



The Influence of the Exchange Rate, Interest Rates, Indonesian Coal Price Reference (HBA) and World Oil prices on the Firm's Value of Coal mining firms traded on the IDX in 2018-2023

Asep Maulana Akbar¹, Linda Santioso²

^{1,2}The Professional Accounting Programme (PPAk), Tarumanagara University & Jakarta, Indonesia

ABSTRACT: With this research, we want to better understand how exchange rates, interest rates, Indonesian coal reference prices, and oil prices about the valuation of coal firms that are publicly traded on the Indonesia Stock Exchange (IDX) for the period 2018-2023. Using a quantitative approach and multiple linear regression analysis, this research evaluates the effect on firm value. The analytical results demonstrate that exchange rates significantly impact firms value, while interest rates, coal reference and oil prices with firm value. Based on these findings, it is recommended that coal companies focus more on risk management related to fluctuations in exchange rates to enhance firm value.

KEYWORDS: Exchange rate, Firm Value, Interest, HBA, Oil price.

1. INTRODUCTION

Along with the development of the global economy in the energy sector, especially coal mining. This sector plays a vital role in supporting domestic and international needs. Coal as one of the main energy commodities not only affects the economy of producing countries but also tied to global economic conditions (Pahlevy et al., 2024). In Indonesia, coal mining firms traded on the Indonesia Stock Exchange (IDX) are strongly influenced by several external factors, such as the rupiah exchange rate, interest rates, reference coal prices and world oil prices.

Given that coal companies in Indonesia are mostly export-oriented, company revenues are susceptible to fluctuations in the rupiah exchange rate, especially since international contracts and transactions use foreign currency (W. D. Safitri & Hartati, 2020). Furthermore, domestic interest rates significantly influence the cost of capital and investment choices made by coal companies. When interest rates increase, the interest burden on debt also increases, which in turn can reduce a company's profits and competitiveness (A. Safitri et al., 2024). The coal price reference or also known as HBA which stands for Harga Batubara Acuan set by the Indonesian government also affects these companies' earnings, given that coal prices in the domestic market are often regulated based on the HBA (Septiawan, 2018).

On the other hand, the global oil price is an important indicator as it relates to operational and logistics costs in the coal mining industry. Fluctuations in world oil prices affect the price of fuel used in mining operational activities, which ultimately have an impact on company profits (Prasada & Pangestuti, 2022).

This research attempts to examine the impact of the rupiah exchange rate, interest rates, coal price reference, and world oil prices on the value of coal mining firms traded on the Indonesia Stock Exchange (IDX) in the period 2018-2023. By focusing on this period, this study can provide insight into how global economic and commodity factors affect the Indonesian coal industry amid global market uncertainty. This study's findings are anticipated to provide an overview for investors, company management, and the government in making policies that are more adaptive to the dynamics of the world economy and commodity markets.

2. CONCEPTS AND LITERATURES REVIEW

2.1 Exchange Rate

Based on the definition in the Big Indonesian Dictionary, The relative value of one country's currency in relation to another's currency is known as the exchange rate. As a measure of the relative value of currencies in international commerce, it shows how many units of one country's currency are required to acquire one unit of another.



According to the Mundell-Fleming theory, there are several main factors that affect a country's exchange rate, namely monetary policy, fiscal policy, and economic turmoil. Monetary policies such as interest rates and money supply can affect the demand and supply of a currency. Fiscal policies through government spending and taxes also have an impact on exchange rates. Furthermore, currency rate changes can be caused by economic upheaval, including inflation, economic growth, and trade balance. The company's operational performance is particularly vulnerable to the damaging effects of excessive exchange rate swings on the economy as a whole.

Several empirical studies have proven the effect of exchange rates on company stock returns. Importing goods made of raw materials becomes more expensive as the exchange rate declines, which lowers the company's profit. The dwindling value of the company's stock might be affected by this (Yuliaratih & Artini, 2018). Conversely, in coal companies that are mostly export-oriented, exchange rate depreciation will increase sales and profits, thus encouraging an increase in their share prices (Djazuli & Lestriyani, 2021) (Yuliaratih & Artini, 2018).

