

# The Influence of Capital Structure, Growth Opportunity and Profitability at Mining Companies in Indonesia

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## Abstract

**Objectives:** The purpose of this research is to examine the influence of capital structure and growth opportunity on profitability as well as intrinsic value of mining company in Indonesia Stock Exchange. **Methods/Analysis:** The data for this research is analyzed through path analysis. The population of this research is mining companies listed on the Indonesian Stock Exchange in period 2013-2015. The target population that meets the research criteria is 32 mining companies. Capital structure and growth opportunity as independent variable, profitability as intervening variable, and the intrinsic value of the company as dependent variable which is the net present value of projected free cash flow to firm (FCFF). **Findings:** The results of this analysis show that, capital structure and profitability partially have significant influence on intrinsic value of the company, while growth opportunity does not partially influence on intrinsic value of the company significantly. Moreover, profitability cannot mediate the relationship between capital structure and intrinsic value of the company; and profitability can mediate the relationship between growth opportunity and intrinsic value of the company at alpha 5%.

**Keywords:** Capital Structure, Growth Opportunity, Profitability, Free Cash Flow to Firm, Intrinsic Value

## 1. Introduction

The Mining sector plays an important role in Indonesia economy as a provider of energy resources. Because the nature and characteristics of the mining industry are different from other industries, mining sector need more investment, long-term, high risk, and high uncertainties in funding which is the major factor in development of the company. Mining companies in 2015 experiencing a global economic slowdown lead to decline in world coal demand. In addition, the slow global economic recovery in 2015 was also accompanied by pressure on world commodity prices and the weakening of the Rupiah exchange rate against the US Dollar (US\$), especially the price of oil, metals and minerals. The situation and conditions resulted in production and sales in some companies experienced decline cycle. The year of 2015 was a challenging year for mining companies where the national economy moved slowly due to the impact from declining mining commodity prices so that the company was required to focus on its core business such as operational, customer satisfaction, cost reduction, and cash maintenance, as well as maintaining the capital structure.

Some indicators that affect mining companies in 2015 are as follows:

- Indonesia's economic growth was showing in the range of 4.6 percent, when compared with the previous year's ranging between 5 to 6 percent.
- The weakening of the Rupiah exchange rate against the US Dollar in 2015 reaching Rp 14,050.-
- Coal exports throughout 2015 only 295.45 million tons down 22.65% compared to the year 2014 of 381.97 million tons.
- Government prohibits the export of crude minerals in accordance with Government Regulation No. 1 of 2014 on the Second Amendment of Government Regulation No. 23 of 2010 concerning the Implementation of Mining and Coal Mining Business Activities namely the prohibition of export of raw mineral materials.

The company will have both positive and negative effects if profit and loss are greater. Therefore, corporate value can be influenced by several factors, namely capital structure, growth opportunity, and profitability.

Trade off theory is a capital structure theory based on cost and benefit between cost of capital and profit of debt usage that is between bankruptcy cost and tax advantages. Based on this theory, the capital structure policy has advantages and disadvantages which on the one hand can provide benefits because the government allows companies to charge interest as a return for creditors so that they can reduce the tax. Capital structure is referred to as the way in which the firm finances itself through debts, equity and securities. It is the composition of debt and equity that is required for a firm to finance its assets. The capital structure of a firm is very important since it is related to the ability of the firm to meet the needs of its stakeholders, Velnampy and Niresh (2012). The use of debt in investments in addition to financing the company's assets is also expected to increase the profits to be earned by the company, since the company's assets are used to generate profits, Fachrudin (2011). Profitability analysis measured by ROA (return on asset) is a measure of the company's ability to create profit maximally by using assets owned. Thus, if the capital structure is higher, then the company's ability to gain profitability will be higher so that the capital structure has a positive relationship with profitability. Research conducted by Abor (2005) showed that capital structure significantly positive on profitability. Enekwe *et al.* (2014) observed the

effect of financial leverage on financial performance in Nigeria; their study found a negative relationship between capital structure and profitability. Kodongo *et al.* (2014) in their regression analysis of capital structure against profitability found significantly negative association between capital structure and profitability.

