DETERMINANTS OF CAPITAL STRUCTURE OF PLANTATION COMPANIES ON THE INDONESIAN STOCK EXCHANGE

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Abstract

This study aims to determine the determinants of the capital structure of plantation companies on the Indonesia Stock Exchange. The data used in this research is secondary data from 22 plantation companies during the research period from 2017 to 2021 so that the observations in the study totaled 110 observations. The method used to analyze the relationship between the independent variables and the dependent variable is the panel data regression method. The results showed that partially Tangibility had a positive and significant effect on capital structure in Plantation Companies on the Indonesia Stock Exchange, Profitability had a positive and significant effect on capital structure in Plantation Companies on the Indonesia Stock Exchange, and Liquidity had a positive and significant effect on capital structure in Plantation Companies on the Indonesian Stock Exchange.

Keywords: ***Capital Structure, Tangibility, Profitability and Liquidity***

INTRODUCTION

A plantation company is a company in the form of a business entity/legal entity which is engaged in cultivating plantation crops on land it controls, with the economic aim of obtaining a certain amount of profit to increase the company's capital. The need for capital is very important in building and ensuring the survival of a company, so financial managers must be precise and careful in determining their capital structure. Ways that can be done by managers are optimizing operations within the company and seeking additional capital outside efficiently which allows the company to minimize the capital costs that the company must bear.

Sources of funds from within the company (internal financing) are funds obtained by the company from its operations in the form of retained earnings, while sources of funds from outside (internal financing) are sources of funding provided by creditors or investors so that these funds can be said to be company debt or funds sourced from foreign capital. According to Riyanto (2016), capital structure is a balance or comparison between the amount of long-term debt and its own capital. The larger the company's capital structure means the greater the risk a company bears because the more debt it incurs to carry out its operations. The company needs to pay attention to the existence of an optimal capital structure. The main goal of a company with an optimal capital structure is to increase the income of company owners (shareholders) through increasing company value. The optimal capital structure is a capital structure that minimizes the cost of using capital and on the other hand maximizes company value. Capital structure can be done using long-term debt. The use of debt can benefit the company, but high use of debt can cause high interest expenses and increase the company's risk.

One of the company sectors that uses long-term debt as the company's capital structure is the plantation sector. One company that has large long-term debt is PT. Sinar Mas Agro. As of December 2021, Sinar Mas Agro had long-term bank debt maturing within a year of IDR 1.67 trillion and long-term bank debt of IDR 4.58 trillion. Then, bond debt that will mature within a year is IDR 1.29 trillion and long-term bond debt IDR 5.10 trillion, (Investasi.konstan.go.id, 2022) This phenomenon shows that plantation companies tend to use high debt as a company capital. This condition will of course result in the company's risk being higher, one of which is the company's opportunity to make a profit is reduced.

Apart from that, the company that uses high debt is PT Austindo Nusantara Jaya Tbk. (ANJT) signed a loan agreement of USD 10 million, which will be used to finance operational activities and working capital. Furthermore, PT Sawit Sumbermas Sarana Tbk (SSMS) signed a syndicated loan agreement worth IDR 3.6 trillion. The funds obtained from this syndication will be used to buy back all or part of the company's global bonds issued through its subsidiaries. (Investor.id, 2022). Tangibility is an important variable in determining funding decisions, because fixed assets owned by a company can be used as collateral for creditors in making loans. Companies that do not have assets that can be used as collateral by the company in making loans, the company will tend to use

large amounts of debt (Brigham, 2016). Based on the trade off theory, companies with a high level of tangible assets can be provided as collateral for debt. Titman and Wessels (2013) state that the more tangible assets a company owns, the more asset collateral that can be used to obtain external funding sources in the form of debt.

Next, another determinant of capital structure is profitability. Profitability is the company's ability to make a profit in its operations. The company's ability to generate profits will be one of the company assessment factors. Investors will assess the company positively if the profitability ratio shows an increase, thus creditors, suppliers and investors who are company stakeholders will assess the company's performance well. Apart from that, with good profitability, the company will have the ability to distribute larger dividends to shareholders so that it will have a positive impact on their confidence in investing their funds in the company. Kusumawati, Topowijono, & Endang (2016) said that profitability is the company's ability to generate profits in the future and is an indicator of the success of the company's operations. Company profitability affects the size of the company's capital structure. because the greater the company's profits, the greater the retained earnings that can be used in its operations. Companies that have high profits will use low amounts of debt, and conversely, if profits are low, the use of debt will be higher, as stated (Brigham & Houston, 2010), that companies with a high rate of return on investment use relatively small debt. This Due to the high return on assets, it is possible for companies to capitalize with retained earnings only.

