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JURNAL EKONOMI

THE INFLUENCE OF CURRENT RATIO, RETURN ON ASSET, DEBT ASSET RATIO, AND TOTAL ASSET TURNOVER ON FINANCIAL DISTRESS (Case study of Manufacturing Companies in the Coal Mining Sub Sector Listed on the Indonesia Stock Exchange in 2019-2021)

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ARTICLEINFO	ABSTRACT
<i>Keywords</i> : Financial Distress Current Ratio Return On Asset Debt Asset Ratio Total Asset Turnover	The goal of this analysis is to determine the relationship between a number of economic variables (such as the Current Ratio [CR], Return on Asset [ROA], Debt Asset Ratio [DAR], and Total Asset Turnover [TATO]) predict financial hardship among businesses in the coal mining sector between 2019 and 2021). Purposive sampling was used to pick the sample, and as a result, 27 businesses satisfied the sample requirements. Panel data is used in the data analysis approach. According to the findings of the hypothesis test, Financial Distress is significantly influenced by Total Asset Turnover (TATO), Debt Asset Ratio (DAR), Return on Asset (ROA), and Current Ratio (CR). In contrast to the Current Ratio (CR), Return on Asset (ROA), and Total Asset Turnover (TATO), sthe Debt Asset Ratio (DAR) is highly predictive of financial hardship.
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1. **INTRODUCTION**

One of Indonesia's many lucrative industries is mining. Based on [1] Mining refers to the whole process of managing, researching, and exploiting minerals or coal, from initial prospecting and feasibility studies through actual construction, mining, processing, refining, transportation, sales, and other postmining endeavors. Coal mining is a significant industry in Indonesia. The Department of Natural Resources and Energy (ESDM) through the Geological Agency noted that until June 2019 Indonesia's proven coal reserves reached around 41 billion tons [2].

In 2014, the mining industry was one of Indonesia's top 5 economic growth providers, but the Central Statistical Agency said that, as of the second quarter of 2019, all business sectors aside from mining and quarrying were supporting Indonesia's economic development [3], [4]. The emergence of the Covid 19 pandemic which has hit various countries in the world since the end of 2019, has made economic performance and various industrial sectors experience contraction or decline. The performance of the mining industry in semester 1 of 2020, semester 1 of 2019, decreased by 1.13%. Based on the 2020 Indonesian Industrial Performance Statistics Report, it can be seen that in semester 1 2020, coal and lignite mining experienced a decline of 4.04 percent. The amount of GDP at constant prices for coal and lignite mining in semester 1 2020 was 123,879 billion rupiahs, or decreased by 5,213 billion rupiahs from GDP at constant prices for semester 1 2019 which amounted to 129,092 billion rupiahs[5]. When viewed from the financial performance of 8 large coal sector companies in 2020, Comparing the current year to the same time the previous year, seven coal businesses saw a decline in operating profit. Three of them, even, suffered defeats[6].

According to [7] "a company established has the aim of creating wealth and maximizing profits. But in reality, most companies will experience fluctuations in achieving profits and not a few will fail. Company failure can actually be predicted when the company begins to show indications of financial difficulties or financial distress. According [8], "financial distress can be said to be the stage that occurs before the company goes bankrupt with the condition that the company's debts/obligations cannot be fulfilled by the company's operating results". The phenomenon that occurred was from 2018 to 2020 (before and after the outbreak of the Covid19 pandemic) where 2 issuers of company shares in the coal mining sector experienced delisting of a total of 12 issuers of company shares. According to [9] "The analysis of financial ratios produced by financial accounting is useful for classifying or predicting bankruptcy. This bankruptcy analysis is carried out to obtain an early warning of bankruptcy.



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The liquidity ratio used in this study is the Current Ratio (CR). According to [10] The "Current Ratio" is a ratio that assesses a company's capacity to fulfill its commitments or settle its short-term debts using all of its current assets. Return on Asset was employed in this research as the profitability ratio. "ROA is a technique used to be able to analyze the amount to which investment money may be spent so that it is capable of generating returns that are able to meet investment expectations," claims [11]. The Debt Asset Ratio is the measure of solvency utilized in this research (DAR). By comparing a company's total debt to its total assets, [12] claims that the debt asset ratio "shows how much a company's assets are funded by debt." The Total Asset Turnover Ratio was employed as the activity ratio in this research (TATO). Total Asset Turnover, according to [12], "measures the amount of sales gained from each rupiah of assets" and is the ratio utilized for the turnover of all assets possessed by the firm. Several findings from earlier research demonstrate the impact of financial ratios that are still varied on financial hardship. The researcher was interested in performing a new study with the title "The Impact of Current Ratio, Return on Asset, Debt Asset Ratio, and Total Asset Turnover on Financial Distress" based on the phenomena and the findings of other studies, which revealed a variety of conclusions (Case Study in Manufacturing Companies in the Coal Mining Sector Listed on the Indonesia Stock Exchange in 2019-2021).

