

The Influence of Economic Value Added (Eva), Market Value Added (Mva) And Reference Coal Prices On Stock Returns In Coal Sub-Sector Mining Companies

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Abstract

This study aims to determine the effect of Economic Value Added (EVA), Market Value Added (MVA), and Reference Coal Prices (HBA) on Stock Returns in coal sub-sector mining companies. This research uses quantitative methods. The data used in this study are secondary data in the form of financial reports obtained from the website www.idx.co.id and the website of each company. The population in this study were coal sub-sector mining companies listed on the Indonesia Stock Exchange (IDX) in 2013-2022 as many as 9 companies obtained by purposive sampling. The analysis method used in this research is multiple linear regression analysis with IBM SPSS Statistics 26 software. The results of this study indicate that partially the Market Value Added variable has a significant effect on stock returns with a sig value of $0.35 < 0.05$, while the Economic Value Added and Reference Coal Price variables have no effect on stock returns with sig values of $0.278 > 0.05$ and $0.168 > 0.05$, respectively. Simultaneously, Economic Value Added, Market Value Added, and Reference Coal Price affect stock returns.

Keywords: Economic Value Added, Market Value Added, Reference Coal Price, Return Saham.

INTRODUCTION

The capital market has a big role for a country's economy because the capital market performs two functions at once, namely the economic function and the financial function. The capital market is said to have an economic function because the market provides facilities or vehicles that bring together two interests, namely those who have excess funds (investors) and those who need funds (issuers). The Capital Market is said to have a financial function because the capital market provides the possibility and opportunity to obtain returns for fund owners, according to the characteristics of the investment chosen (Rustiana et al., 2022).

The global energy crisis that occurred in 2021 was caused by the covid-19 pandemic. Regional quarantine and travel restrictions led to a decline in industrial and economic activity which impacted fuel prices on the world market. This led to a 4.3 per cent decline in the global economy in 2020 (International Monetary Fund, 2021). With the rapid recovery of the global economy, there is an increasing demand for energy. However, the energy demand cannot be optimally met by producers, which in turn affects prices.

The situation in Europe was exacerbated by Russia's military intervention in Ukraine. With Russia's incursion into Ukraine, the United States and European countries imposed a ban on oil exports to Russia. However, this decision had an adverse impact as Russia controls almost 19 per cent of the world's oil and natural gas reserves. As a result, European countries had to look for alternative energy sources, namely coal. The Indonesian government is trying to overcome the global energy crisis by implementing a Domestic Market Obligation (DMO) policy to fulfil domestic coal needs. This policy is contained in Minister of Energy and Mineral Resources Decree No.255.K/30/MEM/2020 and was issued by Minister Arifin Tasrif on 29 December 2020 to meet domestic coal needs in 2021. The regulation states that the minimum percentage of coal sales for domestic purposes (domestic market obligation) is 25 percent of the planned total coal production in 2021 of 138 million tonnes with a special lower price of USD 70 compared to the reference coal price of USD 161.63 (Umah, 2021).

This policy regulates the provision of 25 per cent coal supply for domestic needs, through controlling the production and sale of mineral and coal, both through imports and exports. However, the realisation of the DMO is less than satisfactory. The realisation of the obligation to fulfil coal for domestic needs or Domestic Market

Obligation (DMO) coal as of December 2021 reached 133 million tonnes. Referring to data from the Ministry of Energy and Mineral Resources, this DMO realisation is equivalent to 96 per cent of the target of 138 million tonnes (Kompas.com, 2022). In addition, in 2022 based on Minerba One Data Indonesia (MODI), as of 29 December 2022 coal production reached 670.72 million tonnes. Meanwhile, the realisation of the new coal DMO regulation has only reached 128.76 million tonnes. This realisation is still far from the DMO target of 166 million tonnes in 2022 (KumparanBISNIS, 2022).

Jensen and Meckling state that: "agency relationship is a contract between managers (agent) and investors (principal). There is a conflict of interest between the owner and the agent due to the possibility of the agent acting against the principal's interests, thereby triggering agency costs. As agents, managers are morally responsible for optimising the owners' profits by obtaining compensation in accordance with the contract. In the context of financial management, this relationship arises between: (1) shareholders and managers, and (2) shareholders and creditors. Agency problems between shareholders and managers potentially occur when management does not own a majority stake in the company. Shareholders certainly want managers to work with the aim of maximising shareholder prosperity, so that shareholders get the expected level of stock returns. Vice versa, company managers may act not to maximise shareholder wealth, but to maximise their own wealth.