The Modigliani and Miller (1958) theory without taxes states that financial leverage has no effect on the value of the firm, in other words, the value of the firm and the overall cost of capital does not depend on the size of the amount of debt used. The MM theory which is to incorporate the income tax element into the company, concludes that financial leverage will increase the value of the company because the interest of debt which is the burden for the company will reduce the corporate income tax. The debt financing can create value because of the tax advantage and it can also destroy value because of the accompanying bankruptcy cost, Anvesha (2012). Many studies have made sure that capital structure has a significant positive effect on company value due to high debt usage hence corporate income tax is also high so that debt will increase company value (according to MM theory in 1963). Capital structure may affect the value of the company through profitability as intervening variable, meaning that the higher the level of debt, it will increase the value of the company if associated with profitability (return on assets) to the purchase of new assets for the operation of companies that will increase profits. Hoque *et al.* (2014), in analyzing capital structure with firm value produced a positive and significant influence on both variables. Above all, then the use of debt at the optimal level will maximize the use of assets so that the value of the company will increase. However, research conducted by Wahyuni *et al.* (2013) showed that the capital structure had negative and significant impact on firm value because companies that had reached the optimal capital structure tended to use internal funds rather than debt and if internal funding needs were lacking then doing external funding.

Growth is a changeover of total assets last year with the current year owned by the company. Growth is expressed as total asset growth where past asset growth will represent future profitability and incoming growth. Asset growth represents the growth of company assets that will affect the profitability of companies who believe that the percentage change in total assets is a better indicator in measuring the growth of the company. The growth-oriented corporate strategy focuses on innovation that can increase the growth potential in a long term. Such a strategy is known to have positive effect not only on corporate profitability but also on the company's survival in the long term, Seungkyu and Jaejun (2015). Fast-growing companies tend to have high fixed assets. If a firm increases its assets, it will grow in the future and also if the increase in long-term assets happens in proper condition, probably it will cause an increase in the production capacity and profit, Emami *et al.* (2015). Investors expect future cash flows to be based on current cash flows and future growth, which depends on investment decisions and reinvest them into the company. From the results of research conducted by Yuliana (2014) who used growth as independent variable and ROA as dependent variable, indicating that the growth of a company had a significant positive effect on profitability. This means the greater the asset growth, the greater the profitability. Ting *et al.* (2014) investigated the organizational growth on profitability of Malaysian public listed companies and found that total asset growth and fixed asset were significant contributors in generating higher returns. In conclusion, organizational growth played its role in generating higher profitability for a firm.

Company value represents the present value of future cash flows expected by the company. The most critical point in the assessment is the growth of companies where growth rates are used to predict future earnings. Asset growth is a benchmark for the success of the company thus the asset is a resource that has the potential to provide economic benefits to the company in the future. The higher the asset growth rate, the higher the value of a company. The author observed a negative relationship between capital structure and profitability in their study. For example Beneda (2003) and Pangulu and Maski (2014) in their research which gave the result that growth had positive and significant influence to firm value. Zararee and Al-Azzawi (2014) also found a significantly positive relationship between growth opportunity and company value. Gray and Johnson (2011) and Watanabe *et al.* (2015) showed that total asset growth is negatively related with future stock returns or the Australian and U.S. companies. In the previous research on the growth of corporate value produce a positive and significant influence. A positive relationship means that when there is an increase in the company's growth it will also increase in the value of the company. This means that with higher growth tends to increase the profitability of the company proxy with return on assets because the addition of assets with the use of optimal assets will increase the company's profit. Growth affects profitability through assets so as to affect the productivity and efficiency of the company which ultimately affect the profitability, Yuliana (2014). Growth may also affect the value of the company through profitability as intervening variable, because growth is characterized by increased profitability hence the value of the company also increases. A positive relationship on high company growth will attract investors for investment as this is a good indicator for future prospects.

Signaling theory bases on the assumption that managers have better information about their investment opportunities than investors and manager actions depend on the interests of shareholders, Myers (1984). Brigham and Houston (2001) argue that signaling is an action taken by corporate management that provides a clue for investors about how management views the prospects of a company. Profitability is defined as a company's ability to generate profits because profits for investors are the determinants of corporate value. The

company's success is seen from the level of profitability it produces because the positive return on assets (ROA) indicates that the total assets used for the company's operations are able to provide profit for the company. This research is supported by Sandag (2014) which showed that ROA had a positive significant effect on company value. Sucuahi and Cambarian (2016) found that profitability could influence the firm value. The result signified that having a good firm value attracts more investors and other parties' interest to take part of the company. Thus, it was important to determine first a company's firm value for a reliable investment.

## 2. Materials and Methods

The quantitative research approach is employed to find out the findings of the research study. It uses secondary data from mining company that listed on the Indonesia Stock Exchange and annual financial statements issued by company from 2013-2015. On the other hand, scholarly articles from academic journals, relevant text books on the subject and the internet search engines were also used.

