agro, Tbk                          |
| 14 | PGUN  | PT Pradiksi Gunatama, Tbk                       |
| 15 | PNGO  | PT Pinago Utama, Tbk                            |
| 16 | SGRO  | PT Sampoerna Agro, Tbk                          |
| 17 | SIMP  | PT Salim Ivomas Pratama, Tbk                    |
| 18 | SMART | PT Sinar Mas Agro Resources and Technology, Tbk |
| 19 | SSMS  | PT Sawit Sumbermas Sarana, Tbk                  |
| 20 | TAPG  | PT Triputra Agro Persada Tbk (TAPG)             |
| 21 | TBLA  | PT Tunas Baru Lampung Tbk (TBLA)                |
| 22 | UNSP  | PT Bakrie Sumatera Plantations Tbk (UNSP)       |
| 23 | DSNG  | PT Dharma Satya Nusantara Tbk (DSNG)            |

From Table 1, it can be seen that the number of population eligible to be sampled is 23 companies. So that the sample results are  $23 \times 4$  years = 92 samples which are financial statements.

### 3.3. Data Analysis Techniques

This data analysis uses panel data regression analysis techniques using Eviews Application version 10. Methods and techniques of analysis are carried out with the following stages:

#### a. Panel Data Regression Model Estimation

According to (Rusiadi et al., 2016) taught that panel data analysis is a methodology for data analysis that mixes data from cross sections with data from time series. Data gathered from data sources at a single point in time or from a single observation is referred to as cross section data. On the other hand, time series data, also known as periodic data, is information that is gathered at regular intervals in order to provide an overview of the progression of a phenomenon. For the purpose of hypothesis testing, this study makes use of panel data analysis, which is employed to ascertain the extent of the relationship between the independent variable and the influence of the dependent variable. The following is the equation that is utilized for the regression model:

$$RRS (ROE) = \alpha_{it} + \beta_1 PA_{it} + \beta_2 DER_{it} + \epsilon_{it}$$

Information:

ROE = Return on Equity

$\alpha$  = Constant

$\beta_1, \beta_2, \beta_3$  = Multiple Regression Coefficient (*Multiple Regression*)

PA = Asset Growth

DER = Debt to Equity Ratio

i = Sector Unit

t = Unit of Time

$\epsilon$  = Error Term

### **b. Common Effect Model**

In panel data regression using the common effect technique, the first assumption that is introduced is the assumption that intercepts and slopes always remain both between time and company. This assumption is made in the context of the common effect method. The values of the intercept and slope will be the same for each and every business that has made progress in determining the link between the dependent variable and its independent variable. According to him (Irawan & Nasution, 2017), CEM assumes no difference in sector or time effects, so in its modeling there is only one model for all observations.

### **c. Fixed Effect Model**

This model allows for non-constant intercept for each individual. But this model has the disadvantage that no general estimates are produced because there is no general intercept or constant to represent all individuals (Rusiadi et al., 2016).

### **d. Random Effect Model**

In the case of the fixed effect model, the difference between individuals is expressed by intercepts or constants. On the other hand, in the random effect model, the difference is accommodated by the error terms of each individual. According to Rusiadi et al. (2016), this method has the inherent benefit of removing heteroskedasticity, also known as inhomogeneous data, in the event that it is present (Rusiadi et al., 2016).

### **e. Panel Fund Regression Specification Test**

#### **Test Chow**

According to (Rusiadi et al., 2016) the Chow Test is utilized to ascertain whether the Pooled Least Square (PLS) model or the Fixed Effect Model (FEM) should be chosen for the purpose of data estimation, which may be accomplished through the utilization of the F test. If the value of the Statistical Chow (F Stat) test result is higher than the F table, then there is sufficient evidence to reject the hypothesis 0 (zero), and the model that is employed is the Fixed Effect model. If the opposite is true, then the F table is the model that is utilized.

