

Determinant The capital structure of the Coal Mining Company Listed on the Indonesia Stock Exchange

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Abstract: This study aims to analyze the influence of profitability, asset structure, and company size and coal price on the capital structure either partially or simultaneously on coal sub-sector companies listed in Indonesia Stock Exchange in 2013-2017. Population of this research is coal sub sector. The sample is taken by using purposive sampling method so that obtained 15 companies qualify as sample. This research uses data panel regression analysis method with Eviews 9 program, to know the effect of free variable consisting of profitability, asset structure, company size and coal price to capital structure. The results of this study indicate that partially profitability and company size have a negative and significant effect, coal price positive and significant impact on capital structure and asset structure does not affect the capital structure. The results of this study indicate that profitability, asset structure, company size and coal prices simultaneously have a significant effect on capital structure.

Keyword: capital structure, coal mining, Indonesia stock exchange, data panel.

INTRODUCTION

Indonesia is a coal producer and exporter country. The high demand and complexity of the regulations applied by the government in the management of mining indicate that mining, including coal mining, is not possible to be carried out by micro - scale business people, but must be by large - scale business people and have strong capital. However, there are many companies involved in coal mining.

The number of companies in the coal mining sector has caused business competition among companies that are getting tighter. The increasing pace of development and increasing people's living patterns will lead to increased energy consumption and electricity supply. Coal is the primary energy that is very dominant in electricity generation. Coal prospects are still very high and this is evident from the national energy mix policy.

Capital structure is a permanent spending which reflects the balance between long - term debt and own capital [1]. The composition of the capital structure should be considered by the management of the company as well as possible and make careful planning and appropriate decisions so as to produce a capital structure that can provide benefits. The way that companies do is to balance the debt and own capital, so as to minimize risks and bring the optimal benefits for the company and its shareholders. In companies engaged in the coal sector, there are many companies that have a greater amount of debt than their own capital. From 2013 to 2017 funding from this debt tends to fluctuate. Determining the proportion of debt

and capital in its use as a source of corporate funding is closely related to the term capital structure. Funds in the capital structure can be used for investment in companies and in the types of investment options available. Investors will see how the capital structure in the company will invest in the company. Capital structure is an important problem for companies because the good and bad capital structure will have a direct effect on the financial position of the company which will ultimately affect the value of the company.

Capital structure is a permanent spending which reflects the balance between long-term debt and own capital [2]. The composition of the capital structure should be considered by the management of the company as well as possible and make careful planning and appropriate decisions so as to produce a capital structure that can provide benefits. The way that companies do is to balance the debt and own capital, so as to minimize risks and bring the optimal benefits for the company and its shareholders. Kirch [3] said that to maintain the balance of capital structure, the debt should be used is not greater than the capital owned, so

that the guaranteed capital (debt) is not greater than the capital that becomes the guarantee (own capital).

Factors that can affect capital structure such as profitability, company size, company sales growth, company liquidity, tax rates, business risk, asset structure, operating leverage, management attitudes, financial flexibility and others. For this study, profitability factor, firm size, asset structure and price. In the previous research there were some differences in the results of research on factors that influence capital structure in coal sub - sector companies listed on the Stock Exchange in 2013-2017. The variables used in this study are profitability, firm size, asset structure and coal prices. Therefore, this study aims to examine the effect of Profitability Aspects, Company Size, Structure of assets and coal prices on Capital Structure in coal sub - sector companies listed in the Indonesia Stock Exchange for the period 2013 - 2017.

This research is a replication of research on the determinants of capital structure in the context of coal mining companies in Indonesia. The difference between this study and the previous one is that in this study there is an addition of independent variables, namely coal prices. This study aims to analyze the determinants of capital structure. This research is important because the results of this study will analyze the fundamental factors that influence funding decisions in coal mining companies in Indonesia.

