

THE IMPACT OF FINANCIAL INDICATORS, AND MACRO-ECONOMIC VARIABLES ON FINANCIAL PERFORMANCE AND STOCK RETURN OF COAL MINING COMPANIES LISTED IN INDONESIA STOCK EXCHANGE BEFORE AND DURING THE COVID-19 PANDEMIC FROM 2014 TO 2023

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ABSTRACT

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ABSTRACT

1. Research Background

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6. Implacation

Indonesia Economy Growth comes from export trading, especially coal that contributed four per cent. However, the contribution is not always stable. Global issue, supply, and demand of coal can influence the revenue because its phenomena are coal trade will be stopped, and coal price gradually drops because of both COP26 and COP28 agreements. This study aims to find analyses in uncertain conditions, namely, COVID-19 and global issue to save Coal Mining Companies. This research was performed in a quantitative research method, and the data was obtained from the annual financial reports of seven coal mining companies listed on the Stock Exchange from 2014 to 2023. This research was processed by Microsoft Excel, Eviews, and IBM SPSS, namely, descriptive analytical, classical assumption, panel data regression of model estimation, panel data regression of model selection, and Hypothesis test to find information. As a result, the variable of CR, TATO did not affect significantly on ROA, while DAR has a negative effect and COVID-19 has a positive and significant effect on the first equation. On the second equation, CR, MR, ROA have a positive effect, excluding DAR, TATO, FOREX, and CP. Hence, the implication of the research can gain some insights for company managements and regulators to monitor and control the positive and/or significant effect during phenomena because the financial performance and macroeconomic variables can be impacted on ROA and stock return drastically towards seven coal mining companies. This study warn to lower DAR, strengthen efficiency, control the pandemic and enhance market return.

Keywords: Financial Indicator, COVID-19, Macro-Economic, Financial Performance, Stock Return

Paris Agreement, COP26, COP28

Energy Policy & Agreement

COVID-19 Pandemic

Low Demand

Coal Price

The Lowest Price)

ForEx Rate USD to IDR

**A dramatically
incline**

Climate Change

Coal

Fossil-Fuel

4.5 Per Cent

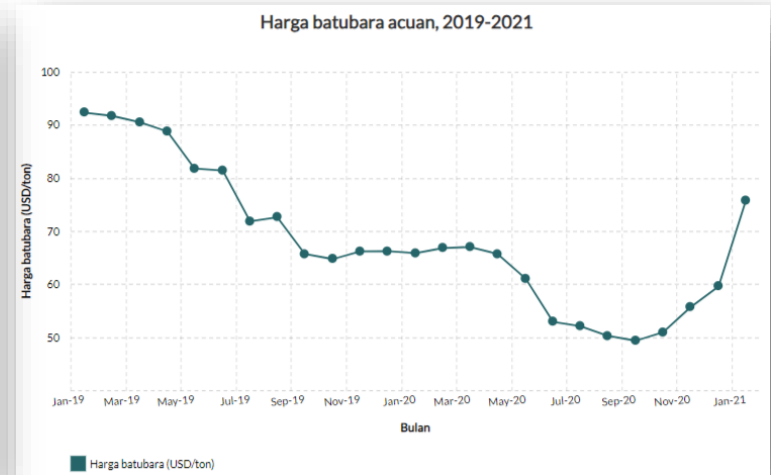
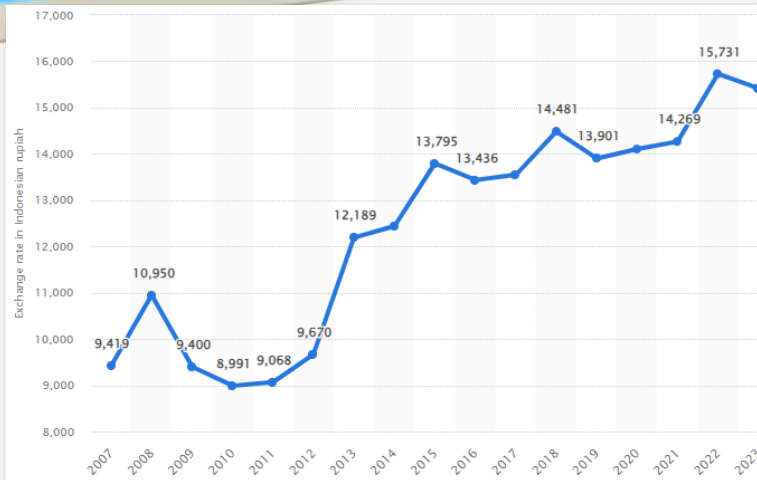
Consumption Drop

09 September 2020

49 USD/Ton

22 June 2024

Rp 16.450,-



Tabel Acuan

		Revenue		Laba (Rugi) Operasi		Total Ekuitas		Perubahan (%) Rev	Perubahan (%) Laba	Perubahan (%) Ekui
		2020	2019	2020	2019	2020	2019			
1	ADRO	\$ 1.954.520.000	\$ 2.654.133.000	\$ 120.669.000	\$ 437.556.000	\$ 3.888.643.000	\$ 3.983.395.000	-26%	-72%	-2%
2	INDY	\$ 1.538.651.430	\$ 2.079.875.395	\$ - 44.963.917	\$ 9.457.972	\$ 931.105.049	\$ 1.045.774.218	-26%	-575%	-11%
3	BUMI	\$ 587.886.132	\$ 751.851.937	\$ - 136.988.185	\$ 86.668.340	\$ 426.386.033	\$ 509.935.679	-22%	-258%	-16%
4	PTBA	\$ 861.299.437	\$ 1.089.559.794	\$ 116.733.275	\$ 209.483.912	\$ 1.111.373.576	\$ 1.234.939.402	-21%	-44%	-10%
5	ITMG	\$ 871.884.000	\$ 1.304.780.000	\$ 38.631.000	\$ 98.646.000	\$ 863.449.000	\$ 884.465.000	-33%	-61%	-2%
6	DOID	\$ 494.175.141	\$ 690.338.935	\$ - 3.693.810	\$ 28.148.229	\$ 1.040.854.175	\$ 1.181.911.191	-28%	-113%	-12%
7	HRUM	\$ 136.141.980	\$ 200.284.565	\$ 27.346.061	\$ 18.101.657	\$ 422.098.763	\$ 399.583.513	-32%	51%	6%
8	BOSS	\$ 10.456.496	\$ 12.700.4	\$ -	\$ 120.446	\$ 94.569.811	\$ 12.962.617	-18%	-2971%	630%
9	PTRO	\$ 249.925.000	\$ 378.742.000	\$ 13.163.000	\$ 20.606.000	\$ 214.345.000	\$ 212.563.000	-34%	-36%	1%
10	MBA P	\$ 159.666.359	\$ 196.636.808	\$ 25.530.771	\$ 26.460.891	\$ 136.385.811	\$ 145.640.390	-19%	-4%	-6%

Data PTBA dan BOSS dalam rupiah, dikonversi ke USD dengan kurs 14.918

- **Revenue:** All companies experienced a decline in revenue from 2019 to 2020, ranging from -18% (BOSS) to -34% (PTRO). This suggests an overall economic downturn or industry-specific challenges.
- **Operating Profit:** The majority of companies saw a significant decrease in operating profit, with some even reporting losses (BUMI, DOID). This indicates reduced profitability and potential operational difficulties.
- **Total Equity:** While most companies experienced a decrease in total equity, some managed to maintain or even increase their equity (HRUM, BOSS). This could be due to various factors, such as asset revaluation, capital injections, or effective cost management.

INDONESIA'S COAL MINING COMPANIES

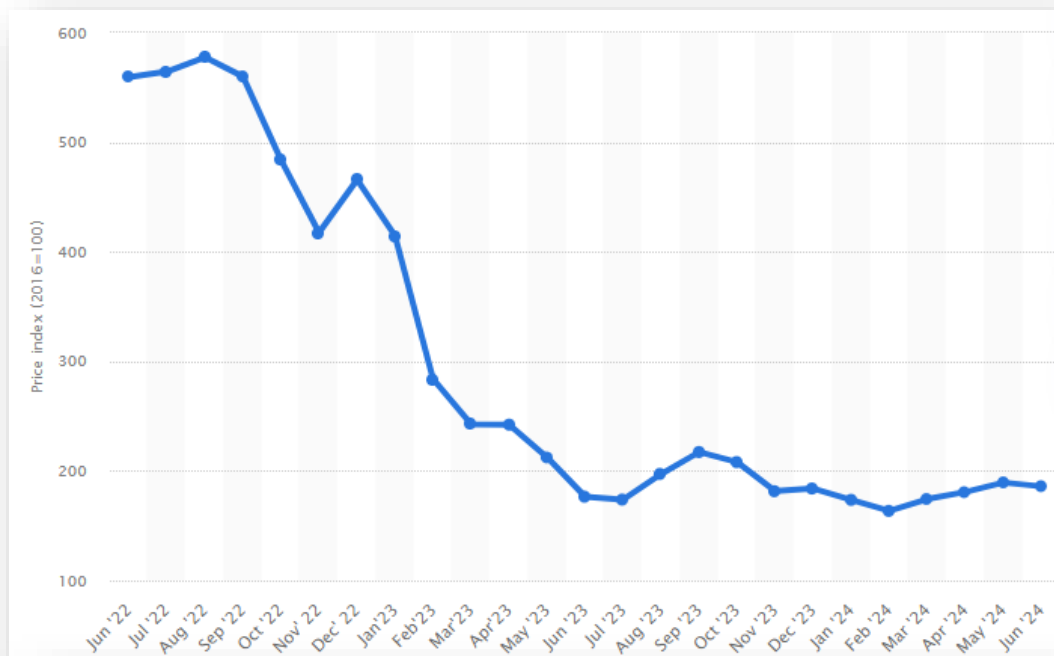
1. PT Adaro Energy Tbk - ADRO
2. PT Akbar Indo Makmur Stimec Tbk - AIMS
3. PT Atlas Resources Tbk - ARII
4. PT Transcoal Pacific Tbk - TCPI
5. PT Baramulti Suksessarana Tbk - BSSR
6. PT Bumi Resources Tbk - BUMI
7. PT Bayan Resources Tbk - BYAN
8. PT Dian Swastatika Sentosa Tbk - DSSA
9. PT Golden Energy Mines Tbk - GEMS
10. PT Harum Energy Tbk - HRUM
11. PT Indika Energy Tbk - INDY
12. PT Indo Tambangraya Megah Tbk - ITMG
13. PT Resource Alam Indonesia Tbk - KKGI
14. PT Mitrabara Adiperdana Tbk - MBAP
15. PT Bukit Asam Tbk - PTBA
16. PT Golden Eagle Energy Tbk - SMMT
17. PT TBS Energi Utama Tbk - TOBA
18. PT Black Diamond Resources - COAL
19. PT Garda Tujuh Buana Tbk – GTBO

