

The Effect of Liquidity, Profitability, and Solvency to the Financial Distress in Agricultural Sector Companies Listed on the Indonesia Stock Exchange (IDX)

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Abstract: This study aims to analyse financial ratios, namely liquidity ratios, profitability ratios, and solvency ratios that affect financial distress conditions. This study uses quantitative research methods. The data used is on agricultural companies on the Indonesia Stock Exchange (IDX) in 2015-2019, with 75 samples. The dependent variable of financial distress was measured using the Altman analysis model (Z-Score). The independent variables were measured using financial ratio indicators, namely liquidity ratios, profitability ratios, and solvency ratios. This study uses secondary data with database collection techniques and uses a non-probability sampling technique, purposive sampling. The data used is panel data regression, using the EViews 9 application. This study shows that the liquidity ratio with the working capital and current ratio to total assets proxies affects financial distress conditions. Profitability ratios with Return on Equity and return on assets proxies affect financial distress conditions. The solvency ratio as measured by debt to total assets affects financial distress conditions. While the solvency ratio analysed by debt to total Equity and time interest earned does not affect the financial Ratio.

1 INTRODUCTION

Indonesia is an agricultural country. According to the BPS, in 2019, Indonesian agricultural products contributed to the gross domestic product (GDP) value of 13.57% in the second quarter. Thus, one of the keys to strengthening the national economy still relies on the agriculture sector. In Indonesia's economic structure in 2019, the agricultural industry has provided 12.72% of business fields which are the third-largest contributor (Central Statistics Agency, 2020). Of course, it is not only the duty of the government, but companies are also trying to improve performance in the agricultural sector jointly. Because if it is optimized, the agricultural industry may become the most significant contributor to the country's economy.

This continuous (real) price GDP is useful for showing each sector's annual economic growth rate. For example, based on the graph above, it can be seen that from 2015 to 2019, GDP, which is calculated at constant prices by the business sector, increased. Thus, the development every year shows an increase

which indicates an increase in the performance of the agricultural industry.

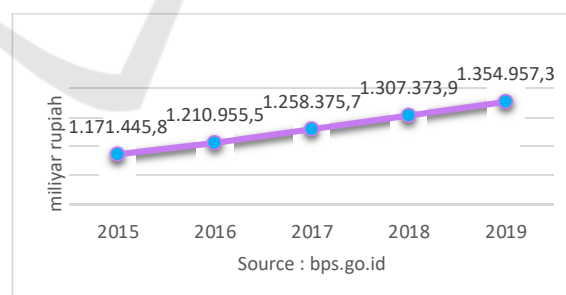


Figure 1: GDP on a constant price basis by business field.

Indonesia, as a developing country, constantly strives to promote stable economic growth. For this reason, companies in Indonesia in various sectors can help realize this by maintaining and improving company performance, including financial performance. Various external factors can affect the Company's actual performance. Companies that are constantly experiencing decreasing in their

businesses may be feared to experience financial distress conditions (Khaliq, 2014).

In 2015 there was an unfavourable situation for the Indonesian economy. There was a weakening of the rupiah caused by the prolonged crisis in Greece, the economic recovery in the United States, and the occurrence of political dynamics during our reign (Zakaria, 2020). In September 2018, Indonesia again experienced a weakening of the rupiah, which is due to the current account deficit, the escalation of the war in trading between America and China, emerging market crises such as in Turkey, Iran, Argentina, and South Africa and the strengthening of the United States economy (Fauziah & Khoerulloh, 2020). Quoted from the Greenpeace organization, the agricultural sector is most affected by the fires from 2015 to 2019. Of the 4.4 million land areas of 1.3 million hectares are oil palm and pulp land. According to the World Bank, these forest fires have created negative perceptions of palm oil products, one of Indonesia's primary export commodities. These things are external factors of declining performance so that they can affect business continuity.

As a result of this unfavorable economy, companies in Indonesia can experience financial distress, which also impacts company obligations that have matured. Based on IDX data during 2015-2019, 21 companies have been delisted. It is necessary to analyze the condition of financial distress as the concerning of the declining financial condition of a company. According to Kasmir (2012), companies are expected to take decisions and actions quickly and accurately to not cause company failure to bankruptcy. Some companies in the agricultural sector experienced a decline in profits to operational losses.

Table 1: Operating profit of agriculture sector companies.