#### **Hausman Test**

For the purpose of determining whether the data to be analyzed will be subjected to a fixed effect or a random effect, the Hausman test is carried out. In accordance with the explanation provided by Rusiadi et al. (2016), the Hausman test is implemented with the purpose of determining which model is suitable for use, specifically whether it is a Fixed Effect or Random Effect model.

#### **Lagrange Multiplier (LM) Test**

Through the utilization of the Lagrange Multiplier test, the selection of whether the data is analyzed using the random effect or the common effect is made. This is accomplished by conducting REM testing based on the residual  $\epsilon$  value of REM. A Lagrange multiplier test is carried out, and the data is additionally regressed using the random effect model and the common effect model. This test is utilized in situations where the Chow test result that is picked is the common effect model.

### **f. Test the hypothesis**

#### **Partial Test (Test t)**

Using the Partial Test, also known as the t-test, one can determine the extent to which each independent variable has an individual or partial impact on the dependent variable. The formula for the product moment correlation significance test was utilized in order to evaluate the associative hypothesis, which is a relationship proposition.

#### **Simultaneous Test (Test F)**

With the help of a statistical formula, this test is carried out in order to ascertain whether or not the influence of all independent variables concurrently has a significant effect on variables that are related to the confidence level (Confidence Interval) or the level of hypothesis testing that is 5%.

#### **Coefficient of Determination (r<sup>2</sup>)**

According to the explanation provided by (Pakpahan & Manullang, 2014), the value of R-Square (r<sup>2</sup>)

is utilized to determine the extent to which the variation in the value of the dependent variable is influenced by the variation in the value of the independent variable.

## 4. Result and Discussion

### 4.1. Research Results

#### a. Panel Data Model Estimation

For the purpose of selecting the appropriate regression model to be utilized in this investigation, panel data must be examined within the regression model. There are three different approaches that can be utilized in the process of testing the model. These approaches include ways that utilize common effect models, fixed effect models, and random effect models. The following is a list of the results of the tests:

**Table 2.** Common Effect Model Results

Dependent Variable: ROE

Method: Panel Least Squares

Date: 11/14/23 Time: 16:18

Sample: 2019 2022

Periods included: 4

Cross-sections included: 23

Total panel (balanced) observations: 92

| Variable           | Coefficient | Std. Error            | t-Statistic | Prob.    |
|--------------------|-------------|-----------------------|-------------|----------|
| C                  | 1.912131    | 0.329948              | 5.795255    | 0.0000   |
| PERTUMBUHAN_ASET   | -0.114653   | 0.131945              | -0.868942   | 0.3872   |
| DER                | -0.107738   | 0.135926              | -0.792620   | 0.4301   |
| R-squared          | 0.021730    | Mean dependent var    |             | 1.465870 |
| Adjusted R-squared | -0.000254   | S.D. dependent var    |             | 0.738972 |
| S.E. of regression | 0.739066    | Akaike info criterion |             | 2.265205 |
| Sum squared resid  | 48.61340    | Schwarz criterion     |             | 2.347437 |
| Log likelihood     | -101.1994   | Hannan-Quinn criter.  |             | 2.298395 |
| F-statistic        | 0.988461    | Durbin-Watson stat    |             | 0.712751 |
| Prob(F-statistic)  | 0.376197    |                       |             |          |

Based on Table 2., in this estimation approach, intercepts and slopes are fixed over time and individually, the existence of intercept and slope differences is assumed to be explained by disturbance variables (error or residual). From the regression results in the common effect models, it was found that the value of the coefficient in asset growth was negative 0.114653 and DER was negative 0.107738, with an R-squared of 0.021730.

