

Effect of Debt to Equity, Current Ratio, Return on Assets and Stock Price Fluctuations on Financial Distress in Properties and Real Estate Sector Companies Listed on the Indonesia Stock Exchange

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Abstract

This study aims to determine the role of Debt to Equity Ratio (DER), Current Ratio (CR), Return on Assets (ROA) and Stock Price Fluctuations on Financial Distress, with a focus on the Properties & Real Estate sector listed on the Indonesia Stock Exchange for the 2020-2022 period. A sample of 33 companies was used which was taken by purposive sampling technique. The data analysis technique used is quantitative analysis. This analysis results that DER, CR, and ROA have a partial effect on financial distress, while stock price fluctuations have no effect. The data management procedure is carried out with the help of IBM SPSS 26.

Abstrak

Penelitian ini bertujuan untuk mengetahui peran Debt to Equity Ratio (DER), Current Ratio (CR), Return on Assets (ROA) dan Fluktuasi Harga Saham terhadap Financial Distress, dengan fokus penelitian pada sektor Properties & Real Estate yang terdaftar di Bursa Efek Indonesia periode 2020-2022. Digunakan sampel sebanyak 33 perusahaan yang diambil dengan teknik purposive sampling. Teknik analisis data yang digunakan adalah analisis kuantitatif. Analisis ini menghasilkan bahwa DER, CR, dan ROA memiliki pengaruh parsial terhadap financial distress, sedangkan fluktuasi harga saham tidak berpengaruh. Prosedur pengelolaan data dilakukan dengan bantuan IBM SPSS 26.

Article history

Received 2024-09-10

Accepted 2024-11-15

Published 2024-11-30

Keywords

Debt to Equity Ratio;
Current Ratio;
Return on Assets;
Stock Price
Fluctuations;
Financial distress;
Altman Z-Score.

Kata kunci

Debt to Equity Ratio;
Current Ratio;
Return on Assets;
Fluktuasi Harga
Saham;
Financial distress;
Altman Z-Score.

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1. Introduction

Changes in the business world during the global economic recovery period after the Covid-19 outbreak have made business competition grow. Almost all industries experience negative impacts. Most economic sectors experienced a significant decline. The manufacturing industry is also experiencing global supply chain disruptions in declining demand. Some of them have difficulty adapting to market conditions.

The condition of going back and forth running a business is a natural thing. This economic recovery requires coordinated strategic measures, including ongoing support to affected sectors. This encourages business people to improve the economy and the company's strategy in running its business in order to survive. To meet business financing needs, companies can issue securities or shares offered to investors and the outside public through the capital market.

The capital market is a bridge between investors and companies through long-term financial instruments. One of the capital markets in Indonesia is the Indonesia Stock Exchange (IDX). The Indonesia Stock Exchange as one of the regulators that provides funds and facilities for securities trading offers in the capital market. Companies listed on the Indonesia Stock Exchange (IDX) are classified into 12 sectors. These sectors are Energy sector, Basic Materials sector, Industrials sector, Consumer Non-Cyclicals sector, Consumer Cyclicals sector, Healthcare sector, Financials sector, Properties & Real Estate sector, Technology sector, Infrastructures sector, the Transportation & Logistics sector, and the Listed Investment sector.

The Indonesia Stock Exchange will be a forum for companies to be listed on the stock exchange so that they can prevent an economic crisis that will lead to bankruptcy. If the company is unable to overcome and face financial difficulties, its business will decline and lead to financial difficulties or financial distress.

Financial distress is a condition in which a company's finances decline before bankruptcy occurs, which is characterized by the inability of the company to pay debts that have matured. This is because at that time the financial situation that occurred in the company was in a state of crisis.

Financial distress can be used as an early warning before bankruptcy, so that the management is able to make quick decisions to prevent problems before reaching the bankruptcy phase. External influences on a company's financial distress can affect the financial stability and financial health of a company. Some of the external factors that can contribute to financial distress are market fluctuations.

Market fluctuations include changes in currency exchange rates, volatility in stock prices, and changes in market conditions that cannot be predicted with certainty by a company. For example, companies that rely on exports and imports can experience financial distress if currency exchange rate fluctuations are unfavorable. The study on bankruptcy was first put forward by Breaver in 1966, which used the company's financial ratios for the 5 years before the bankruptcy. To overcome or minimize the occurrence of bankruptcy in the company, the management must supervise the company's financial condition by using financial statement analysis. Financial statements are used to see the financial condition of a company. So that investors can make the right decision before investing their capital from the financial statements. According to Lakhaye, (2014) stated that if a company stops publishing its financial statements on the stock exchange, the company will be subject to suspension or temporary suspension of trading of the company's shares before being delisted.

