

# The influence of liquidity ratio as current (CR), (DER) rasio leverage and asset structure to return on investment of coal companies

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## Article History

Received on 15 January 2023

1<sup>st</sup> Revision on 4 February 2023

Accepted on 27 February 2023

## Abstract

**Purpose:** This study objectives to determine whether or not there is an effect of Liquidity Ratio as Current (CR), (DER) Rasio Leverage and Assets Structure on Return On Investment.

**Research methodology:** This lookup was once carried out on information collection on the economic reviews of coal organizations in the 2017-2021 period. This lookup makes use of quantitative methods. The sampling approach used in this find out was once purposive sampling. forty samples have been taken from eight coal businesses from the annual report. This learns about makes use of SPSS 26 as an analytical tool.

**Results:** The effects of the partial check exhibit that Liquidity Ratio as Current (CR) has no giant impact on Return On Investment, (DER) Rasio Leverage has a large impact on Return On Investment, Assets Structure has no considerable impact on Return On Investment, whilst lookup in simultaneous assessments suggests that Liquidity Ratio as Current (CR), (DER) Rasio Leverage and Assets Structure have no sizable impact on Return On Investment.

**Conclusion:** The study concludes that only the Debt to Equity Ratio (DER) has a significant effect on Return on Investment (ROI), while the Current Ratio and Asset Structure do not. Simultaneously, all three variables combined also show no significant impact on ROI. This indicates that DER is a key factor in influencing ROI among coal companies during the 2017–2021 period.

**Limitations:** This research was conducted in coal sector companies listed on the Indonesia Stock Exchange, only 8 companies were studied and the financial reports analyzed were from only 5 years starting from 2017-2021, the results of the analysis of the remaining data were obtained as is.

**Contribution:** This research can be useful for companies in order to determine policies to increase the company's investment value.

**Keywords:** *Liquidity Ratio as Current (CR), (DER) Rasio Leverage, Assets Structure, Return on Investment*

**How to Cite:** Fachrian, Z., & Hidayat, W, W. (2023). The influence of liquidity ratio as current (CR), (DER) rasio leverage and asset structure to return on investment of coal companies. *International Journal of Accounting and Management Information Systems*, 1(1), 17-30.

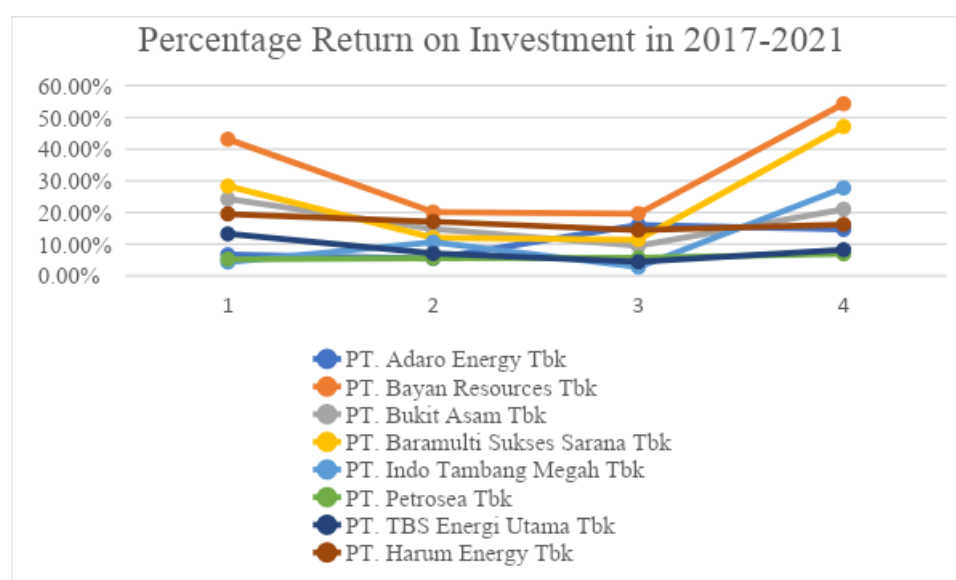
## 1. Introduction

Indonesia is very rich in very abundant natural resources so mining is one of the industrial businesses that can be relied on to bring in foreign exchange for Indonesia. Coal is an important and widely used source of energy in the world. Coal's contribution to the world's total energy needs is around 23%. Common uses of coal are for power generation, steel production, and cement production. It is estimated that coal supplies in the world are still possible to be produced for at least another 122 years. With the condition of the coal industry growing rapidly, investment in the coal mining sector has also increased.

The Profit and Loss Report is a report of the financial statements that the company prepares annually for the company's shareholders. The Profit and Loss Report tells the company's receipts and expenses for one period, where the period is stated in the title of the financial report. The Profit and Loss Report is different from the Balance Sheet in that the Profit and Loss Report discusses transactions for a year while the Balance Sheet discusses positions at one point in time ([Manurung, 2021](#)).

The economic statements issued with the aid of the enterprise are a device used by means of a variety of events to see the company's performance. The financial statements must be processed in order to provide an overview or company performance. Processing of financial statements as a decision-making tool is important because financial reports that have been processed in other forms provide information on how the company's performance is performing. Processing financial report items into other forms can be said to carry out an analysis of these financial statements ([Manurung, 2021](#)). Investment is one of the boosters for businesses in carrying out all their commercial enterprise activities, organizations that have constrained funding competencies will have a tendency to use third celebration money in the shape of loans to strengthen their business. The company's choice to use mortgage money from third events creates a price burden on the utilization of this mortgage cash which is required to generate returns on the funding lent.