THEORETICAL FOUNDATION AND HYPOTHESES DEVELOPMENT

Capital Structure

According to Campbell and Rogers [4] the capital structure is a comparison or balance of long - term financing of the company as shown by the comparison of long-term debt to own capital. According to Ardalan [5] the capital structure is permanent spending which reflects the balance between long-term debt and own capital. The capital structure shows the proportion of the use of debt to finance its investment, so that by knowing the capital structure, investors can know the balance between risk and return on investment. According to De Angelo and Roll [6] there are several factors that affect the company's capital structure, namely the interest rate, the stability of earnings, the structure of the asset, the level of risk of the assets, the amount of capital required, the state of the capital market, the nature of management, and the size of a company.

Modigliani and Miller Theory

(MM theory) was pioneered by Franco Modigliani and Merton Miller in 1958. According to Hanafi [7] based on assumptions, Modigliani and Miller concluded: (1) Modigliani and Miller without Taxes; (2) Modigliani and Miller with Taxes

Pecking Order Theory

Specifically, the company has a sequence of preferences in the use of funds. This theory is referred to as pecking order because this theory explains why firms will determine the most preferred hierarchy of funding sources. According to Brealey and Myers [8] in Husnan [9] in a nutshell the theory states:

- The company likes internal funding (funding from operating results or company profits).
- The Company tries to adjust the targeted dividend payout ratio, by avoiding drastic change of dividend payouts.
- Dividend payments that tend to be constant and profit fluctuations are obtained resulting in internal funds sometimes being excessive or less for investment.
- If external financing is needed, the company will issue the safest securities first, starting with the issuance of bonds, then followed by securities, and finally if it is still insufficient, new shares are issued.

This theory explains why firms with high profit rates actually have smaller debt levels. Because the company prefers internal financing, ie funds derived from cash flow, retained earnings and depreciation. The order of use of funding sources is internal funds, debt (debt), and equity (own capital).

Trade off Theory

The trade-off theory is a theory that explains the existence of an exchange between profit or profit obtained with the risk to be borne. According to Hanafi (2013: 309) in reality there are things that make companies unable to use debt as much as possible. The most important thing is that with higher debt, the higher the probability (probability) of bankruptcy. So that eventually leads to bankruptcy costs (financial distress), namely conditions where companies experience financial difficulties and are threatened with bankruptcy. According to Sitanggang [7] on this theory the exchange of tax savings benefits with the potential for bankruptcy is if the company expects a large profit as a result of tax savings, it will be prepared to accept the risk of the cost of potential bankruptcy

Signal Theory

Capital structure is a signal delivered by managers to the market. If the manager believes that the company's prospects are good, and therefore want the stock price to increase, then managers will immediately communicate to investors [7]. Companies with lucrative prospects will try to avoid the sale of shares, including the use of debt in excess of normal capital structure targets. Companies with less favorable outlooks will tend to sell their shares.

Companies that increase debt can be viewed as a company that is confident with the prospects of the company in the future. Being quite sure, then the company manager dared to use bigger debt. Investors are expected to capture the signal. Signal that the company has good prospects. Thus debt is a positive sign or signal.

Agency Theory

This theory proposed by Jensen and Meckling [10] describes the existence of a conflict between the owner and the agent stated that the agency costs are the sum of:

- Expenditures for monitoring by the owner.
- Expenditures in the framework of binding by agents.
- Other costs related to the company.

The capital structure is structured in such a way as to reduce conflicts between different interest groups. Shareholders expect agents to act on their behalf so as to delegate authority to agents. It is known that managers may have competing personal goals with the aim of maximizing shareholder wealth. Managers are empowered by company owners, shareholders to make decisions where this creates potential conflicts of interest known as agency theory [7].

Profitability

Profitability is the company's ability to make a profit. The purpose of the investor to invest in the company is to get a return, consisting of yield and capital gains. Profitability reflects the company's ability to generate profits in its operations. Profitability will generate additional funds for the company will either be included into retained earnings or directly in use for investment. Mulyawan [11] notes that companies with high levels of profitability tend to have low debt levels. In accordance with the pecking order theory, companies that have high profitability will tend to use funding through internal sources, namely using their profits rather than having to do debt when they need funding. Thus increasing profitability will reduce the company's debt ratio.