The population of this research is mining companies listed on the Indonesia Stock Exchange in period 2013-2015. Sampling was performed using purposive sampling method. The sample of this study composed of 32 mining companies which is the criteria as follows:

1. Companies listed in Indonesia Stock Exchange in 2013-2015.
2. Mining companies that has positive operating income.
3. Having complete data related to the variables used in the study.

This research use dependent and independent variables. Dependent variables were profitability (Y1) and company intrinsic value (Y2). Meanwhile, independent variables were capital structure (X1) and growth opportunity (X2).

### a. Profitability

Profitability was comparison between earnings before interest and taxes with total assets (Siddik, 2017). The measure is calculated as follows;

$$ROA = \frac{EBIT}{Total\ Assets}$$

### b. Company Intrinsic Value

Company Intrinsic Value was the net present value from projected free cash flow to firm (FCFF) using discounted cash flow model (Damodaran, 2002). The measure is calculated as follows;

$$Company\ Intrinsic\ Value = \left( \sum_{t=1}^{t=n} \frac{FCFF_t}{(1+WACC)^t} \right) + \left( \frac{TV}{(1+WACC)^t} \right)$$

\*) FCFF = EBIT (1-tax rate) (1-Reinvestment Rate)

$$Reinvestment\ Rate = \frac{Net\ Capex + \Delta\ Non\ Cash\ Working\ Capital}{EBIT(1-Tax)}$$

$$Net\ CapEx = Fixed\ Asset_{n\ year} - Fixed\ Asset_{n-1\ year}$$

$$Change\ in\ NWC = (Non-cash\ Asset_{n\ year} - Non-debt\ Liabilities_{n\ year}) - (Non-cash\ Asset_{n-1\ year} - Non-debt\ Liabilities_{n-1\ year})$$

$$Terminal\ Value = \frac{FCFF_n (1 + Stable\ Growth)}{(WACC - Stable\ Growth)}$$

WACC = Weighted Average Cost of Capital

### c. Capital Structure

Capital structure is referred to as the way in which the firm finances itself through debt and equity. It is the composition of debt and equity that is required for a firm to finance its assets (Enekwe *et al.*, 2014). The measure is calculated as follows;

$$DER = \frac{Total\ Debt}{Total\ Equity}$$

### d. Growth Opportunity

Company growth is measured using total asset changes. Growth asset is the difference in total assets owned by the company in the current period with the previous period to total assets of the previous period (Gary and Johnson, 2011). The measure is calculated as follows;

$$Growth\ Opportunity = \frac{Total\ assets\ (t) - Total\ assets\ (t-1)}{Total\ assets\ (t-1)}$$

This study used path analysis to test the influence of capital structure and growth opportunity on profitability and company intrinsic value. The purpose of statistics is to summarize and answer questions that were obtained in the research. The upper level of statistical significance for hypotheses testing was set at 5%. The hypotheses of this research can be described as follows:

- H1: Capital structure has a positive significant effect on profitability at mining companies in Indonesia Stock Exchange.
- H2: Growth opportunity has a positive significant effect on profitability at mining companies in Indonesia Stock Exchange.
- H3: Capital structure has a positive significant effect on company intrinsic value at mining companies in

- Indonesia Stock Exchange.
- H4: Growth opportunity has a positive significant effect on company intrinsic value at mining companies in Indonesia Stock Exchange.
- H5: Profitability has a positive significant effect on company intrinsic value at mining companies in Indonesia Stock Exchange.
- H6: The capital structure has an indirect effect on the company's intrinsic value through profitability as an intervening variable for mining companies in Indonesia Stock Exchange.
- H7: The growth opportunity has an indirect effect on the company's intrinsic value through profitability as an intervening variable for mining companies in Indonesia Stock Exchange.

The data analysis technique used is path analysis by using SPSS software. Test done after the data is collected using multiple regression linear analysis. Processing statistics in this study followed by testing the classical assumptions (normality, heteroscedasticity, multicollinearity). The structural equation of path analysis model in this research is as follows:

$$\text{Substructure 1: } \text{ROA} = \alpha + \beta_1\text{DER} + \beta_2\text{GROWTH} + \varepsilon_1$$

$$\text{Substructure 2: } \text{Company Intrinsic Value} = \alpha + \beta_1\text{DER} + \beta_2\text{GROWTH} + \beta_3\text{ROA} + \varepsilon_2$$