Delisting is the removal of a company's shares on the Indonesia Stock Exchange so that it can no longer be traded freely. With this, the company is indicated to be experiencing financial distress. One of the business sectors that experienced delisting was the Properties and Real Estate sector.

The Properties and Real Estate sector is a broad industry engaged in the development, purchase, sale, lease and management of properties. This includes different types of properties, such as residential, commercial, industrial, agricultural, and vacant land. The Properties and Real Estate sectors play an important role in the economy because they affect many aspects of life, such as housing, business, and employment. It is also a major source of investment for individuals, companies, and governments.

Developments in this sector are influenced by factors such as economic conditions, government policies, interest rates, and consumer trends. At the same time, the sector has a recurring cycle, where property prices and demand fluctuate over time which, if not managed properly, can lead to financial distress.

(Gumler, 2021) property yang berpotensi didepak dari status pencatatan alias delisting. Kedelapan emiten tersebut adalah PT Bliss Properti Indonesia Tbk, PT Sinergi Megah Internusa Tbk, PT Plaza Indonesia Realty Tbk, PT Rimo International Lestari Tbk, PT Hanson Internasional Tbk, PT Hotel Mandarin Regency Tbk, PT Cowell Development Tbk, dan PT Modernland Realty Tbk. Kedelapan emiten itu berpotensi terdelisting karena telah mengalami suspensi selama lebih dari enam bulan. Sementara itu, bursa mengunci saham MDLN akibat JCG Ventures Pte. Ltd., tidak melakukan pembayaran kupon atas Guaranteed Senior Notes due 2021 yang telah jatuh tempo. Adapun alasan penghentian perdagangan saham disebabkan beragam sebab. Misalnya PLIN, disuspensi akibat tidak memenuhi aturan free float. Akibatnya kepemilikan publik kurang dari tujuh persen atau hanya sekitar 2,99 persen. Adapun saham mayoritas dikoleksi oleh PLIN Investama sebanyak 96,61 persen (Gumilar, 2021).

The phenomenon that lasted throughout 2020 made the performance of the property sector also paralyzed. Corporately, this can be seen from financial indicators such as declining sales and profitability, causing the liquidity condition of property corporations to also experience pressure, especially during 2020.

(Sunarsip, 2021), by global rating agencies. Fitch Ratings, for example, on December 9 downgraded the rating from CC to C against the debt securities of Evergrande, China's second-largest property company. A number of media outlets said that Evergrande had entered a restricted default status or defaulted because it was unable to meet its financial obligations. The property sector not only needs growth, but also needs stability, especially in terms of price. (Sunarsip, 2021) by global rating agencies. Fitch Ratings, for example, on December 9 downgraded the rating from CC to C against the debt securities of Evergrande, China's second-largest property company. A number of media outlets said that Evergrande had entered a restricted default status or defaulted because it was unable to meet its financial obligations. The property sector not only needs growth, but also needs stability, especially in terms of price.

From several existing phenomena, it can be seen that the Properties & Real Estate sector is experiencing signs of financial distress ranging from experiencing financial performance, risk of default to potential delisting from the Indonesia Stock Exchange (IDX).

In this study, the researcher used the Properties and Real Estate sector with a total of 33 companies and in this study, the researcher chose the Properties & Real Estate sector to find out the possibility of financial distress in this sector, so that investors can make the right decision before investing. Therefore, investors must pay attention to financial data to see the health condition of the company.

This research focuses on four variables that can be considered by investors in making decisions. The variables are debt to equity ratio, current ratio, return on assets, and stock price fluctuations.

2. Method

The type of research used is Associative research which aims to interpret the influence of *Debt to Equity Ratio* (X1), *Current Ratio* (X2), *Return on Assets* (X3), and *Stock Price Fluctuations* (X4) on *Financial Distress* (Y).

The technique used to collect data in this study is technical documentation. The data used is secondary data obtained by taking data in the form of financial statements of the *Properties & Real Estate* sector for the 2020-2022 period published by the Indonesia Stock Exchange from its official website, namely *www.idx.co.id*.

2.1. Population and Sample

The population in the study is the *Properties & Real Estate* sector listed on the Indonesia Stock Exchange for the 2020-2022 period, which is 92 companies. The sampling method used is *purposive sampling*. According to Sugiyono, (2017), *purposive sampling* is a technique for determining samples

with certain considerations. With the consideration of companies that have displayed complete financial report data for 2020-2022 and companies that have the potential to be affected by *Financial Distress*, that is, if the Z value is obtained <1.81 , it means that the company is experiencing bankruptcy. From these criteria, the number of samples in this study is 33 issuers.