Apart from tangibility and profitability, liquidity also affects capital structure. Liquidity according to (Brigham and Houston, 2010) is a ratio that shows the relationship between a company's cash and other current assets and its current liabilities. According to (Subramanyamdan Wild, 2011), liquidity refers to the company's ability to fulfill its short-term obligations. The higher the amount of current assets compared to current liabilities, the greater the confidence that the current liabilities will be paid. Higher liquidity will reduce the company's capital structure, which means that companies with high liquidity have the ability to pay short-term debt, which tends to reduce debt so that the capital structure becomes smaller.

RESEARCH METHOD

Research sites

The objects of this research are tangibility, profitability, liquidity and capital structure of plantation companies on the Indonesia Stock Exchange in 2017-2021. According to Wiratna (2014) The research location is the place where the research is carried out. The location of this research is a plantation company listed on the Indonesia Stock Exchange which can be accessed via www.idx.co.id.

Population and Sample

The total registered population in Indonesia is 24 companies. The method that will be used in this research is the purposive sampling method because this research has certain sample criteria which are adjusted to the research objectives. Sample selection was determined using a purposive sampling method with the aim of obtaining a representative sample, namely representing the data to be studied according to the criteria (Sugiyono, 2018). The sample selection criteria are:

1. Plantation sector companies during the 2017-2021 period
2. Plantation companies that report consecutive financial data for the 2017-2021 period.

Data Analsis Method

This research is research with a descriptive statistical approach and the type of research data is quantitative data using panel data. Descriptive statistics are statistics that are used to analyze data by describing or illustrating the data that has been collected as it is without the intention of making general conclusions or generalizations.

According to Sugiyono (2018), quantitative research is a research method by conducting research on populations or samples obtained randomly and then the data will be processed statistically with the aim of testing hypotheses. According to Widarjono (2012) panel data is a combination of two time series and cross section data which is able to provide more data so as to produce a greater degree of freedom. Time series data is data obtained from observations of one object over several time periods. Meanwhile, cross section data is data that consists of one object but requires other related sub-objects.

The panel data regression analysis model focuses on analysis using a combination of time series and cross section data, which is popularly known as pooled time series. The special characteristic of a time series is that it is a

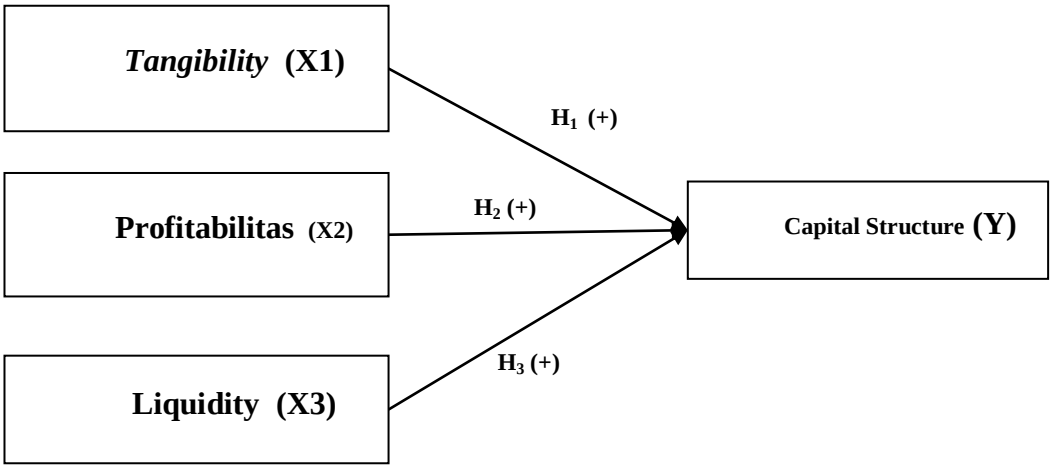
numerical sequence where the interval between observations of a number of variables is constant and fixed. Meanwhile, cross section data is a unit of analysis at a certain point with observations of a number of variables.

Model selection in econometric analysis is an important step in addition to forming theoretical models and models that can be estimated, hypothesis testing estimates, forecasting, and analysis of the model's policy implications. Estimating an economic model is necessary in order to know the actual conditions of what is being observed. The model in question is as follows:

$$SM_{it} = \beta_0 + \beta_1 TA_{it} + \beta_2 PR_{it} + \beta_3 LK_{it} + e_{it}$$

Where :

SM_{it} = Capital Structure
β_0 = Constant
TA_{it} = Tangibility
PR_{it} = Profitability
LK_{it} = Liquidity
B = Variable Regression Coefficient
€ = error term