2. LITERATURE REVIEW

Current Ratio

According to [13], a company with a high current ratio may easily cover its short-term debts, whereas one with a low ratio would have problems doing so." If the current ratio is too low, it is relatively riskier but demonstrates that management has managed its current assets relatively well. However if the current to weight ratio is excessive, it can indicate cash hoarding, a large number of uncollectible accounts, and inventory accumulation, so it is considered bad [11].

The formula used to calculate the current ratio (CR) is as follows [12]:

 $CR = \frac{\text{Current Asset}}{\text{Current Liabilities}}$

Return On Asset

"ROA is a kind of profitability ratio that is intended to be able to analyze the company's capability to produce profits with all of the cash spent for the company's activities," as explained by [14]. "Return on Asset is a ratio that indicates a firm in creating net profit on its assets," explains [13]. "The higher this figure, the more successful the company is, and conversely, the lower this ratio, the less profitable the company is."

The formula used to calculate return on asset (ROA) is as follows [11]:

$$ROA = \frac{\text{Net Profit After Interest and Tax}}{\text{Total Asset}}$$

Debt Asset Ratio

According to [12] the Debt Asset Ratio compares overall debt to total assets. To rephrase, debt levels and the percentage of assets financed by debt both have a role in how a company's assets are managed. The lower the DAR, the happier the creditors are since the security is improving, according to [15], "this ratio assesses the amount of debt load sustained by businesses in the context of fulfilling assets."

According to [12], the debt-to-asset ratio (DAR) is calculated using the following formula:

$$DAR = \frac{\text{Total Liabilities}}{\text{Total Asset}}$$

Total Asset Turnover

The ratio used to gauge the volume of sales generated by each asset is called total asset turnover, according to [12]." A high Total Asset Turnover indicates that management's performance is good because it is more effective in utilizing its assets, while a low money ratio indicates poor management performance so that an evaluation of marketing strategies and investment or capital expenditure is needed [15].

The formula used to calculate Total Asset Turnover (TATO) is as follows [12]:

$$TATO = \frac{\text{Sales}}{\text{Total Asset}}$$



Financial Distress

According to Platt and Platt [11], said that " Before bankruptcy or liquidation, a period of deterioration in financial situations is known as financial hardship..." The condition of financial distress that is currently happening in the company will make the company experience a decline in system functions, components, processes and resources which in the end will be interconnected, so that when something goes wrong, it will have an impact on all levels of the company [16]. The Springate analysis approach was used in this research to quantify financial hardship (S-Score). The springate approach combines many standard financial measures with varying weights assigned to each one in order to forecast the longevity of a firm [7]. The firm is in significant danger of going bankrupt if the S-Score is less than 0.862.

Springate formulates his method as follows:

S = 1,03 X1 + 3,07 X2 + 0,66 X3 + 0,4 X4

Explanation:

- x1: Working Capital to Total Assets
- x2: Earning Before Interest and Taxes (EBIT) to Total Assets
- x3 : *Earning Before Tax* (EBT) to *Current Liabilities*
- x4 : Sales to Total Assets

The Influence of Current Ratio on Financial Distress

The current ratio, according to [12], " evaluates how quickly an organization can pay off all of its billed short-term obligations." Since the firm lacks the resources to fulfill its obligations, a low current ratio number implies a greater likelihood that the company may encounter financial trouble. As a result, there is a noticeable favorable impact of the current ratio on financial distress. According to study by [17], the Current Ratio, which serves as a proxy for liquidity, significantly improves the ability to detect financial distress.

H1: Current Ratio has a significant positive effect on Financial Distress

The Influence of Return On Asset on Financial Distress

"Return on Asset reflects the degree of return on investment made by a corporation utilizing all of the capital (assets) it possesses," claims [11]. While the profits earned are solid and the firm is not suffering financial troubles, When a firm has a high Return on Asset, it is less likely to get into financial trouble. This is consistent with findings from a 2021 study by [18] that assert Return on Asset has a very beneficial effect on economic hardship.

H2: Return On Asset has a significant positive effect on Financial Distress

The Influence of Debt Asset Ratio on Financial Distress

The debt ratio used to compare total debt to total assets is called the debt asset ratio, according to [12]. As a company's debt to asset ratio rises, it indicates that more debt is being used to finance the business. The likelihood of a corporation going into financial difficulties increases with its level of debt. This is corroborated by [19] study, which found that financial hardship is significantly worsened by a high debt-to-asset ratio.