2.2 Interest Rate

As explained in the Big Indonesian Dictionary, interest rates are rates or compensation charged by banks to borrowers for loans granted. It reflects the cost that the borrower must bear to the bank in return for the use of borrowed funds. Decisions about investments are heavily influenced by interest rates.

Interest rates significantly influence firm value. According to experts, high interest rates tend to reduce the profitability and potential return on investment of the organization, which may subsequently diminish the company's worth. This is because the costs incurred to pay loan interest are higher (Inrawan et al., 2020).

On the other hand, low interest rates will increase investment attractiveness and allow companies to obtain cheaper financing, thereby increasing firm value. In addition, interest rates also affect the company's borrowing costs and can have an impact on the value of the company's assets. In addition, foreign exchange rates are also external factors that affect profitability and ultimately have an impact on firm value (Inrawan et al., 2020).

2.3 Indonesian Coal Price Reference (HBA)

The HBA is a reference price set by the Indonesian government to be used as a guideline in domestic coal trading. The determination of HBA is based on several factors, such as coal quality, calorific value, and prices in the international market.

The Reference Coal Price (HBA) has a significant impact on the revenue of coal producers. Here are some of the ways in which the HBA affects their revenue; Since the HBA is the basis for setting the selling price of coal in the market, changes in the HBA will directly affect the revenue received by producers. When HBA increases, producers will earn higher profits, and conversely a decrease in the HBA will cause producers' income to decrease (Karmawan & Badjra, 2019). HBA also affects royalties and taxes because HBA is also used to calculate royalties that producers must pay to the government. If the HBA is high, the royalties paid will also be higher, which may reduce producers' net income. However, if the market price is also high, this can remain favorable.

2.4 Oil price

Oil commodity prices have an important impact on the market value to book value ratio of coal mining companies. There are several mechanisms that can explain this effect: First, low crude oil prices may cause coal mining companies' production costs to decline, resulting in higher profit margins and profitability (Savitri & Ramantha, 2019). Second, an increase in crude oil prices may lead to an increase in demand for alternative energy sources such as coal. This can increase the revenue of coal mining companies, which in turn can have a positive impact on company value.

Furthermore, an increase in oil prices can affect the overall market perception of the energy sector. If investors view favorable prospects for coal companies due to high oil prices, this can encourage an increase in share prices, which in turn will increase company value. Fourth, there is a relationship between oil prices and coal prices. If oil prices rise, coal prices also tend to follow suit, which can increase the value of coal companies and affect firm value positively.

2.5 Firm Value

Firm value It is the price that potential purchasers are prepared to offer for the acquisition of the firm (Karmawan & Badjra, 2019). Maximizing company value is the main goal of a company, because with high company value it will provide great prosperity for company owners. A high firm value instills market confidence in both the company's present performance and its future potential



(Dewi & Sedana, 2019). Firm value is a state of a business that has been attained via a series of actions taken over a number of years since the business was established. In other words, the company's value can be reflected in the stock price which demonstrates according to the fact that the value of the firm will rise in direct proportion to the stock price (Karmawan & Badjra, 2019).

Firm value is formed through indicators of stock market value, influenced by investment opportunities. Firm value is the perception of investors of a company related to the share price where the higher the share price, the higher the company value.

Measuring company value can use price to book value (PBV) This is a ratio that measures how well a stock's price has done in relation to its book value (Karmawan & Badjra, 2019). When compared to the amount of money that was invested, the PBV demonstrates the extent to which the firm is able to generate value for the company. A large PBV indicates a high company value and vice versa in the eyes of investors. Investors are more predisposed to pay a premium for the company's shares when the PBV ratio is elevated since it indicates that they think the future holds promise.