According to Nasution et al. (2019), signaling theory suggests how a company should signal to users of financial statements. This signal is in the form of information about what management has done to realise the owner's wishes. Signals can take the form of promotions or other information that reports if the company is better than other companies. Management that relies on signalling aims to use the company's performance as a positive signal to attract investment. The higher the number of investors who buy the company's shares, the greater the likelihood of an increase in trading volume. Ultimately, this leads to an increase in the company's stock market price or overall value.

The capital market is said to be efficient if the stock price reflects all the information available in the market. All information must be available to investors, to know everything about the company and the company's shares. The concept of Efficient Market Hypothesis (EMH) was first proposed by Fama (1970) in Rachman & Ervina (2017) which essentially states that in an efficient market, securities in the form of shares will always be traded at fair value so that no one is able to obtain abnormal returns, after adjusting for risk, by using existing trading strategies. In other words, the price formed in the market reflects all available information.

The EMH theory asserts that the unrestricted flow of information and its incorporation into stock prices makes current stock prices unrelated to future prices. This implies that unless there is a discrepancy between available information and market efficiency, investors cannot earn abnormal returns. Therefore, an inefficient market cannot ensure the efficient allocation of capital in the economy, which can have an overall negative impact.

Economic Value Added (EVA) is a measurement that emphasises research on company performance, if the results of this measurement are positive so that it is expected to add to the attractiveness of investors in purchasing company shares and increase company value. Based on the definition of measurement, to get positive results, calculations are used in line with the predetermined formula so as to produce value added for the company. The positive value of EVA can affect the level of stock return delivered by the entity, if the EVA value shows positive results so that the company's performance has increased and stock returns have also increased (Atmaja, 2017). The research results from Rahman (2022) state that a positive EVA reflects a stock return that is greater than the cost of capital. A positive EVA value also indicates that the company has been able to create maximum company value for capital owners. This can be strengthened based on the findings of Purwanti (2022) which states that a positive EVA value reflects a greater stock return than the cost of capital.

H₁: Economic Value-Added Affects Stock Returns

The approach used in providing company performance measurement based on market value is called Market Value Added (MVA). MVA is used as a financial and market performance measurement tool in overcoming the

shortcomings of previous traditional financial or accounting ratio techniques. By using this concept, the company is expected to provide a measurement of the level of maximising the value of the company. The performance of the entity will determine the low or high share price in the capital market. If MVA is positive, the company manager is successful in building added value for the company (Putri, 2021). The findings of Topowijoyo (2018) state that a high MVA value means that the company has been able to maximise shareholder wealth because of good company performance and received a high response from the market. As a result, investor confidence in the company is increasing so that it will be able to increase demand for the company's shares. This will affect the stock return that will be obtained by shareholders.

H₂: Market Value Added Affects Stock Returns

Coal is a mining product that is starting to be used as an alternative to crude oil. This is because the amount of crude oil available on Earth is dwindling, unbalanced by demand. Coal is still abundant, so it can be used as an alternative to crude oil. Coal is one of the indicators of the global economy because it is a demand and commodity of the world that is currently carrying out economic activities, so if the price of coal rises, it is a good sign for investors because the global economy is improving. Therefore, if coal prices rise, company performance and stock prices are expected to rise, especially in the coal industry (Najib, 2019). Research conducted by Artiani and Utami (2019) states that the increase in world coal prices will increase production in a company because the more demand for coal, the more coal exports will increase, thus having an impact on the share price of the mining sector which continues to increase. This is also supported by Nababan's research (2019), the increase in coal prices will attract investors to invest in coal issuers. The increase in share price will have an impact on the valuation of the company's share price, so that it will increase the demand for the company's shares.

H₃: Reference Coal Price affects the Stock Return Variable

RESEARCH METHOD

The population in this study are coal sub-sector mining companies listed on the Indonesia Stock Exchange (BEI) for the period 2013-2022. Determination of the sample in this study using purposive sampling technique and obtained a sample of 90 data that met the predetermined criteria.

