

## Liquidity And Leverage's Impact On Profitability From 2018 To 2022

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### Abstract

The purpose of this study is to determine the effect of liquidity and leverage on profitability in Mining Companies in the Coal Mining Sub Sector which are listed on the Indonesia Stock Exchange for the 2018-2022 period. The researcher obtained 93 populations consisting of 18 companies which were used as a sample using the company's financial statements as secondary data. And using panel data regression analysis so that the results obtained are that Liquidity and Leverage simultaneously affect Profitability in mining companies in the coal mining sub-sector for the 2018-2022 period. Liquidity has a negative and insignificant effect on profitability. Whereas,

**Keywords :** Liquidity, Leverage, Coal, Profitability

### 1. INTRODUCTION

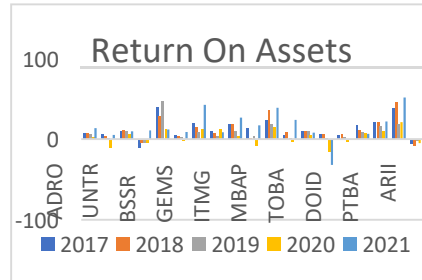
Leaders have set goals from the time the company was formed regarding what it wants to achieve, this is done well by the company, well short term or long term, this is because the long term requires more than one year to achieve. The achievement of corporate goals is influenced by various elements for example internal and external elements, among others: competition between companies; technology choice; price change; changes in interest rates; Uncertain local and world economic conditions; exchange rate fluctuations; changes to tax laws (Horne 2019, 2). Marketing, accounting, production, HR, and finance are just a few of the company's departments (Brigham & Houston, 2013) so that to achieve company goals, all parts of the company are involved in the organization. It is difficult to achieve goals without good cooperation for each department and the finance department has an important role in money management.

In general, to finance all production activities, companies need sufficient funds, this is because it can support each company to find funding sources that can provide the necessary financing for development. Investments made by investors are the most effective source of financing by measuring the company's financial performance (Pratiwi et al., 2018). investors need a variety of facts to estimate investment returns when investing their assets. Stock selection to analyze using a market approach, namely the fundamental approach (Hertina & Bayu Herdiawan Hidayat, 2019).

According to Kasmir (2014) in the journal (Ayyub Pratama & Wahyudi, 2021) financial ratios are divided into four types including solvency ratios, liquidity ratios, profitability ratios and activity ratios. Researchers use 3 kinds of ratios for financial analysis including profitability ratios, solvency ratios, and profitability ratios.

The importance of profitability for the company in order to maintain business continuity for the long term. This is due profitability can provide a good picture of the company in the future or not (Wijaya & Sedana, 2015).

Researchers use Return On Assets as a profitability ratio to analyze finances. Current Ratio or current ratio as the liquidity ratio and uses the Debt to Equity Ratio (DER) as the solvency (leverage) ratio. The data below shows that Return On Assets (ROA) in mining sub-sector companies has decreased to a minus percentage in the 2020-2021 period due to the co-19 pandemic.



**Graph 1.**  
**Return On Assets of Mining Sub Sector Companies in 2018-2022**

Company mine is one of the contributors to the country's foreign exchange and Indonesia is one of many his house or commonly known as Work From Home (WFO). For some companies, the existing limitations caused a decrease in financial performance figures, but not for other companies, as shown in Figure 1, where there was an increase in the percentage rate. In other words, there were companies that were able to survive when the government strengthened regulations to reduce the number of Covid-19.

**1.1. Formulation of the problem**

A country that has the potential for very high mineral reserves and makes Indonesia ranked in the top 10 in the world.