### 3. Results and Discussion

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
DER	32	.04306	14.30326	1.8580103	2.84836760
GROWTH	32	-.43852	1.51930	.1212325	.37197753
ROA	32	.00066	.43383	.0745150	.09270855
VALUE OF FIRM	32	2.539	43344.586	5822.8438	9750.60476
Valid N (listwise)	32				

Table 1 shows the minimum capital structure in mining companies in 2015 is 0.04 and the maximum is 14.3 with the average is 1.86. These indicate that most of the companies use debt as a source of funding rather than equity. The mean of the growth company is 0.12 with a standard deviation of 0.37 so it can be stated the mining companies in 2015 experienced small growth which measured by asset growth. The standard deviation of the profitability is 0.09 greater than the mean of 0.07 shows small fluctuation on profitability in mining companies. It indicates that the mining companies in 2015 did not gain much profit due to the economic condition in Indonesia.

Model of the relationship between variables is composed of two substructures. Table 2 shows the regression model of first substructure to know the relationship between capital structure and asset growth on profitability. Moreover, Table 3 shows the regression model of second substructure to know the relationship between capital structure, asset growth, and profitability on company intrinsic value.

Table 2. Regression Model (First Substructure)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-2.924	2.117		-1.381	.178
DER	.174	.258	.118	.673	.507
GROWTH	.663	.326	.357	2.031	.051

a. Dependent Variable: ROA

Based on the Table 2, then the regression model for first substructure is:

$$\text{ROA} = -2.924 + 0.174\text{DER} + 0.663\text{GROWTH} + \varepsilon_1$$

Table 3. Regression Model (Second Substructure)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	3.017	2.219		1.359	.185
DER	.594	.264	.251	2.252	.032
GROWTH	-.087	.354	-.029	-.247	.807
ROA	1.241	.189	.769	6.582	.000

a. Dependent Variable: COMPANY.INTRINSIC.VALUE

Based on the Table 3, then the regression model for second substructure is:

$$\text{COMPANY INTRINSIC VALUE} = 3.017 + 0.594\text{DER} - 0.087\text{GROWTH} + 1.241\text{ROA} + \varepsilon_2$$

Table 4. Regression Analysis Result (First Substructure)

Variable	Direct Coeff.	Total Coeff.	Significance
DER → ROA	0.118	0.118	Not Sig. 0.507
Growth → ROA	0.357	0.357	Sig. 0.051

Table 4 shows insignificance of capital structure on profitability was 0.507 or more than 0.05, and coefficient of 0.118. These results show that capital structure has positive effect on profitability; therefore, hypothesis 1 was rejected. The results of this study are consistent with the trade-off theory, that interest on debt in the calculation of taxable income will reduce the tax burden, so that the level of profitability is higher. Trade-off theory has considered various factors such as taxes, the cost of bankruptcy in explaining why firms choose a particular capital structure. Increased profitability as a result of the increasing amount of debt the company's debt due to the benefit is still greater than the sacrifice of the company. This hypothesis is supported by Bukit (2012) which found that capital structure has a significant positive effect on profitability because the company's decision to use debt capital to finance the company's operations can increase the company's supervision by the creditor so that the company management is more careful in choosing profitable investment project.

Table 4 shows significance of growth opportunity on profitability was 0.051 or equal to 0.05, and coefficient of 0.357. These results show that growth opportunity has positive effect on profitability; therefore, hypothesis 2 was accepted. Significant asset growth in mining companies by 2015 on profitability is likely to be affected by slowing Indonesian economic conditions such as the weakening of the Rupiah against the US dollar, which will not last forever as growth in assets tends to affect profitability. In addition, a good corporate growth of asset will provide a signal for investors to invest because it expects a return on investment that shows good growth. The results of this study are in line with the research of Yuliana (2014) which shows that the growth has a positive significant effect on financial performance where growth affects profitability through assets so as to affect the productivity and efficiency of the company which ultimately affect the profitability. Ting *et al.* (2014) also found a positive and significant relationship between growth assets and profitability.