**Table 3.** Results of the Random Effect Model

Dependent Variable: ROE

Method: Panel EGLS (Cross-section random effects)

Date: 11/14/23 Time: 16:19

Sample: 2019 2022

Periods included: 4

Cross-sections included: 23

Total panel (balanced) observations: 92

Swamy and Arora estimator of component variances

| Variable              | Coefficient | Std. Error         | t-Statistic | Prob.    |
|-----------------------|-------------|--------------------|-------------|----------|
| C                     | 1.740558    | 0.332231           | 5.238999    | 0.0000   |
| PERTUMBUHAN_ASET      | -0.105215   | 0.102677           | -1.024718   | 0.3083   |
| DER                   | -0.036099   | 0.125997           | -0.286510   | 0.7752   |
| Effects Specification |             |                    |             |          |
|                       |             |                    | S.D.        | Rho      |
| Cross-section random  |             |                    | 0.572600    | 0.5633   |
| Idiosyncratic random  |             |                    | 0.504158    | 0.4367   |
| Weighted Statistics   |             |                    |             |          |
| R-squared             | 0.014228    | Mean dependent var |             | 0.590627 |
| Adjusted R-squared    | -0.007924   | S.D. dependent var |             | 0.497487 |
| S.E. of regression    | 0.499454    | Sum squared resid  |             | 22.20146 |
| F-statistic           | 0.642285    | Durbin-Watson stat |             | 1.536046 |
| Prob(F-statistic)     | 0.528510    |                    |             |          |
| Unweighted Statistics |             |                    |             |          |
| R-squared             | 0.018037    | Mean dependent var |             | 1.465870 |
| Sum squared resid     | 48.79693    | Durbin-Watson stat |             | 0.698865 |

Based on Table 3., in this estimation approach, neither individual dimensions nor time are considered. It is assumed that the probability value of each individual indicating that both asset growth variables of negative 0.105215 and DER of 0.036099 indicates significant. Rsquared shows 0.727844. As for the F-statistic probability value of 0.528510 which means that the model is not significant.

**Table 4.** Fixed Effect Model Results

Dependent Variable: ROE  
Method: Panel Least Squares  
Date: 11/14/23 Time: 14:59  
Sample: 2019 2022  
Periods included: 4  
Cross-sections included: 23  
Total panel (balanced) observations: 92

| Variable                              | Coefficient | Std. Error | t-Statistic | Prob.  |
|---------------------------------------|-------------|------------|-------------|--------|
| C                                     | 1.655613    | 0.343607   | 4.818336    | 0.0000 |
| PERTUMBUHAN_ASET                      | 0.499281    | 0.106080   | 2.935910    | 0.0127 |
| DER                                   | 0.301732    | 0.138957   | 2.012462    | 0.0399 |
| Effects Specification                 |             |            |             |        |
| Cross-section fixed (dummy variables) |             |            |             |        |



|                    |           |                       |          |
|--------------------|-----------|-----------------------|----------|
| R-squared          | 0.657303  | Mean dependent var    | 1.465870 |
| Adjusted R-squared | 0.534546  | S.D. dependent var    | 0.738972 |
| S.E. of regression | 0.504158  | Akaike info criterion | 1.694526 |
| Sum squared resid  | 17.02971  | Schwarz criterion     | 2.379795 |
| Log likelihood     | -52.94821 | Hannan-Quinn criter.  | 1.971107 |
| F-statistic        | 5.354503  | Durbin-Watson stat    | 1.991921 |
| Prob(F-statistic)  | 0.000000  |                       |          |

Based on Table 4, in this estimation approach, neither individual dimensions nor time are considered. It is assumed that each individual's probability value indicates that both asset growth variables and DER show significant. The Rsquared value shows 0.657303. As for the F-statistic probability value of 0.000000 which means that the model is significant.

### b. Test Chow

To determine whether the model estimates the common effect model or f in forming a regression model, the Chow Test is used. The hypothesis tested is as follows:

**Table 5.** Chow Test Results

Redundant Fixed Effects Tests  
Equation: Untitled  
Test cross-section fixed effects

| Effects Test             | Statistics | d.f.    | Prob.  |
|--------------------------|------------|---------|--------|
| Cross-section F          | 5.648168   | (22,67) | 0.0000 |
| Cross-section Chi-square | 96.502442  | 22      | 0.0000 |

Based on Table 5., the result of the Chow Test is known to be the probability value is 0.000. Because the probability value is  $0.000 < 0.05$ , the estimation model used is a *fixed effect model* (FEM).