Emiten	2015	2016	2017	2018	2019
AALI	14,19	18,83	17,63	12,19	5,50
ANDI	14,72	31,36	8,73	17,28	12,53
ANJT	17,04	12,13	44,57	4,69	-5,58
BEEF	4,81	5,17	7,36	10,01	9,46
BISI	22,33	23,79	21,67	21,98	17,61
BWPT	8,75	9,63	13,45	5,85	-23,37
CSRA		20,40	30,81	20,91	17,42
DSFI	4,12	2,38	2,77	2,63	3,80
DSNG	16,62	10,69	22,69	18,99	12,34
GOLL	-18,68	12,22	-6,89	-80,26	-
GZCO	2,53	-41,14	-5,48	-35,69	90,60
JAWA	11,64	0,70	0,26	-7,24	-6,75

Emiten	2015	2016	2017	2018	2019
LSIP	19,95	21,07	20,23	8,45	5,41
MAGP	-0,72	-83,87	-25,25	-19,59	-82,04
MGRO	6,41	6,38	4,19	7,66	3,51
PALM	19,31	21,43	9,93	-19,41	-13,09
PGUN			-236,62	-69,94	18,79
PNGO			12,43	7,06	7,45
PSGO		-7,77	4,78	-4,11	-3,70
SGRO	16,96	15,34	18,02	10,95	9,43
SIMP	11,80	14,11	11,48	6,86	4,78
SMAR	2,81	4,86	4,44	4,23	2,97
SSMS	37,33	32,87	36,63	16,65	69,83
UNSP	4,23	3,68	10,07	-7,88	-15,89

It can be seen from the table above that several companies such as Astra Agro Lestari Tbk, Andira Agro Tbk, BISI International Tbk, PP London Sumatra Indonesia Tbk, Sampoerna Agro Tbk, Sawit Sourcemas Sarana Tbk experienced a decline in financial performance. Several companies even suffered losses, such as Austindo Nusantara Jaya Tbk, Gozco Plantations Tbk, Provident Agro Tbk, Eagle High Plantations Tbk, Jaya Agra Wattie Tbk, Multi Agro Gemilang Plantation Tbk, Palma Serasih Tbk, Bakrie Sumatra Plantations Tbk.

According to the IDX, one of the agricultural sector companies was also sued for bankruptcy in 2020. There were reports of near bankruptcy from PT. Golden Plantation Tbk (GOLL); this happened because of two subsidiaries of GOLL, namely PT Bumiraya Investindo and PT Airlangga Sawit, had been declared bankrupt. GOLL was sued for bankruptcy so that it received a special notation 'B', to note that the special notation 'B' means the issuer has a petition for a declaration of bankruptcy. The main reason is because of the negligence of the management of the company, namely not calculating financial ratios so that they do not understand the Company's actual financial condition.

The liquidity ratio or financial ratio shows the Company's performance in paying its obligations in the short-term. This Ratio is to calculate and show the Company's liquidity. For example, suppose the Company cannot properly manage all its operational needs. In that case, it will make it difficult for the Company to pay off its obligations so that at times like this, the Company will feel financial distress. The profitability ratio is the ratio of the Company's profit management (Dewi & Wirajaya, 2013). If the Company's profitability increases, it can be safe or avoid a financial crisis. The leverage or solvency ratio

shows company's ability meeting all of its financial obligations. If the Company can manage finances well, Company will be free from financial distress.

Although many previous studies have discussed how profitability, liquidity and solvency affect financial distress, the study's results still contain inconsistencies. Several related studies have previously been conducted abroad, namely Vietnam, China, France, Malaysia, and the UAE. They proved that liquidity, profitability, and solvency significantly affect financial distress (Vinh, 2015). Another study by Geng, Bose, & Chen (2014) and Mselmi, Lahiani, & Hamza (2017) also showed the same results. A study conducted by Yap, Munuswamy, & Mohamed (2012) confirmed that liquidity affected financial distress while profitability and solvency had no effect. His research shows that profitability has a significant impact, and liquidity does not substantially impact financial distress (Zaki, Bah, & Rao, 2011).

In addition to these countries, related research is also carried out in Indonesia. Describes the impact of liquidity, profitability, and leverage on financial distress, which shows that the three ratios have a significant effect (Hanifa, 2019). In the same year, research was also conducted by Fitri & Zannati (2019). The study results revealed that liquidity and solvency affect financial distress, while profitability affected financial distress. Research with the results of liquidity and solvency ratios has a significant impact on financial distress (Yuliatri, 2018).

Another study conducted by Afiqoh & Laila (2018) shows that profitability and solvency affect financial distress. In the same year, research by Debora (2018) shows that solvency has a positive effect, and liquidity affect the financial distress of the company. The study results, which explained that solvency has a significant impact, while liquidity and profitability did not have a considerable impact on financial distress was carried out by (Hanifah & Purwanto, 2013). Other studies also explain that liquidity and solvency do not affect financial distress (Putri & Merkusiwati, 2014).