Table 5. Regression Analysis Result (Second Substructure)

Variable	Direct Coeff.	Indirect Coeff.	Total Coeff.	Significance
DER → Intrinsic value	0,251	0.091	0.342	Sig. 0.032
Growth → Intrinsic Value	-0.029	0.275	0.246	Not Sig.0.807
ROA → Intrinsic Value	0.769	-	0.769	Sig. 0.000

Table 5 shows significance of capital structure on company intrinsic value was 0.032 or less than 0.05, and coefficient of 0.251. These results show that capital structure has positive effect on company intrinsic value, therefore, hypothesis 3 was accepted. The trade-off theory explains that the company's financial policy in determining capital structure aims to optimize the value of the firm. Capital structure is the key to improving the productivity and performance of the company from the debt and equity ratio. This is also in line with Modigliani and Miller's theories with a tax stating that the value of the firm will increase steadily due to the increasing use of debt. This indicates that the optimal capital structure can be achieved by balancing the benefits of tax protection at a cost as a result of the increasing use of debt. This study is supported by the findings of Pangulu and Maski (2014) where the policy of using debt in the capital structure of the company will give a signal to investors that with the company's funding policy affect the value of the company. A positive response from investors will lead to increased growth opportunities so that the use of debt in the capital structure increases and further affects the value of the company.

Table 5 shows insignificance of growth opportunity on company intrinsic value was 0.807 or more than 0.05, and coefficient of -0.029. These results show that growth opportunity has negative effect on company intrinsic value, therefore, hypothesis 4 was rejected. Growth of the company is characterized by the growth of assets that are not utilized optimally then it can degrade the performance of the company which will lower the value of the company. One of the phenomena occurring in the mining sector in the valuation year was a 37% reduction in market capitalization from Rp 255 trillion as of December 31, 2014 to Rp 161 trillion as of December 31, 2015. The decline in market capitalization was triggered by falling commodity prices. This is affecting the value of companies where investors tend to persist not to make excessive investment in advance by seeing the condition of the economy is still weak. Therefore, the growth of the companies represented by the asset growth is decreased and insignificant to the intrinsic value of the company will be recovered in line with rising commodity prices. This research is supported by Meidiawati (2016) where the increase in the company's growth variable will not be followed by an increase in corporate value. This is because high growth causes increased funding needs. The greater the rate of growth of the company, the higher the costs required to manage the operational activities of the company.

Table 5 shows significance of profitability on company intrinsic value was 0.000 or less than 0.05, and coefficient of 0.769. These results show that profitability has positive effect on company intrinsic value, therefore, hypothesis 5 was accepted. Profitability as measured by return on assets is a ratio that indicates a company's ability to utilize its assets to earn profits. The higher the profitability of the company can generate profits for shareholders, thus making investors interested in investing that causes the value of the company also increases. The results of this study can be explained by the signaling theory which suggests that high profitability shows a good company prospects where investors will respond positively so that the value of the company will increase. This research is supported by Sandag (2014), Sucuahi and Cambarihan (2016) which shows that ROA

has a significant positive effect on company value which means ROA increase will influence the significant increase of company value.

Table 5 shows the direct coefficient was 0.251 is bigger than the indirect coefficient 0.091. It means that profitability cannot mediate the influence of capital structure on company intrinsic value. This means that with increased profitability or the ability of firms to earn profit does not affect the capital structure in increasing the intrinsic value of the company. This study is in line with Pratama and Wiksuana (2016) that profitability is not able to mediate the influence between leverage on firm value. Moreover, profitability can mediate the influence of growth opportunity on company intrinsic value which can be shown in Table 5 that the direct coefficient was -0.029 is less than the indirect coefficient 0.275. This means that the high and low growth of the company will affect the profitability associated with the intrinsic value of the company. This study is in line with Purnomo (2016) that profitability can mediate the relationship between firm growth and firm value.

#### 4. Conclusion

This study examined the influence of capital structure, growth opportunity on profitability and company intrinsic value in mining companies on Indonesian Stock Exchange. Growth opportunity had influence on profitability; and capital structure as well as profitability had influence the company intrinsic value. Capital structure did not effect on profitability due to the global economic condition in 2015 that made the company more prefer to use the internal funding than making more debt. The economic situation in Indonesia was also one of the factors that made the company in declining performance. Moreover, the commodity prices had impact on the financial performance so that some the company has depressed. Growth opportunity positively effect on profitability. This showed that the optimization of the asset owned by the company can increased the profit. The more profit is produced the more advantage will be gained. Advantage in this case would be the investment that made by the investor who eager to the returns. Capital structure and profitability had influence on company intrinsic value, while growth opportunity did not effect on company intrinsic value. This showed that the company's capital structure was the result of tax utilization using debt at a cost that would arise as a result of debt use. But as far as benefits are greater, additional debt is still permitted. If the sacrifice due to the use of debt is greater, additional debt is not allowed. Since the global economic condition is temporary, growth opportunity had not so affect the intrinsic value of the company. Besides that, the asset in 2015 for some companies did not well produce because of the declining demand of the commodities.

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