INDONESIA'S COAL MINING COMPANIES

PT Bukit Asam Tbk (PTBA),
PT Bumi Resources, Tbk (BUMI),
PT Indika Energy Tbk (INKA),
PT Harum Energy Tbk (HRUM),
PT Adaro Energy Tbk (ADRO),
PT Indo Tambangraya Megah Tbk
(ITMG),
PT TBS Energy Utama Tbk (TOBA)

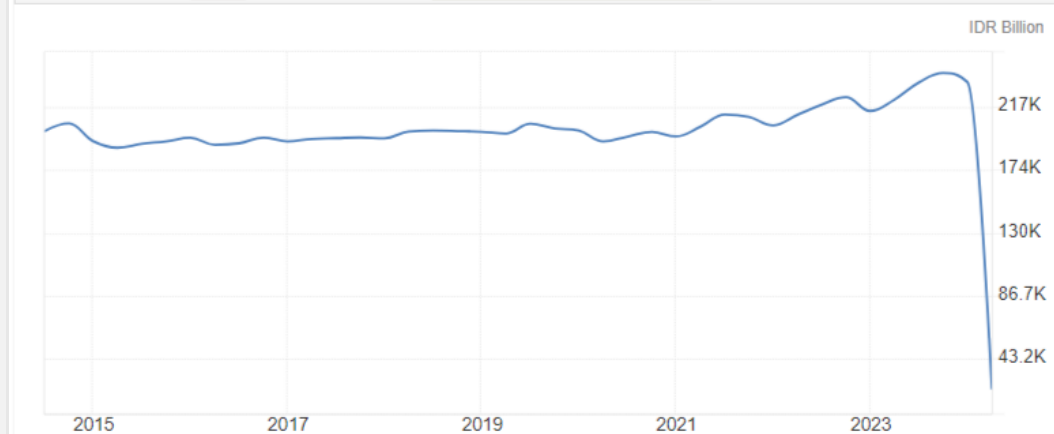
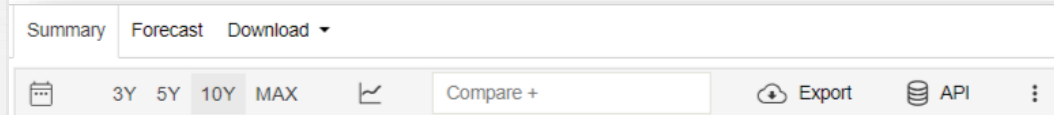
LICENSED HOLDER OF MINING

924 holders of Mining Business Legal,
60 holders of the agreement of Coal
Mining Company
based on Minerba One Data Indonesia
(MODI) of
Ministry of Energy and Mineral
Resources in Indonesia until June 20th
2023



COAL PRICE

A Slow Drop can be Described that The price experienced Decrease fluctuations.

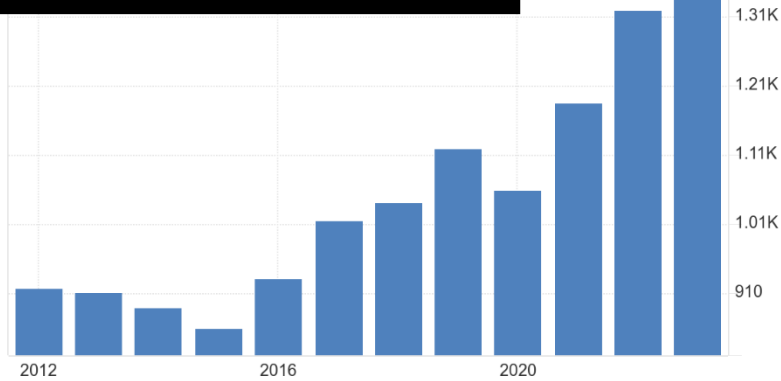


COAL PRICE

A Skyrocket Drop can be seen on the line chart from The middle of 2023 To now.

ID GDP - USD Billion

GDP STATISTICS



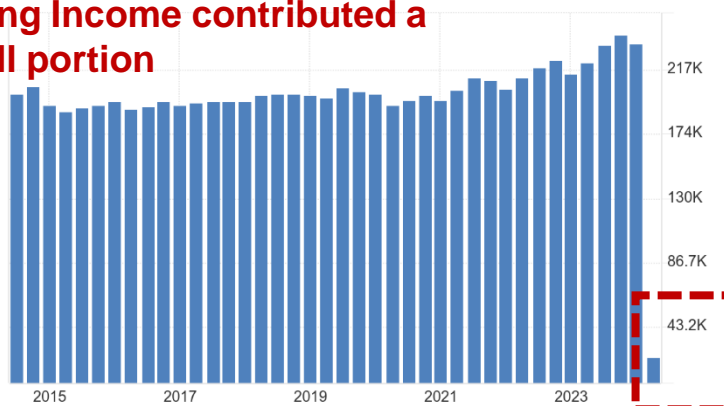
Source: tradingeconomics.com | World Bank

GDP OF MINING

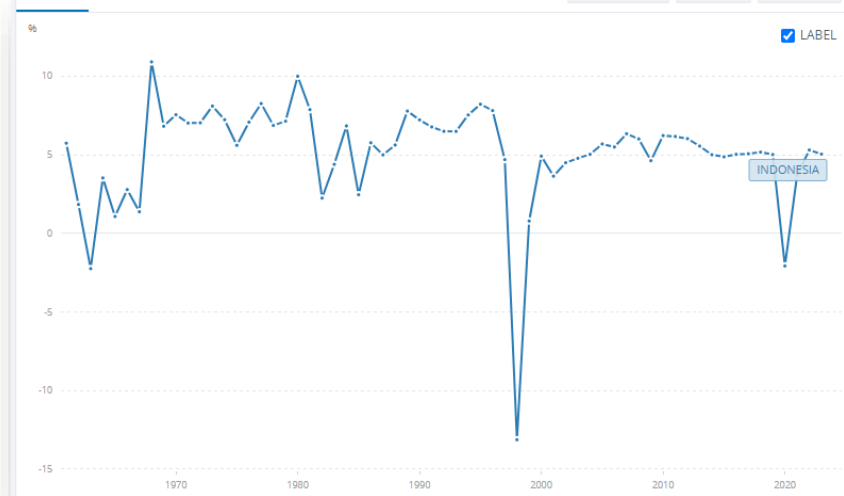
Contribution dropped

ID GDP from Mining - IDR Billion

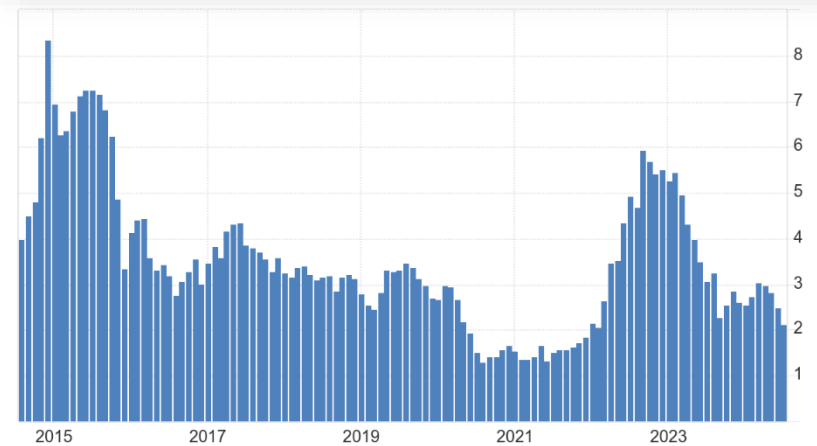
Mining Income contributed a small portion



Source: tradingeconomics.com | Statistics Indonesia



ID Inflation Rate - percent



Source: tradingeconomics.com | Statistics Indonesia

The GDP in 2020 and 2023 after COVID-19 showed a low decrease compared to prior years.

RESEARCH QUESTION



How do financial indicators impact the coal mining companies' financial performance?

How do financial indicators impact the coal mining companies' stock return?

How do macro-economy variables impact on the coal mining companies' stock return?

How does COVID-19 impact on the coal mining companies' financial performance?

How does COVID-19 impact on the coal mining companies' stock return?

RESEARCH OBJECTIVE

To analyze the impact of financial indicators on the financial performance of Coal Mining Companies listed on Indonesia Stock Exchange.

To analyze the impact of financial indicators on the stock return of Coal Mining Companies listed on Indonesia Stock Exchange.

To analyze the impact of macro-economic variables on the stock return of Coal Mining Companies listed on Indonesia Stock Exchange.