Previous research has proven that liquidity and profitability effect on financial distress significantly. DAR & DER substantially impacts solvency proxies, while TIE does not substantially affect financial distress. This research replicates Rusli, Prihatni & Buchdadi (2019), who researched in Indonesia. This research differs from others in terms of the sample and year of research. This research draws a sample of companies in the agricultural sector listed on the IDX from 2015-2019. Therefore, researchers are interested in researching with the title "The Effect of

Profitability, Liquidity, and Solvency on Financial Distress in the Agricultural Sector Listed on the IDX."

2 THEORY AND DEVELOPMENT OF HYPOTHESES

2.1 Signaling Theory

Signal theory was first coined by Michael Spence (1973), which is an action by company management to signal investors about viewing the Company's prospects. As a result, management must provide the best decisions to improve the Company's welfare and increase shareholder wealth. Knowing the relationship between this research and signal theory is shown through financial statement information interpreted as a signal of good news or bad news so that internal and external parties can appropriately use it. Therefore, from the beginning, the Company's business is asked to make financial statements correctly.

The use of signaling theory is related to profitability. High profitability will be a good news signal indicating that the Company's financial performance is good. Signal theory is associated with the liquidity ratio, and a good news signal will appear if the Company has high ability to pay its short-term debt. The situation shows that the Company can overcome its debt problems. Signaling theory is concerned with solvency ratios. Solvency is used to determine the extent to which the Company can pay all its debts. The higher the company's debt indicates the possibility of the Company having difficulty paying debts, the lower the solvency will be a signal of good news.

2.2 Agency Theory

This agency theory arises because of the occurrence of a contract between the principal and the agent to manage the company and delegate authority to the agent in making decisions. The principal delegates responsibility for the Company's decision-making to the agent so that the agent is given the mandate to carry out tasks based on the contract agreement between the two parties that is carried out properly. In this case, the principal is the shareholder, while the management is the agent.

Ownership of information held by managers can trigger activities according to management's will and

personal interests, so it is difficult for capital owners to effectively monitor the activities carried out by management because of the limited information they have. There is an opportunity for the agent to maximize personal welfare contrary to the principal's interests by limiting the information provided about the Company to the principal (Jansen & Meckling, 1976). The difference in the ownership of information held between the two parties causes information misalignment or information asymmetry. Stakeholders must be aware of declining or unfavorable financial performance conditions. This is related to the potential for financial distress in the Company.

2.3 Financial Ratio

The liquidity ratio is to show that the company can pay its short-term debt. The Company will be said to be liquid if the Company can fulfill its obligations, whereas if the Company is not liquid or can be said to be illiquid because the Company is unable to meet its obligations. This study uses the current ratio and working capital to total assets.

Profit is income minus expenses and losses during the reporting period (Dewi & Wirajaya, 2013). Profitability analysis is very important for creditors and equity investors. It can be used for Interest and principal payments for creditors and the determinants of changes in the value of securities for equity investors. Therefore, how these profits can maximize shareholders is an essential task for the Company. This study uses Return on Equity and Return on Assets.

Solvency is often called the leverage ratio, means the company can meet all of the company's financial obligations (Yanti & Oktari, 2018). This Ratio also describes the comparison between the assets owned by the Company and the debts funded by creditors. Thus, solvency is used to determine how capable a company can be seen from the level of debt. This research uses Debt to Total Asset Ratio, Debt to Total Equity Ratio, and Time Interest Earned.

2.4 Financial Distress

An economic condition that experienced a decline and crisis in a company before bankruptcy is called financial distress. Financial distress starts from difficulty paying the short-term debt as a mild factor to bankruptcy, the most severe factor (Hanifah & Purwanto, 2013). This condition also occurs when the Company is unable or fails to fulfill its obligations

(Hantono, 2019). Companies that will experience financial distress are common

2.5 The Effect of Financial Ratios on Financial Distress

2.5.1 The Effect of the Current Ratio on Financial Distress

The Current Ratio is the simplest way of calculating the liquidity ratio compared to other methods. This calculation is intended to measure whether the company can meet its short-term obligations with the Company's current liquid assets or current assets.

The results of Rusli, Prihatni & Buchdadi's research (2019) prove that current ratio affects on financial distress significantly negative. This means that the higher the Company's C.R., the lower the probability that the Company will experience financial distress because it can manage its current assets to pay off debt. Short term. According to this research, the researcher formulated the first hypothesis as follows,

H01: Current Ratio has no significant effect on financial distress.

Ha1: Current Ratio has a significant effect on financial distress.