2.2. Data Analysis Techniques

In this study, the analysis method used is quantitative analysis expressed with numbers. To support the results of the research obtained, the researcher will conduct a classical assumption test and a statistical analysis test with the help of the IBM SPSS 26 *for windows program*.

3. Results and Discussion

3.1. Normality Test

According to Sujarweni, (2015), the normality test is a test used to determine the distribution of data in the variables that will be used in the research. Good and suitable data for use in research is data that has a normal distribution. In this study, the *Kolmogorov Smirnov method* was used. *Kolmogorov Smirnov* was used to find out whether the data was normally distributed or not. The decision making on the normality test is as follows:

If the $\text{sig} > 0.05$ then the distributed data is normal.

If $\text{Sig} < 0.05$ then the data is not normally distributed.

Table 1. Results of the One Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		96
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.38187614
Most Extreme Differences	Absolute	.073
	Positive	.073
	Negative	-.072
Test Statistic		.073
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Based on the table above, it is known that the value of *Asymp. Sig. (2-tailed)* $0.20 > 0.05$ means that the data is normally distributed.

3.2. Multicollinearity Test

According to Ghozali, (2016), the Multicollinearity Test aims to test whether the regression model finds a correlation between independent variables. A good regression model should not correlate between independent variables, if independent variables correlate with each other, then these variables are not orthogonal. To find out whether there is multicollinearity in the regression model, it can be seen from the *tolerance value* and *variance inflation factor* (VIF). So the decision will be taken: If the tolerance value is \geq from 0.10 and the VIF value is \leq 10, it can be concluded that there is no multicollinearity.

If the tolerance value is $<$ from 0.10 and the VIF value is $>$ 10, it can be concluded that multicollinearity occurs.

Table 1. Multicollinearity Test Results

Model		Coefficients ^a					Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.109	.180		.604	.547		
	X1	-.254	.093	-.201	-2.729	.008	.979	1.022
	X2	.741	.096	.574	7.738	.000	.960	1.041
	X3	1.701	.523	.254	3.251	.002	.867	1.154
	X4	.004	.006	.047	.615	.540	.887	1.127

Based on the table above, it can be seen that there is no multicollinearity between independent variables in the regression model. This is marked by the tolerance value of each variable > 0.10 and $VIF > 10$.

3.3. Autocorrelation Test

According to Santoso, (2012), the purpose of the autocorrelation test is to find out whether in a linear regression model there is a correlation between the perturbation error in the t-period and the error in the t-1 period (previously). To detect autocorrelation symptoms, the Durbin-Watson (D-W) test can be used. The decision to decide whether or not there is an autocorrelation can be seen from the following provisions (Santoso, 2012):

If D-W is below -2 it means there is a positive autocorrelation.

If D-W is between -2 to +2 it means that there is no autocorrelation.

If D-W is above +2 it means there is a negative autocorrelation.

A good regression model is a regression that is free of autocorrelation

Table 3. Autocorrelation Test Results

Model	Model Summary ^b					Durbin-Watson
	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.720 ^a	.518	.497	.390179		.859

From the table above, it can be concluded that there are no autocorrelation symptoms because the D-W value of 0.859 is between -2 to +2.

3.4. Heteroscedasticity Test

According to Ghozali, (2016), the heteroscedasticity test aims to test whether in the regression model there is a variance inequality from the residual of one other observation. If the *variance* of the residual of one observation of another observation is fixed, then it is called homokedasticity and if it is different it is called heterokedasticity. A good model is homokedasticity or no heterokedasticity.

This research tests the existence of heteroscedasticity with *the glacier* test, namely by looking at the significant value of the test results. The basis for decision-making for heterokedasticity testing is as follows:

If the significant value > 0.05 , then no heterokedasticity symptoms occur.

If the significant value < 0.05 , then heterokedasticity symptoms occur.