The graph of increasing *Return On Investment* for 2017-2021 in mining companies listed on the Indonesian Stock Exchange is shown in table 1 below:



Source: [www.idx.co.id](http://www.idx.co.id) Data will be processed in 2023.

Figure 1. Percentage of Return on Investment

In Figure 1 it is recognized that of the eight coal agencies listed on the Indonesia Stock Exchange, some agencies have skilled a very large expansion in Return on Investment from 2017 to 2021, specifically the businesses Bayar Resources Tbk and Baramulti Sukses Sarana Tbk, then the six agencies studied experiencing fluctuating extend in *Return on Investment* potential that this is a reference that attracts the interest of researchers to research. *The Return On Investment* above can be concluded that the level of investment through coal is very good by looking at the percentage each year the level of investment in each mining company has a fairly high increase but there is also a significant decrease in investment due to the level of term debt paid and the level of existing capital, as well as looking at the turnover of short-term or long-term debt. Besides that, investors will also look at the level of wealth of the company's own assets to invest their capital.

Companies always need capital either in opening a new business or in developing a business. Large or small companies will not be separated from the importance of funding. In essence, the problem of

funding concerns the company's financial balance, the balance is reflected between assets and liabilities. The selection of the composition of assets used will determine the structure of the company's wealth. On the other hand, choosing a bad arrangement of assets will result in non-optimal company performance which will result in a decrease in company value.

The liquidity ratio, as measured by means of the Liquidity Ratio as Current (CR), describes a company's capacity to meet its momentary (debt) obligations. This ratio has calculated the usage of facts from modern-day belongings and cutting-edge liabilities which will exhibit the extent to which modern-day property and modern-day liabilities are greater than the company's potential to pay off its modern debts. The cutting-edge ratio or cutting-edge ratio is a ratio to measure a company's capability to pay non-permanent tasks or money owed that are due quickly when billed as a whole, the impact of CR on ROI will exhibit the company's effectiveness in describing the company's capability to elevate out non-permanent debt obligations. Based on the effects of lookup [Al-Najjar and Clark \(2017\)](#) the modern ratio has a high quality and vast impact on the return on funding in organizations on the Indonesia Stock Exchange.

In addition, the capital dimension is the predominant component to see and measure the degree of use of capital to the complete shareholder's equity-owned with the resource of the company, the increased (DER) Rasio Leverage shows the complete composition Debt (short time duration and prolonged-term) is getting higher in distinction to the whole equity, so the have an effect on is, the company's burden on outsiders (creditors) is getting bigger. The expanded burden on lenders suggests that the company's capital sources are pretty established on outsiders. In addition, the quantity of debt burden borne by means of the corporation can limit the quantity of income acquired by using the company. Based on lookup effects. According to [Putra and Dillak \(2018\)](#) a high DER means that the company has a large amount of debt, and this is certainly dangerous for the continuity of a company. If the amount of DER exceeds 100%, it means that the amount of debt owned by the company exceeds the amount of capital it has. So that it will affect investors' decisions in determining the land in which to invest.

Another effect is the Assets Structure which is a contrast between constant belongings and complete belongings owned with the aid of the company. The Assets Structure describes a component of the complete belongings that can be used as collateral. So the greater the company's Assets Structure, suggests the greater the capacity of the employer to be capable to warranty the long-term debt it borrows. Company dimension is an essential element to be viewed in making choices associated with capital structure. Company dimension can have an effect on capital shape due to the fact the large the measurement of a company, the increased the debt it tends to use. Debt is one of the selected sources of funds if the company's own capital is insufficient. Based on research results according to [Santoso and Willim \(2022\)](#) suggests that the variable capital structure, asset productivity, and running can mediate the relationship between funding choices and funding choices on assets value.

## 2. Literature Review

### 2.1 Definition of Liquidity

According to [Susanti, Latifa, and Sunarsi \(2020\)](#), the liquidity ratio measures a company's ability to meet its short-term obligations. Meanwhile, according to [Ahmadyan and Ghasemi Ali Abadi \(2021\)](#) The concept of liquidity management is the allocation of both short-term and long-term liquid resources for payment of outstanding obligations and capital expenditures during the audited period to maximize or improve corporate governance for the welfare of partners (shareholders). additionally, liquidity explains the company's intention to maximize the welfare of the proprietor of the corporation the place operates to produce the most income and additionally set targets. Liquidity management, namely ensuring the solvency of the company. Solvability has two meanings, namely the ability to pay real and technical solvency. True solvency is theoretical and technical solvency is practical. Present value solvency is the market value of surplus assets in debt, if the company is able to pay future obligations, this tempo also tells about the company's ability to pay in the future, this is net working capital, current income, and money. So liquidity management emphasizes cash flow.