The EVA method is a valuable tool for evaluating the value of a company. By determining its financial performance, EVA offers a comprehensive view of a company's operating profit. It is a financial management system that measures economic profit in a company, based on the idea that success only arises if the company meets all operating costs and capital costs (Sahara, 2018). To ascertain the magnitude of EVA, the following steps are used:

$$\text{EVA} = \text{NOPAT} - \text{Capital Charges}$$

Investors always favour companies with high MVA as it demonstrates the company's ability to create wealth for shareholders. In other words, a high MVA indicates that the organisation is healthy and successful, a factor that indicates a high likelihood of significant results in the future. The following is the MVA formula according to (Brigham & Houston, 2018)

$$\text{MVA} = (\text{Number of shares outstanding} \times \text{Share price}) - \text{Total Equity}$$

The determination of Reference Coal Price (HBA) has been regulated in the Regulation of the Director General of Mineral and Coal No. 515.K/32/DJB/2011. The HBA is highly affected by macroeconomic conditions, as it is an international trade commodity. The Reference Coal Price (HBA) value is sourced from the average of 4 commonly used coal price indices. They are Indonesia Coal Index, Platts Index, New Castle Export Index, and New Castle Global Coal Index. The HBA is a reference for coal prices at an equal calorific value of 6,322 kcal/kg Gross as Received (GAR), a total moisture content of 8%, a sulfur content of 0.8% as received (ar), and an ash

content of 15% ar. The following is the formula for determining the Reference Coal Price (in calorific value equivalence of 6,322 kcal/kg GAR):

$$HBA=25\% ICI+25\% Platts59+25\% NEX+25\%GC$$

Description:

HBA: Refence Coal Price

ICI: Indonesia Coal Index

NEX: New Castle Export Index

GC: New Castle Global Coal Index

RESULTS AND DISCUSSION

Descriptive Analysis

Tabel 1. Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Economic Value Added	72	-494445	8867922	456588,65	1226043,303
Market Value Added	72	-28431072	42482317	2105524,77	10098495,55
Harga Batubara Acuan	72	58,170	276,582	102,14084	64,529576
Return Saham	72	-,638	,913	-,02111	,332181
Valid N (listwise)	72				

Source: Data Process

Classical Assumption Testing Normality Testing

Tabel. 2 One-Sample Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			72
Normal Parameters ^{a, b}	Mean		,0000000
	Std. Deviation		,27773638
Most Extreme Differences	Absolute		,106
	Positive		,062
	Negative		-,106
Test Statistic			,106
Asymp. Sig. (2-tailed)			,045 ^c
Monte Carlo Sig. (2-tailed)	Sig.		,379 ^d
	99% Confidence Interval	Lower Bound	,366
		Upper Bound	,391

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Based on 10000 sampled tables with starting seed 2000000.

Sources: Data Process

The results of the normality test using the One-Sample Kolmogorov Smirnov method, showed an Asymp. Sig. (2-tailed) value of 0.088. This value is > 0.05, this states that the variables used in this study are normally distributed.

Multicollinearity Testing

Tabel 3. Multicollinearity Test

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-,160	,066		-2,422	,018		
	Economic Value Added	6,283E-8	,000	,232	1,696	,094	,550	1,819
	Market Value Added	8,390E-9	,000	,255	1,999	,050	,631	1,584
	Harga Batubara Acuan	,001	,001	,176	1,462	,148	,706	1,417

a. Dependent Variable: Return Saham

Source: Data Process

Table 3 shows that the tolerance value for the economic value-added variable (X1) is $0.589 > 0.10$. The tolerance value for the variable market value added (X2) is $0.842 > 0.10$. The tolerance value for the reference coal price variable (X3) is $0.676 > 0.10$, the tolerance value above 0.10 means that there is no multicollinearity in the regression model, so in the three variables above there is no multicollinearity.

Autocorrelation Testing

Tabel 4. Runs Testing

Runs Test

	Unstandardized Residual
Test Value ^a	,05741
Cases < Test Value	36
Cases >= Test Value	36
Total Cases	72
Number of Runs	33
Z	-,950
Asymp. Sig. (2-tailed)	,342

a. Median

Source: Data Process

From the table above, the Asymp. Sig value of $0.079 > 0.05$. the Asymp. Sig value greater than 0.05 indicates that there are no symptoms of autocorrelation. Thus, it can be concluded that there are no autocorrelation symptoms in this regression equation.