2.3 HYPHOTESIS DEVELOPMENT

2.3.1. The effect of the rupiah exchange rate on the value of coal companies

In this study (Djazuli & Lestriyani, 2021), the authors found that the rupiah exchange rate significantly effect on the volatility of the stock prices of firms that are listed on the LQ45 index. This is because the revenues and liabilities of these companies, especially in the coal mining sector, are mostly denominated in foreign currencies such as the US dollar. So, changes in the value of the rupiah relative to other currencies can have an impact the value of companies in the coal mining industry in Indonesia.

Around seventy-five per cent of coal production is exported overseas in US dollars using international indices, such as the Indonesia Coal Index (ICI), Newcastle Export Index (NEX), Global coal Newcastle Index (GCNC), and Platt's 5900 with quality set at 6322 kcal/kg GAR caloric content, 8 percent total moisture, 0.8 percent total sulfur, and 15 percent ash. The remaining twenty-five per cent is consumed by the domestic market, mostly for government-owned power plants. In the domestic market, the selling price of coal is denominated in rupiah and has been set by the government at \$70/ton-\$90/ton. This results in the company's revenue which denominated in dollars, which has a significant impact on the company's value.

In addition, most of the coal production tools are also imported goods from abroad whose prices are set in dollars. In this case, examples are heavy equipment, ships, conveyors, and so on. Furthermore, the rupiah exchange rate impacts the acquisition of components and the expenses associated with maintenance. The following is the first hypothesis:

H1 = Exchange rate has a positive and significant effect on firm value.

2.3.2 The effect of interest rates on coal company value

Bank Indonesia interest rates (SBI) on stock price volatility in LQ45 companies were also found to have a significant effect. SBI is an indicator of monetary policy that can affect the company's cost of capital and cash flow, thus having an impact on firm value. In mining companies that are financed by loans, an increase in SBI interest rates can cause an increase in interest expense and a decrease in net income, which in turn will reduce company value (Djazuli & Lestriyani, 2021). However, for companies financed by foreign loans, the increase in SBI interest rates can actually reduce interest expenses due to the depreciated rupiah exchange rate. Rising interest rates in the US can attract foreign investment into the US dollar, which can cause the rupiah exchange rate to depreciate. This can make foreign debt denominated in dollars more expensive, so coal mining companies that have debt in dollars can experience a decrease in company value. The following is the second hypothesis:

H2 = Interest Rate has a negative and significant effect on firm value

2.3.3 Effect of HBA on coal company value

HBA is one of the fundamental factors that can affect financial performance and company value in the coal mining sector in Indonesia. The reference coal price is set by the government by observing and analyzing the price of coal in the international market. An increase in the HBA will increase the revenue of coal mining companies, to positively influence the augmentation of corporate earnings and company value. In line with Suputra's findings (Dewi & Suputra, 2019) that profitability has a significant positive effect on firm value in the mining sector. The following is the third hypothesis:

H3 = HBA has a positive and significant effect on firm value

2.3.4 The effect of oil prices on coal company value

To obtain coal, production equipment is needed which requires oil-based materials such as fuel and lubricants. Therefore, fluctuations in oil prices can also affect the production costs and profitability of coal mining companies which ultimately have an

impact on firm value. According to research, Stock price volatility of LQ45 companies, including coal mining companies is significantly impacted negatively by oil prices. (Djazuli & Lestriyani, 2021). The following is the fourth hypothesis:

H4 = The Oil price has a negative and significant effect on firm value

2.3.5. Hypothesis Model

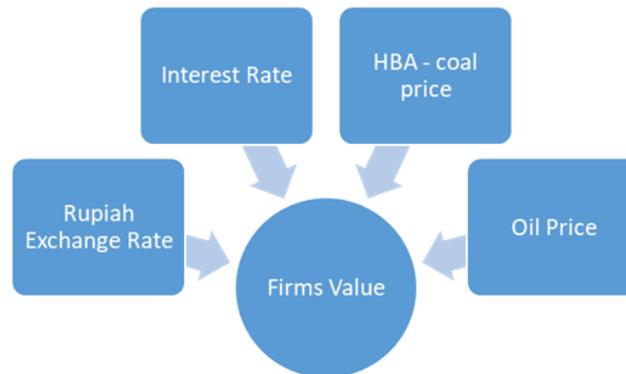


Figure 1: Hypothesis Model

3. RESEARCH METHODS

3.1 Type of Research and Overview of the Research Population

The research being discussed here is a quantitative study with a causality approach that aims in order to investigate the impact of the commodities and macroeconomic factors on the value of coal mining firms traded on the Indonesia Stock Exchange (IDX). This approach was chosen because the research focuses on the cause-and-effect relationship between the independent variable and the dependent variable. In this study, the population consists of all of the coal mining companies that are traded on the IDX during the 2018-2023 period.

3.2 Sampling Technique

The sample selection was carried out using purposive sampling method, with the criteria (1) companies that were regularly listed on the IDX and (2) companies that released full financial reports annually between 2018 and 2023, (3) companies that have complete data related to company value, such as stock price and market capitalization.

3.3 Data Collection Technique

Data collection techniques are carried out by means of documentation, namely collecting data from the company's financial statements, as well as data on exchange rates, interest rates, coal prices reference and world oil prices that have been published by related institutions. Annual reports of the corporation are the source of information regarding the value of the company which can be accessed on the official website www.idx.co.id, rupiah exchange rates and interest rates variable can be accessed on the website www.bi.go.id, coal prices reference variable can be accessed on the site www.minerba.esdm.go.id, world oil prices variable can be accessed on the site www.investing.com.

3.4 Data Analysis Technique

The data analysis technique in this study uses the help of SPSS software to process data and test the proposed hypothesis. Descriptive statistical analysis is the first stage in order to comprehend the fundamental properties of the data, such as the mean, standard deviation, minimum, and maximum values of each variable. Next, a classical assumption test is carried out to ensure that the data meets the requirements for linear regression validity, this test consists of normality test, multicollinearity test, heteroscedasticity test, autocorrelation test. The analysis of multiple linear regression is then performed to test the effect of the independent variable on the dependent variable. The regression results will be analyzed through the t test to see the effect of each variable partially, and the F test to determine the simultaneous effect. Interpretation of the significance test results is done by examining the p-value at the 0.05 significance level so that it can be determined whether these variables have a significant effect on firm value.



4. RESULTS AND DISCUSSION

4.1 Multiple Linear Regression Analysis

Table 1. Multiple Linear Regression Analysis Result

Model	Coefficients ^a				t	Sig.
	Unstandardized Coefficients		Standardized	Coefficients		
	B	Std. Error	Beta			
(Constant)	80.585	18.963			4.250	.000
1 X1	-18.838	4.592	-.501		-4.103	.000
X2	-.757	.690	-.113		-1.097	.277
X3	-.056	.493	-.022		-.113	.910
X4	-.729	.797	-.162		-.915	.364

a. Dependent Variable: Y

The regression equation derived from the aforementioned table is: $Y = 80.585 - 18.838X1 - 0.757X2 - 0.056X3 - 0.729X4$

Based on the regression model, it can be interpreted that;

- 1) The constant from the regression equation results is 80,585, meaning that when the exchange rate, interest rate, reference coal price and oil price variables are equal to zero (0), the company value will be 80,585.
- 2) The exchange rate regression coefficient is -18.838, meaning that when the exchange rate increases by one unit, the company value will decrease by 18.838.
- 3) The interest rate regression coefficient is -0.757, meaning that when the interest rate increases by one unit, the company value will decrease by 0.757.
- 4) The reference coal price regression coefficient is -0.056, meaning that when the reference coal price increases by one unit, the company value will decrease by 0.056.

The oil price regression coefficient is -0.729, meaning that when the oil price increases by one unit, the company value will decrease by 0.729.