So, in accordance with some of the opinions above, it can be concluded that the liquidity ratio is the company's capability to meet its non-permanent economic duties which should be fulfilled right now when billed to preserve its liquidity. This will have a wonderful impact on the sustainability of the corporation in carrying out its manufacturing activities. The company's incapability to pay its obligations, specifically non-permanent debt (which has matured) is brought about via numerous factors. First, it should be due to the fact the agency presently has no dollars at all. Or secondly, it is viable that the commercial enterprise corporation has funds, at maturity the organization does no longer have money (insufficient) in cash so it has to wait a positive time, to cash out distinct assets such as gathering receivables, merchandising securities or promotion shares or distinctive assets.

## 2.2 Definition of Liquidity Ratio as Current (CR)

*Liquidity Ratio as Current (CR)*, this ratio suggests the extent to which current assets edge liabilities. The larger the ratio of contemporary belongings to present-day liabilities, the greater the company's capability to cowl its non-permanent liabilities. According to [Hidayat \(2018\)](#); [Shabrina & Hadian, 2021](#)) *Liquidity Ratio as Current (CR)* Is a frequent measure used for non-permanent solvency, the potential of an organization to meet temporary debt wishes when they fall due. Meanwhile according to [Herawati and Fauzia \(2018\)](#) A excessive Liquidity Ratio as Current (CR) typically shows a very robust and tightly closed liquidity position, it might also additionally point out that the employer has too plenty historic stock that needs to be written off and too many historic account receivables which can flip into awful loans. For a creditor, specifically a non permanent creditor such as a supplier, the greater the modern-day ratio, the better. For companies, an excessive modern-day ratio suggests liquidity, however, it can additionally point out an inefficient use of money and different temporary assets. Same with the preceding opinion according to [\(Shabrina & Hadian, 2021\)](#) Liquidity Ratio as Current (CR) is a ratio that measures a company's potential to pay its temporary tasks each money owed that is due straight away after being billed as a whole. If not, how much current assets are available to cover short-term liabilities that are due.

The formula for finding *the Liquidity Ratio as Current (CR)* can be used as follows:

$$\text{Liquidity Ratio as Current (CR) (cr)} = \frac{(\text{Current Assets})}{(\text{Current Liabilities})}$$

Based on some of the definitions above, it can be concluded that *the Liquidity Ratio as Current (CR)* is a ratio to measure a company's liquidity in paying short-term debt with current assets owned by the company.

## 2.3 Definition of (DER) Rasio Leverage

*(DER) Rasio Leverage (DER)* is a ratio that compares the quantity of debt to equity. This ratio is regularly used via analysts and investors to see how lots a company's debt is in contrast to the fairness owned by way of the agency or its shareholders. The greater the DER number, it is assumed that the business enterprise has a greater danger of its liquidity.

According to [\(Hidayat, 2018\)](#) *(DER) Rasio Leverage (DER)* is a measure used in examining economic statements to exhibit the quantity of collateral handy to lenders. According to [Putra and Dillak \(2018\)](#) high DER means that the company has a large amount of debt, and this is certainly dangerous for the continuity of a company. If the amount of DER exceeds 100%, it means that the amount of debt owned by the company exceeds the amount of capital it has. So that it will affect investors' decisions in determining the land in which to invest. Meanwhile, according to [\(Lyle, 2017\)](#) the debt/equity ratio is a common measure of a company's capital structure. The capital shape is how businesses finance their assets, both with debt, equity, or an aggregate of the two. Many elements play into the "optimal" debt/equity ratio for a man or woman company. While the preceding lookup tried to measure the choicest debt/equity ratio when analyzing a company's market value, the purpose of this learns about used to be to use normal asset pricing take a look at to observe how capital shape influences predicted returns or a variety of alphabetical portfolio sizes.

The formula for finding *the (DER) Rasio Leverage* can be used as follows:

$$(DER) \text{ Rasio Leverage } (DER) = \frac{(Total \text{ Liabilities})}{(Total \text{ Ekuitas})}$$

Based on some of the definitions of the opinions above, it can be concluded that the (DER) Rasio Leverage is assessing the evaluation between whole liabilities and whole fairness to be a benchmark for investors in offering capital to the meant business enterprise due to the fact the greater the (DER) Rasio Leverage tends to decrease inventory returns, due to the fact the debt stage will increase A excessive ratio shows that the company's rate will be even higher and decrease profits.

## 2.4 Definition of Asset Structure

*Assets Structure* can be recognized by evaluating the complete constant assets and whole belongings owned by the company. Total constant belongings are recognized by including up the bills of the company's tangible constant assets such as land, buildings, equipment and equipment, cars, and different tangible constant assets, then deducting the accrued depreciation of constant assets. The company's Assets Structure performs an essential function in deciding the company's financing, corporations that have excessive long-term constant assets, due to the excessive demand for their products.

According to [Setiadharna and Machali \(2017\)](#), An excessive asset shape can be used as collateral to attain debt from creditors. In general, groups that have collateral in debt will discover it simpler to attain debt than organizations that do no longer have collateral. Based on the trade-off theory, the greater the asset structure, the greater the capital shape due to extra debt. Also according to [Guna and Sampurno \(2018\)](#); [Rosdiana, Karyatun, & Sari, 2023](#), *the Assets Structure* is composed of two asset elements, including fixed assets and current assets. Current assets in the form of cash can be used by the company for a period. Meanwhile, fixed assets are assets that have a form and can also be used in the company's operational activities. *The Assets Structure* itself is the division of fixed assets with total assets (fixed assets and current assets). If the number of fixed assets owned by a business entity is categorized as large, then the company will also have a great opportunity to use funding through debt.