2.5.2 The Effect of Working Capital to Total Assets on Financial Distress

Working Capital to Total Assets (WCTA) is a measure of liquidity. This ratio shows the proportion of net working capital to total assets. The larger the WCTA will increase profits which in turn will affect the increase in profit growth.

The results of Rusli, Prihatni & Buchdadi's research (2019) prove that working capital to total assets have a significant negative effect on financial distress, which means that the higher the company's WCTA, the lower the company encounters financial distress. Based on this research, the researcher formulated the second hypothesis as follows,

H02: Working capital to total assets has no significant effect on financial distress.

Ha2: Working capital to total assets has a significant effect on financial distress.

2.5.3 The Effect of ROE on Financial Distress

ROE is to see how the company can gain net income by using its capital. ROE calculation can be used as a benchmark for the Company's financial performance. The higher the ROE ratio, the higher the Company's value; the higher the investment by investor.

The results of Rusli, Prihatni & Buchdadi's research (2019) prove that ROE has a significant negative effect on financial distress, which indicates that the higher the Company's ROE, the lower the probability that the Company will experience financial distress. Based on this research, the researcher formulated the third hypothesis as follows,

H03: ROE has no significant effect on financial distress.

Ha3: ROE has a significant effect on financial distress.

2.5.4 The Effect of ROA on Financial Distress

Return on assets (ROA) is a profitability ratio that measures the Company's efficiency in generating income or profits from economic resources or assets owned in its balance sheet. In simpler terms, ROA can be defined as comparing net income after tax and total assets owned by a company.

The results of Rusli, Prihatni & Buchdadi's research (2019) prove that there is a significant negative effect of ROA on financial distress. This means that the higher the ROA, the lower the probability that the Company will experience financial distress. It indicates the more effective use of assets, the greater the profit or profit earned. Will be obtained by the Company. Based on this research, the researcher formulated the fourth hypothesis as follows,

H04: ROA has no significant effect on financial distress.

Ha4: ROA has a significant effect on financial distress.

2.5.5 The Effect of DAR on Financial Distress

The debt to assets ratio is needed by the Company in measuring the Company's financial health, especially in bearing the debt it has. The debt to assets ratio uses the Ratio of total debt to total assets owned. Therefore, if the debt to asset ratio is high, the company's risk in paying off its obligations.

The results of Rusli, Prihatni & Buchdadi's research (2019) prove that DAR has a significant positive effect on financial distress, which pictures that there is relationship between DAR and financial distress. If the Company's DAR is higher, then there will be possibility the company experiencing financial distress higher. Based on this research, the researcher formulates the fifth hypothesis as follows,

H05: DAR has no significant effect on financial distress.

Ha5: DAR has a significant effect on financial distress.

2.5.6 The Effect of DER on Financial Distress

Debt to Equity Ratio (debt to equity ratio), or what can be abbreviated as DER, is the ratio of debt to Equity. Debt to Equity Ratio (DER) is a financial ratio that compares debt to Equity. Equity and the amount of debt used for company operations must be in a proportional amount.

The results of Rusli, Prihatni & Buchdadi's research (2019) prove that DER has a significant positive effect on financial distress, which it has relationship between financial distress and DER. The higher the DER, the higher the probability that the Company will experience financial distress. Based on this research, the researcher formulated the sixth hypothesis as follows,

H06: DER has no significant effect on financial distress.

Ha6: DER has a significant effect on financial distress.

2.5.7 The Effect of times Interest Earned Ratio on Financial Distress

The TIE ratio measures the amount of profit before tax and interest is used to pay interest in the future. Creditors will prefer companies with higher interest coverage ratios because it means that the company can pay its interest debt when it is due.

The results of Rusli, Prihatni & Buchdadi's research (2019) prove that TIE has no significant adverse effect on financial distress. Based on this research, the researcher formulated the seventh hypothesis as follows,

H07: TIE has a significant effect on financial distress.

Ha7: TIE has no significant effect on financial distress.

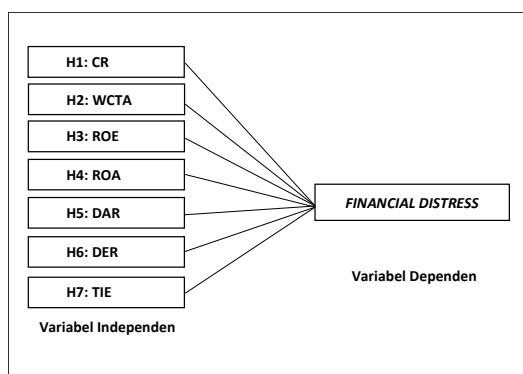


Figure 2: Research Model Framework

3 RESEARCH METHODS

This study is a quantitative study to provide evidence of the effect of financial ratios on the Company's financial distress. Secondary data on company annual reports published on the Indonesia Stock Exchange (IDX) for the 2015-2019 period through the website www.IDX.co.id. The population used as the sample of this study consisted of companies in the agricultural sector.