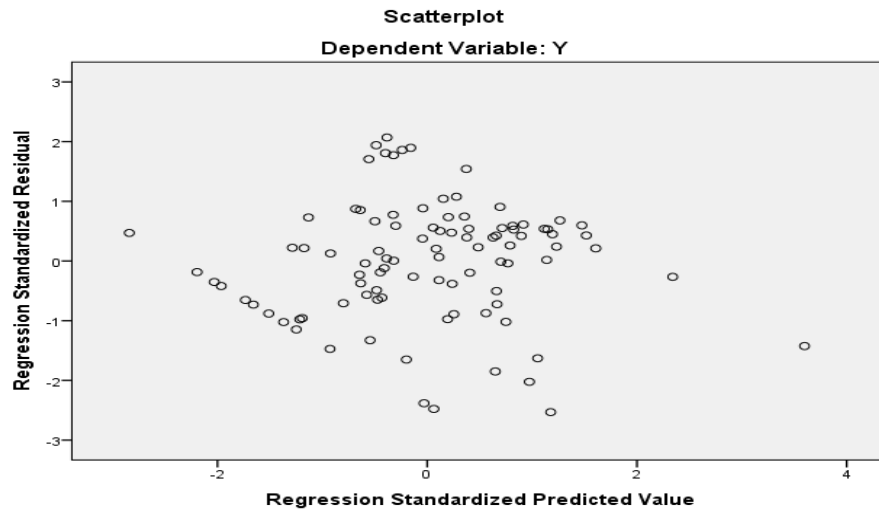


Figure 1. Heteroscedasticity Test Results

From the table above, it can be seen that the randomly spread points are scattered both above and below the number (0), so it can be concluded that there is no heteroskedasticity in the regression model.

3.5. Linearity Test

According to Ghozali, (2016), the Linearity Test is used to see whether the specifications of the model used are correct or not. In this study, the linearity test was carried out with the *Lagrange Multiplier* test with the aim of obtaining the value of *c2* calculation or ($n \times R^2$). The decision-making criteria are as follows:

If $c2 \text{ counts} > c2 \text{ table}$, then the hypothesis that states linear is rejected.

If $c2 \text{ calculates} < c2 \text{ table}$, then the hypothesis that states linear is accepted.

Table 4. Linearity Test Results

ANOVA							
			Sum of Squares	df	Mean Square	F	Sig.
Y * X1	Between Groups	(Combined)	28.731	93	.309	7.925	.014
		Linearity	1.861	1	1.861	47.752	.001
		Deviation from Linearity	26.870	92	.292	7.492	.016
	Within Groups		.195	5	.039		
	Total		28.926	98			

Based on the table above, the results of the calculation of the linearity test using spss 25 can be obtained if the result is that the $c2 \text{ calculation} < c2 \text{ table}$ so that the regression model of this study is linear.

3.6. Multiple Linear Regression Analysis

According to Sugiyono, (2017), multiple linear regression analysis is used by researchers, if the researcher predicts how the state (up and down) of the dependent variable (criterion), when two or more independent variables as *predictor factors* increase or decrease their values (manipulated). Multiple regression analysis will be carried out if the number of independent variables is at least 2. The multiple linear regression equation can be formulated as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Information:

Y = Variabel *Financial Distress*

a = Constanta

b1- b4 = Independent variable regression coefficient

X1 = *Debt to Equity Ratio*X2 = *Current Ratio*X3 = *Return on Assets*X4 = *Stock Price Fluctuation*e = *error term/ pervert variable*

Table 5. Multiple Linear Regression Analysis Results

Coefficients ^a					
Model	B	Std. Error	Beta	t	Sig.
(Constant)	.109	.180		.604	.547
DER	-.254	.093	-.201	-2.729	.008
CR	.741	.096	.574	7.738	.000
ROA	1.701	.523	.254	3.251	.002
FLUKTUASI STOCK PRICE	.004	.006	.047	.615	.540

Based on the table above, the results by the data above the calculation of multiple linear regression analysis obtained a constant value of 0.109. Thus, it is concluded that the amount of debt to equity ratio (DER), current ratio (CR), return on assets (ROA) and stock price fluctuations that will be obtained by the company is 0.109.

3.7. Multiple Correlation Analysis (R)

According to Sujarweni, (2015, p. 126): "Correlation is one of the *statistics* that will test whether two or more variables have a relationship or not". Correlation does not show a functional relationship or in other words, correlation analysis does not distinguish between dependent and independent variables.

As for interpreting the double correlation values above, you can use the guidelines in the following table:

Table 6. Interpretation of correlation coefficients

Interval Cowphysin	Relationship Level
0,00 – 0,199	Very Weak
0,20 – 0,399	Low
0,40 – 0,599	Keep
0,60 – 0,799	Strong
0,80 – 1,000	Very powerful

Sumber: Sugiyono, (2017)

Table 7. Results of Multiple Correlation Analysis (R)

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720 ^a	.518	.497	.390179

Based on the table above, the calculation results in column 2 show that the value of the R correlation is 0.720, meaning that all variables, starting from DER, CR, ROA and Stock Price Fluctuations have a high relationship with *Financial Distress*.