*Assets Structure* is calculated by the formula:

$$Assets \text{ Structure} = \frac{(Total \text{ Fixed Assets})}{(Total \text{ assets})} \times 100\%$$

Based on the opinion above, it can be concluded that the Assets Structure is the wealth owned through the employer by means of searching at two elements, such as constant property and modern-day belongings in one period, the purpose is to discover how a lot of constant belongings the enterprise can use as collateral for loans made and measured in percentage units (%).

## 2.5 Definition of Return on Investment

*Return on Investment* is a contrast between income after tax with the quantity of current capital. Return on funding is a ratio that measures the potential of the corporation as a complete to generate income with the whole assets accessible in the company, the greater this ratio, the higher the situation of a company. According to [\(Hidayat, 2018\)](#), *Return on Investment* is a ratio that compares income after tax with complete assets. Meanwhile, according to [\(Dewi & Brata, 2020\)](#); [Maulita and Arifin \(2018\)](#), *Return on Investment* is a ratio that measures the return on funding that has been made by means of the enterprise from all money invested in assets used for the company's operations to produce profits. Meanwhile, according to [\(Safii, Surahman, & Wulandari, 2024\)](#), *Return On Investment* is a company's ability to earn profits in relation to total assets. Return on Investment reflects the company's ability to measure assets as optimally as possible so as to achieve the desired net profit. Return on Investment can be determined by dividing profit after tax by total assets.



*Return on investment* is calculated by the formula:

$$\text{Return on Investment} = \frac{\text{Earning After Tax (EAT)}}{(\text{Total assets})} \times 100\%$$

So, from the above opinion, it can be concluded that *Return on investment* is the ability of the company as a whole to generate profits with the amount of investment that has been made by the company to assess financial performance efforts based on the company's own financial statements.

Based on the description above, a theoretical framework can be described which states that Liquidity represented by using the Liquidity Ratio as Current (CR), (DER) Rasio Leverage, and Assets Structure are elements that are notion to have an effect on the company's Return on Investment so that this framework follows:

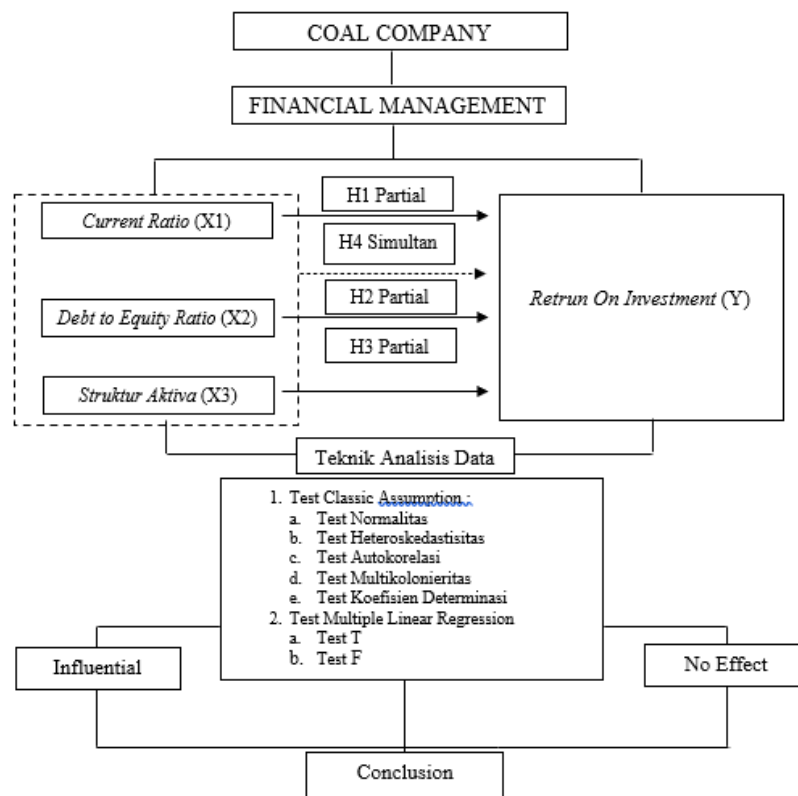


Figure 2. Thinking Framework

## 2.6 Hypothesis

*The influence of Liquidity Ratio as Current (CR) on Return on Investment*

The Liquidity Ratio as Current (CR) is a ratio to measure the company's liquidity in paying non-permanent debt with modern-day belongings owned by means of the company. The importance of long-term debt to return on investment is an important matter where stakeholders will trust the level of return on short-term debt consistently, according to the results of research conducted by (Susanto, 2017) The Liquidity Ratio as Current (CR) is a measure that is many times used to measure a company's potential

to meet debt wants when they fall due. And the ensuing *Liquidity Ratio as Current (CR)* in part has no impact on *Return On Investment*. In line with research ([Umniati, Titisari, & Chomsatu, 2018](#)) *Liquidity Ratio as Current (CR)*, *Cash Turnover*, and *(DER) Rasio Leverage* variables have no effect on *Return On Investment*. In contrast to research conducted by ([Hasanudin, 2022](#)) *Liquidity Ratio as Current (CR)* has a significant and good sized impact on *Return On Investment* in Transportation organizations on the Indonesia Stock Exchange.