To evaluate the effect of COVID-19 on financial performance.

To evaluate the effect of COVID-19 on the stock return.

KEYPOINTS

1. COVID-19 AND GLOBAL ISSUES

2. GDP MINING

3. DEBT ASSET RATIO

4. COAL PRICE

VALUE ADDED

COVID-19 PANDEMIC DEVASTATED MOST OF COUNTRIES IN ACTIVITIES, OPERATION, AND ECONOMY. MOREOVER, GLOBAL ISSUES LIKE COP26 & COP28. THERE ARE FORCES TO STOP COAL, FOSSIL-FUEL USAGE.

THE CONTRIBUTION WAS DROPPING SLOWLY.

ASSET CANNOT GENERATE REVENUE TO PAY DEBT

A LARGE VOLATILITY

THEORITICAL FRAMEWORK

Efficient Market Hypothesis (EMH)

a theory in finance that states that share prices reflect all available information.

DuPont Analysis

a financial analysis technique used to break down the Return on Equity (ROE) of a company into its component parts.

Arbitrage Pricing Theory (APT)

a financial model used to determine the expected return of an asset based on various risk factors.

Stock Return

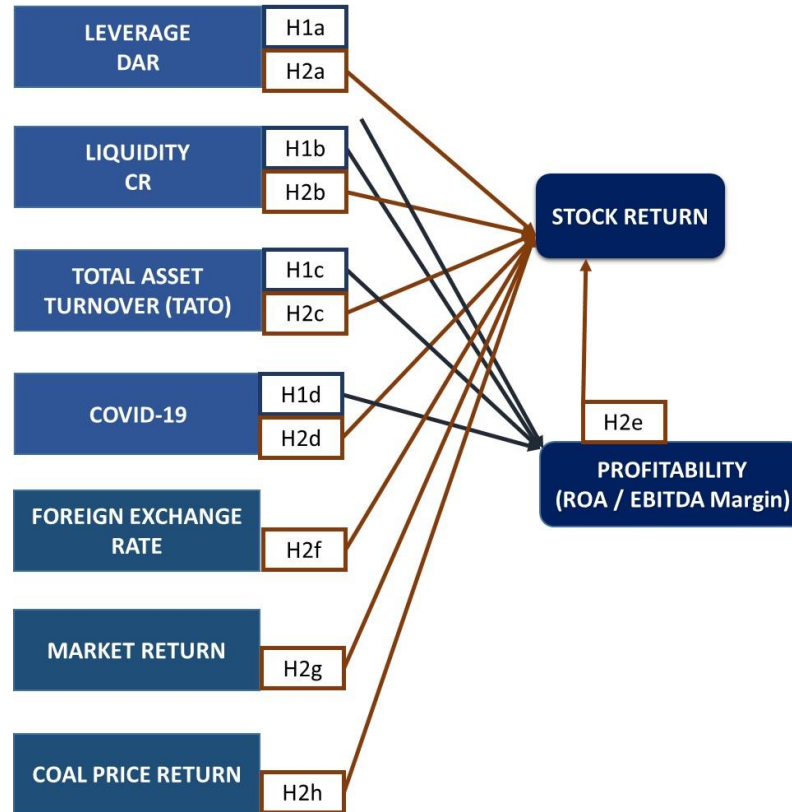
the gain or loss on an investment in a stock over a specific period.

Macro-economy

the study of the overall economy. It examines the behavior and performance of an economy as a whole, rather than individual markets or businesses.

Financial Performance

a measure of how well a company is doing financially. It's a way to evaluate a company's profitability, efficiency, and overall health.



H1a LEVERAGE	PROFITABILITY (ROA / EBITDA)
H1b LIQUIDITY	
H1c ASSET TURNOVER	
H1d COVID-19	

**H1a : LEVERAGE (DAR)
Affect positively on ROA**

**H1b : LIQUIDITY (CR)
Affect directly on ROA**

**H1c : TATO Affect positively
On ROA**

**H1d : COVID-19 Affect
positively on ROA**

H2a LEVERAGE	STOCK RETURN
H2b LIQUIDITY	
H2c ASSET TURNOVER	
H2d COVID-19	
H2e PROFITABILITY	

H2a : Leverage (DAR) Affect negatively on Stock Return

H2b : Liquidity (CR) Affect a negative effect on Stock Return

H2c : TATO Affect an increase on Stock Return

H2d : COVID-19 Affect directly on Stock Return

H2e : ROA Affect positively On Stock Return

H2f FOREIGN EXCH.	STOCK RETURN
H2g MARKET RETURN	
H2h COAL PRICE	

H2g : ForEx Affect positively on Stock Return

H2h : Market Return Affect positively on Stock Return

H2i : Coal Price Affect positively on Stock Return

PREVIOUS RESEARCHES

Halim et al. (2023)

ADRO

**CCC, COVID-19 as
Moderating**

Ihsan et al. (2023)

**Mobile Operator
Companies**

**COVID-19 as
Moderating**

**Thamrin and Sembel
(2020)**

Consumer Goods

Before COVID-19

AUTHOR'S RESEARCH

Gaol, 2024

**7 Coal Mining
Companies**

**COVID-19 as
Independent Variable**

PREVIOUS RESEARCHES

No.	Author, Year, Journal	Research Variables	Research Result
1.	Sembel, R. (2017). Pengaruh volatilitas arus kas, profitabilitas, dan asset berwujud terhadap struktur modal perusahaan-perusahaan LQ45. Journal of Financial Studies. Structur	-Independent Variables: Cash Flow Volatility, Profitability, Tangible Assets; -Dependent Variables: Capital	Cash flow volatility and profitability significantly affect capital structure, while tangible assets do not have a significant effect.
2.	Thamrin and Sembel, (2020) The Effect of Company's Fundamental, Market Return and Macroeconomic to Stock Return: A Case Study of Consumer Goods Companies Listed in BEI Period 2009-2018	-Current ratio (CR) -Total Asset Turnover (TATO) -Return on Asset (ROA) -Debt-to-Equity Ratio (DER) -Earnings per Share (EPS) yield -Market Return (MR) -Gross Domestic Product (GDP) -Interest rate (IR) -Exchange Rate (ER) -Stock Return	-TATO, EPS Yield, Market Return, and Exchange Rate have significant effect on companies' stock return -CR, ROA, DER, GDP, and IR have insignificant effect on companies' stock return
3.	Malau, M. (2020). The impact of financial ratios on stock returns in the pharmaceutical industry during the COVID-19 pandemic. Journal of Financial Studies	Independent Variables: Profitability Ratios, Liquidity Ratios, Leverage Ratios; Dependent Variables: Stock Returns	Profitability ratios have a significant positive impact on stock returns, while liquidity and leverage ratios do not show a significant impact.
4.	Priharta et al., (2020) The Effects of Financial Performance on Stock Returns: Evidence of Machine and Heavy Equipment Companies in Indonesia	- Current Ratio (CR) - Total Asset turnover (TAT) - Retun on Asset (ROA) - Debt to Equity ratio (DER) - Stock return	CR, TAT, ROA, and DER have no effect on stock return
5.	Malau, M., and Sembel, R. (2021). Financial performance analysis and the effect of profitability and market return on the stock return of PT. Adaro Energy Indonesia Tbk. Journal of Financial Studies	Independent Variables: Profitability, Market Return; Dependent Variables: Stock Return	Both profitability and market return have significant positive impacts on the stock return.
6.	Tipa H. et al., (2023). Macroeconomic Analysis Of Stock Returns	Independent Variables: Inflation, Exchange Rate, Interest Rate (macro-economic variables); Dependent Variables: Stock Return	The independent variables impacted positively to stock return.
7.	Sembel, R. (2022). The effect of profitability and market sentiment on stock returns of technology companies in Indonesia. Journal of Financial Studies.	Independent Variables: Profitability, Market Sentiment; Dependent Variables: Stock Returns	Both profitability and market sentiment significantly affect the stock returns of technology companies.
8.	Endri, E., Dermawan, D., Abidin, Z., Riyanto, S., and Manajemen, M. (2019). Effect of financial performance on stock return: Evidence from the food and beverages sector. International Journal of Innovation, Creativity and Change	Independent Variables: Current Ratio, Debt Equity Ratio, Return On Asset, Earnings per Share, Price-earnings Ratio; Dependent Variables: Stock Returns	Financial ratios significantly impact stock returns, with profitability ratios showing the simultaneously influence.