According to Restiyowati and Widyawati [12] profitability also has an important meaning in the effort to maintain its survival in a long time because profitability shows whether the company has good prospects in the future. Thus each company will always try to improve profitability, because the higher level of profitability of a company then the survival of the company will be more secure. A company that has a high level of profitability will tend to finance the company with its own capital that is with retained earnings and also shares. This is because with a high level of profitability, the value of shares will increase and this will be used by the company to obtain additional funds by selling shares whose value has

increased. The measurement scale on this variable uses the following ratio scale:

$$\text{ROE} = \frac{\text{Net profit}}{\text{Total Assets}} \times 100\%$$

Size

Company size can describe the company's financial condition in a period. Large - scale companies are believed to be able to fulfill all their obligations and be able to provide a return on investment of investors. Mulyana [11] suggested that the bigger a company, the greater the level of debt. Larger companies whose shares are very wide spread tends to be more willing to issue new shares and use external funding to meet their needs to finance sales growth compared to smaller companies. So that the bigger the company, the tendency to use external funds is also getting bigger. The size of the company will also affect the creditor's trust to give credit to the company and also facilitate the company to get a loan. Large companies will need a lot of funds to meet the operational needs of the company. Conversely, low-scale companies do not need a lot of funds to carry out their operations which can be obtained from internal company sources. However, if the company's internal costs are insufficient, then the company seeks funds from external sources of the company, namely in the form of loans (debt) or issuing new shares [13]. Mathematically can be formulated with the following formula:

$$\text{SIZE} = \text{Log (Total Sales)}$$

Assets Structure

According to Sitanggang [14] companies that have a large composition of tangible fixed assets will certainly have the opportunity to obtain additional capital with debt. Because these assets can be used as collateral to obtain debt. The composition of assets that can be used as collateral for a company affects its financing and an investor will be easier to provide loans when accompanied by an existing guarantee. The measurement scale on this variable uses a ratio scale and can be expressed in the following formula:

$$\text{SA} = \frac{\text{Fixed Asset}}{\text{Total Asset}} \times 100\%$$

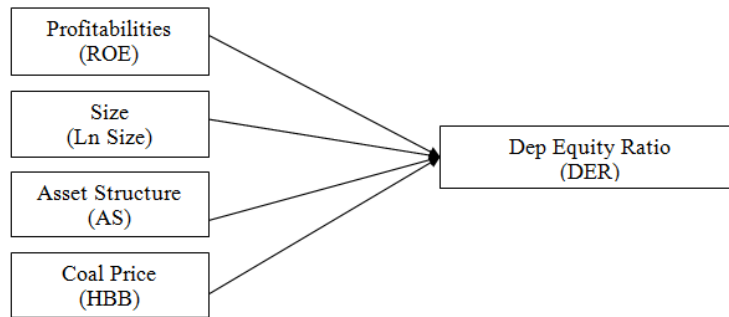
Coal Prices

Capital structure can be influenced by the price of commodities produced by a company. The higher the commodity price of a company, the more the company will try to expand its production base and increase its production capacity so that it can take advantage of the momentum of strengthening commodity prices to get more profits. Often companies face limited internal funding in increasing their production capacity, so companies must rely on

external funding in the form of debt. Mathematically can be formulated with the following formula:

$$HBB = Ln (\text{Average Price of World Coal})$$

Framework



Hypothesis

- Hypothesis 1: Profitability has a negative effect on capital structure
- Hypothesis 2: The size of the firm positively affects the capital structure
- Hypothesis 3: The structure of assets has a positive effect on capital structure
- Hypothesis 4: Coal prices have a positive effect on capital structure