Normality Test

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		72
Normal Parameters ^{a,b}	Mean	0E-7
	Std. Deviation	.50405719
	Absolute	.091
Most Extreme Differences	Positive	.091
	Negative	-.076
Kolmogorov-Smirnov Z		.771
Asymp. Sig. (2-tailed)		.592

a. Test distribution is Normal.

b. Calculated from data.

The table above is the result of the normality test, from the table above, the asymp sig. value is 0.592 > 0.05, so that the data for this model is normally distributed, so the normality test requirements are met.



Multicollinearity Test

Table 3. Multicollinearity Test Result

Model		Coefficients ^a					Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	80.585	18.963		4.250	.000		
	X1	-18.838	4.592	-.501	-4.103	.000	.642	1.557
	X2	-.757	.690	-.113	-1.097	.277	.896	1.116
	X3	-.056	.493	-.022	-.113	.910	.254	3.938
	X4	-.729	.797	-.162	-.915	.364	.308	3.250

a. Dependent Variable: Y

From the table above, it can be seen that the tolerance value of each variable is less than 1.000 and the VIF value of each variable is <10.00 so that this data fulfils the multicollinearity test requirements.

Heteroscedasticity Test

Table 4. Heteroscedasticity Test Results

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-12.214	10.317		-1.184	.241
	X1	2.946	2.498	.165	1.179	.243
	X2	-.660	.376	-.208	-1.757	.083
	X3	.217	.268	.180	.808	.422
	X4	.190	.434	.089	.438	.663

a. Dependent Variable: ABS_RES

It can be noted the significance value of each variable in the table above, every single variable is recognized to have a significance value greater than 0.05, thus, it can be inferred that the data meets the criteria of the heteroscedasticity test.

Multiple Determination Coefficient Analysis (R2)

Table 5. Results of the Coefficient of Determination

Model	R	R Square	Model Summary	
			Adjusted R Square	Std. Error of the Estimate
1	.598 ^a	.357	.319	.51889

a. Predictors: (Constant), X4, X2, X1, X3

The preceding table indicates that the coefficient of determination R2 is 0.319 which shows that the company value variable can be explained by factors influencing currency exchange rates, interest rates, reference coal prices, and oil prices by 31.9%. This means that 31.9% of the disclosure of the value of coal mining firms traded on the IDX in the period 2018 - 2023 can be explained by factors influencing currency exchange rates, interest rates, reference coal prices and oil prices, the remaining 68.1%, which is impacted by additional factors not included in this research.



Goodness Fit test

Table 6. Goodness Fit Test Results

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.026	4	2.506	9.309	.000 ^b
	Residual	18.039	67	.269		
	Total	28.065	71			

a. Dependent Variable: Y

b. Predictors: (Constant), X4, X2, X1, X3

Based on the test results above, a significance of $0.000 < 0.05$ is obtained, which shows the influence of exchange rate variables, interest rates, reference coal prices, and oil prices on the value of coal mining firms traded on the IDX in 2018 - 2023, The model is deemed viable for future research endeavors. With the F test where the value of F count $9,309 > F$ table shows that together factors influencing currency exchange rates, interest rates, reference coal prices and oil prices have a significant influence on the value of coal mining firms traded on the IDX in the period 2018 - 2023.

Hypothesis Testing

Table 7. Hypothesis Test Results

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	80.585	18.963		4.250	.000
	X1	-18.838	4.592	-.501	-4.103	.000
	X2	-.757	.690	-.113	-1.097	.277
	X3	-.056	.493	-.022	-.113	.910
	X4	-.729	.797	-.162	-.915	.364

a. Dependent Variable: Y

Based on the results of the t test above, obtained;

- 1) The hypothesis that the exchange rate has a positive and substantial impact on firm value is accepted when the influence of exchange rates on firm value is tested, yielding a significance value of $0.000 < 0.05$.
- 2) The hypothesis that interest rates have a negligible impact on firm value is rejected when the effect of interest rates on firm value is tested, yielding a significance value of $0.277 > 0.05$.
- 3) The hypothesis is rejected when the influence of reference coal prices on firm value is tested; the significance value of $0.910 > 0.05$ indicates that the reference coal price has no discernible impact on firm value.
- 4) The hypothesis is rejected when the oil price's impact on firm value is tested, yielding a significance value of $0.364 > 0.05$, indicating that the oil price has no discernible effect on firm value.