H1: *Liquidity Ratio as Current (CR)* has an effect on *Return on Investment*.

#### 2.6.1 Effect of (DER) Rasio Leverage on Return on Investment

The *(DER) Rasio Leverage* is assessing the ratio between total liabilities and total equity to be a benchmark for investors in providing their capital to the intended company because the higher the *(DER) Rasio Leverage* tends to lower stock returns, because the higher the debt level, the greater the company's interest expense. and reduce profits. Based on the results of research conducted by ([Fadli, 2017](#)) the *(DER) Rasio Leverage* does not have a significant effect on the *Dividend Payout Ratio* on investments made by stakeholders. In contrast to the results of research by ([Rusnaeni, 2018](#)) Based on partial research results, the *(DER) Rasio Leverage variable* has a significant effect on *Return on Investment*.

H2: *(DER) Rasio Leverage* affects *Return on Investment*.

#### 2.6.2 Effect of Assets Structure on Return on Investment

The *Assets Structure* is the wealth owned with the aid of the business enterprise by using searching at two elements, such as constant belongings and modern-day belongings in one period, the intention is to locate out how awful lot of constant belongings the employer can use as collateral for loans made and measured in percentage devices (%). Results of research conducted by ([Santoso, Lako, & Rustam, 2020](#)) asset shape (FATA), capital shape (TDR), asset productiveness (FATO), and working things to do (ROI) and their influence on company value. The check effects exhibit that FATA has a fine impact on Tobin's q with TDR, FATO, and ROI as mediating variables, inversely proportional to the consequences of research conducted by ([Gani, 2019](#)) *Assets Structure* has no large impact on capital shape in Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2013-2017 period. This capacity that the greater the company's *Assets Structure*, the decrease the company's capital shape, and vice versa, the decrease the company's *Assets Structure*, greater the company's capital structure. This capacity that the *Assets Structure* is no longer one of the elements that affect the capital/investment structure, due to the fact administration does now not pay a whole lot interest to the *Assets Structure* in the choice to use or add debt however is extra due to its modern assets.

H3: *Assets Structure* affects the *Return on Investment*.

#### 2.6.3 Effect Liquidity Ratio as Current (CR), (DER) Rasio Leverage Dan Assets Structure towards Return on Investment

In this hypothesis, research was once as soon as carried out to find out the penalties of the joint effect between *Liquidity Ratio as Current (CR)* , *(DER) Rasio Leverage* and *Assets Structure* on *Return On Investment* consequences of lookup carried out through ([Rusnaeni, 2018](#)) that the researcher of this study about factor out that *Liquidity Ratio as Current (CR)* and *(DER) Rasio Leverage* contributes to *Return On Investment*, and in particular based totally on simultaneous look up the variables *Liquidity Ratio as Current (CR)* and *(DER) Rasio Leverage* have no large effect on *Return On Investment*.

H4: *Liquidity Ratio as Current (CR)*, *(DER) Rasio Leverage* and *Assets Structure* affect *Return on Investment*.

### 3. Research Methodology

This research uses a qualitative by using sampling method, namely purposive sampling which is carried out based on certain criteria in this study using 8 coal sector companies listed on the Indonesia Stock Exchange, which are processed through financial reports from 2017 to 2018. The analytical tool used is the application of SPSS (*statistical product and service solution*) version 26. Starting from the normality test, heteroscedasticity, autocorrelation test, multicollinearity test, and determination efficiency test, to multiple linear tests, namely the partial test and the simultaneous test.

## 4. Results and discussions

### 4.1 Normality test

This normality check makes use of the Liliefors check through searching at the importance cost at Kolmogorov – Smirnov. The take a look at standards are as follows:

1. If the Significance (Asym Sig two-tailed) > 0.05, then the records are typically distributed.
2. If the Significance (Asym Sig two-tailed) < 0.05, then the statistics are now not generally distributed.

Table 1. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
N		40
Normal Parameters <sup>a,b</sup>	Means	.0000000
	std. Deviation	.90463948
Most Extreme Differences	absolute	.104
	Positive	.104
	Negative	-.098
Test Statistic		.104
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Data: Processed in SPSS Version 26, 2023.

Based on table 1, it is known that the normality test using data transformation gives the Asymp.Sig probability results. = 0.200, which means that the significance value is greater than the level of the research test (Sig >  $\alpha$  namely  $0.200 > 0.05$ ) so it can be concluded that the combined data of the variables *Return On Investment*, *Liquidity Ratio as Current (CR)*, *(DER) Rasio Leverage* and *Assets Structure* tested are normally distributed so that they meet requirements for statistical inference analysis.

### 4.2 Heteroscedasticity Test

A suitable regression equation mannequin is one that does now not have a heteroscedasticity problem, that is, if the factors on the scatter plot between the envisioned values of the mannequin and the residual values are randomly distributed, they do now not structure a precise pattern, such as triangles, quadrilaterals, everyday curves, and so on.