RESEARCH METHODS

The sampling method uses nonprobability sampling. Nonprobability sampling is a sampling technique that does not provide an opportunity or equal opportunity for each element or member of the population to be selected as a sample [15]. In this study, the dependent variable is the capital structure, while the independent variables are profitability, firm size, asset structure and coal prices. The population used in this study was all companies listed on the Indonesia Stock Exchange (IDX) in 2013 - 2017. Sampling from the population was done by purposive sampling based on several criteria as follows:

- Coal sub - sector companies listed on the Indonesia Stock Exchange (IDX) during the period research that is 2013 - 2017.
- Companies that have complete financial report data during the study period Factors studied are profitability, firm size, asset structure and coal prices.
- Companies that did not conduct company restructuring during the research period mergers and acquisitions, so there is no significant change in capital structure.
- Companies which during the study period do not have too much financial data

Extreme. Based on the above criteria, from a total of 22 coal sub sector companies listed and fulfilling the criteria in Indonesia Stock Exchange during the period of study, companies that meet the four criteria selected 15 companies. The list of companies used as research samples can be seen in the following table:

Tabel-1: Sample Research

No	Company	Stock Code
1	Adaro Energy Tbk	ADRO
2	Atlas Resources Tbk	ARII
3	Bayan Resources Tbk	BYAN
4	Baramulti Tbk	BSSR
5	Bumi Resources Tbk	BUMI
6	Darma Henwa Tbk	DEWA
7	Delta Dunia Makmur Tbk	DOID
8	Golden Energy Mines Tbk	GEMS
9	Harum Energy Tbk	HRUM
10	Indo Tambangnya Megah Tbk	ITMG
11	Petrosa Tbk	PTRO
12	Resource Alam Indonesia Tbk	KKGI
13	Samindo Tbk	MYOH
14	Tambang Batubara Bukit Asam Tbk	PTBA
15	Toba Bara Tbk	TOBA

Source: Indonesia Stock Exchange (IDX)

RESULTS**Descriptive Data and Statistics**

The results of the data using Eviews 9 obtained descriptive data from the research variables for the period 2013-2017 presented in Table 2. The dependent variable DER has Mean values between 0.2293 to 2.0513 indicating that the coal sub-sector companies in the studied sample average has a debt rate of 22.93% to 2.05% of total assets. The maximum DER value is 14.81 PT Delta Dunia Makmur Tbk in 2013 and the minimum value - 24.12 from PT Bumi Resource Tbk in 2013 with a standard deviation of between 0.02944 and 7.64274. The independent variable ROE has a mean value between 3.9040 to 18.33653 This indicates that the coal sub-sector companies in the sample under study are able to generate operating profit of between 3.90% to 18.36% of the total assets owned. with a maximum value of 217.89 from PT Bumi Resource Tbk. in 2013 and the minimum value of -73.97 from PT.Bayan Resource

Tbk, with standard deviation of variables between 17.03079 to 58.59294.

The independent variable SA has a Mean value between 0.2820 and 0.3093. SA value is a maximum of 0.63 from PT Petrosa Tbk in 2016 and a minimum value of 0.07 from PT Bumi Resource Tbk in 2014, 2015.2016 with a standard deviation between 0.13368 to 1.14546. The independent SIZE variable has a mean value between 12.5220 to 12.8287. The maximum SIZE value is 13.64 from PT Bumi Resource Tbk. in 2013, 2017 and a minimum value of 11.19 from PT Atlas Resouce Tbk in 2016 with a standard deviation between 0.48223 to 0.63638 The independent variable HBB has a mean value between 4.100 to 4.4500. The value of the maximum coal price of 4.45 lies in 2017, which means that coal price in 2017 is highest compared to the previous year's coal price, the minimum coal price value of 4.10 in 2013 is the lowest compared to the following years and the minimum value with the standard deviation between 0.00000.