3.1 Operational Definition

3.1.1 Dependent Variables

Current Ratio

This ratio is to know the Company's ability to pay off short-term debts that are maturing.

$$CR = (Current\ Assets)/(Current\ Liability)$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

Working Capital to Total Assets

Calculating the ratio is to compare working capital with total assets or commonly referred to as ratios to calculate the liquidity of the Company's assets relative to total capital.

$$WCTA = (Working\ Capital)/Assets$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

Return on Equity (ROE)

ROE is to measure net profit after tax with own capital and the efficient use of own funds.

$$ROE = (Net\ Income)/(Total\ Equity)$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

Return on Assets (ROA)

ROA calculates the yield of the assets used in the company.

$$ROA = (Net\ Income)/(Total\ Assets)$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

Debt to Asset Ratio

The ratio calculates the ratio between total debt to total assets.

$$DAR = Debt/Assets$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

Debt to Equity Ratio

The ratio compares total liabilities with Equity.

$$DER = Debt/Equity$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

Times Interest Earned Ratio

The ratio analyses the company's ability to pay interest costs in the next period. This Ratio analyses profit and interest before tax with interest expense based on accounting principles.

$$TIE = (EBIT \& \text{Interest Ex})/(Interest Ex)$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

3.1.2 Independent Variables

Financial distress

The declining stage of the company's financial that takes place before the company goes bankrupt or liquidates is called financial distress. According to Altman, Altman Z-Score is a discriminant analysis to predict financial distress (Y).

bankruptcy model:

$$Z = 6,56 X1 + 3,26 X2 + 6,72 X3 + 1,05X4$$

Source: (Rusli, Prihatni, & Buchdadi, 2019)

Description:

X1: (Current Assets – Current Liabilities) / Total Assets

X2: Retained Earnings / Total Assets

X3: Earnings Before Interest and Taxes / Total Assets

X4: Book Value of Equity / Total Liabilities Z-Score

Zones of discrimination:

$Z > 2,6$: safe zone

$1,1 < Z < 2,6$: grey zone

$Z < 1,1$: distress zone

3.2 Data Processing Techniques

Data processing in this study was carried out in several steps: determining variables, summarizing, calculating ratios, and processing data using the eviews application. The analysis method in this study uses descriptive statistics, classical assumption tests, hypothesis testing, and panel data regression analysis. The regression model is:

$$\bar{Y} = \alpha + \beta X1 + \beta X2 + \beta X3 + \beta X4 + \beta X5 + \beta X6 + \beta X7 + e$$

Description:

Y = financial distress

α = Constant

$\beta X1$ = Current Ratio

$\beta X2$ = WCTA

$\beta X3$ = ROE

$\beta X4$ = ROA

$\beta X5$ = DAR

$\beta X6$ = DER

$\beta X7$ = TIE

4 RESULT AND DISCUSSIONS

4.1 Descriptive of Research Samples

The data population is companies that are in the agricultural sector in Indonesia, which are registered on the Indonesia Stock Exchange during 2015-2019. The sample taken is the whole of the population which among some of the data is not sampled due to certain reasons. The total sample processed during the 2015-2019 period is 75 companies. The number of samples for this study is shown in Table 1 as follows:

Table 2: Total Research Sample.

Criterion	Number of companies
Agricultural companies registered during 2015-2019	24
Incomplete financial statements	-7
Not using rupiah	-1
Not submitting financial statements	-1
(15 companies multiplied by 5 years)	75

4.2 Descriptive Statistics

The description of statistical analysis data in this research is presented in tabular form. It displays the minimum, maximum, mean, and standard deviation values of the research data. In addition, the results of the descriptive statistical analysis of the study are shown in table 3 below.