PREVIOUS RESEARCHES

No.	Author, Year, Journal	Research Variables	Research Result
9.	Halim. B. (2023). The Effect Of Fundamental And Macroeconomic Factors On The Financial Performance Of PT Adaro Energy Indonesia Tbk And The Impact Of Covid-19 Pandemic On Its Stock Return	Independent Variables: Financial Ratios (Profitability, Leverage, Liquidity, CCC); Dependent Variables: Stock Returns, Profitability (ROA, EBITDA)	Stock performance of a coal mining company were affected by certain fundamental financial and macroeconomic factors.
10.	Sunaryo et al., (2022) The Effect of Loan To Deposit Ratio, Net Profit Margin, And Return On Equity, On Stock Returns And Exchange Rates As Moderating Variables In The Banking Sub-Sector On The Southeast Asian Stock Exchange	- Loan to Deposit Ratio (LDR) - Net Profit Margin (NPM) - Return On Equity (ROE) - Stock Returns - Exchange Rates	LDR has insignificant effect on stock returns -NPM has insignificant effect on stock returns - ROE has insignificant effect on stock returns ▪ Exchange rate does not moderate the effect of LDR on stock return ▪ Exchange rate does not moderate the effect of NPM on stock return ▪ Exchange rate does not moderate the effect of ROE on stock return
11.	Endri et al., (2019) Effect of Financial Performance on Stock Returns: Evidence from the Food and Beverages Sector	- Current Ratio (CR) - Debt-to-Equity Ratio (DER) - Asset Return (ROA) - Earnings per Share (EPS) - Price earnings Ratio (PER)	- DER has negative effect stock return - ROA and EPS have positive effect on stock return - CR and PER have no effect on stock return
12.	Razak et al., (2020) The Effects of Financial Performance on Stock Returns: Evidence of Machine and Heavy Equipment Companies in Indonesia	- Current Ratio (CR) -Total Assets Turnover (TATO) - Return on Assets (ROA) - Debt to Equity Ratio (DER) - Stock Returns	CR, TATO, ROA, and DER have no effect on stock return
13.	Milenia and Marheni (2021) The Effect of COVID19 on Stock Market Return in Consumer Goods Sector in Indonesia	-Growth in COVID-19 confirmed cases -Growth in COVID-19 death cases -Trading volume -Return (t-1) -IHSG -Exchange rate ▪ Stock return	-Growth in COVID19 confirmed cases and Growth in COVID-19 death cases have no effect on stock return -Trading volume, Return (t-1), IHSG, and Exchange rate has positive significant effect on stock returns
14.	Suwito (2020) Influence Analysis of BI Rate, Inflation, and IHSG on Stock Return of Banking Sector Listed on Indonesia Stock Exchange	-BI Rate -Inflation -IHSG	-BI Rate and Inflation have no effect on stock returns -IHSG has positive significant effect on stock return
15.	Suharyanto and Zaki (2021) The Effect of Inflation, Interest Rate, and Exchange Rate on Stock Returns in Food and Beverages Companies	-Inflation rate -Interest rate -Exchange rate -Stock return	-Inflation and exchange rate have significant negative effect on stock returns -Interest rate has no effect on stock returns
16.	Kalam (2020) The Effects of Macroeconomic Variables on Stock Market Returns: Evidence from Malaysia's Stock Market Return Performance	-Gross Domestic Product (GDP) -Interest rate (IR) -Inflation (INF) -Exchange rate (ER) -Foreign Direct investment (FDI) - Stock market return	-GDP, ER, and FDI have significant positive effect on stock market return -IR and INF have significant negative effect on stock market return

PREVIOUS RESEARCHES

No.	Author, Year, Journal	Research Variables	Research Result
15.	Suharyanto and Zaki (2021) The Effect of Inflation, Interest Rate, and Exchange Rate on Stock Returns in Food and Beverages Companies	-Inflation rate -Interest rate -Exchange rate -Stock return	-Inflation and exchange rate have significant negative effect on stock returns -Interest rate has no effect on stock returns
16.	Kalam (2020) The Effects of Macroeconomic Variables on Stock Market Returns: Evidence from Malaysia's Stock Market Return Performance	-Gross Domestic Product (GDP) -Interest rate (IR) -Inflation (INF) -Exchange rate (ER) -Foreign Direct investment (FDI) -Stock market return	-GDP, ER, and FDI have significant positive effect on stock market return -IR and INF have significant negative effect on stock market return
17.	Bertuah and Sakti (2019) The Financial Performance and Macroeconomic Factors in Forming Stock Returns	-PBV -DER -ROE -Inflation -Exchange rate -GDP -Stock returns	-PBV, Inflation, Exchange Rate, and GDP have significant positive effect on stock returns -DER and ROE have no effect on stock returns
18.	Gunarto and Sembel (2019) The Effect of Macroeconomic on Stock Performance of LQ45 Companies at IDX	-GDP growth rate -Interest rate -Inflation rate -Exchange rate -Stock returns	-Exchange Rate, GDP growth Rate, and Interest Rate have significant negative effects on stock returns -Inflation Rate has no effect the stock returns
19.	Fitria et al., (2021) Effect of Financial Performance and Investment Risk as Mediation Variables on Stock Returns (Study on Food And Beverage Companies in The List of Sharia Securities)	-Return on Asset Return on Equity Quick Ratio Current Ratio -Investment risk Stock Returns	-ROA, ROE, and CR have significant effects on investment risk -QR does not have a significant positive effect on investment risk - ROA, ROE, and CR have significant effects on stock return - QR does not have a significant effect on stock return
20.	Yulfiswandi, Y., & Nopry, N. (2024). The Effect of Macroeconomic Variables and Covid-19 on Stock Returns of Tourism Sector Companies in Indonesia.	Exchange Rate Inflation Rate Crude Oil Price Money Supply COVID-19 Positive Cases Number of COVID-19 Deaths	variable oil prices, exchange rate, positive cases of COVID-19, and cases of COVID-19 deathshave an insignificant effect. the money supply significantly positive affects stock return.

TOTAL

20 JOURNALS



INDEPENDENT VARIABLE

Financial Indicators

Leverage (DAR)

Liquidity (CR)

TATO

COVID-19

Macro-Economic

FedEx Rate

Market Return

Coal Price Index

DEPENDENT VARIABLE

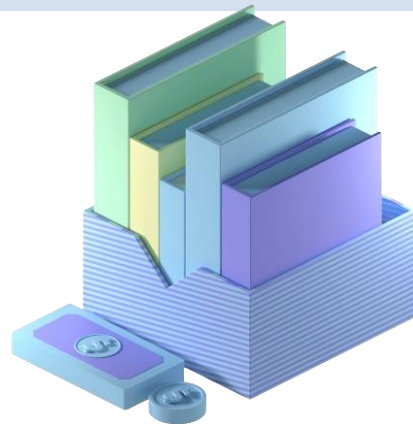
Stock Return

Profitability (ROA)

DATA COLLECTION

SECONDARY DATA

- Documentation
- Online Database



DATA ANALYSIS

- Collected Data
- Descriptive Analysis



SECONDARY DATA

No.	Enterprise	Duration	Data	Status	Market Capital
1.	PT Indah Tambangraya Megah Tbk (ITMG)	10 Years	10	Private	30.141 T
2.	PT Bumi Resources Tbk (BUMI)	10 Years	10	Private	34.904 T
3.	PT Adaro Energy Tbk (ADRO)	10 Years	10	Private	106.733 T
4.	PT Indika Energy Tbk (INKA)	10 Years	10	Private	7.986 T
5.	PT TBS Energy Utama Tbk (TOBA)	10 Years	10	Private	3.153 T
6.	PT Harum Energy Tbk (HRUM)	10 Years	10	Private	17.918 T
7.	PT Bukit Asam Tbk (PTBA)	10 Years	10	SOE	31.705 T



PT BUMI Resources Tbk.



BukitAsam



adaro



HARUM energy



PT Indo Tambangraya Megah Tbk

1 PTBA

No	Nama	Formula	Tahun Sebelum COVID-19						Tahun Sesudah COVID-19				
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	Leverage (Debt to Equity Ratio/DER)	Total hutang / Total Ekuitas	0,708	0,695	0,657	0,522	0,461	0,417	0,42	0,489	1,287	0,798	
2	Liquidity (Current Ratio)	Aset Lancar / Hutang Lancar	2,075	1,81	1,73	2,803	2,446	2,49	2,16	2,428	2,283	1,52	
3	Turn Over Asset (TATO)	Total Aset / Penjualan Bersih	1,133	1,206	1,196	1,022	0,717	1,198	1,389	1,235	1,064	1,007	
4	Debt To Asset Ratio (DAR)	Total Hutang / Total Aset	0,415	0,41	0,396	0,343	0,461	0,294	0,296	0,329	0,363	0,444	

2 BUMI

No	Nama	Formula	Tahun Sebelum COVID-19						Tahun Sesudah COVID-19				
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	Leverage (ROA)	Total hutang / Total Ekuitas	9,868	2,896	2,114	11,909	6,758	6,261	24,849	5,534	0,592	0,515	
2	Liquidity (Current Ratio)	Aset Lancar / Hutang Lancar	0,345	0,258	0,069	0,569	0,398	0,387	0,306	0,27	0,837	0,831	
3	Turn Over Asset (TATO)	Total Aset / Penjualan Bersih	2,333	2,777	0,822	0,74	0,794	0,796	0,931	0,779	0,526	0,639	
4	Debt To Asset Ratio (DAR)	Total Hutang / Total Aset	1,113	1,495	1,898	0,923	0,871	0,862	0,961	0,847	0,372	0,34	

3 ADRO

No	Nama	Formula	Tahun Sebelum COVID-19						Tahun Sesudah COVID-19				
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	Leverage (ROA)	Total hutang / Total Ekuitas	0,968	0,777	0,723	0,665	0,641	0,812	0,615	0,702	0,652	0,414	
2	Liquidity (Current Ratio)	Aset Lancar / Hutang Lancar	1,642	2,404	2,471	2,559	1,96	1,712	1,512	2,084	2,173	2,015	
3	Turn Over Asset (TATO)	Total Aset / Penjualan Bersih	1,929	2,22	2,584	2,091	1,951	2,088	2,518	1,9	1,331	1,607	
4	Debt To Asset Ratio (DAR)	Total Hutang / Total Aset	0,492	0,437	0,42	0,4	0,391	0,448	0,381	0,412	0,395	0,293	

4 ITMG

No	Nama	Formula	Tahun Sebelum COVID-19						Tahun Sesudah COVID-19				
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	Leverage (ROA)	Total hutang / Total Ekuitas	0,488	0,412	0,333	0,418	0,488	0,367	0,369	0,387	0,354	0,223	
2	Liquidity (Current Ratio)	Aset Lancar / Hutang Lancar	2,217	1,802	2,257	2,434	1,966	2,025	2,026	2,709	3,259	4,35	
3	Turn Over Asset (TATO)	Total Aset / Penjualan Bersih	0,684	0,741	0,885	0,804	0,719	0,705	0,977	0,802	0,726	0,921	
4	Debt To Asset Ratio (DAR)	Total Hutang / Total Aset	0,328	0,292	0,25	0,295	0,328	0,268	0,27	0,279	0,261	0,183	