In 2020, the Indonesian government announced the first case of Covid-19 in March. Implementations such as work from home and school at home are carried out as a reduction in community movements (Fitri Setiawan & Amrullah Suwaidi, 2022) impacting the entire industry. Due to this, mining companies experienced a decline of 18.42% referring to data from the Indonesian Stock Exchange. This will continue in 2021. Where the government is tightening the regulations in force. Many companies employ employees from How is the influence of liquidity and leverage on profitability in coal mining sub-sector companies simultaneously

- 1) Does liquidity affect the profitability of the company sub sector coal mining
- 2) Does leverage affect the profitability of the coal mining sub-sector company

**2. LITERATURE REVIEW**

**2.1. Profitability**

Obtaining optimal profit or profit is the end of the goal that the company wants to hope for (Sari et al., 2017). Kasmir states (2014: 115), the profitability ratio is the ratio that evaluating the competence of a company to seek profit offers a measure of the performance of a company's company management so that it can show the efficiency of a company. According to Husnan & Pudjiastuti, (2015) there are several ratios used to calculate the competence of the company in order to benefit from its sales, from the equity it owns, and from its assets, namely: BEP, ROE, ROA and Profit Margin. This ROA ratio can be

calculated by the formula (Husnan & Pudjiastuti, 2015):

$$ROA = \frac{\text{Laba Setelah Pajak}}{\text{Total Aset}} \times 100\%$$

## 2.2. The Effect of Liquidity And Leverage

### A. Against Profitability

The liquidity ratio has an important role for the company, this is because liquidity describes the extent to which the company can fulfill its obligations to pay short-term obligations. In the sense that liquidity is a description of the availability of funds owned by the company in fulfilling all debts on time. The higher the percentage of liquidity in a company, this shows the better the company's performance (Cahyasari, 2022).

According to Kasmir in the journal Eka Rusti'ani & Ttik Wiyani (2017) to assess the company's ability to pay off all debts (short term as well as long term) using leverage ratio. This also has an influence on the company to increase profit (profit) so as to be able to increase effectiveness with the profitability ratio as a company measuring tool to assess the company's competence to earn income for a certain time.

Based on the previous explanation, liquidity and leverage have an effect on profitability. This is also translated from the findings of previous studies including (Artaria Sitanggang, 2021) (Pandapotan Silitonga et al., 2017) (Pratiwi et al., 2018) (Sari et al., 2017).

### 2.3. Influence *Liquidity To Profitability*

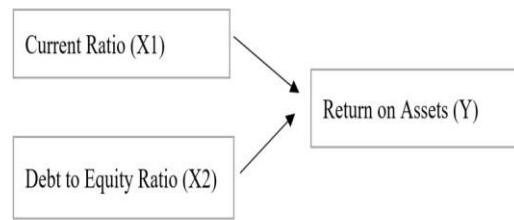
Based on (Ayyub Pratama & Wahyudi, 2021) to assess the company's competence to cover short-term debt using the liquidity ratio. When the term expires, the company is unable to pay off, resulting in the emergence of idle funds, which reduces the efficiency of the company and the loss of opportunities for the company to make a profit. According to Angarsari & Aji (2018) the higher the percentage value of liquidity, the higher the assets owned by the company. if the company does not invest with utilizing assets, the percentage of company profitability will decrease.

The findings of this study are consistent with previous research including (Artaria Sitanggang, 2021) (Pratiwi et al., 2018) stating that there is an effect of liquidity on profitability but not significant. and based on the results of research (Putra Pradana, 2021) (Pandapotan Silitonga et al., 2017) (Sari et al., 2017) suggests that there is a positive and significant effect. While the results of research (Ayyub Pratama & Wahyudi, 2021) are not in line with the results of researchers where the current ratio (CR) has no effect on ROA. Whereas

### 2.4. The influence of leverage on profitability

Ratio leverage describe how the corporation has a very large debt burden compared to its assets. Matter this aim to usedetermine the competence of the company in paying off all of its debts within the term long as well as in periodlong If happening liquidatio company. According to Ningsih and Utami (2020) in the journal (Sihol Marito Boru Malau, 2021) companies that have a percentage obligation tall so thatinterest expense that must be paid the company is the same height and the profits earned are decreasing.