Heterocedasticity Testing

Tabel 5. Heterocedasticity Testing

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,225	,035		6,417	,000
	Economic Value Added	5,198E-9	,000	,043	,265	,792
	Market Value Added	1,804E-9	,000	,122	,811	,420
	Harga Batubara Acuan	1,741E-5	,000	,008	,053	,958

a. Dependent Variable: ABS_RES

Source: Data Process

From the test results above, the significance value of the Economic Value-Added variable (X1) is $0.664 > 0.05$, the significance value of the Market Value Added variable (X2) is $0.759 > 0.05$, and the significance value of the Reference Coal Price variable (X3) is $0.881 > 0.05$. The significance value of all variables is greater than 0.05, meaning that the regression model does not have heteroscedasticity symptoms.

Multiple Linear Regression Testing

Tabel 6. Multiple Regression Testing

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,160	,066		-2,422	,018
	Economic Value Added	6,283E-8	,000	,232	1,696	,094
	Market Value Added	8,390E-9	,000	,255	1,999	,050
	Harga Batubara Acuan	,001	,001	,176	1,462	,148

a. Dependent Variable: Return Saham

Source: Data Process

Hypotesis Testing

Tabel 7. F Testing

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,358	3	,786	9,758	,000 ^b
	Residual	5,477	68	,081		
	Total	7,834	71			

a. Dependent Variable: Return Saham

b. Predictors: (Constant), Harga Batubara Acuan, Market Value Added, Economic Value Added

Source: Data Process

Tabel 8. Determination Coefisien Testing

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,549 ^a	,301	,270	,283797

a. Predictors: (Constant), Harga Batubara Acuan, Market Value Added, Economic Value Added

Source: Data Process

Tabel 9. Parsial Testing

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,160	,066		-2,422	,018
	Economic Value Added	6,283E-8	,000	,232	1,696	,094
	Market Value Added	8,390E-9	,000	,255	1,999	,050
	Harga Batubara Acuan	,001	,001	,176	1,462	,148

a. Dependent Variable: Return Saham

Source: Data Process

Based on the test results show that the first hypothesis (H_1) is rejected, so it can be said that economic

value added has no effect on stock returns. This can be caused by the unavailability of economic value added directly in the company's financial statements and the complexity of calculating economic value added. The results of this study are in line with the results of research (Sunaryo, 2019).

Based on the test results, the second hypothesis (H_2) is accepted, market value added has a significant effect on stock returns. A high MVA value means that the company has been able to maximise shareholder wealth because of good company performance and get a high response from the market. As a result, investor confidence in the company is increasing so that it will be able to increase demand for the company's shares. High demand will also make the share price high, if the share price is high, the capital gain will also increase because shareholders can sell their shares when the share price is higher than the initial price. The results of this study are in line with the results of research (Silalahi & Manullang, 2021).

Based on the test results, it shows that the third hypothesis (H_3) is rejected. This can be caused by investors not considering information that does not have a direct influence on stock prices. Investors are more focused on the company's revenue and profit obtained from the financial statements of coal companies, or news related to coal companies. In other words, investors do not consider the reference coal price from government regulations as a consideration for investment decisions. The results of this study are in line with the results of research (Saputra & Rakhmi, 2023).

CONCLUSION

The results of this study indicate that partially the Market Value Added variable affects stock returns, while the Economic Value Added and Reference Coal Price variables have no effect on stock returns. Simultaneously, Economic Value Added, Market Value Added, and Reference Coal Prices affect stock returns.

RESEARCH CONTRIBUTION

The limitation of this research lies in the object of research, namely only 9 coal mining sector companies. The independent variables used are only 2, namely EVA and MVA and still use multiple linear regression analysis methods.

LIMITATIONS AND SUGGESTIONS

The research conducted still has limitations that are expected to be improved for further research. The limitations contained in this study are the adjusted R square coefficient value generated by the independent variables of 0.27 or 27%, which means that the independent variables, namely economic value added, market value added, and reference coal prices, are only able to explain their influence on the dependent variable, namely stock returns of 27%, while the remaining 73% is explained by other variables outside the independent variables used. This shows that the independent variables used in this study are still less able to explain the variation in the dependent variable.

For companies, can use Market Value Added (MVA) as a means of evaluating company performance and companies can improve their financial performance related to MVA to increase MVA value, to attract investors in investing their capital. For Investors, if you want to invest, you can pay attention to Market Value Added (MVA) because based on this research MVA has a significant influence on stock returns. For further researchers, they can add other independent variables such as Price Earning Ratio, Debt to Equity Ratio, inflation, rupiah exchange rate, so that they can provide more comprehensive results that can explain stock returns in a company.

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