5. DISCUSSION

5.1 The effect of exchange rate on firm value

Considering the outcomes of the data analysis conducted on the exchange rate variable on firm value, a significance value of $0.000 < 0.05$ and t count of -4.103 is obtained. This shows that the exchange rate variable has a significant effect on firm value. The findings



of this study are inconsistent with existing research (Samudra & Widyawati, 2019) which shows that the exchange rate has a significant effect on firm value.

This also shows that changes in exchange rates tend to have a significant impact on fluctuations in firm value. This significant effect may be due to the company's exposure to exchange rate risk, which can affect cash flow, profitability and ultimately investor perceptions of the company. In other words, companies that operate in international markets or depend on imports and exports will be greatly affected by exchange rate movements.

5.2 The effect of interest rates on firm value

Considering the outcomes of the data analysis, the interest rate variable on firm value shows a significance value of $0.277 > 0.05$ and a t value of -1.097 . These results indicate that interest rates do not have a significant effect on firm value. The findings of this study are consistent with existing research (Samudra & Widyawati, 2019) It asserts that the value of a company is unaffected by changes in interest rates. In theory, interest rates can affect the company's investment and financing decisions. Changes in interest rates can affect the cost of capital, which in turn can affect corporate decisions regarding investment. Higher interest rates usually increase the cost of borrowing, which can reduce investment and expansion, which in turn can have an impact on firm value. Conversely, low interest rates may encourage more investment as financing costs become cheaper.

The lack of significance of interest rates on firm value can be caused by several factors. First, the companies studied may have a financing structure that does not rely heavily on loans or debt so that changes in interest rates do not have a significant effect on their cost of capital. Furthermore, the sector or industry of the companies studied is less sensitive to interest rate fluctuations. Furthermore, fluctuations in interest rates during the analysis period may not be large enough to meaningfully influence the strategic decisions of the companies. These results suggest that company management may need to consider factors other than interest rates to increase firm value.

5.3 Effect of HBA on firm value

Based on the results of the data analysis conducted, it is found that the reference coal price variable has a significance value of 0.910 with a t-count value of -0.113 . This significance value indicates that the reference coal price variable has no significant effect on firm value. This is in line with research (Dawwas & Sundari, 2023) which shows that the reference coal price does not have a significant relationship to firm value.

Company value is often influenced by various factors such as profitability, capital structure and internal factors related to company operations. Although coal price is one of the indicators in the energy sector that has the potential to affect the income of companies engaged in mining, the results of this analysis show that this variable does not contribute significantly in increasing or decreasing company value directly. One possibility is that companies in this sample already have effective risk management strategies or business diversification that reduces dependence on coal price fluctuations.

Firm value may be more influenced by information that can be a strong signal to investors, such as net income, debt-to-equity ratio, and earnings growth. Although coal prices fluctuate, investors may pay more attention to a company's financial fundamentals or indicators that are more stable and reflect a company's long-term performance than temporary changes in commodity prices. Therefore, the insignificant effect of reference coal price on firm value in this study indicates that other factors that focus more on the internal performance of the company may be more relevant for investors in assessing firm value.

5.4 The effect of oil price on firm value

Considering the outcomes of the data analysis conducted, the oil price variable on firm value obtained a significance value of $0.364 > 0.05$ and a t value of -0.915 . These results indicate that the Oil price does not significantly affect the value of the company at a significant level of 0.05 . The relationship between oil prices and firm value is considered insignificant, which means that changes in oil prices are not strong enough to affect firm value in this study. This study's findings are consistent with the results of research (Steven, Y., 2020) which states that oil prices are not significant in influencing firm value.