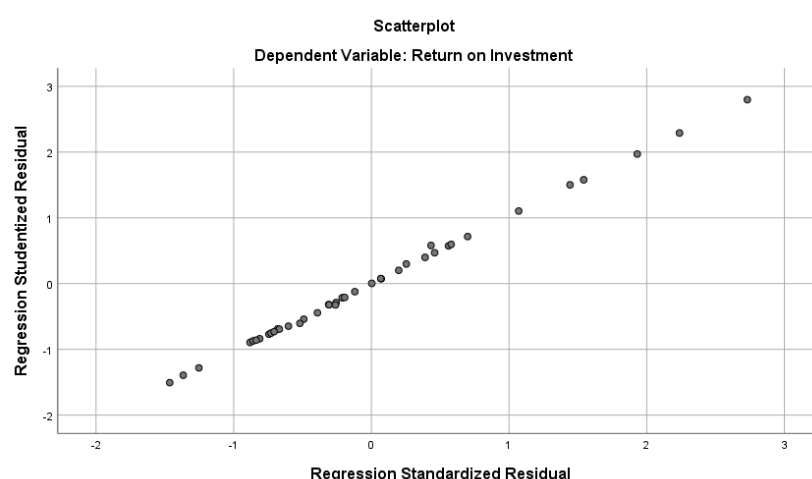
Data: Processed in SPSS Version 26, 2023.  
Figure 3. Heteroscedasticity Test

The outcomes of the Heteroscedasticity evaluation or scatterplot can be considered that the factors in the picture are randomly distributed, and are unfolded above and under the wide variety zero p on the Y axis. It can be concluded that there is no heteroscedasticity that corresponds to the traits there is no heteroscedasticity in the data.

#### 4.3 Correlation Auto Test

The autocorrelation takes a look at what used to be carried out to become aware of whether or not there is an autocorrelation between the mistakes that take place between the durations examined in the regression model. To locate out whether or not there is autocorrelation, you have to appear at the Durbin-Watson take a look at price listed in the SPSS results. It is said that there is no autocorrelation if the  $DW > DU$  and  $(4-DW) > DU$  or it can also be denoted as follows:  $(4-DW) > DU < DW$ . To determine negative or positive autocorrelation.

Table 2. Auto Correlation Test Results



Summary Model <sup>b</sup>					
Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.391 <sup>a</sup>	.153	.082	.127367	1,496

a. Predictors: (Constant), Assets Structure, Liquidity Ratio as Current (CR), (DER) Rasio Leverage
b. Dependent Variable: Return on Investment

Data: Processed in SPSS Version 26, 2023.

Durbin-Watson test. The Durbin-Watson value from the calculation results obtained a Durbin-Watson value of  $DW = 1.496$  with a sample of 40 samples and there are 3 independent variables. Based on the existing categories, the DW value is included in the range  $1.6589 < DW (1.496) < 2.3411$ , which means there is autocorrelation. The coefficient of determination ( $R^2$ ) is to measure the proportion of variation of the *Return On Investment* (Y) variable which can be explained by the variable *Liquidity Ratio as Current (CR)* (X1), *(DER) Rasio Leverage* (X2), *Assets Structure* (X3), or a measure that states the contribution of the independent variable in explaining its effect on the dependent variable.

After the recount is recognized to be 0.391, it is then to locate how tons have an impact on the X variable on the Y variable with the aid of the usage of the determinant coefficient  $R^2$  which is expressed as a percentage. The consequences are as follows:  $R^2 = (0.391) \times \text{one hundred percent} = 39.1\%$  From the consequences of the calculation above, it can be concluded that there is an impact of variable X on Y of 39.1% and the closing 60.9% is influenced via different factors.

#### 4.4 Multicollinearity Test

The multicollinearity check measures the degree of closeness of the degree of affiliation (closeness) of having an effect on or affects unbiased variables thru the magnitude of the correlation coefficient. Multicollinearity can be decided by means of searching at the tolerance value (a) and the Variance Inflation Factor (VIF). Independent variables ride multicollinearity. the value that is often used to point out the presence of multicollinearity is a tolerance cost  $<0,10$  or equal to a VIF value  $>0,10$ .

Table 3. Multicollinearity Test Results

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.318	.067		4.715	.000		
	Liquidity Ratio as Current (CR)	-.023	.012	-.332	-1.838	.074	.720	1.389
	(DER) Rasio Leverage	-.113	.054	-.393	-2.081	.045	.659	1.518
	Assets Structure	-.101	.156	-.107	-.647	.522	.864	1.157

a. Dependent Variable: Return on Investment

Data: Processed in SPSS Version 26, 2023.

The multicollinearity test results obtained that each independent variable has a VIF Liquidity Ratio as Current (CR) value, 1.389, (DER) Rasio Leverage, 1.518, Assets Structure 1.157, because the Tolerance value is greater than the minimum requirements ( $<0.1$ ) and the VIF value is lower than the requirements ( $>10$ ) then multiple linear regression analysis does not have a correlation problem between the independent variables.

#### 4.5 Multiple Linear Test

This evaluation is to decide the path of the relationship between the unbiased variables and the based variable whether or not every unbiased variable is positively or negatively associated and to predict the of the based variable if the of the impartial variable will increase or decreases.