H3: Debt Asset Ratio has a significant negative effect on Financial Distress

The Influence of Total Asset Turnover on Financial Distress

According to [12], [20], [21], " If you want to know how many dollars the firm makes for every rupiah invested in its assets, look no further than the total asset turnover ratio." The higher this figure is, the more money the company will make and the less risk it will take of going bankrupt. This is supported [22] research, which found that the activity ratio, as measured by total asset turnover, significantly reduced financial stress.

H4: Total Asset Turnover has a significant positive effect on Financial Distress

Effect of Current Ratio, Return On Asset, Debt Asset Ratio, and Total Asset Turnover on Financial Distress

Financial ratios that may be gleaned from the firm's financial records can be used to anticipate the status of any financial issues the company may be experiencing. Turnover of Total Asset, Return on Asset, Debt to Asset, and the Current Ratio are some examples of these ratios. The period of financial distress



that a corporation experienced before to filing for bankruptcy is known as this. It is envisaged that the firm would be able to take action to prevent circumstances that lead to bankruptcy by being aware of its financial problems from an early age. This is consistent with earlier studies by [23], which found that liquidity, activity, profitability, and leverage all had an impact on financial distress.

H5: Current Ratio, Return On Asset, Debt Asset Ratio, and Total Asset Turnover together have an effect on Financial Distress

3. METHOD

This study employed a descriptive approach with a verification type as its research methodology. The secondary data source for the 2019–2020 period is the company's financial records, and it may be accessed via the IDX. Companies in the coal mining industry that will be listed on the Indonesia Stock Exchange in 2019 through 2021 make up the study's population. 90 firms are acquired as the total population. Purposive sampling was the method of sampling that was used in this investigation. The research objects (companies listed on the IDX) must meet the following criteria in order to be included in the sample: they must be listed on the IDX for the years 2019 through 2021, and have undergone auditing. The total number of study samples was 69 firms after identifying the companies that didn't fit the requirements and reducing outlier data using the boxplot approach. Panel data regression analysis, with the use of Eviews10 software, is the data analysis method employed in this research.

4. RESULT AND DISCUSSION

Descriptive Statistical Test

	Y	X1	X2	X3	X4
Mean	0.894783	168.5620	5.304348	56.68725	83.86986
Median	0.840000	144.6900	3.260000	45.21000	74.61000
Maximum	4.260000	671.6900	47.13000	203.5800	224.8800
Minimum	-1.780000	20.08000	-31.59000	14.25000	0.000000
Std. Dev.	1.231013	133.1883	12.82482	37.70033	57.56128
Skewness	0.432360	1.892201	0.668218	1.872621	0.752736
Kurtosis	3.068096	7.289148	5.471701	7.525055	2.771110
Jarque-Bera	2.163082	94.06566	22.69919	99.19600	6.666653
Probability	0.339073	0.000000	0.000012	0.000000	0.035674
Sum	61.74000	11630.78	366.0000	3911.420	5787.020
Sum Sq. Dev.	103.0467	1206260.	11184.37	96649.39	225304.5

Table 1. Descriptive Statistical Analysis

The table above shows that the dependent variable, namely Financial Distress, has an average of 0.894 which is slightly higher than 0.862. This shows that the average financial condition of coal subsector companies in that period avoided Financial Distress. The independent variable Current Ratio has the highest average among all the other variables used, namely 168.5620. While the variable that has the lowest average is Return On Asset of 5.304348.

Normality Test





The Influence Of Current Ratio, Return On Asset, Debt Asset Ratio, And Total Asset Turnover On Financial Distress. **Muhammad Reynadi Mahardika, et.al**



The Jarque-Bera test was employed to determine whether the residuals were normally distributed in this investigation (J-B Test). The data is regularly distributed, as seen by the test results showing a Jarque-bera value of 5.5650 with a probability value of 0.061883 or more than 5%.