Table 3 Descriptive Statics

	Mean	Maximum	Minimum	Std. Deviation
Y	2.376 762	14.915980	-17.775440	5.057127
X1	1.566 533	6.770000	0.070000	1.605499
X2	0.019 938	0.720305	-1.285852	0.302073
X3	10.45 5470	25.490000	-350.30000	48.822300
X4	0.777 467	15.380000	-58.250000	11.216840
X5	0.531 333	1.650000	0.110000	0.251811
X6	0.830 267	11.270000	-30.640000	4.264892
X7	160.7 72800	6419.5300 00	-3.060000	778.15700 0
N			75	

Source: Output Eviews 9 (2021)

4.3 Eviews Model Test Results

Chow Test

Table 4 Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.970037	(14,53)	0.0000
Cross-section			
Chi-square	84.983098	14	0.0000

Source: Output Eviews 9 (2021)

The probability of a chi-square cross-section in the table above is 0.0000. This indicates that the probability value of the chi-square cross-section < 0.05 . Therefore, the results of the chow test indicate that it is more appropriate to use the Fixed Effect

Model (FEM) than the Common Effect Model (CEM).

Hausman Test

Table 5 Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	42.261398	7	0.0000

Source: Output Eviews 9 (2021)

The magnitude of the random cross-section probability value in the table above is 0.0000. Hausman test results show that a significance of < 0.05. So that the selection of the right model is fixed effect model (FEM) because the results of the chow test and Hausman test both show that the right model is FEM, so there is no need to do the next, namely the langrage multiplier test.

4.4 Classic Assumption Test

Multicollinearity Test

Table 6 Multicollinearity Test

	X1	X2	X3	X4	X5	X6	X7
X1	1.0000	0.7426	0.3104	0.4782	0.5719	0.0012	0.4617
X2	0.7426	1.0000	0.5716	0.6648	0.7503	0.2800	0.3106
X3	0.3104	0.5716	1.0000	0.5948	0.5178	0.7109	0.1055
X4	0.4782	0.6648	0.5948	1.0000	0.6223	0.1155	0.2346
X5	0.5719	0.7503	0.5178	0.6223	1.0000	0.1327	0.3023
X6	0.0012	0.2800	0.7109	0.1155	0.1327	1.0000	0.0307
X7	0.4617	0.3106	0.1055	0.2346	0.3023	0.0307	1.0000

Source: Output Eviews 9 (2021)

Based on the test results, all variables do not have multicollinearity because they value < 0.8.

Heteroskedasticity Test

Table 7 Glejser Test

F-statistic	82	Prob. F (7,67)	0.1060
Obs*R-squared	11.756	Prob. Chi-Square (7)	0.1089
Scaled explained SS	10.884	Prob. Chi-Square (7)	0.1437

Source: Output Eviews 9 (2021)

According to the results that the value of *R-squared is 11.75664 and the value of probability is 0.1089, which means > 0.05, it can be concluded that the data does not experience heteroskedasticity problems.

4.5 Hypothesis Test

Table 8 Fixed Effect Model (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.465334	0.296775	21.78533	0.0000
X1	0.250005	0.061282	4.079582	0.0002
X2	4.176591	0.566570	7.371709	0.0000
X3	-0.005073	0.002249	-2.256105	0.0282
X4	0.059207	0.008623	6.866052	0.0000
X5	-8.663884	0.549610	-15.76371	0.0000
X6	0.033516	0.019957	1.679408	0.0990
X7	0.000032	0.000081	0.389715	0.6983

Source: Output Eviews 9 (2021)

Partial tests are to know the effect of independent variables on dependent variables. The decision to accept or reject a hypothesis is to look at its probability value. The decision-making criterion is that if the probability value is <0.05, the variable has a significant effect. However, if the probability value is >0.05, then the variable has no effect. The results of the partial test can be seen in table 7 above. The coefficient of determination is x` to determine the percentage of independent variables together to explain dependent variables. The results of the coefficient of determination can be seen in Table 8 below as follows.

Table 9 Coefficient of Determination

Weighted Statistics	
R-squared	0.997339
Adjusted R-squared	0.996284
S.E. of regression	0.559338
Mean dependent var	7.54746
Sum squared resid	0
S.D. dependent var	10.9089
Sum squared resid	16.5815

		Durbin-Watson	1.85313
F-statistic	945.7964	stat	9
Prob(F-statistic)	0.000000		
Unweighted Statistics			
		Mean dependent	2.37676
R-squared	0.987532	var	2
Sum squared		Durbin-Watson	1.44226
reside	23.59616	stat	3

Source: Output Eviews 9 (2021)

Adjusted R-squared in table 8 shows a value of 0,996284. This number will be changed to percentage form. This means that dependent variables in financial distress are affected by independent variables (C.R., WCTA, ROE, ROA, DAR, DER, and TIE) of 99% (0.9962), and the remaining 1% is explained by other factors outside the research model.

4.6 Data Analysis

Based on the hypothesis test results between independent and dependent variables, the summary of hypothesis test results can be seen in Table 9.