The findings of this study are in accordance with previous studies including (Artaria Sitanggang, 2021) (Pandapotan Silitonga et al., 2017) (Rinofah et al., 2022) saying leverage has a negative but significant effect on profitability. And, according to (Sari et al., 2017) there is a positive influence between leverage on profitability. On the other hand, the results of the study (Putra Pradana, 2021) show that leverage has no significant effect on profitability.



Gambar 2  
Kerangka Pemikiran

### Research Hypothesis

*H1*: Liquidity and leverage have an effect on profitability

*H2*: Liquidity has an effect on profitability

*H3*: leverage there is influence toprofiteability

## 3. RESEARCH METHOD

### 3.1. Data and Research Sample

This research applies secondary data, which is a report financial statements contained on the IDX in the 2018-2022 period. By tracing the company's official website, the sample in this study is the source of the data needed to process the data. In addition, researchers use journals or previous research as other sources.

To meet the population criteria used, researchers used the application of definitions to operational variables and purposive sampling. Some of the conditions used for sample selection include:

- 1) Mining Company in the coal mining sub-sector which was listed on the IDX between 2018-2022
- 2) Companies that have completeness in financial statements according to the needs of researchers in that period.

So that there are 19 coal mining company sub-sector companies listed on the IDX in 2018-2022 as samples in the research.

**Table 1. Sample of Coal Sub Sector Mining Companies listed on  
IDX**

<b>No</b>	<b>Company name</b>	<b>COD E</b>
1	PT. Adaro Energy Indonesia Tbk.	ADR O
2	PT. Bumi Resources Tbk.	EART H
3	PT. United Tractors Tbk.	UNT R
4	PT. Akbar Indo Makmur Stimec Tbk.	AIMS
5	PT. Baramulti Suksessarana Tbk.	BSSR
6	PT. Dian Swastatika Sentosa Tbk.	DSSA
7	PT. Golden Energy Mines Tbk.	GEM S
8	PT. Harum Energy Tbk.	HRU M
9	PT. Indo Tambangraya Megah Tbk.	ITMG
10	PT. Resource Alam Indonesia Tbk.	RAIN
11	PT. Mitrabara Adiperdana Tbk.	MBA P
12	PT. Golden Eagle Energy Tbk.	SMM T
13	PT. TBS Energi Utama Tbk.	TOB A
14	PT. Borneo Olah Sarana Sukses Tbk.	BOSS
15	PT. Delta Dunia Makmur Tbk.	DOID
16	PT. Sumber Energi Mainstay Tbk.	ITMA
17	PT. Bukit Asam Tbk.	PTBA
18	PT. Bayan Resources Tbk.	BYA N

**3.2. sister**

This study applies a panel data regression analysis technique assisted by Eviews 12 software. The aim is to understand the effect of the variables Liquidity (X1) and Leverage (X2) on Profitability (Y). Panel data regression models :

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2$$

Information :

- Y : Return On Assets (ROA)
- X1 : Current Ratio
- $\alpha$  : Constant
- X2 : Debt to Equity Ratio

**4. RESULTS AND DISCUSSION**

**4.1. Classical Assumption Test  
Multicollinearity Test**

**Table 1 Multicollinearity Test**

	CR	DER
CR	1.000000	0.161142
DER	0.161142	1.000000

**(Source: Output Eviews12)**

In table 2 there are results of data processing carried out by researchers which show that the correlation value is 0.1611. means that there is no multicollinearity problem. Because the correlation value shown is smaller than 0.90.

**Table 2 White Test Heteroscedasticity Test**

Heteroskedasticity Test: White  
Null hypothesis: Homoskedasticity

F-statistic	1,009997	Prob. F(5,89)	0,4166
Obs*R-squared	5,100997	Prob. Chi-Square(5)	0,4037
Scaled explained SS	7,804858	Prob. Chi-Square(5)	0,1673

**(Source: Output Eviews12)**

Based on the results of data processing carried out by researchers in the table above, it shows that the resulting value is a probability magnitude of 0.4037 which is higher than 0.05. The conclusion is that there is no heteroscedasticity problem.