Table 4. Multiple Linear Analysis Test Results

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	std. Error	Betas			tolerance	VIF
1	(Constant)	.318	.067		4,715	.000		
	Liquidity Ratio as Current (CR)	-.023	.012	-.332	-1.838	.074	.720	1.389
	(DER) Rasio Leverage	-.113	.054	-.393	-2.081	.045	.659	1.518
	Assets Structure	-.101	.156	-.107	-.647	.522	.864	1.157

a. Dependent Variable: Return on Investment

Data : Diolah di SPSS Versi 26, Tahun 2023.

Based on the results in the table above, the regression equation is obtained as follows:  $Y = 0.318 - 0.023X_1 - 0.113X_2 - 0.101X_3$ . This means that if the *Liquidity Ratio as Current (CR)*, *(DER) Rasio Leverage*, and *Assets Structure* variables are equal to zero or constant then Y is 0.318.

#### 4.6 Partial T Test

Partial testing can be seen through the results of the T test, if the sig. < 0.05. The T-test serves to determine the effect between variable X and variable Y.

Table 5. Partial T-Test Results

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.318	.067		4.715	.000
	Liquidity Ratio as Current (CR)	-.023	.012	-.332	-1.838	.074
	(DER) Rasio Leverage	-.113	.054	-.393	-2.081	.045
	Assets Structure	-.101	.156	-.107	-.647	.522

a. Dependent Variable: Return on Investment

Data: Processed in SPSS Version 26, 2023.

##### a. *Liquidity Ratio as Current (CR)* Test Results on *Return On Investment*

To prove the results of the T *Liquidity Ratio as Current (CR)* test whether it has an effect or not with *Return On Investment*, the hypothesis tested is as follows: From the results of testing the hypothesis partially, t-test the significance shown in the table above that the variable *Liquidity Ratio as Current (CR)* (X1) obtained a t-count value of -1.838. While the statistical table (t table) and hypothesis testing with  $\alpha = 5\%$ . With the degree of freedom of testing is  $n - k = 40 - 4 = 36$  then the value of t table is -2.028, t count -1.838 < t table -2.028. And the significant value, which is 0.074, is greater than the probability value, which is 0.05 (0.074 > 0.05). So it can be concluded that the independent variable *Liquidity Ratio as Current (CR)* is partial. Does not have a negative effect on *Return On Investment*.

##### b. T Test Results *(DER) Rasio Leverage* Against *Return On Investment*

From the results of testing the hypothesis partially, t-test the significance shown in the table above that the variable *(DER) Rasio Leverage* (X2) obtained a t-count value of -2.081. While the statistical table

(t table) and hypothesis testing with  $\alpha = 5\%$ . With the degree of freedom of the test is  $n - k = 40 - 4 = 36$  then the value of t table is -2.028, t count -2.081 > t table -2.028. And the significant value of 0.045 is smaller than the probability value of 0.05 (0.045 > 0.05). So it can be concluded that the *(DER) Rasio Leverage independent variable* is partial. Has a negative influence on *Return On Investment*.

#### c. Assets Structure T-Test Results Against Return On Investment

From the results of testing with the hypothesis partially t-test the significance shown in the table above is that the variable *Assets Structure* (X3) obtained a t-value of -0.647. While the statistical table (t table) and hypothesis testing with  $\alpha = 5\%$ . With the degree of freedom of testing is  $n - k = 40 - 4 = 36$  then the value of t table is -2.028, t count -0.647 < t table -2.028. And the significant value, which is 0.522, is greater than the probability value, which is 0.05 (0.522 > 0.05). So it can be concluded that the *Assets Structure independent variable* is partial. Does not have a negative effect on *Return On Investment*.

### 4.7 Simultaneous Test F

The F test proves that the *Liquidity Ratio as Current (CR)* (X1), *(DER) Rasio Leverage* (X2), *Assets Structure* (X3), has a positive direct effect on *Return on Investment* (Y).

Table 6. Simultaneous Test Results F

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	MeanSquare	F	Sig.
1	Regression	.105	3	.035	2.165	.109 <sup>b</sup>
	residual	.584	36	.016		
	Total	.689	39			
a. Dependent Variable: Return on Investment						
b. Predictors: (Constant), Assets Structure, Liquidity Ratio as Current (CR), (DER) Rasio Leverage						

Data : Diolah di SPSS Versi 26, Tahun 2023.

Based on the results of the F test (simultaneous) for the variables *Liquidity Ratio as Current (CR)*, *(DER) Rasio Leverage*, and *Assets Structure*, obtained F count = 2.165 and F table  $df1 = 3 - 1 = 2$  while  $df2 = n - k = 40 - 4 = 36$  and with  $\alpha = 5\%$  then the F table is 3.26. F count 2.165 < F table 3.26 then  $H_0$  is accepted and  $H_a$  is rejected. This shows that  $H_4$  is proved that there is no direct and positive influence *Liquidity Ratio as Current (CR)* (X1), *(DER) Rasio Leverage* (X2), *Assets Structure* (X3), together on *Return On Investment* (Y) and means that the regression model can explain independent variables as a whole.