Conceptual Framework

The research hypothesis is a temporary answer to a temporary problem because it still has to be proven true. Until proven through the data collected and must be tested empirically. Based on the conceptual framework above, the research hypothesis is as follows:

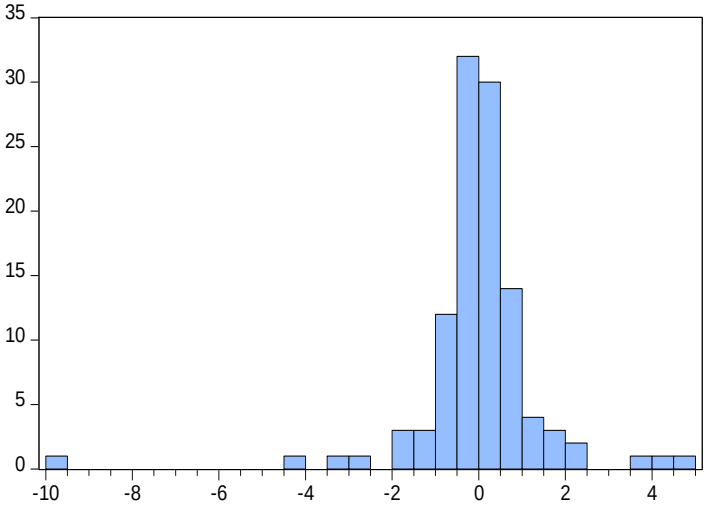
H1: Tangibility has a positive and significant effect on the capital structure of plantation companies on the Indonesian Stock Exchange

H2: Profitability has a positive and significant effect on the capital structure of plantation companies on the Indonesian Stock Exchange

H3: Liquidity has a positive and significant effect on the capital structure of plantation companies on the Indonesian Stock Exchange

Results And Discussion

Normality Test Results



Series: Standardized Residuals	
Sample 2017 2021	
Observations 110	
Mean	0.000000
Median	0.023778
Maximum	4.796621
Minimum	-9.886924
Std. Dev.	1.498423
Skewness	-2.281618
Kurtosis	20.48375
Jarque-Bera	1496.479
Probability	0.000000

Based on the result of the data normalitu test in the image above, it can be seen that the Jarque Bera value is 1496 with a probability value of 0.000. The Chi Square value table in this study by calculating df = 3 at a significance level of 5% produces a figure of 7.81. Therefore, the Jarque Bera value is greater than the Chi Square table value and the probability value is below 0.05, so it can be concluded that the data in this study is not normally distributed.

Multicollinearity Test

Probability	SM	TANG	PROF	LIKUID
SM	1.000000			

TANG	0.570090	1.000000		
	7.211140	-----		
	0.0000	-----		
PROF	0.398646	0.405284	1.000000	
	4.517307	4.607167	-----	
	0.0000	0.0000	-----	
LIKUID	-0.043064	-0.034260	0.096308	1.000000
	-0.447950	-0.356249	1.005540	-----
	0.6551	0.7223	0.3169	-----

The results of the multicollinearity test can be seen based on the correlation test. The table above shows that this model is free from multicollinearity problems, correlations below 0.8. Profitability and Tangibility have a correlation of 0.40 < 0.8, liquidity and tangibility have a correlation of -0.03 < 0.8 and liquidity and profitability have a correlation of 0.09 < 0.8. Based on the research results, it can be concluded that there are no errors between the variables in the research.

Heteroscedasticity Test

Heteroscedasticity aims to test whether in the regression model there is an inequality of variance from residuals or observations to other observations. Heteroscedasticity test can be done with the white test. However, in this study, because it is based on the selected panel data model, namely the fixed effect model, there is no need to use heteroscedasticity.

Autocorrelation Test

Autocorrelation is the correlation between members of a series of observations ordered by time series. According to (Gujarati 2012), the most popular test for detecting autocorrelation is the Durbin- Watson statistical test. Based on the Eviews output results, it shows that the Durbin Watson value is 1.452, because the dw value is between -2 to +2, it is concluded in this study that there are no confounding errors between time series.

Panel Data Model Selection

Chow Test Results

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	14.908573	(21,85)	0.0000
Cross-section Chi-square	169.840197	21	0.0000

Based on table above, it shows that the probability value of the Chi Square line in the Chow test is 0.0000. This value is below 0.05. If the chi square probability value is smaller than 0.05 then the best model is the fixed effect model. Based on the Chow test, the best model in this research is the Fixed Effect Model (FEM), so testing needs to be carried out to see between the Fixed Effect Model (FEM) and the Random Effect Model. The test that can be carried out to compare the Fixed Effect Model (FEM) and the Random Effect Model is the Hausman Test. The results of the Hausman Test in this research are as follows:

Hausman Test Results

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

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	97.684525	3	0.0000

Based on table above, it can be seen that the probability value is 0.0000. This value is significantly below 0.05. Based on the Hausman Test, the best model in this research is the Fixed Effect Model (FEM). So this research uses the Fixed Effect Model.