5 HRUM

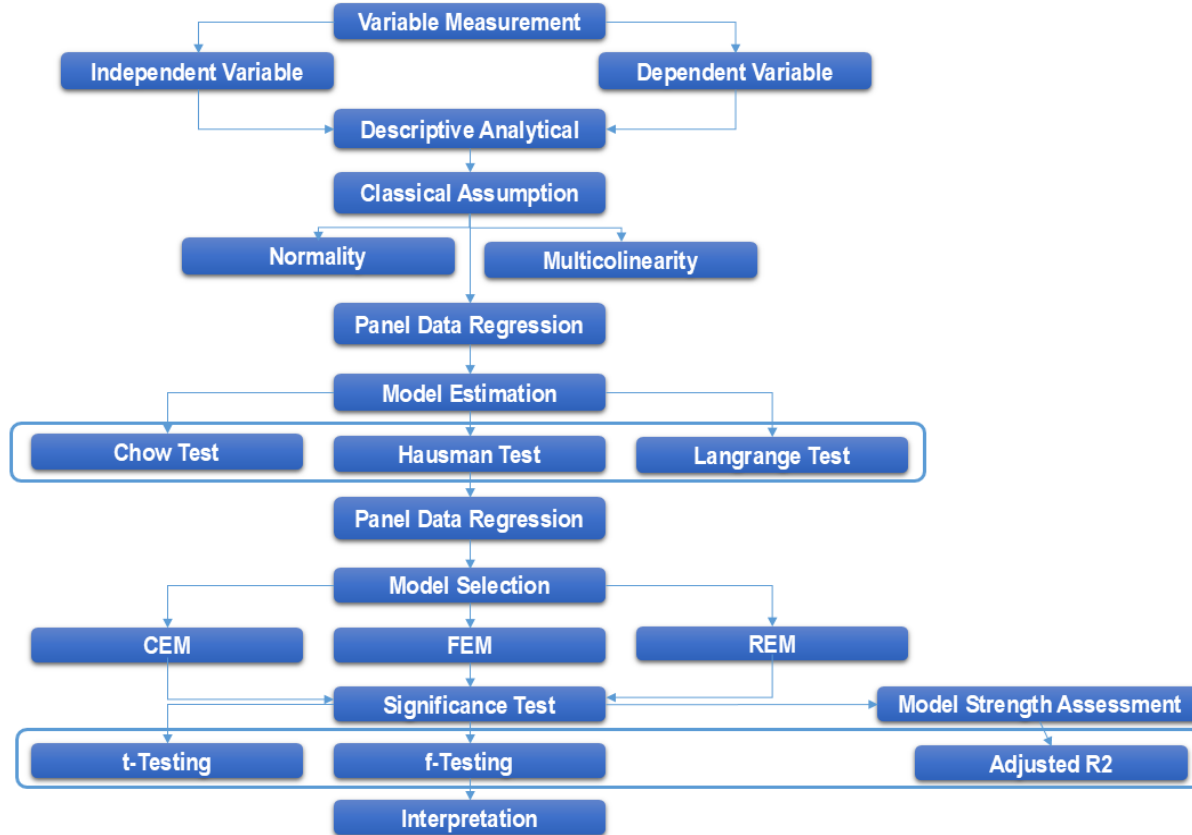
No	Nama	Formula	Tahun Sebelum COVID-19						Tahun Sesudah COVID-19				
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	Leverage (ROA)	Total hutang / Total Ekuitas	0,227	0,108	0,163	0,161	0,205	0,158	0,097	0,344	0,289	0,39	
2	Liquidity (Current Ratio)	Aset Lancar / Hutang Lancar	3,577	6,914	5,066	5,451	4,56	9,222	10,074	3,073	2,301	1,683	
3	Turn Over Asset (TATO)	Total Aset / Penjualan Bersih	0,93	1,527	1,904	1,411	1,39	1,702	3,16	2,602	1,414	1,765	
4	Debt To Asset Ratio (DAR)	Total Hutang / Total Aset	0,185	0,098	0,14	0,138	0,17	0,106	0,088	0,256	0,224	0,281	

6 INDY

No	Nama	Formula	Tahun Sebelum COVID-19						Tahun Sesudah COVID-19				
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	Leverage (ROA)	Total hutang / Total Ekuitas	1,535	1,143	0,989	2,261	1,381	1,397	3,028	3,177	1,682	1,261	
2	Liquidity (Current Ratio)	Aset Lancar / Hutang Lancar	3,072	1,195	3,482	2,053	7,338	2,09	1,97	1,842	1,699	1,511	
3	Turn Over Asset (TATO)	Total Aset / Penjualan Bersih	2929,72	881,851	253,463	3,309	224,805	389,661	1,682	1,203	0,829	1,028	
4	Debt To Asset Ratio (DAR)	Total Hutang / Total Aset	0,606	0,533	0,497	0,693	0,58	0,583	0,752	0,761	0,627	0,558	

7 TOBA

No	Nama	Formula	Tahun Sebelum COVID-19						Tahun Sesudah COVID-19				
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	Leverage (ROA)	Total hutang / Total Ekuitas	1,112	0,82	0,771	0,993	1,328	1,403	1,653	1,422	1,123	1,237	
2	Liquidity (Current Ratio)	Aset Lancar / Hutang Lancar	1,241	1,4	0,968	1,526	1,224	0,92	0,732	1,74	1,981	1,603	
3	Turn Over Asset (TATO)	Total Aset / Penjualan Bersih	0,601	0,81	1,013	1,121	1,145	369,925	2,325	1,855	1,415	1,891	
4	Debt To Asset Ratio (DAR)	Total Hutang / Total Aset	0,526	0,451	0,435	0,498	0,57	0,584	0,623	0,587	0,529	0,553	



H1a LEVERAGE	PROFITABILITY (ROA / EBITDA Margin)	H2a LEVERAGE	STOCK RETURN	H2f FOREIGN EXCH.	STOCK RETURN
H1b LIQUIDITY		H2b LIQUIDITY		H2g MARKET RETURN	
H1c ASSET TURNOVER		H2c ASSET TURNOVER		H2h COAL PRICE	
H1d COVID-19		H2d COVID-19			
		H2e ROA			

1. Descriptive Analytical

2. Classical Assumption

3. Model Estimation

4. Model Selection

5. Hypothesis Testing

6. Result Interpretation

Normality Test

Multicollinearity Test

Heteroscedasticity Test

Autocorrelation Test

Chow Test

Hausman Test

Langrange Test

CEM, FEM, & REM

Partial t - Test

Adjusted R²

STEP-BY-STEP

**Panel Data
Regression Model**

**Panel Data
Regression Model**

f - Test

**QUANTATIVE
RESEARCH**

VARIABLES

Econometric View

**Descriptive
Analytical Test**



Mean, Median, Minimum, Maximum, Deviation Standard

Note:

LEVERAGE (DAR)

LIQUIDITY (CR)

TATO

COVID

FOREX

MARKET RETURN

COAL PRICE

STOCK RETURN

ROA

**QUANTATIVE
RESEARCH**

**FINANCIAL
INDICATORS
VARIABLES**

**CLASSICAL
ASSUMPTION**

Econometric View

**Normality,
Multicollinearity,**



1. Normality : Normal if the Asymp. Sig. (2-tailed) value ≥ 0.05 and the data is said to be not normally distributed if the Asymp. Sig. (2-tailed) value < 0.05 .

2. Multicollinearity :

VIF (Variance Inflation Factor) value of **Financial Indicators on Profitability**

Multicollinearity if the VIF value < 10

3. Heteroscedasticity :

The results of the scatterplot graph test and the glejser statistical test. The significance coefficient is > 0.05 (5%) = No heteroscedasticity.

4. Autocorrelation :

Durbin Watson (DW) Test of **Financial Indicators on Profitability**.

Note : the DW test ranges from -2 to +2 = no autocorrelation is detected, but if the value of the DW test shows a number below -2 = the presence of autocorrelation and if the DW test shows a number +2, then it can be said that there is autocorrelation.

**QUANTATIVE
RESEARCH**

**MACROEKONOMICS
VARIABLES**

**CLASSICAL
ASSUMPTION**

Econometric View

**Normality,
Multicollinearity,**



1. Normality : Normal if the Asymp. Sig. (2-tailed) value ≥ 0.05 and the data is said to be not normally distributed if the Asymp. Sig. (2-tailed) value < 0.05 .
2. Multicollinearity :
VIF (Variance Inflation Factor) value of **Macro-Economic Variables on Stock Return**
Multicollinearity if the VIF value < 10
3. Heteroscedasticity :
The results of the scatterplot graph test and the glejser statistical test. The significance coefficient is > 0.05 (5%) = No heteroscedasticity.
4. Autocorrelation :
Durbin Watson (DW) Test of **Macro-Economic Variables on Stock Return**
Note : the DW test ranges from -2 to +2 = no autocorrelation is detected, but if the value of the DW test shows a number below -2 = the presence of autocorrelation and if the DW test shows a number +2, then it can be said that there is autocorrelation.