## 5. Discussion

### The Effect of Liquidity Ratio as Current (CR) on Return On Investment

Based on the findings in this study, it indicates the equal factor in the preceding lookup that there is no impact of the Liquidity Ratio as the Current (CR) variable on Return On Investment. In line with the research (Umniati et al., 2018) Liquidity Ratio as Current (CR), Cash Turnover, and (DER) Rasio Leverage variables have no effect on Return On Investment. This potential that investors who will make investments in mining businesses in the coal sub-sector do no longer solely seem to be at it from one facet only, in this case, it appears at the Liquidity Ratio as Current (CR) or momentary debt that is paid easily or not, however, there are a variety of different elements that come to be a reference for traders in investing their capital in agencies to be addressed, such as mining agencies in the coal sub-sector.

### Effect of (DER) Rasio Leverage on Return On Investment

From the outcomes of trying out the speculation partly (DER) Rasio Leverage has a big impact on Return On Investment. In line with the consequences of lookup performed by means of (Rusnaeni, 2018). Based on partial research results, the *(DER) Rasio Leverage* variable has a full-size impact on *Return on Investment*. This capacity that the *(DER) Rasio Leverage* or what can be known as the capital shape is a vital section in investors investing their capital.

### **Effect of Assets Structure on Return On Investment**

The findings in this study indicate the results of testing the hypothesis partially t-test, *Assets Structure* has a significant effect on *Return On Investment*. In line with the results of research conducted by ([Ariyani, Pangestuti, & Raharjo, 2019](#)) *Assets Structure* has no significant effect on the capital structure of Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2013-2017 period. This means that the higher the company's *Assets Structure*, the lower the company's capital structure, and vice versa, the lower the company's *Assets Structure*, the higher the company's capital structure. This means that *the Assets Structure* is not one of the factors that influence the capital/investment structure, because management does not pay much attention to the *Assets Structure* in the decision to use or add debt but is more due to its current assets.

### **Effect of Liquidity Ratio as Current (CR), (DER) Rasio Leverage, Asset Structure on Return On Investment**

From the results of testing the hypothesis simultaneously test f, that the variable *Liquidity Ratio as Current (CR)* (X1), *(DER) Rasio Leverage* (X2), *Asset Structure* (X3) on *Return On Investment* (Y) has no significant effect on *Return On Investment*.

In line with the research by ([Rusnaeni, 2018](#)) based on research simultaneously *Liquidity Ratio as Current (CR)* and *(DER) Rasio Leverage* variables have no significant effect on *Return On Investment*. This means that *the Liquidity Ratio as Current (CR)*, *(DER) Rasio Leverage*, and *Asset Structure* are not an important part of investors investing their capital by looking at these variables because all the independent variables together have no effect on assessing whether the company's financial statements are healthy or not so that investors have the courage to invest by looking at this.

## **5.1 Conclusion**

This find out about objectives to decide the impact of the variables consisting of the *Liquidity Ratio as Current (CR)*, *(DER) Rasio Leverage* and *Assets Structure* on the *Return On Investment* of mining groups listed on the Indonesia Stock Exchange which can be a benchmark for coal mining area agencies in the length (2017- 2021), an evaluation of the outcomes of the dialogue that has been put ahead in the previous chapter can be drawn conclusions, namely:

1. Based on partial testing (t-test), the results prove that the *Liquidity Ratio as Current (CR)* variable does not have a significant effect on the *Return On Investment* variable. Based on the facts found that short-term debt has no significant effect because investors do not look at the payment of the short-term debt, whether it is smooth or not smooth, also looking at the nominal short-term debt, if it is too large from the amount of capital owned, investors will think again about giving shares. done so that short-term debt has no effect on investors in investing their capital.
2. Based on partial testing (t-test), the results prove that the *(DER) Rasio Leverage* variable has a significant influence on the *Return On Investment* variable. Based on the records found, the capital shape in this variable makes use of the *(DER) Rasio Leverage* variable which has a massive impact due to the fact the quantity of outgoing capital will be considered by the investors, if the capital goes well, the quantity of extra capital for buyers will enlarge however it will no longer be The benchmark in phrases of funding may additionally be different matters for traders to make investments in the agency they are aiming for, in this case, a coal mining company.
3. Based on the partial check (t-test), the outcomes show that the *Asset Structure* variable no longer has a full-size impact on the *Return On Investment* variable. Based on the statistics located that the *Assets Structure* is now not one of the elements that have an impact on the capital/funding structure.
4. Based on simultaneous checking out (f test), the outcomes show that the *Liquidity Ratio as Current (CR)* variable, *(DER) Rasio Leverage*, and *Asset Structure* does now not have a great impact on the variable *Return On Investment*. Based on the information determined that for the stakeholders are no longer a vital section in investors investing their capital.

## **5.2. Limitation**

This research was conducted on coal quarter companies listed on the Indonesia Stock Exchange, only eight institutions have been researched and only 5 years of economic reviews have been analyzed, starting from 2017-2021. And apart from that the variables studied are only *Liquidity Ratio as Current*

(CR), (DER) Rasio Leverage, and Assets Structure to Return on Investment. Securities purchased in terms of fact evaluation can only be used for transformation, the results of the analysis of facts, and the remaining securities are accepted as is.

### 5.3 Acknowledgment

The author would like to thank the almighty God, and also to the supervisor Mr. Dr. Wastam Wahyu Hidayat, SE, MM for this writing to be more perfect, thank you also to my closest family and friends who helped in processing this research.

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