Table-2: Descriptive Statistics of Research Variables

VARIABEL	2013	2014	2015	2016	2017
N	15	15	15	15	15
DER	Dep equity Ratio				
Mean	0.2293	0.8480	1.4340	1.2180	2.0513
Maximum	14.81	8.85	8.79	5.98	13.39
Minimum	-24.12	-9.87	-217	-2.11	0.12
Std. Dev.	7.64274	3.67963	2.50061	2.02944	3.51143
ROE	Return on equity				
Mean	18.3653	5.4073	3.9040	5.9187	14.7067
Maximum	217.89	63.56	75.23	29.33	55.83
Minimum	-42.93	-73.97	-47.51	-45.29	-8.67
Std. Dev.	58.59294	28.95478	27.23534	17.03079	17.04505
SA	Asset Structure				
Mean	0.3053	0.3047	0.3093	0.2840	0.2820
Maximum	0.60	0.60	0.63	0.59	0.58
Minimum	0.16	0.16	0.07	0.07	0.07
Std. Dev.	0.13282	0.13368	0.14400	1.4436	1.14546
SIZE	Size				
Mean	12.8287	12.7833	12.6347	12.5413	12.5220
Maximum	13.64	13.62	13.57	13.53	13.64
Minimum	12.15	11.68	11.62	11.19	11.37
Std. Dev.	0.48223	0.51181	0.52421	0.61389	0.63638
HBB	Coal Price				
Mean	4.4200	4.2800	4.1000	4.1200	4.4500
Maximum	4.42	4.28	4.10	4.12	4.45
Minimum	4.42	4.28	4.10	4.12	4.45
Std. Dev.	0.00000	0.00000	0.00000	0.00000	0.00000

Source: data processed

Selection of Panel Data Regression Model

The estimation of panel data regression model used in this study is based on three models, namely:

Common Effect, Fixed Effect, and Random Effect [16]. Which model will be used in this study to be further analyzed using paired tests for each model. In

determining the right model selection, Chow Test, Hausman Test and Lagrange Multiplier Test will be conducted.

Table-3: Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.113386	(14,56)	0.0000
Cross-section Chi-square	76.639197	14	0.0000

Source: data processed with eviews 9

Table-4: Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	4	1.0000

Source: data processed with eviews 9

Table-5: Lm Test

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	17.58067	0.469186	18.04986
	(0.0000)	(0.4934)	(0.0000)

Source: data processed with eviews 9

Table-6: Conclusion Testing Panel Data Regression Model With DER as Dependent Variable

No	Test	Model Test	Result
1	Chow Test	Common Effect vs Fixed Effect	Fixed Effect
2	Hausman Test	Fixed Effect vs Random Effect	Random Effect
3	Lagrange Multiplier (LM)	Common Effect vs Random Effect	Random Effect

Estimation of Panel Data Regression Model

Table 6 below shows the estimation results from the three panel data regression models. To select which model is best to be analyzed further in estimating panel data regression using R² coefficient of determination and adjusted coefficient R². Based on the table it can be concluded that the Random Effect model is better than the two other panel data regression models to estimate the effect of the ratio of ROE,

SIZE, SA, HBB to the DER of coal sub-sector companies listed on the Indonesia Stock Exchange for the period 2013-2017. Based on table 7 estimation of panel data regression with Random Effect model proves that each individual independent variable ROE, SIZE, HBB influences the DER level of coal sub-sector companies significantly, whereas SA does not affect.

Table-8: Estimation Results of Panel Data Regression Models

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.25967	11.65358	1.738494	0.0865
ROE	-0.085021	0.009752	-8.718257	0.0000
SA	-0.548318	3.155355	-0.173774	0.8625
SIZE	-2.499712	0.775362	-3.223930	0.0019
HBB	3.166131	1.572993	2.012807	0.0480
R-squared	0.653624	Mean dependent var		0.480948
Adjusted R-squared	0.633831	S.D. dependent var		3.520044
S.E. of regression	2.130046	Sum squared resid		317.5967
F-statistic	33.02310	Durbin-Watson stat		1.485593
Prob(F-statistic)	0.000000			