In theory, the Oil price should have an influence on the energy sector, especially the coal sector. This is because these two things are energy sources that are sometimes substitutive or replace each other. However, this insignificant result suggests that in certain periods and conditions, fluctuations in oil prices may not directly or strongly affect the value of coal companies.

Several factors could explain how this result came about, coal companies may have energy price risk mitigation strategies such as long-term contracts or hedging, which reduce the impact of oil price fluctuations on firm value. Risk management theory suggests



that companies in the energy sector often employ such strategies to maintain financial stability amidst commodity market uncertainty. Furthermore, oil prices may not be the main factor influencing coal demand. While oil and coal are both energy sources, coal demand is also influenced by environmental regulations, electricity demand, and energy policies in different countries. In the derived demand theory, coal demand is more influenced by the need for electrical energy driven by factors other than oil prices, such as dependence on coal-fired power plants in some countries.

During the study period, it is also possible that the correlation between oil prices and coal prices was not high or consistent enough to significantly affect the value of coal companies. In other words, although there is a relationship between energy commodity prices, market dynamics may be different, and the value of coal companies is more sensitive to coal sector-specific factors than oil prices.

6. CONCLUSION AND SUGGESTION

6.1. Conclusion

The results of the data analysis indicate a considerable significant correlation between the exchange rate and the company's value, so it is concluded that the exchange rate has a significant influence on the company's value, while the interest rate variable, the reference coal price and the price of oil do not have a significant influence on the company's value. The exchange rate has a significant relationship to firm value, this phenomenon can be elucidated by the intrinsic characteristics of the coal industry, which is profoundly intertwined with the worldwide market, so fluctuations in exchange rates can directly affect export revenues. When the exchange rate weakens, the conversion value of revenue in local currency increases, which has a positive impact on profitability and indirectly on firm value. The Oil price is related to operating costs, so an increase in the oil price will increase operating costs, which suppresses the company's profit margin.

6.2 Research Limitation

The limitations of this study, for example, are sample limitations that do not represent the representation of the total number of Coal companies on the IDX because not all of them complete the existing financial reports. The second limitation is the limitation of the research instrument. 31.9% of the disclosure of the value of coal mining firms traded on the IDX in the period 2018 - 2023 can be explained with the aid of variables of exchange rates, interest rates, reference coal prices and oil prices, the remaining 68.1%, which is impacted by additional factors not included in this research. And the last is the phenomenon of the 2018 crisis which caused the decline in the rupiah, the increase in oil prices, the increase in the interest rate to control inflation and stabilize the exchange rate, and the increase in coal prices in early 2018, all of which can affect the results of the study. In addition, the Covid19 disaster around 2019-2022 COVID19 had a significant impact on various aspects of the economy, including exchange rate fluctuations, falling interest rates as a stimulus for loans and investment, falling coal prices and oil prices due to sluggish demand, and falling stock price volatility, all of which may also affect the results of the study.

6.3 Suggestion

Suggestions for further research include analysing the effect of HBA on firm value because since March 2023 based on the enactment of the Minister of Energy and Mineral Resources Decree Number 41.K / MB.01 / MEM.B / 2023 HBA is divided into HBA, HBA1, HBA2 and HBA3 which are based on the quality of coal with varying calories:

- HBA : Coal with a calorific value of 6,322 kcal/kg GAR, total moisture 12.58%, total sulfur 0.71%, and ash 7.58%.
- HBA 1 : Coal with a calorific value of 5,200 kcal/kg GAR, 23.12% total moisture, 0.69% total sulphur, and 6% ash.
- HBA 2 : Coal with a calorific value of 4,200 kcal/kg GAR, total moisture of 35.29%, total sulphur of 0.2%, and ash of 4.21%.
- HBA 3 : Coal with a calorific value of 3,400 kcal/kg GAR, total moisture of 44.30%, total sulphur of 0.24%, and ash of 3.88%.