3.8. Determination Analysis (R²)

According to Ghazali, (2016), the determination coefficient was used to test the *goodness-fit* of the regression model. From the r value that has been obtained, the value of the determination coefficient

is then sought, namely to find out how much the X variable contributes to the Y variable. The value of the determination coefficient is between zero and one.

Table 8. Results of Determination Analysis (R2)

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720 ^a	.518	.497	.390179

Based on the table above, the determination analysis (R2) in column 3 obtained a coefficient value of 0.518, this means that 51.8% of the influence of *Financial Distress* can be described by the variables DER, CR, ROA and Stock Price Fluctuations.

3.9. Simultaneous Effect Test (F Test)

According to Ghazali, (2016), the F statistical test basically shows whether all independent or independent variables included in the model have a joint influence on the dependent/bound variables. In this study, the f statistical test was carried out to test whether all independent variables, namely DER, CR, ROA, and Stock Price Fluctuations. So the hypothesis tested:

H0: $b_1 = 0$ means that DER, CR, ROA and stock price fluctuations do not have a simultaneous effect on *financial distress*.

H0: $b_1 \neq 0$ means that DER, CR, ROA and Stock Price Fluctuations do not have a simultaneous effect on *financial distress*.

Basis of analysis:

If the Sig value > 0.05 then H0 is accepted and Ha is rejected.

If the Sig value ≤ 0.05 then H0 is rejected and Ha is accepted.

Table 9. Simultaneous Effect Results (Uji F)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14.905	4	3.726	24.477	.000 ^b
Residual	13.854	91	.152		
Total	28.759	95			

Based on Tanel 9, it can be decided that H0 is rejected and Ha is accepted. This can be seen from the calculated F value of 24.477. Meanwhile, the resulting significance value is 0.000 which is less than 0.05. Thus, it can be concluded that this multiple regression model is feasible to use and independent variables including DER, CR, ROA, and Stock Price Fluctuations have a simultaneous influence on the dependent *variables of Financial Distress*.

3.10. Partial Test (Uji T)

According to Ghazali, (2016), the statistical t test basically shows how far an individual independent variable affects in explaining the variation of the independent variable". Hypothesis testing will be carried out using a significance level of 0.05 ($\alpha = 5\%$) or a confidence level of 0.95. The hypothesis is formulated as follows:

H0: $b_1 = 0$ means that individual DER has no partial effect on *financial distress*.

H0: $b_1 \neq 0$ means that DER individually has a partial influence on *financial distress*.

H0: $b_2 = 0$ means that individual CR has no partial effect on *financial distress*.

H0: $b_2 \neq 0$ means that CR individually has a partial influence on *financial distress*.

H0: $b_3 = 0$ means that ROA individually has no partial effect on *financial distress*.

H0: $b_3 \neq 0$ means that ROA individually has a partial effect on *financial distress*.

H0: $b_4 = 0$ means that individual stock price fluctuations have no partial effect on *financial distress*.

H0: $b_4 \neq 0$ This means that individual stock price fluctuations have a partial effect on *financial distress*.

Basis of analysis:

If the value of Sig. > 0.05 then H0 is accepted and Ha is rejected.

If the value of Sig. \leq is 0.05 then H0 is rejected and Ha is accepted.

**Table 10. Partial Test Results (Uji T)
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.109	.180		.604	.547
DER	-.254	.093	-.201	-2.729	.008
1 CR	.741	.096	.574	7.738	.000
ROA	1.701	.523	.254	3.251	.002
Stock Price Fluctuations	.004	.006	.047	.615	.540

Based on Table 10, it is shown that DER, CR, and ROA have sig. values of 0.008, 0.000 and 0.002 which are less than 0.05, so it is interpreted that DER, CR, and ROA have a significant influence on *Financial Distress*. Then the Stock Price Fluctuations have no significant effect because they are significant at 0.540 which is higher than 0.05.

4. Conclusion

Based on the analysis and discussion that the researcher has explained, the conclusion taken is that the determination of the variables DER, CR, ROA, and Stock Price Fluctuations is 51.8% against *Financial Distress*. Where there is a significant influence of DER, CR and ROA on *financial distress*, but on the contrary there is no significant influence of stock price fluctuation variables. The research conducted by the researcher also had data limitations that were initially used by 92 companies as a research sample when the normality test was carried out, it turned out that the data was normal for 33 companies so that 59 companies were not further researched.

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