Based on the results of multiple regression analysis above, a regression line equation can be obtained as follows:

$$DER = 20.2596718699 - 0.0850212799375*ROE - 0.548317703123*SA - 2.49971222193*SIZE + 3.1661310488*HBB$$

Goodness of Fit Test (R²)

The panel data regression estimation results in Table 8 with the Random Effect model for testing goodness of fit, shows the coefficient of determination R² = 0.653624 which means that all Independent Variables; ROE, SIZE, SA, HBB can explain the variation of the rise and fall of coal DER by 65.36%, while the remaining 34.64% is explained by other

factors not included in this model. While the adjusted coefficient of determination $R^2 = 0.633831$, which means that after considering the degree of freedom, all Independent Variables used in this study are able to explain the variation in the Debt Equity Ratio (DER) of the coal sub-sector companies by 63.38%.

Hypothesis testing

Research conducts significant simultaneous testing (overall significance) on a regression equation based on hypothesis testing. Based on the results of processed statistical data in Table 9 it can be seen the value of constant C has a coefficient of 20.25967 so that it can be interpreted that overall independent variables positively influence the dependent variable. Prob value (F-Statistics) is 0.0000 smaller than $\alpha = 0.05$, which means that H_0 is rejected and H_a is accepted. This shows that the independent variables ROE, SIZE, SA, and HBB have a significant effect jointly on the level of capital structure of the coal sub-sector companies studied with a confidence level of 95 percent. Testing of each panel data regression coefficient that affects the capital structure of the coal sub-sector using the t-test. The t-test was conducted to determine whether each Independent Variable used in this study could significantly influence the DER of the coal sub - sector companies as Dependent Variable with a certain alpha level ($\alpha = 0.05$). For the variables ROE, SIZE, SA, and HBB to the DER of a significant coal company will be interpreted respectively and compared with the research hypothesis. Based on the panel data regression coefficient test using the t-test concluded that of the four independent variables it is known that there are three variables that significantly influence the Capital Structure (DER), namely ROE, SIZE, HBB, while the other two variables, namely (asset structure) SA do not have a significant effect .

DISCUSSION OF RESULTS

Based on Table 8 it can be seen that the ROE has a negative value beta -0.085021β with a value of t -8.718257 and 0.0000 significance value smaller than 0.05. This means that ROE variables proved to have a negative and significant effect on DER in coal sub sector companies that go public. These results support theoretical claims In accordance with pecking order theory, firms with high profitability will tend to use funding through internal sources that use their profits rather than having to borrow when they need funding. Frank and Goyal [17] notes that companies with high levels of profitability tend to have low debt levels Firms that are very profitable basically do not need much financing with debt, because profits held high companies already meet to finance most of the funding needs. In addition, the increase in earnings can mean the increase in cashflow of the company which will increase the ability to pay off the existing debt, thereby reducing the proportion of DER debt of sub coal sector companies.

Based on Table 8 it can be seen that SIZE has a negative β coefficient of -2.499712 with a t-value of $-3.223.930$ and a significance value of 0.0019 smaller than 0.05. This means that the SIZE variable has a significant negative effect on DER in the coal sector sub sector of the company that goes public. In this case sales are greater than variable costs and fixed costs, then the amount of income before tax will be obtained. If the company has a large size then the amount of debt decreases. The higher the sales growth, the higher the use of long-term debt by the company which ultimately enhances the capital structure. The higher the company's sales growth, the more funds needed to finance its sales, where more asset structure is needed to finance its sales and ultimately increase the value of its capital structure. This is not in accordance with the previous hypothesis statement. The results support research - a previous study found by Endri [18] that firm size has a significant influence on the negative direction of the capital structure. Endri [18], Firm Size (SIZE) is used as a tendency for companies to have credit ratings and have access to non-bank debt financing. The larger the size means the greater the amount of loan capital used in the capital structure to avoid a large tax interest expense for the company.