This is because the elasticity of change in HBA with HBA1 to HBA 3 is not the same elasticity coefficient because often for lower calories the change is not as much as for high calories. Many Indonesian Coal mining companies produce Coal with calories of 3000-5000 kcal so it is felt to be more representative of the population of Coal companies.

REFERENCES

1. Dawwas, J. A., & Sundari, S. (2023). The Effect of Reference Coal Price, Dividend Policy and Profitability on Firm Value with Stock Price as Intervening Variable. *Journal of Accounting Applications*, 8(1). <https://doi.org/10.29303/jaa.v8i1.323>



2. Gunawan, I., Pituringsih, E., & Widiastuty, E. (2019). Analysis of Factors Affecting the Value of Manufacturing Companies Listed on the IDX for the 2014-2016 Period. In I. Gunawan, E. Pituringsih, & E. Widiastuty, E-Journal of Accounting (p. 2396). Udayana University. <https://doi.org/10.24843/eja.2019.v26.i03.p27>
3. Pahlevy, R., Thamrin, S., Ahmad, I., & Nugroho, F. B. (2024). The Future of Coal Utilisation as an Energy Source in Indonesia. *Journal of New & Renewable Energy*, 5(3), 50-60. <https://doi.org/10.14710/jebt.2024.22973>
4. Prasada, M. D., & Pangestuti, I. R. D. (2022). Analysis of the Effect of World Oil price, Coal Price, Gold Price, Inflation, and Exchange Rate on JCI. *Diponegoro Journal of Management*, 11(6).
5. Pratama, A. B. (2023). Analysis of Macroeconomic Fundamentals: Inflation Rate, Exchange Rate and Crude Oil price on the Value of State-Owned Enterprises (SOEs) with Profitability as an Intervening Variable (Empirical Study on State-Owned Enterprises (B. Semen Indonesia International University).
6. Safitri, A., Anggraini, D., Hatahuruk, M. S., & Batubara, M. (2024). Analysis of the Effect of Monetary Policy on Indonesia's International Trade. *Economic Reviews Journal*, 3(3), 22000-22207. <https://doi.org/10.56709/mrj> (Gunawan, 2019).v3i3.351
7. Savitri, K. K., & Ramantha, I. W. (2019). The Effect of Risk Based Bank Rating Components on Banking Firm Value. In K. K. Savitri & I. W. Ramantha, E-Journal of Accounting (Vol. 29, Issue 2, p. 883). Udayana University. <https://doi.org/10.24843/eja.2019.v29.i02.p29>
8. Safitri, W. D., & Hartati, R. (2020). The Effect of Exchange Rate, Production and Price on Coal Export Volume in Bengkulu Province. *Journal of Business and Economics*, 11(1), 57-68.
9. Samudra, Y. P., & Widyawati, N. (2019). The Effect of Inflation, Interest Rates, and Exchange Rates on Firm Value. *Journal of Management Science and Research*, 7(8).
10. Septiawan, I. (2018). Analysis of Increases and Changes in Volatility of Reference Coal Prices and Newcastle Export Index Coal Prices. *Accounting Research Media*, 6(2).
11. Steven, Y. (2020). The Effect of Crude Oil Commodity Prices, Exchange Rates, Investment, and Business Risk on Firm Value in the Basic and Similar Metal Subsector Manufacturing Industry Listed on the Indonesia Stock Exchange 2014 - 2018. S1 Thesis, Atma Jaya University Yogyakarta.

Cite this Article: Akbar A.M., Santioso L. (2024). The Influence of the Exchange Rate, Interest Rates, Indonesian Coal Price Reference (HBA) and World Oil prices on the Firm's Value of Coal mining firms traded on the IDX in 2018-2023. International Journal of Current Science Research and Review, 7(12), 9119-9128, DOI: <https://doi.org/10.47191/ijcsrr/V7-i12-52>