The Effect of The Fluctuations of Coal Price, BI Rate and Oil Price Upon The Total Debt of PT. Adaro Energy

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ABSTRACT

Debt management if done carelessly, can cause the company to experience financial difficulties in the future. The higher the debt held by the company, the higher the principal and interest installments that must be paid. In October 2021 in China there was an energy crisis that resulted in at least 20 provinces experiencing electricity supply shortages. This is due to the disruption of coal supply, which is where 70% of China's electricity needs are powered by coal intake (Sorongan, 2021). This shortage of coal supply is good news for coal businesses in the country.This article try to investigate what factors that can influence the Total Debt of Pt. Adaro Energy. The results concluded that Coal price dan BI Rate has a significant influence towards the Total Debt of Pt. Adaro Energy with the sig value test scores below the 5% confidence level threshold.

Keywords: Coal, Rate, Debt, Influence, Oil, Price.

INTRODUCTION

Debt management if done carelessly can cause the company to experience financial difficulties in the near future. The higher the debt held by the company, the higher the principal and interest installments that must be paid. Increases in debt installments can cause the company to have liquidity difficulties to finance the companies operational activity, resulting in a budget deficit that must then also be closed by issuing another debt. As a result, the installment of debt payments can become very difficult to repay and will increase the level of bankruptcy risk. This situation has happened to the companies situated in South Africa that have used excessive leverage in 2012 (Matemilola & Ahmad, 2015; Ezeoha, Botha, 2012; Akinboade, Makina, 2009).

On the other hand, good and proper debt management is proven to be profitable for the company. By managing debt correctly, companies can enjoy tax savings as a result from using debt at a moderate level, the term for this condition is called tax shield (Myers, 1977). In addition, research conducted by Ramadhan (2019) found that there has been a positive and significant link between debt usage and increased ROE. The implication of this is that the expected rate of returns on shares of companies that uses debt as a means of funding is expected to be greater.

In October 2021, in China there was an energy crisis that resulted in at least 20 provinces experiencing electricity supply shortages. This is due to the disruption of coal supply, which is where 70% of China's electricity needs are powered by coal intake (Sorongan, 2021). This shortage of coal supply is a good news for coal business in Indonesia.

This momentum is the best time for investors to choose coal companies that can generate large expected returns. Therefore, investors need to be able to choose which coal companies that use debt properly to expand their coal operations. One of the private companies that are a good coal players in managing debt is P.T. Adaro Energy Tbk.

This study uses PT. Adaro Energy, because the shares of this company are the favorite shares

of retail investors, so the price fluctuations will have a big impact on the economic conditions for investors. In addition, the company has a stable profit rate and a moderate use of debt. To find out what factors are considered by PT. Adaro Energy Tbk in using leverage with debt, this study uses coal prices, BI rates and petroleum prices against the total debt of PT. Adaro Energy Tbk. Therefore, the title of this research are **" The Effect of The Fluctuations of Coal Price, BI Rate and Oil Price Upon The Total Debt of PT. Adaro Energy"**.

METHOD

This research uses multiple linier regression to enquire the relationship between all the independent variables and the dependent variable. The method of research that is being used is descriptive associative. Statistical measurement that are conducted are being used to find the most BLUE (Best Linier Unbiased Estimator) of regression model.

RESULT and DICUSSION

The results present the results of the final data analysis instead of unprocessed raw data.

Descriptive Statistic

Descriptive analysis try to elaborate the general analysis of the data, we can see the result from SPSS descriptive statistic analysis from our data below:

Table 4.1 : Descriptive Statistic

Descriptive Statistics			
	Mean	Std. Deviation	N
TD	7439286,08	8494431,676	13
HBBR	87,1985	20,14620	13
BIR	6,2308	1,49116	13
OP	71,2177	22,69660	13

Source : SPSS Output

From the table above we can conclude that Pt. Adaro's Total Debt (TD) has an average mean about Rp. 7.439.286,08, with standard deviation at about Rp. 8.494.431,676. Next, Coal price

(HBBR) has a mean at about Rp.87,1985, with a deviation at Rp.20,14620. Bi Rate (BIR) has a mean value at 6,2308%, accompanied by standard deviation of 1,49116%. And the last one is oil price (OP), has a mean value at Rp. 71,2177 accompanied by standard deviation at about Rp. 22,69660.

Coefficient of Determination

The value from coefficient determination can be used to know about how much influence the fluctuation of Independent variable (X) towards the dependent variable (Y). Below is the table that described the value of coefficient determination:

Table 4.2 : Value of Coefficient Determination

Model	R	R Square	Adjusted R Square
1	,706[a]	,498	,331

a. Predictors: (Constant), OP, HBBR, BIR

b. Dependent Variable: TD

Source : Output SPSS

The coefficient determination value that can be seen from the table above contain an information that says the fluctuations of oil price, coal price and Bank Indonesia's interest rate can explain the fluctuation of Pt. Adaro's Total Debt as much as 49.8%. Whereas the rest of 50.2 percent can be explained by other factors.