Multicollinearity Test

Table	Multicolline	arity Test Resu	lt		
Variance Inflation Factors					
Date: 03/15/23	Date: 03/15/23 Time: 18:22				
Sample: 1 69					
Included observat	ions: 69				
	Coefficient	Uncentered	Centered		
Variable	Variance	VIF	VIF		
C	Variance 0.010205	VIF 10.68753	VIF NA		
<u>Variable</u> C CR	Variance 0.010205 8.06E-08	VIF 10.68753 3.875400	VIF NA 1.476182		
C C CR ROA	Variance 0.010205 8.06E-08 9.57E-06	VIF 10.68753 3.875400 1.906340	VIF NA 1.476182 1.624309		
C C CR ROA DAR	Variance 0.010205 8.06E-08 9.57E-06 1.10E-06	VIF 10.68753 3.875400 1.906340 5.327570	VIF NA 1.476182 1.624309 1.617284		

In this work, we employed a VIF correlation test to establish whether or not multicollinearity was present. The absence of multicollinearity is supported by the fact that none of the independent variables has a centered VIF value greater than 10.

Heteroscedasticity Test

Table 3. Heteroscedasticity Test Result				
Dependent Varia	ble: RESABS			
Method: Least Sq	uares			
Date: 03/15/23	Time: 18:27			
Sample: 1 69				
Included observa	tions: 69			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C Variable	Coefficient 0.103607	Std. Error 0.068069	t-Statistic 1.522100	Prob. 0.1329
<u>Variable</u> C CR	<u>Coefficient</u> 0.103607 0.000277	Std. Error 0.068069 0.000191	t-Statistic 1.522100 1.449708	Prob. 0.1329 0.1520
C C CR ROA	Coefficient 0.103607 0.000277 0.000926	Std. Error 0.068069 0.000191 0.002084	t-Statistic 1.522100 1.449708 0.444300	Prob. 0.1329 0.1520 0.6583
<u>Variable</u> C CR ROA DAR	Coefficient 0.103607 0.000277 0.000926 0.001127	Std. Error 0.068069 0.000191 0.002084 0.000708	t-Statistic 1.522100 1.449708 0.444300 1.592655	Prob. 0.1329 0.1520 0.6583 0.1162

The Arch test is employed to check for heteroscedasticity in this research. The results of the tests show that the value of the probability variable is less than 5%, or 0.05. Thus, heteroscedasticity was not an issue in this study's model.

Chow Test

Table 4. 0	Chow Test Result		
Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1 799446	(22.42)	0.0502
	1.7 7 7 1 10	(0.000

A probability of 0.0502 was calculated, which is more than 0.05 and indicates statistical significance. As a result of these results, the Common Effect Model was chosen as the estimating model.



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Hausman Test

Table	e 5. Hausman Test Result		
Correlated Random Effects - H	lausman Test		
Equation: Untitled			
Test cross-section random eff	ects		
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.528439	4	0.1105

The likelihood of a random cross-section is 0.1105, which is more than 0.05, as shown by the test results. As a result of these results, the Random Effects Model was chosen as the estimate method.

Lagrange Multiplier Test

Table 6. Lagrange Multiplier Test Result					
Lagrange multiplier (LM) test for panel data					
Date: 03/15/23 Time	: 19:03				
Sample: 2019 2021					
Total panel observatio	ns: 69				
Probability in ()					
Null (no rand. effect)	Cross-section	Period	Both		
Alternative	One-sided	One-sided			
Breusch-Pagan	0.654856	0.008284	0.663139		
	(0.4184)	(0.9275)	(0.4155)		
Honda	0.809232	-0.091015	0.507856		
	(0.2092)	(0.5363)	(0.3058)		
King-Wu	0.809232	-0.091015	0.146465		
	(0.2092)	(0.5363)	(0.4418)		
GHM			0.654856		
			(0.3894)		

The probability value of Breusch Pagan is 0.4184, which is more than 0.05, as shown by the test results. This suggests that the Common Effect Model was utilized for estimating purposes.

Simultaneous Test (Test F)

Table 7. Simultaneous Test Resu	lt
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-	abre / i biinaita	neous restricture	
R-squared	0.959038	Mean dependent var	0.894783
Adjusted R-squared	0.956478	S.D. dependent var	1.231013
S.E. of regression	0.256813	Akaike info criterion	0.188764
Sum squared resid	4.220974	Schwarz criterion	0.350656
Log likelihood	-1.512357	Hannan-Quinn criter.	0.252992
F-statistic	374.6083	Durbin-Watson stat	1.974682
Prob(F-statistic)	0.000000		

The f statistic value of 374.6083 has a significance level of 0.0000 (less than 5% or 0.05), as seen in the table. Financial distress may be explained by a simultaneous effect of Current Ratio, Return On Asset, Debt Asset Ratio, and Total Asset Turnover, satisfying the linearity criterion of the regression model.