Table 10 Summary of Hypothesis Test Results

Hypothesis	Conclusion
H1: C.R. significant effect on financial distress	Accepted
H2: WCTA significant effect on financial distress	Accepted
H3: ROE significant effect on financial distress	Accepted
H4: ROA significant effect on financial distress	Accepted
H5: DAR significant effect on financial distress	Accepted
H6: DER has no significant effect on financial distress	Unaccepted
H7: TIE has no significant effect on financial distress	Accepted

Based on the summary of the results of the study in table 4.10, it can be concluded that not all hypotheses are supported. It is seen from the results showing that partially Current Ratio (C.R.), Working Capital to Total Assets (WCTA), Return on Equity (ROE), and Return on Assets (ROA) and Debt Asset Ratio (DAR) affect financial distress. At the same time, Debt Equity Ratio (DER) and Time Interest Earned (TIE) do not affect financial distress.

4.6.1 Current Ratio Affects Financial Distress

H1 shows that C.R. affects on financial distress positive significantly. This is evidenced by a significance value of 0.0002, which means less than the significance level of 0.05. The coefficient value is 0.250005, which means the Current Ratio (C.R.) positively influences financial distress. These results are in line with the results of research conducted by Yuliatri (2018) and Yap, Munuswamy, & Mohamed (2012), which explained that the Current Ratio (C.R.) has a significant positive effect on financial distress. A positive influence indicates that the higher the current ratio value, the higher the value of z-score financial distress.

Based on this, the more current assets owned by the Company means that assets that can be used as money are also more and more so that the Company can meet its short-term obligations in time. So it will provide information to management that the Company is able to meet its short-term obligations, which shows that the Company is in good health and not in a depressed state. Different from the results of research conducted by Zaki, Bah, & Rao (2011) and Fitri & Zannati (2019), which explained that the current Ratio does not affect financial distress.

4.6.2 Working Capital to Total Assets Affects Financial Distress

H2 shows that WCTA affects on financial distress significantly. This is evidenced by a significance value of 0.0000, which means less than the significance level of 0.05. The coefficient value is 4.176591, which means wcta has a positive influence on financial distress. This result implies that the higher the value of working capital to total assets, the higher the value of z-score financial distress. Good capital utilization will result in good working capital value and can positively impact the Company's performance in the next period. Paying attention to working capital will allow the Company to use its power source economically to minimize the danger of the financial crisis. The results of this study are reinforced by research conducted by Vinh (2015) and Geng, Bose, & Chen (2014), which explained that Working Capital to Total Assets (WCTA) has a significant positive effect on financial distress. Research by Mselmi, Lahiani, & Hamza (2017) did not show the same results. The study explained that Working Capital to Total Assets (WCTA) had no significant effect on financial distress.

4.6.3 Return on Equity Affects Financial Distress

H3 shows that Return on Equity (ROE) has a significant effect on financial distress. This is evidenced by a significance value of 0.028, which means smaller than the significance level of 0.05. The coefficient value of -0.00507 means Return on Equity (ROE) negatively influences financial distress. The results of this study are in line with research conducted by Rusli, Prihatni, & Buchdadi (2019) and Vinh (2015), which states that Return on Equity (ROE) negatively affects financial distress. This negative influence indicates that the higher the return on equity value, the lower the value of z-score financial distress. This can be due to the low level of the Company's ability to make a profit when viewed from the overall average numbers in the last 5 years. This research is not in line with the research results owned by Mselmi, Lahiani, & Hamza (2017), which is ROE has no effect on financial distress. Negative corporate profitability indicates the lack of effectiveness of the use of company assets to generate net income. If the company's profitability actually decreases and even amounts to negative, then the possibility of the Company going bankrupt is greater. On the other hand, if the value of a company's ROE is high, it can be better, and its performance makes profits. In other terms, ROE can show how much profit is earned by the Company. But if the higher the profit obtained allows the existence of funds that are not used as needed, if this cannot be observed, the possibility of the Company can experience bankruptcy before experiencing financial difficulties.

4.6.4 Return on Assets Has an Effect on Financial Distress

H4 shows that Return on Assets (ROA) has a significant effect on financial distress. This is evidenced by a significance value of 0.0000, which means less than the significance level of 0.05. The coefficient value is 0.059207, which means Return on Assets (ROA) positively influences financial distress. The results of this study are the similar with research that was conducted by Hanifa (2019) and Afiqoh & Laila (2018), which states that Return on Assets (ROA) positively affects financial distress. This result explains that the amount of net income can generate each rupiah of the fund embedded in the total assets, or vice versa. So if the higher the value of return on assets (ROA), financial distress conditions are less likely. In contrast to the research results owned by Yap, Munuswamy, Mohamed (2012) and

Hanifah & Purwanto (2013), which shows that ROA has no impact on financial distress.