Normality Test

To obtain the value for the normality test this research used Kolmogorov Smirnov test method. Next, is the table which shows the result that came from SPSS:

Table 4.3 : Kolmogorov Smirnov Test Results

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		13
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	6017373,88789499
Most Extreme Differences	Absolute	,099
	Positive	,099
	Negative	-,067
Kolmogorov-Smirnov Z		,359
Asymp. Sig. (2-tailed)		1,000

a. Test distribution is Normal.

b. Calculated from data.

Source : SPSS Output

The value of Sig. (2-tailed) which show a valur of 1,00 is a sign that the significant level of the Kolmogorov-Smirnov Normality test is higher than

teh confidence level of 5%. Therefore, it can be concluded that the data that is being used for this research is normaly distributed.

Heteroscedasticity Test

Heteroskedasticity test is performed using the Glejser test, the results of which are as follows:

Table 4.4 : Glejser Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5567895,421	7923699,162		-,703	,500
	HBBR	74145,914	61797,099	,444	1,200	,261
	BIR	1829776,188	1100904,816	,812	1,662	,131
	OP	-105361,427	69887,072	-,711	-1,508	,166

a. Dependent Variable: RES2

Source : SPSS Output

The value of the t-test result against absolute residual data from the regression model says that there are no significant independent variables. These results say that there are no symptoms of heteroskedasticity in regression modeling. Therefore, regression models can be used.

Autocorrelation Test

The autocorrelation test is performed using a run test. The following are the test results as found in the table below.

Table 4.5 : Run Test Result

Runs Test	
	Unstandardized Residual
Test Value[a]	-756973,25393
Cases < Test Value	6
Cases >= Test Value	7
Total Cases	13
Number of Runs	7
Z	0,000
Asymp. Sig. (2-tailed)	1,000
a. Median	

Source : SPSS Output

Value of Asymp. Sig (2-tailed) which is worth 1.00 is above 0.05. The conclusion that can be drawn from this is that there is no autocorrelation value in regression modeling.

Multicolinierity Test

To get the conclusion about Multicolinierity, this research uses the value Tolerance and Variance inflation Factor (VIF). The tabel below shows the result of the Multiconilierity test.

From the numbers above it can be known that all of the Tolerance level value is greater than 0,10. Besides that, the Value of VIF is smaller than 10. Therefore, it can be concluded that Multicolinierity does not happen in this regression model.

Uji F (Simultant Test)

The table below is the result for the F test using SPSS:

Table 4.7 : F-test Result

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	431358971950884,400	3	143786323983628,120	2,978	,089[b]
	Residual	434505462080646,400	9	48278384675627,375		
	Total	865864434031530,800	12			

ANOVA[a]

a. Dependent Variable: TD

b. Predictors: (Constant), OP, HBBR, BIR

Source : Output SPSS

The Sig. value in this F- test resulted 0.089. This value is above the confidence level of 5% but it is still below the 10% confidence level threshold. Considering, the 10% Confidence level still can be used in social sciences research, therefore it can be concluded that all of the X variables can simultaneously have a significant effect towards the Y variable. It can also be said that atleast, there are one X variable that can give a significant influence to the Y variable.

T-test (Partial Test).

By using T-test we want to find wether the indepent variables can have a partially significant influence to the model's dependent variabel.

Table 4.8 : T-test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-40076874,92	16314956,04		-2,46	0,04
	HBBR	304072,36	127240,69	0,72	2,39	0,04
	BIR	6053069,54	2266771,28	1,06	2,67	0,03
	OP	-234685,51	143898,00	-0,63	-1,63	0,14

a. Dependent Variable: TD

Source : Output SPSS

From the above t-test Sig. scores we can conclude that the Coal price and Bi rate are the two variable that can have a significant influence to the total debt of PT. Adaro Energy their scores are respectively 0,04 and 0,03. The oil price variable (OP) has a significant level above 5% confidence level and therefore does not have a significant influence to the Adaro's Energy Total Debt.

CONCLUSION

Based on the information obtained from all of the statistical tests before, we can conclude several things:

1. The Coal Price Variable (HBBR) has a significant t-test score below the 5% confidence interval. Therefore, the Coal price variable can be said to be significantly influence the Total Debt of Pt. Adaro Energy.
2. The BI Rate variable (BIR) has a significant t-test score below the 5% confidence interval. Therefore, the Bi rate variable can also be said to be significantly influence the Total Debt of Pt. Adaro Energy.
3. The Oil price variable does not have a significant t-test score below the 5% confidence interval. Therefore, Oil price do not have a significant influence to the Total Debt of Pt. Adaro Energy.
4. The F-test result has the Sig value below the 10% confidence interval. This level of significance is still accepted for Social sciences statistic test results. Therefore, the three independent variable which are being used in this research can be said to be significantly influence the Total Debt of PT. Adaro Energy Tbk.

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