Based on Table 8 it can be seen that SA has a negative β coefficient of $-0.548.318$ with a t-value of -0.173774 and a significance value of 0.8625 greater than 0.05. This means that the SA variable is proven to have no effect on DER in the coal sub-sector that goes public Based on the results of the panel data regression of the SA variable to DER shows that the SA variable has no effect and has a negative relationship to DER, this is not in accordance with the hypothesis statement made earlier. The results of this study, in line with Gaud *et al.*[19], Amidu [20], Chakraborty [21] and Vanacker and Manigart [22].

In general, companies that have a smaller risk while according to the results of the study, asset structure cannot predict the value of capital structure because companies are more likely to use their assets for company operations and not to reduce the risk of debt. The results showed that the structure of assets does not affect the capital structure. The level of asset structure has no effect on the capital structure because the Company has low fixed assets so that some of the funds for the company's fixed assets are not met by external funds because the company's fixed assets cannot be used as collateral to the creditors and the company is able to use internal funds in investment activities to develop business enterprise without using debt. The pecking order theory states that the company will choose an external funding source that has a low risk of debt. Thus, the existence of fixed assets can increase the use of corporate debt because the company has a guarantee that can reduce financial distress from the use of debt.

Based on Table 8 it can be seen that HBB has a positive β coefficient of 3.116131 with a calculated t value of 2.012807 and a significance value of 0.0480 less than 0.05, so that the fourth hypothesis can be accepted. This means that the HBB variable has a positive and significant effect on DER on coal sub-sector companies that go public. The higher the commodity price of a company, the more the company will try to expand its production base and increase its production capacity so that it can take advantage of the momentum of strengthening commodity prices to get more profits. Often companies face limited internal funding in increasing their production capacity, so companies must rely on external funding in the form of debt. Several studies that have been conducted show that commodity prices can have a positive effect on corporate yields, for example Robiyanto [23] and Triyono and Robiyanto [24] who find that commodity increases can increase stock returns. In relation to the capital structure, the price of this commodity will encourage companies to try to obtain funding so that they can increase their production capacity so that they will be able to produce even greater results.

CONCLUSION

Based on the results obtained, it can be concluded that profitability has a negative and significant effect on the capital structure of coal companies listed on the Indonesia Stock Exchange in the 2013-2017 period. This can be seen from the significance value of 0,000. Company size has a negative and significant effect on the capital structure of coal companies listed on the Indonesia Stock Exchange in the 2013-20147 periods. This can be seen from the significance value of 0.019. Asset Structure does not affect the capital structure of coal companies listed in Indonesia Stock Exchange period 2013-2017. This can be seen from the significance value of 0.8625. Coal prices have a positive and significant effect on the capital structure of coal companies listed on the Indonesia Stock Exchange for the 2013-2017 periods. This can be seen from the significance value of 0.0480. Profitability, firm size, asset structure and coal prices have a positive effect jointly and siltutan on the capital structure of coal companies listed on the Indonesia Stock Exchange in the 2013-2017 period.

Suggestions that can be given from the results of research conducted are as follows:

- For management companies engaged in the coal sub-sector, it is necessary to consider return on equity, company size (SIZE), asset structure (SA) and coal price (HBB) of the company in making policies related to additional capital through debt.
- This research can also be developed by adding internal factors to other company and external performance, so that we get more complete information related to the factors that influence the

capital structure of mining companies Coal sub-sector. Internal factors can be developed by adding several other variables, including; liquidity, growth, activity and others while external factors can be developed with stock prices, inflation, exchange rates, market risks and others. In addition, research on capital structures can be carried out on other sectors besides the coal sub-sector to find out the various types of characteristics of sectors listed on the IDX.

- This research can also be developed by comparing the determinants of capital structure of mining companies for coal sub-sectors of several countries. The aim is to determine whether the determinant characteristics of the capital structure of the coal mining sub-sector between countries is the same or different.
- This research can be developed using a sample of other mining sub-sector companies to estimate the determinants of the capital structure of mining companies,
- This research can be developed using cointegration panel data regression model which considers that the mean and the variance are constant over time so that the estimation results are expected to be better.

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