**Table 3 Panel Data Regression Analysis**

Dependent Variable: ROA

Method: Panel EGLS (Cross-section random effects)

Date: 10128122 Time: 09:58

Sample: 2017 2021

Period included: 5

Cross-sections included: 19

Total panel (balanced) observations: 93

Swamy and Arora estimator of component variances

Variables	coefficient	std. Error	t-Statistics	Prob.
c	12.71804	2.555641	4.976458	0.0000
C	-0.085234	0.080668	-1.056602	0.2935
R				
DE	-0.019390	0.008152	-2.403215	0.0183
R				
Effects Specification				
			SD	Rho
Random cross-sections			9.468517	0.5251
Idiosyncratic random			9.003649	0.4749
Weighted Statistics				
R-squared	0.072835	Mean dependent var		3.949991
Adjusted R-squared	0.052680	SD. dependentvar		9.223321
SE of regression	8,977,093	Sum squared residue		7414,115
F-statistics	3.613629			
Prob(F-statistic)	0.030847	Durbin-Watson stat		1.794197
Unweighted Statistics				
R-squared	0.135637	Mean dependent var		10.09347
Sum squared residue	15111,13	Durbin-Watson stat		0.880303

**(Source: Output Eviews12)**

#### 4.2. Simultaneous Significance Test (F Test):

In order to analyze whether the independent variable has an influence on the dependent variable simultaneously. Then a significance test or F test was carried out in this study as shown in table 3.

The results of data processing with the help of Eviews produce a probability value (F-statistic) of 0.030847. in the sense, that the magnitude of the probability is less than 0.05 then the value displays Variable X1 (CR) and X2 (DER) simultaneously (simultaneously) has an influence on variable Y (ROA) Coefficient of Determination :

The results of data processing are shown in table 3, showing a coefficient of determination of 0.0526 or 5.26%, meaning that variable Y (ROA) can be explained by variable X1 (CR) and variable X2 (DER) of 5.26%. While the rest ( $100 - 5.26 = 94.74$ ) is described by variables other than the research model.

#### 4.3. Partial Significance Test (T-test):

Based on table 1 above, showing the numbers in the Coefficient section, the regression equation can be formulated, namely:

$$ROA = 12.71804 - 0.085234X1 - 0.019390X2$$

Information :

Y : Return On Assets (ROA)

X1 : Current Ratio

$\alpha$  : Constan

X2 : Debt to Equity Ratio

The results of the t test in this study show a beta value of -0.0852 or -8.52%, the negative result shown by beta means that there is a negative effect of the CR variable on ROA. While the significance value of CR is 0.29 which shows that the significance level of the CR variable is greater than 0.05. The conclusion is that liquidity has a negative and insignificant effect on profitability and states that H2 is accepted.

These results are not in line with research conducted by Ayyub Pratama & Wahyudi (2021) where liquidity has no effect on profitability.

The results of the t test in this study show a beta value of -0.0193 or -1.93%, the negative result shown by beta means that there is a negative effect of the DER variable on ROA. While the DER significance value is 0.01 which shows that the level of significance less than 0.05. In conclusion, leverage has a negative and significant effect on profitability. And states that H3 is accepted.

These results are not in line with research conducted by Putra Pradana (2021) where leverage does not have a significant effect on profitability.

## 5. CONCLUSION

Based on the results of the research and discussion above, it can be concluded that:

- 1) The variables of liquidity and leverage simultaneously affect the profitability of coal sub-sector mining companies listed on the Indonesia Stock Exchange for the 2018-2022 period
- 2) The liquidity variable has a negative and insignificant effect on the profitability variable in coal sub-sector mining companies listed on the Indonesia Stock Exchange for the 2018-2022 period
- 3) The Leverage variable has a negative and significant effect on profitability in coal sub-sector mining companies listed on the Indonesia Stock Exchange for the 2018-2022 periode.



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