Partial Test (r Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.035313	0.101073	-0.349379	0.7280
X1	0.002469	0.000284	8.689249	0.0000
X2	0.066487	0.003095	21.48368	0.0000
X3	-0.002923	0.001051	-2.782369	0.0071
X4	0.003899	0.000618	6.313857	0.0000



Based on the test results above, it can be seen that the panel data regression equation is as follows: FDit = -0.035 + 0.002.CRit + 0.066.ROAit - 0.002.DARit + 0.003.TATOit + eit The above equation can be interpreted:

1. In the regression equation, -0.035313 is the constant., which means that the average size of financial distress will remain or change value if the financial distress variable is not influenced by all independent variables, consisting of the quick ratio, the total asset turnover, the current ratio, and the return on assets.

- 2. If the independent variable, Financial Distress, grows by 1 unit, the dependent variable, Current Ratio, will likewise increase by 0.002469 units, as measured by the regression coefficient value.
- 3. With every 1 increase in Return On Asset, the economy grows by 0.066487 percentage points, according to the regression coefficient, there will be a corresponding 0.066487 increase in the dependent variable, Financial Distress.
- 4. The value of the regression coefficient for Debt Asset Ratio is -0.002923, which suggests that a oneunit rise in Debt Asset Ratio is associated with a 0.002923-unit drop in the dependent variable, Financial Distress.
- 5. If the independent variable, Financial Distress, grows by 1 unit, the dependent variable, Total Asset Turnover, will likewise increase by 0.003899 units, as shown by the regression coefficient value of 0.003899.

Based on the test results of the Common Effect Model method, it can be concluded that:

- a) With every 1 increase in Current Ratio, the economy grows by 0.066487 percentage points, according to the regression coefficient. A high CR indicates that the corporation can meet its present obligations when they come due. As a result, fewer businesses will be in danger of going bankrupt. Andre Vici Ardian, Rita Andini, and Kharis Raharjo (2017) found that CR had a substantial impact on financial hardship, therefore this is consistent with their findings.
- b) If the probability of a 0.0000 return on asset is less than 0.05, then H 1 is accepted and H 0 is denied. This suggests a positive and statistically significant connection between ROA and monetary woes. To put it another way, if a company's return on assets goes up, it's because it's becoming better at turning its assets into cash. A favorable correlation between ROA and Financial Distress is supported by the findings of the study by Justika Dwi Cahyani and Novi Permata Indah (2021).
- c) Because 0.0071 (the probability value of the Debt Asset Ratio) is less than 0.05, H 0 is rejected, but H 1 is approved. This indicates that there is a negative and statistically significant relationship between the Debt Asset Ratio and Financial Distress. Since the likelihood of financial trouble increases in proportion to the size of a company's debt load, businesses that rely on modest amounts of debt for financing are better prepared to weather economic storms. In accordance with the findings of her study, Yulpa Marlin (2017) concludes that a high debt-to-asset ratio is strongly correlated with financial distress.
- d) If the value of is less than 0.05, then H 0 is rejected and H 1 is approved, where is the likelihood that the Total Asset Turnover will be less than 0.05. This indicates that there is a somewhat favorable relationship between Total Asset Turnover and Financial Distress. A higher turnover rate for total assets is an encouraging sign that the firm is strengthening its ability to generate revenue from its operating base. In this way, the business will be able to avoid going bankrupt. Imam Asfali's (2019) study supports this idea, finding that TATO significantly reduces Financial Distress.

Determination Coefficient Test

Table 9. Determination Coefficient Test Result				
R-squared	0.959038	Mean dependent var	0.894783	
Adjusted R-squared	0.956478	S.D. dependent var	1.231013	
S.E. of regression	0.256813	Akaike info criterion	0.188764	
Sum squared resid	4.220974	Schwarz criterion	0.350656	
Log likelihood	-1.512357	Hannan-Quinn criter.	0.252992	
F-statistic	374.6083	Durbin-Watson stat	1.974682	
Prob(F-statistic)	0.000000			



From the data above, we may conclude that the CR, ROA, DAR, and TATO variables explain 4.1% of the variation in the financial stress variable, while other factors account for the remaining 5.9% (adjusted R-Square = 0.9590, or 95.9%).

4. CONCLUSION

Financial Distress among companies listed on the Indonesia Stock Exchange engaged in the coal mining sector in 2019-2021 is expected to decrease significantly if the Current Ratio, Return On Asset, and Total Asset Ratio of the sector are still above their respective industry averages . Meanwhile, a small Debt Asset Ratio will improve the health of the coal trading business conducted on the Indonesia Stock Exchange in 2019-2021. The financial results of the coal mining industry sub-sector on the Indonesia Stock Exchange in 2019-2021 can be analyzed by considering the current ratio, return on assets, debt asset ratio, and total asset turnover.

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