4.6.5 Debt to Assets Ratio Has an Effect on Financial Distress

H5 shows that the Debt to Total Assets Ratio (DAR) has a significant effect on financial distress. This is evidenced by a significance value of 0.0000, which means less than the significance level of 0.05. The coefficient value of -8.66388 means the Debt to Assets Ratio (DAR) negatively influences Financial distress. The presence of this negative influence indicates that the higher the value of debt to total assets, the lower the value of z-score financial distress. Companies with high DAR values will not necessarily be spared from financial distress, and companies with the lowest DAR values also do not always experience financial distress. This can be caused if many companies whose activities are financed by debt will also be the possibility of financial distress conditions due to the greater the obligation of the Company to pay the debt. This study is in line with the results analyzed by Yuliatr (2018) and Mselmi, Lahiani, & Hamza (2017), who stated that DAR negatively affects financial distress but, this study is not in line with the results of Debora (2018) and Yap, Munuswamy, & Mohamed (2012). They said that DAR has no effect on financial distress.

4.6.6 Debt to Equity Ratio Has an Effect on Financial Distress

H6 shows that the Debt to Total Equity Ratio (DER) has no significant effect on financial distress. This is evidenced by a significance value of 0.099, which means greater than the significance level of 0.05, then DER cannot predict the condition of financial distress in agricultural sector companies. The coefficient value is 0.033516, which means the debt to equity ratio (DER) positively influences financial distress. The amount of debt greater than the amount of all net capital can result in the Company's burden on large outsiders as well, which will adversely affect the financial health condition of the Company. In addition, the amount of debt burden can reduce the amount of net income the Company will receive, which will ultimately reduce profits for shareholders. This research is not in line with the results of research conducted by Hanifa (2019) and Afiqoh & Laila (2018), in which DER is able to predict financial distress. The ideal DER is below 1, but if there are companies with DER above 1, it can not be said the Company is not good. This can happen if the

obligation is only short-term debt, business debt to suppliers (vendors), or debts resulting from income received in advance (down payment). It can be said that the debt is relatively healthy. If it turns out that long-term debt is greater than short-term debt, the condition is less healthy. The Company will continue to bear the obligation to pay principal and interest on the loan until the debt is paid off. These conditions will suppress profits earned by the Company or may interfere with liquidity in the future.

4.6.7 Time Interest Earned Has No Effect on Financial Distress

H7 shows that TIE has no significant effect on financial distress. This is evidenced by a significance value of 0.6983, which means greater than the significance level of 0.05. The coefficient value is 0.000032, which means TIE positively influences Financial distress. TIE is not the main factor affecting financial distress in agricultural sector companies because it has no significant effect. Creditors will prefer companies with a higher Times Interest Earned Ratio because it shows the Company can afford to pay its interest expense at maturity. Companies that have a high Times Interest Earned Ratio have lower credit risk. According to the results of research conducted by Rusli (2019), TIE has no significant negative influence on financial distress.

5 CONCLUSIONS

In this research, the independent variables used are financial ratios specified into liquidity (current ratio and working capital to total assets), profitability (return on equity and return on assets), and solvency (debt asset ratio, debt-equity ratio, and time interest earned). The dependent variable in this study is financial distress. Then you can conclude as follows:

1. The Current Ratio (C.R.) has a significant effect on financial distress and positive direction.
2. Working Capital to Total Assets (WCTA) has a significant effect on financial distress and positive direction.
3. Return on Equity (ROE) has a significant effect on financial distress and negative direction.
4. Return on Assets (ROA) has a significant effect on financial distress and positive direction.
5. Debt Asset Ratio (DAR) has a significant effect on financial distress and negative direction.
6. Debt Equity Ratio (DER) has no significant effect on financial distress and positive direction.

7. Time Interest Earned (TIE) has no significant effect on financial distress and positive direction.

Some limitations in this research need to be put forward that are useful for developing similar research in the future. There are several limitations, namely: This research is limited to companies in the agricultural sector listed on the IDX, so it has not represented all companies listed on the IDX, the period of this study was only conducted for five years, namely 2015-2019 so that results cannot be generalized for previous years or after and this study only tested a few variables namely liquidity ratio, profitability ratio, and solvency ratio.

Based on the limitations that have been outlined, the suggestions for future research are: (1) Further research is expected to expand the research sample; (2) Expand longer timescales to illustrate the comparison of financial performance better and better illustrate the effect of liquidity and solvency on profitability; (3) Further research is expected to add other independent variables that are likely to affect the Company's financial distress.

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