### c. Hausman Test

**Table 6.** Hausman Test Results

Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test cross-section random effects

| Test Summary         | Chi-sq. Statistics | Chi-sq. d.f. | Prob.  |
|----------------------|--------------------|--------------|--------|
| Cross-section random | 0.347203           | 2            | 0.0406 |

Based on Table 6., the result of the Hausman Test is known probability value is 0.000. Because the probability value is  $0.0406 < 0.05$ , the estimation model used is a fixed effect model (FEM).

### d. Panel Data Regression Analysis

For the purpose of this study, the fixed effect models (FEM) method was utilized for linear regression analysis of panel data. The selection of fixed effect models (FEM) technique as a method of panel data analysis in this study was previously examined through the Chow Test and Hausman Test first, so that finally the fixed effect models (FEM) method is most appropriate for testing panel data in this study.

**Table 7.** Multiple Linear Regression Analysis Results

Dependent Variable: ROE  
 Method: Panel Least Squares  
 Date: 11/14/23 Time: 14:59  
 Sample: 2019 2022  
 Periods included: 4  
 Cross-sections included: 23  
 Total panel (balanced) observations: 92

| Variable         | Coefficient | Std. Error | t-Statistic | Prob.  |
|------------------|-------------|------------|-------------|--------|
| C                | 1.655613    | 0.343607   | 4.818336    | 0.0000 |
| PERTUMBUHAN_ASET | 0.499281    | 0.106080   | 2.935910    | 0.0127 |
| DER              | 0.301732    | 0.138957   | 2.012462    | 0.0399 |

Based on Table 7 above, the regression equation can be obtained, as follows:

$$ROE = 1.6556613 + 0.499281 (\text{Asset Growth}) + 0.301732 (\text{DER}) + e$$

A constant of 1.6556613 means that if the Asset Growth and DER value is 0, then the ROE is 1.6556613. The regression coefficient of the Asset Growth variable of 0.499281 means that every increase in Asset Growth by 1 unit, it will increase ROE by 0.499281 units, assuming another independent variable is fixed value. The regression coefficient of the DER variable of 0.301732 means that every increase in DER by 1 unit, it will increase ROE by 0.301732 units, assuming another independent variable has a fixed value.

### e. Hypothesis Test Results

In hypothesis testing, coefficient of determination analysis, simultaneous influence testing, and partial influence testing will be carried out, with the following results:

**Table 8.** Hypothesis Test Results

Dependent Variable: ROE  
 Method: Panel Least Squares  
 Date: 11/14/23 Time: 14:59  
 Sample: 2019 2022  
 Periods included: 4  
 Cross-sections included: 23  
 Total panel (balanced) observations: 92

| Variable         | Coefficient | Std. Error | t-Statistic | Prob.  |
|------------------|-------------|------------|-------------|--------|
| C                | 1.655613    | 0.343607   | 4.818336    | 0.0000 |
| PERTUMBUHAN_ASET | 0.499281    | 0.106080   | 2.935910    | 0.0127 |
| DER              | 0.301732    | 0.138957   | 2.012462    | 0.0399 |

#### Effects Specification

Cross-section fixed (dummy variables)

|                    |           |                       |          |
|--------------------|-----------|-----------------------|----------|
| R-squared          | 0.657303  | Mean dependent var    | 1.465870 |
| Adjusted R-squared | 0.534546  | S.D. dependent var    | 0.738972 |
| S.E. of regression | 0.504158  | Akaike info criterion | 1.694526 |
| Sum squared resid  | 17.02971  | Schwarz criterion     | 2.379795 |
| Log likelihood     | -52.94821 | Hannan-Quinn criter.  | 1.971107 |
| F-statistic        | 5.354503  | Durbin-Watson stat    | 1.991921 |
| Prob(F-statistic)  | 0.000000  |                       |          |