**QUANTATIVE
RESEARCH**

**DEPENDENT
VARIABLE (ROA)**

**MODEL
ESTIMATION**

Econometric View

**Panel Data
Regression Model**



The equation used for panel data regression :

$$ROA_{it} = \beta_0 + \beta_1 \text{Leverage}_{it} + \beta_2 \text{Liquidity}_{it} + \beta_3 \text{TATO}_{it} + \beta_4 \text{COVID-19}_{it} + \varepsilon_{it}$$

Financial Indicators on Profitabilty

QUANTATIVE
RESEARCH

DEPENDENT
VARIABLE
(CMC_Return)

MODEL
ESTIMATION

Econometric View

Panel Data
Regression Model



The equation used for panel data regression :

$$\text{CMC_return}_{it} = \gamma_0 + \gamma_1 \text{Leverage}_{it} + \gamma_2 \text{Liquidity}_{it} + \gamma_3 \text{TATO}_{it} + \gamma_4 \text{FerEx_return}_{it} + \gamma_5 \text{JKSE_return}_{it} + \gamma_6 \text{CoalPrice_return}_{it} + \gamma_7 \text{ROA}_{it} + \gamma_8 \text{COVID-19}_{it} + \epsilon_{it}$$

**Financial Indicators & Macro-Economic
Variables on Stock Return**

**QUANTATIVE
RESEARCH**

**FINANCIAL
INDICATORS'-ROA
VARIABLES**

**MODEL
SELECTION**

Econometric View

**Chow
Hausman
Langrange**



1. Chow :

Cross-section F Prob. Value < 0.05 means that the Fixed Effect Model is more appropriate compared to the Common Effect Model. If > 0.05 then it is not appropriate.

2. Hausman :

The value of the random cross-section probability > 0.05 indicates that the random effect model is more appropriate than the fixed effect model. If > 0.05 then it is not appropriate.

3. Langrange Multiplier (LM) :

If the calculated LM value $>$ Chi Squared table then the model chosen is the Random Effect Model, and vice versa if the calculated LM value $<$ Chi Squared then the Common Effect Model chosen.

**Financial Indicators on
Profitabilty**

**QUANTATIVE
RESEARCH**

**FINANCIAL INDICATORS
AND MACROECONOMIC
VARIABLES – STOCK
RETURN**

**MODEL
SELECTION**

Econometric View

**Chow
Hausman
Langrange**



1. Chow :

Cross-section F Prob. Value < 0.05 means that the Fixed Effect Model is more appropriate compared to the Common Effect Model. If > 0.05 then it is not appropriate.

2. Hausman :

The value of the random cross-section probability > 0.05 indicates that the random effect model is more appropriate than the fixed effect model. If < 0.05 then it is not appropriate.

3. Langrange Multiplier (LM) :

If the calculated LM value $>$ Chi Squared table then the model chosen is the Random Effect Model, and vice versa if the calculated LM value $<$ Chi Squared then the Common Effect Model chosen.

**Financial Indicators
and
Macro-Economic
Variables
on Stock Return**

QUANTATIVE RESEARCH

FINANCIAL INDICATORS'-ROA VARIABLES

HYPOTHESIS TESTING

Econometric View

Partial t – Test, f-
Test and
Adjusted R²



1. t Test among **Financial Indicators-ROA**

Coefficient
Std. Error
I-Statistic
Prob.

2. f-Test among **Financial Indicators-ROA**

Model Sum of Squares df Mean
Square F Sig.

3. Adjusted R² among **Financial Indicators-ROA**

R-squared
Adjusted R-squared
S.E. of regression
F-statistic
Prob(F-statistic)
Mean dependent var
S.D. dependent var
Sum squared resid
Durbin-Watson stat

QUANTATIVE RESEARCH

FINANCIAL INDICATORS AND MACROECONOMIC VARIABLES – STOCK RETURN

HYPOTHESIS TESTING

Econometric View

Partial t – Test, f-
Test and
Adjusted R²



1. t-Test among **(Financial Indicators and Macro-Economic Variables)** and **Stock Return**

Coefficient
Std. Error
I-Statistic
Prob.

2. f-Test among **(Financial Indicators and Macro-Economic Variables)** and **Stock Return**

ANOVA
Model Sum of Squares df Mean
Square F Sig.

3. Test of adjusted R² among **(Financial Indicators and Macro-Economic Variables)** and **Stock Return**

R-squared
Adjusted R-squared
S.E. of regression
F-statistic
Prob(F-statistic)
Mean dependent var
S.D. dependent var
Sum squared resid
Durbin-Watson stat

Descriptive Analytic Test

VARIABLE	DAR	CR	TATO	COVID-19	FOREX	MR	CP	ROA	SR
Mean	0,522529851	2,377660448	15,34004104	0,417910448	0,029895522	0,042257463	111,931903	0,061451493	-0,012738806
Standard Error	0,02146429	0,120247364	3,928653269	0,030184285	0,004409963	0,008714448	4,553530586	0,005000286	0,042377094
Median	0,425	1,981	2,711	0	0,017	0,044	84,47	0,0445	-0,0325
Mode	0,425	1,97	2,777	0	-0,116	0,201	64,65	0,016	0,125
Standard Deviation	0,351385565	1,968534189	64,31482585	0,494138034	0,07219421	0,14266166	74,54450841	0,081858203	0,693742922
Sample Variance	0,123471816	3,875126854	4136,396824	0,244172396	0,005212004	0,020352349	5556,883734	0,006700765	0,481279242
Kurtosis	3,656319005	6,313572455	52,79376049	-1,902193086	0,431117887	0,388415364	1,993738197	5,932607906	0,555599267
Skewness	1,755416224	2,239414746	6,790005688	0,334751674	0,346815974	-0,773883473	1,748884657	1,178305714	0,039041465
Range	1,824	12,921	627,796	1	0,328	0,631	274,49	0,766	4,315
Minimum	0,074	0,032	0,273	0	-0,116	-0,354	49,42	-0,312	-2,422
Maximum	1,898	12,953	628,069	1	0,212	0,277	323,91	0,454	1,893
Sum	140,038	637,213	4111,131	112	8,012	11,325	29997,75	16,469	-3,414
Count	268	268	268	268	268	268	268	268	268

High Variation : TATO, COVID-19, FOREX, MR, ROA, SR

Low Variation : DAR, CR, CP

Tests	Compared Model	Probability Value	Condition	Result
Chow	CEM vs FEM	0.0001	Prob. > 0.05	CEM
			Prob. < 0.05	FEM
Hausman	FEM vs REM	0.4412	Prob. > 0.05	REM
			Prob. < 0.05	FEM
Lagrange Multiplier	CEM vs REM	--	Prob. > 0.05	CEM
			Prob. < 0.05	REM

First Equation

$$ROA_{it} = \beta_0 + \beta_1 \text{Leverage}_{it} + \beta_2 \text{Liquidity}_{it} + \beta_3 \text{TATO}_{it} + \beta_4 \text{COVID-19}_{it} + \epsilon_{it}$$

Chow Test = 0.0001 < 0.05, so FEM
Hausman Test = 0.4412 > 0.05, so REM
Result is Random Effect Model (REM)

Tests	Compared Model	Probability Value	Condition	Result
Chow	CEM vs FEM	0.2594	Prob. > 0.05	CEM
			Prob. < 0.05	FEM
Hausman	FEM vs REM	-	Prob. > 0.05	REM
			Prob. < 0.05	FEM
Lagrange Multiplier	CEM vs REM	0.6898	Prob. > 0.05	CEM
			Prob. < 0.05	REM

Second Equation

$$\text{CMC_return}_{it} = \gamma_0 + \gamma_1 \text{Leverage}_{it} + \gamma_2 \text{Liquidity}_{it} + \gamma_3 \text{TATO}_{it} + \gamma_4 \text{FerEx_return}_{it} + \gamma_5 \text{JKSE_return}_{it} + \gamma_6 \text{CoalPrice_return}_{it} + \gamma_7 \text{ROA}_{it} + \gamma_8 \text{COVID-19}_{it} + \epsilon_{it}$$

Chow Test = 0.2594 > 0.05, so CEM
Lagrange Test = 0.6898 > 0.05, so CEM
Result is Common Effect Model (CEM)

$$ROA_{it} = \beta_0 + \beta_1 \text{Leverage}_{it} + \beta_2 \text{Liquidity}_{it} + \beta_3 \text{TATO}_{it} + \beta_4 \text{COVID-19}_{it} + \epsilon_{it}$$

11.1% of the variability in ROA.

F: 9.363 is the F-statistic
Sig.: <.001 the p-value is less than .001.
 There is a less than 0.1% chance of observing these results if there were no actual relationship between the independent variables and ROA.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.079	.015		5.181	<.001
	DAR	-.055	.017	-.236	-3.145	.002
	CR	.000	.003	.005	.073	.942
	TATO	-8.364E-5	.000	-.066	-.999	.319
	COVID-19	.030	.010	.179	3.040	.003

No.	Independent Variable	Beta	Sig.	Findings	Remark
1	DAR	-0.236	0.002	Negative and statistically significant at the 5% level.	a negative and significant effect on Return on Asset (ROA). This suggests that companies with higher levels of debt tend to have lower ROA.
2	CR	0.005	0.942	No significant effect.	not have significant effects on ROA based on this analysis. However, further investigation might be needed to explore potential relationships or non-linear effects.
3	TATO	-0.066	0.319	Negative effect, but not statistically significant at the 5% level.	not have significant effects on ROA based on this analysis. However, further investigation might be needed to explore potential relationships or non-linear effects.
4	COVID-19	0.179	0.003	Positive and statistically significant at the 5% level.	a positive and significant effect on ROA. This could indicate that the pandemic had a beneficial impact on the profitability of certain companies, possibly due to increased demand for their products or services or reduced costs.