Panel Data Regression Equation (Fixed Effect Model)

Dependent Variable: SM
Method: Panel Least Squares
Sample: 2017 2021
Periods included: 5
Cross-sections included: 22
Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.145403	0.909541	-8.955512	0.0000
TANG	1.923343	0.394238	4.878635	0.0000
PROF	0.710068	0.255133	2.783134	0.0066
LIKUID	15.41038	1.524479	10.10862	0.0000

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.863499	Mean dependent var	1.346818
Adjusted R-squared	0.824958	S.D. dependent var	4.055711
S.E. of regression	1.696830	Akaike info criterion	4.092117
Sum squared resid	244.7346	Schwarz criterion	4.705862
Log likelihood	-200.0664	Hannan-Quinn criter.	4.341055
F-statistic	22.40448	Durbin-Watson stat	2.128300
Prob(F-statistic)	0.000000		

Based on table 4.6 above, the regression equation that can be prepared in this research is as follows:

Y = - 8.14 + 1.92 TANG + 0.71PROF + 15.41 LIKUD +eit

Based on the equation above, it can be explained that:

1. A constant of – 8.14 means that if tangibility, profitability and liquidity are considered constant (value 0), then the capital structure has a fixed value of – 8.14.
2. The tangibility regression coefficient value of 1.92 shows a positive (unidirectional) relationship which means that every 1% increase in tangibility causes the capital structure to increase by 1.92%.
3. The profitability regression coefficient value of 0.71 shows a positive (unidirectional) relationship, which means that every 1% increase in profitability causes the capital structure to increase by 0.71%.
4. The liquidity regression coefficient value of 15.41 shows a positive relationship (unidirectional), which means that every 1% increase in liquidity causes the capital structure to increase by 15.41%.

Discussion

The Influence of Tangibility on Capital Structure in Plantation Companies on the Indonesian Stock Exchange

Based on the research results, it shows that tangibility has a positive effect on capital structure where the calculated t value > t table is 4.878 > 1.659 and the significant value is 0.00 < 0.05. This shows that the more tangibility increases, the more capital structure will increase. Tangibility is an important variable in determining funding decisions, because fixed assets owned by a company can be used as collateral for creditors in making loans. Companies that do not have assets that can be used as collateral by the company in making loans, the company will tend to use large amounts of debt (Brigham, 2016).

The Influence of Profitability on Capital Structure in Plantation Companies on the Indonesian Stock Exchange

Based on the research results, it shows that profitability has a positive effect on capital structure, the t value > t table, namely 2,783 > 1,659 and a significant value of 0.00 < 0.05. This shows that the more profitability increases, the more capital structure will increase. Profitability is the company's ability to generate profits in the future and is an indicator of the success of the company's operations. Company profitability affects the size of the company's capital structure. because the greater the company's profits, the greater the retained earnings that can be used in its operations.

The Effect of Liquidity on Capital Structure in Plantation Companies on the Indonesian Stock Exchange

Based on the research results, it shows that liquidity has a positive and significant effect on capital structure, the calculated t value is 10.108 > 1.659, where the significant value is 0.00 < 0.05. Liquidity refers to a company's ability to meet its short-term obligations. The higher the amount of current assets compared to current liabilities, the greater the confidence that the current liabilities will be paid. Higher liquidity will reduce the company's capital structure, which means that companies with high liquidity have the ability to pay short-term debt, which tends to reduce debt so that the capital structure becomes smaller.

Conclusions And Suggestions

The research results show that the three regression coefficients have positive and negative signs and are significant for the dependent variable. The regression model can be explained further as follows:

1. Tangibility has a positive and significant effect on the capital structure of Plantation Companies on the Indonesia Stock Exchange where the calculated t value > t table is 4.878 > 1.659 and the significant value is 0.00 < 0.05.
2. Profitability has a positive and significant effect on the capital structure of Plantation Companies on the Indonesian Stock Exchange where the calculated t value > t table is 2,783 > 1.659 and the significant value is 0.00 < 0.05.
3. Liquidity has a positive and significant effect on the capital structure of Plantation Companies on the Indonesian Stock Exchange where the calculated t value > t table is 10,108 > 1.659 and the significant value is 0.00 < 0.05.

The suggestions that can be given in this research are:

1. For further research, it is hoped that other variables will be added, namely liquidity and earnings response coefficient.
2. For students of the Management Study Program, they can increase their insight, knowledge and improve their abilities in the field of management regarding factors that will influence capital structure.

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