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- **Partial Effect Test (t test)**

In Table 8, it is shown that Asset Growth positively affects ROE, with a regression coefficient of 0.499281 and a significance level of  $0.0127 < 0.05$ . With a regression coefficient value of 0.301732 and a significance level (Prob) =  $0.0399 < 0.05$ , it is recognized that DER positively impacts ROE.

- **Simultaneous Effect Test (t test)**

If you want to see how many independent factors have an impact on your dependent variable, the F test is the way to go. According to Table 8, the value of Prob. (F-statistics) is  $0.000000 < 0.05$ , therefore it can be inferred that the ROE variable is positively and significantly impacted by Asset Growth and DER both at the same time

- **Coefficient of Determination Analysis (R<sup>2</sup>)**

Table 8 shows that the R-squared value, which is the coefficient of determination, is. Asset Growth and DER have a combined impact of 65.73% on ROE, while other factors account for the remaining 34.27%.  $R^2 = 0.657303$

## 4.2. Discussion

### 1. The Impact of Asset Growth on ROE

The hypothesis proposed in this study is that Asset Growth has a positive and significant effect on ROE. From the results of this study, Asset Growth has a significance value of 0.499281 and Prob (F-Statistics)  $0.0000 < 0.05$ . The results of this study show that asset growth is one of the important factors to improve the financial performance of companies in the plantation and food crop industry sub-sector. The company needs to continue to strive to increase the growth of its assets in order to improve its financial performance. The company can increase its investment to increase its assets. Investments can be made in various fields, such as machinery, equipment, and land. The company can expand its business to new territories or to new products. Business expansion can increase the company's business scale and increase sales volume. Companies can make efficiencies in various fields, such as production, marketing, and administration. Efficiency can lead to a decrease in company costs and an increase in profits.

### 2. How DER affects ROE

The hypothesis proposed in this study is that DER has a positive and significant effect on ROE. From the results of this study, Asset Growth has a significance value of 0.301732 and Prob (F-Statistics)  $0.0399 < 0.05$ . The results of this study show that DER is one of the important factors to improve the financial performance of companies in the plantation and food crop industry sub-sector. Companies can leverage DER to increase ROE by increasing corporate debt. However, keep in mind that excessive use of debt can also increase a company's financial risk. The company needs to manage its DER carefully in order to improve its financial performance without increasing its financial risk. Companies can apply for bank loans to increase company debt. Companies can issue bonds to increase company debt. Companies can use short-term debt to finance business expansion.

### 3. The Effect of Asset Growth and ROE on ROE

The hypothesis proposed in this study is that Asset Growth and DER have a positive and significant effect on ROE. From the results of this study, Asset Growth and DER have a Prob value. (F-statistics), i.e.  $0.000000 < 0.05$ . The results of this study show that asset growth and DER are important factors to improve the financial performance of companies in the plantation and food crop industry sub-sector. The company needs to continuously strive to increase the growth of its assets and DER in order to improve its financial performance.

## 5. Conclusion

Based on the results of the research that has been conducted, it can be concluded that asset growth and DER have a positive and significant effect on ROE in plantation and food crop industry sub-sector companies listed on the Indonesia Stock Exchange. Asset growth can increase the scale of the company's business, which can lead to an increase in the company's sales volume and profits.

In addition, asset growth can also encourage companies to make efficiency, which can lead to a decrease in company costs and an increase in profits. DER measures the ratio between a company's debt and a company's equity. The higher the DER, the greater the company's debt. Debt can be used by the company to finance business expansion, which can increase the company's profits. In addition, debt interest is deductible from corporate income tax, which can increase the company's net profit.

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