ADJUSTED R SQUARE & ANOVA

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.610	.134		-4.555	<.001
	DAR	.268	.137	.136	1.952	.052
	CR	.054	.022	.154	2.529	.012
	TATO	9.000E-5	.001	.008	.141	.888
	COVID-19	.175	.099	.125	1.760	.080
	FOREX	-.635	.615	-.066	-1.031	.303
	MR	1.934	.325	.398	5.943	<.001
	CP	.001	.001	.131	1.723	.086
	ROA	.883	.524	.104	1.685	.093

$$CMC_return_{it} = \gamma_0 + \gamma_1 Leverage_{it} + \gamma_2 Liquidity_{it} + \gamma_3 TATO_{it} + \gamma_4 FerEx_return_{it} + \gamma_5 JKSE_return_{it} + \gamma_6 CoalPrice_return_{it} + \gamma_7 ROA_{it} + \gamma_8 COVID-19_{it} + \epsilon_{it}$$

28.7% of the variability in stock returns.

F: 14.434 (f-Statistics)

Sig.: <.001 the p-value is less than .001. there is very strong evidence that the independent variables, collectively, have a significant impact on Stock Return.

No.	Independent Variable	Beta	Sig.	Finding	Remark
1.	DAR	0.136	0.052	Positive coefficient, significant at 5% level	While a higher DAR indicates higher leverage, it also implies higher risk. The positive coefficient suggests that investors may be willing to accept this risk for potentially higher returns.
2.	CR	0.154	0.012	Positive coefficient, significant at 1% level	A higher CR indicates better short-term liquidity, which is generally favorable for investors.
3	TATO	0.008	0.888	Negligible coefficient, not significant	TATO did not have a significant impact on stock returns in this analysis.
4	COVID-19	0.125	0.08	Positive coefficient, not significant	The impact of COVID-19 on stock returns was not statistically significant.
5	FOREX	-0.066	0.303	Negative coefficient, not significant	Fluctuations in the foreign exchange rate did not significantly affect stock returns.
6	MR	0.398	<0.001	Positive coefficient, significant at 1% level	As expected, stock returns are positively correlated with market returns.
7	CP	0.131	0.086	Positive coefficient, not significant	Coal price returns did not significantly influence stock returns.
8	ROA	0.104	0.093	Positive coefficient, significant at 1% level	Higher ROA, indicating better profitability, is associated with higher stock returns.

Overall, the results suggest that:

- Liquidity (CR) is a significant predictor of stock returns.
- Market performance (MR) is the most influential factor on stock returns.
- Financial ratios related to debt (DAR) and asset efficiency (TATO) do not have a significant impact on stock returns.
- The impact of COVID-19, FOREX, CP, and ROA on stock returns is mixed and not consistently significant.

Hypotheses and Independent Variables:

- H1: Debt Asset Ratio (DAR): A higher DAR indicates a higher level of debt financing, which could potentially impact stock returns.
- H2: Current Ratio (CR): A higher CR suggests a better liquidity position, potentially influencing stock returns.
- H3: Total Asset Turnover (TATO): A higher TATO indicates efficient asset utilization, which could positively correlate with stock returns.
- H4: COVID-19 Pandemic: The pandemic's impact on the economy and markets is expected to be significant, potentially affecting stock returns.
- H5: Foreign Exchange Rate (FOREX): Fluctuations in FOREX can impact businesses operating in international markets, affecting their stock returns.

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.747545	4	0.4412

- **Test Summary:** This refers to the Hausman test, which compares the fixed effects and random effects models.
- **Cross-section random:** This indicates the null hypothesis of the Hausman test, which is that the random effects model is appropriate.
- **Prob.:** 0.4412 is the p-value. This is greater than the conventional significance level of 0.05.

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.677535	(6,217)	0.0002
Cross-section Chi-square	27.730951	6	0.0001

- **Cross-section F:**
 - **Statistic:** 4.677535 is the F-statistic, which tests the null hypothesis that there are no significant differences in ROA across the companies in your sample.
 - **Prob.:** 0.0002 is the p-value, which is less than .05. There is strong evidence to reject the null hypothesis.
- **Cross-section Chi-square:**
 - **Prob.:** 0.0001 is the p-value, again less than .05, reinforcing the rejection of the null hypothesis.

FINANCIAL INDICATORS IMPACT THE COAL MINING COMPANIES' FINANCIAL PERFORMANCE

- **DAR (Debt-to-Asset Ratio):** Has a negative and significant effect on RO. Higher debt levels are linked to lower profitability, likely due to increased interest expenses and financial risk.
- **CR (Current Ratio):** Shows no significant effect on ROA. Short-term liquidity doesn't appear to significantly influence profitability.
- **TATO (Total Asset Turnover):** Has a negative but not statistically significant effect on ROA. While a higher TATO generally suggests better efficiency, this analysis doesn't show a conclusive impact on profitability.

COVID-19 PERIOD IMPACT THE COAL MINING COMPANIES' FINANCIAL PERFORMANCE

- **COVID-19:** Has a positive and significant effect on ROA. This indicates that the pandemic period, on average, was associated with increased profitability. This could be due to factors like increased demand for coal due to disruptions in other energy sources, government support, or cost-cutting measures.

FINANCIAL FACTORS IMPACT THE COAL MINING COMPANIES' STOCK RETURN

- **DAR (Debt-to-Asset Ratio):** Has a positive and significant effect on stock return. This suggests investors may be willing to accept the higher risk associated with higher leverage for potentially higher returns.
- **CR (Current Ratio):** Has a positive and significant effect on stock return. Higher liquidity is generally viewed favorably by investors.
- **TATO (Total Asset Turnover):** Has a negligible and not statistically significant effect on stock return.

MACRO-ECONOMIC VARIABLES IMPACT ON THE COAL MINING COMPANIES' STOCK RETURN

- **FOREX (Foreign Exchange Rate):** Has a negative but not statistically significant effect on stock return.
- **MR (Market Return):** Has a positive and significant effect on stock return, as expected, since individual stock returns tend to be correlated with the overall market performance.
- **CP (Coal Price):** Has a positive but not statistically significant effect on stock return.

COVID-19 PERIOD IMPACT ON THE COAL MINING COMPANIES' STOCK RETURN

- **COVID-19:** Has a positive but not statistically significant effect on stock return. This suggests the pandemic's impact on stock returns wasn't conclusive in this analysis.

ANALYSIS OF THE IMPACT OF FINANCIAL INDICATORS ON THE FINANCIAL PERFORMANCE

- **DAR (Debt-to-Asset Ratio):** Has a negative and statistically significant effect on ROA. This indicates that higher debt levels are associated with lower profitability in coal mining companies. This could be due to increased interest expenses and financial risk associated with higher leverage.
- **CR (Current Ratio):** Shows no significant effect on ROA. This implies that short-term liquidity, within the observed range, doesn't significantly influence the profitability of coal mining companies.
- **TATO (Total Asset Turnover):** Has a negative effect on ROA, but it's not statistically significant. While the coefficient is negative, the lack of statistical significance suggests that the efficiency of asset utilization, as measured by TATO, does not have a conclusive impact on the profitability of coal mining companies in this analysis.

ANALYSIS OF THE IMPACT OF FINANCIAL INDICATORS ON THE STOCK RETURN

DAR (Debt-to-Asset Ratio): Has a positive and statistically significant effect on stock return. This suggests that investors may be willing to accept higher risk (associated with higher leverage) for potentially higher returns.

- **CR (Current Ratio):** Shows a positive and statistically significant effect on stock return. Higher liquidity is generally perceived as favorable by investors, as it indicates a lower risk of financial distress.
- **TATO (Total Asset Turnover):** Has a negligible effect on stock return and is not statistically significant. This implies that asset turnover efficiency, as measured by TATO, doesn't appear to be a major driver of stock returns for coal mining companies in this analysis.

ANALYSIS OF THE IMPACT OF MACRO-ECONOMIC VARIABLES ON THE STOCK RETURN

FOREX (Foreign Exchange Rate of Indonesia): Shows no significant effect on stock return (Table 2). This suggests that fluctuations in the Indonesian Rupiah exchange rate do not significantly impact the stock returns of coal mining companies.

- **MR (Market Return):** Has a positive and statistically significant effect on stock return (Table 2). This is expected, as individual stock returns tend to be positively correlated with the overall market return.
- **CP (Coal Price):** Shows no significant effect on stock return (Table 2). This implies that changes in coal prices do not significantly influence the stock returns of coal mining companies in this analysis.

EVALUATION OF THE EFFECT OF COVID-19 PERIOD ON FINANCIAL PERFORMANCE.

- **COVID-19:** Has a positive and statistically significant effect on ROA (Table 1). This suggests that, on average, the COVID-19 period had a positive impact on the profitability of coal mining companies. This could be attributed to factors like increased demand for coal, government support, or cost-cutting measures.

EVALUATION OF THE EFFECT OF COVID-19 PERIOD ON THE STOCK RETURN.

- **COVID-19:** Has a positive but not statistically significant effect on stock return (Table 2). While the coefficient is positive, the lack of statistical significance indicates that the impact of the COVID-19 period on stock returns was not conclusive in this analysis.

1. RATIO ANALYSIS

Theoretical Implications:

- **DAR:** Shows the level of financial risk of the company. A high DAR indicates a higher risk of bankruptcy, which can negatively affect ROA and stock returns.
- **CR:** Shows the company's ability to meet short-term obligations. High CR indicates good liquidity, which can increase ROA and stock returns.
- **TATO:** Shows the company's efficiency in utilizing assets to generate sales. High TATO indicates good operational efficiency, which can increase ROA and stock returns.

2. RANDOM WALK THEORY

Implications of the Findings:

- If stock returns are not random: Indicates a pattern or trend that can be exploited by investors to obtain abnormal returns.
- If stock returns are random: Supports the efficient market hypothesis.

3. ARBITRAGE PRICING THEORY (APT)

Theoretical Implications:

- Extends the asset pricing model by considering macro risk factors in addition to market returns.

A. FOR INVESTORS:

1. MARKET EFFICIENCY:

- Implication: Investors need to be aware that information about DAR, CR, TATO, COVID-19, ROA, FOREX, MR, and Coal Price is likely already reflected in the stock price of coal mining companies.

2. RATIO AND DUPONT ANALYSIS:

- Implication: Investors can compare the financial ratios of coal mining companies with industry averages or competitors to identify companies with superior performance.

B. FOR COMPANY MANAGEMENT:

▪ PROFITABILITY DETERMINANTS:

Implications: Management must take steps to manage financial risks, improve operational efficiency, and mitigate the negative impacts of external factors such as the pandemic.

▪ INFLUENCE OF EXTERNAL FACTORS:

Implications: Management needs to develop strategies to deal with coal price volatility, the rupiah exchange rate, and global market conditions.

C. FOR REGULATORS:

1. MARKET EFFICIENCY:

Implications: Regulators need to prevent practices that can disrupt market efficiency, such as insider trading and market manipulation.

2. INFORMATION TRANSPARENCY:

Implications: Regulators need to ensure that companies comply with rules on information disclosure, so that investors can make informed investment decisions.

3. MARKET STABILITY:

Implications: Regulators can take steps to stabilize the market, such as market intervention or macroprudential policies.

1. **Sample Size:** Only seven coal mining companies were used as samples. This number is relatively small and may not represent the entire population of coal mining companies on the BEI.
2. **COVID-19 Data:** Measuring the impact of COVID-19 can be difficult because there are no specifics that represent the impact of COVID-19 (e.g., changes in government policy, decreased demand for coal, supply chain disruptions). Moreover, COVID-19 is only a dummy variable, not a specific index, or data on COVID-19 cases.
3. **External Factors:** Research only on financial and economic factors. Other external factors that could influence return on assets and stock returns, such as environmental, social and governance (ESG) factors, were not included in the research.
4. **Research Results:** The variables in this research, between independent and dependent variables, are not necessarily representative of companies in other sectors on the IDX.

- **MODERATION/INTERACTION VARIABLES:**

Testing the influence of moderating variables such as company size, coal reserve, ownership structure, corporate governance, stock liquidity, and market sentiment on the relationship between independent variables (DAR, CR, TATO, COVID-19, ROA, FOREX, MR, Coal Price) and dependent variables (ROA & Stock Return).

- **NON-COAL MINING COMPANIES:**

Expanding the research object to non-coal mining companies (gold, nickel, copper) listed on the IDX.

- **FOREIGN STOCK EXCHANGES:**

Expanding the research by including coal mining companies listed on foreign stock exchanges (e.g., Australia, United States, China)

- **THE INCORPORATION OF ESG ASPECTS:**

This would involve examining the influence of ESG scores on both the financial performance (ROA) and stock returns of coal mining companies listed on the IDX.

Total References: 53 + 70 Financial Reports

- ▶ **Journal: 43**
- ▶ **Website: 3**
- ▶ **Thesis: 1**
- ▶ **Dissertation: 1**
- ▶ **Book: 5**
- ▶ **Financial Report: 70**

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THANK YOU

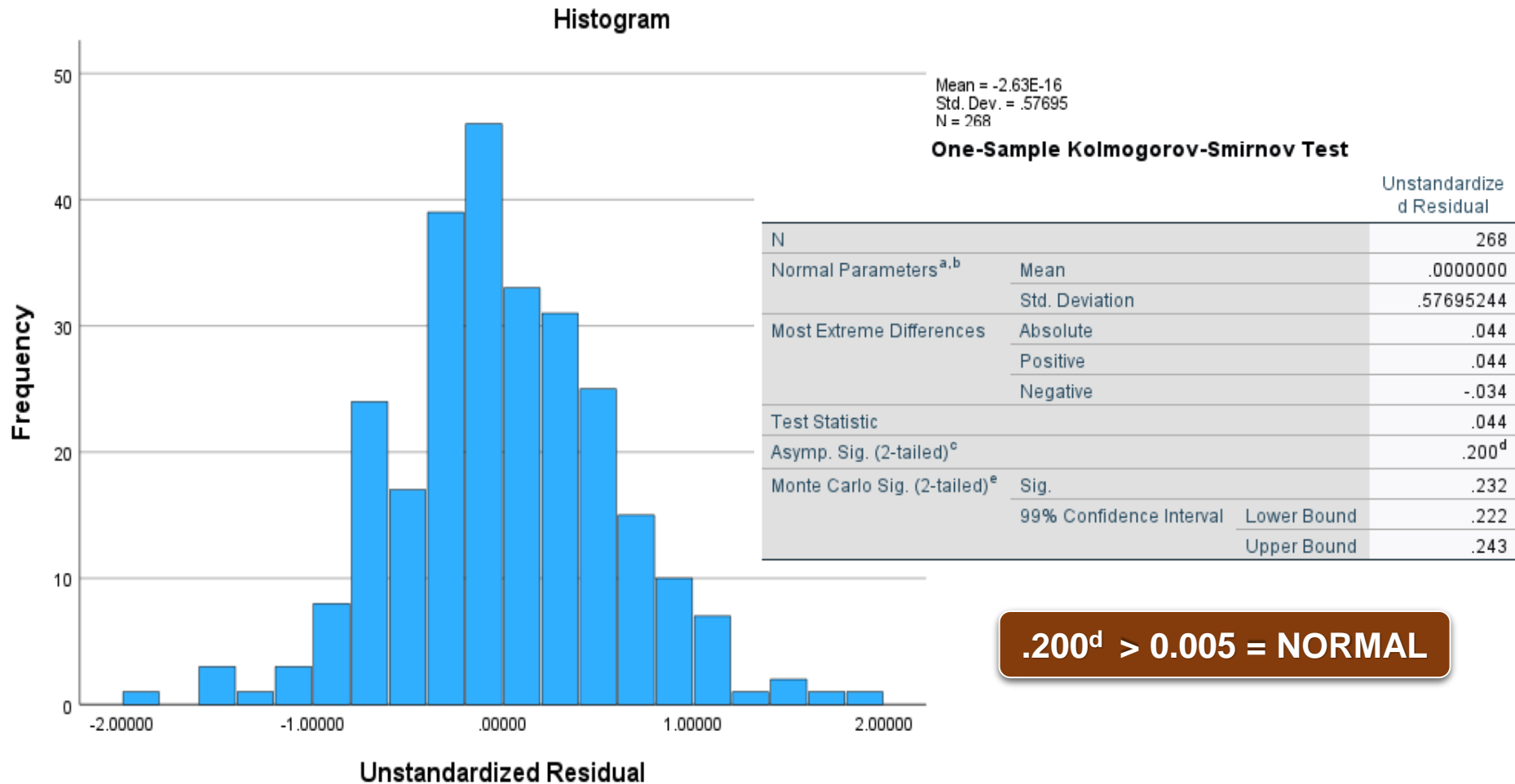
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Model		Unstandardized Coefficients		Standardized Coefficients	Tolerance	VIF
			Std. Error	Beta		
1	(Constant)		.134			
	DAR		.137	.136	.553	1.807
	CR		.022	.154	.716	1.397
	TATO		.001	.008	.762	1.312
	COVID-19		.099	.125	.533	1.877
	FOREX		.615	-.066	.651	1.536
	MR		.325	.398	.597	1.676
	CP		.001	.131	.462	2.165
	ROA		.524	.104	.698	1.433

VIF = UNDER 10. NOT MULTICOLLINEARITY

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.677535	(6,217)	0.0002
Cross-section Chi-square	27.730951	6	0.0001

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.222553	(6,213)	0.2958
Cross-section Chi-square	7.719715	6	0.2594

First Equation

$$ROA_{it} = \beta_0 + \beta_1 \text{Leverage}_{it} + \beta_2 \text{Liquidity}_{it} + \beta_3 \text{TATO}_{it} + \beta_4 \text{COVID-19}_{it} + \epsilon_{it}$$

RESULT = 0.0001 → FEM

Second Equation

$$\text{CMC_return}_{it} = \gamma_0 + \gamma_1 \text{Leverage}_{it} + \gamma_2 \text{Liquidity}_{it} + \gamma_3 \text{TATO}_{it} + \gamma_4 \text{FerEx_return}_{it} + \gamma_5 \text{JKSE_return}_{it} + \gamma_6 \text{CoalPrice_return}_{it} + \gamma_7 \text{ROA}_{it} + \gamma_8 \text{COVID-19}_{it} + \epsilon_{it}$$

RESULT = 0.2594 → CEM

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.747545	4	0.4412

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.159313 (0.6898)	36.27975 (0.0000)	36.43906 (0.0000)
Honda	-0.399140 (0.6551)	6.023268 (0.0000)	3.976859 (0.0000)
King-Wu	-0.399140 (0.6551)	6.023268 (0.0000)	1.746644 (0.0403)
Standardized Honda	0.251927 (0.4005)	6.858054 (0.0000)	0.071877 (0.4713)

First Equation

$$ROA_{it} = \beta_0 + \beta_1 \text{Leverage}_{it} + \beta_2 \text{Liquidity}_{it} + \beta_3 \text{TATO}_{it} + \beta_4 \text{COVID-19}_{it} + \epsilon_{it}$$

RESULT = 0.4412 → REM

Second Equation

$$\text{CMC_return}_{it} = \gamma_0 + \gamma_1 \text{Leverage}_{it} + \gamma_2 \text{Liquidity}_{it} + \gamma_3 \text{TATO}_{it} + \gamma_4 \text{FerEx_return}_{it} + \gamma_5 \text{JKSE_return}_{it} + \gamma_6 \text{CoalPrice_return}_{it} + \gamma_7 \text{ROA}_{it} + \gamma_8 \text{COVID-19}_{it} + \epsilon_{it}$$

RESULT = 0.6898 → CEM