



The Impact of Inflation, World Oil Prices, and the Rupiah Exchange Rate on Sectoral Stock Index Returns in the Indonesia Stock Exchange

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Abstract: This study examines the effects of inflation (X1), global crude oil prices (X2), and the rupiah exchange rate (X3) on sectoral stock index returns (Y) in the energy sector listed on the Indonesia Stock Exchange. This research employs a quantitative approach using secondary data obtained from Bank Indonesia, the Indonesia Stock Exchange, and Investing.com over a five-year period. Multiple linear regression analysis was conducted using SPSS to evaluate both partial and simultaneous effects of the independent variables on stock index returns. The results show that inflation has a negative but statistically insignificant effect on sectoral stock index returns, while global crude oil prices exhibit a positive yet insignificant influence. In contrast, the rupiah exchange rate has a positive and statistically significant effect on sectoral stock index returns. These findings indicate that exchange rate movements play a dominant role in explaining return variability in the energy sector. Therefore, investors and policymakers should pay close attention to exchange rate stability when making investment and economic policy decisions.

Keywords: Inflation, World Oil Prices, Rupiah Exchange Rate, Indonesia Stock Exchange

Introduction

The development of Indonesia's capital market is closely linked to macroeconomic conditions, particularly inflation, global crude oil prices, and the rupiah exchange rate against the US dollar. These macroeconomic variables play a crucial role in determining stock market performance, which is reflected in sectoral stock indices on the Indonesia Stock Exchange (IDX). Previous studies indicate that changes in macroeconomic indicators significantly influence investor expectations regarding risk and return in the stock market (Alim, 2025; Sofiyan, 2023). Therefore, analyzing macroeconomic factors is essential for understanding movements in sectoral stock index returns in Indonesia.

Inflation is one of the key macroeconomic indicators that affects purchasing power and corporate performance. An increase in inflation tends to raise production costs and reduce consumer demand, which may negatively affect corporate profitability and stock returns (Permaysinta & S, 2021; Febriyanto, 2024). Several studies have found that inflation has a

significant impact on stock returns, although the direction and magnitude of the effect vary across industry sectors (Nugroho, 2020; Prayogo, 2025). This indicates that sectoral stock indices respond differently to inflationary pressures.

In addition to inflation, global crude oil prices represent an important external factor influencing the Indonesian economy, particularly as Indonesia is a net oil-importing country. Rising global oil prices can increase production and transportation costs and contribute to higher inflation, which in turn affects stock market performance (Indrawati, 2023; Utomo, 2023). Boimau (2025) finds that fluctuations in global oil prices significantly affect sectoral stock indices, especially in the property and real estate sector. Consequently, volatility in global oil prices should be considered in the analysis of sectoral stock returns.

The rupiah exchange rate against the US dollar also plays a significant role in influencing stock returns. Exchange rate fluctuations can affect firms engaged in international trade or those with foreign currency-denominated liabilities, thereby influencing their financial performance (Nugroho, 2020). Empirical evidence suggests that movements in the rupiah exchange rate have a significant impact on stock returns across various sectors, although the magnitude and direction of the effect differ depending on sectoral characteristics (Ririn, 2025; Prayogo, 2025). As a result, the exchange rate often acts as a transmission channel between global economic factors and domestic stock market performance.

Based on the existing literature, this study focuses on examining the effects of inflation, global crude oil prices, and the rupiah exchange rate on sectoral stock index returns on the Indonesia Stock Exchange. This research also investigates whether these macroeconomic variables simultaneously influence sectoral stock index returns. By analyzing these relationships, this study aims to provide empirical evidence that can assist investors and policymakers in making informed decisions in a dynamic economic environment.

Research Method

The impacts of the rupiah exchange rate, global oil prices, and inflation rate on the corporate value of energy businesses that are listed on the Indonesia Stock Exchange are examined in this investigation using analysis of multiple linear regression and a quantitative research methodology. The partial and simultaneous impacts of the independent factors on the dependent variable were evaluated using the SPSS software.

Population, Sample, and Sampling Technique

Energy-related businesses that are listed on the Indonesia Stock Exchange are the study's topics. Purposive sampling was used to choose companies in order to guarantee data appropriateness and consistency. The availability of comprehensive monthly statistics for inflation, global oil prices, and the rupiah currency rate for a continuous five-year period

was the primary inclusion requirement. Businesses that didn't fit this criteria weren't included in the sample.

Data Source and Analysis Method

The study utilizes secondary data obtained from official and credible sources, including monthly inflation reports, monthly global oil price data, and monthly rupiah exchange rate information released by the Indonesia Stock Exchange and related institutions. Multiple linear regression was used to examine the gathered data to assess the individual and the overall impact of various independent variables in the energy industry on corporate value.

Results and Discussion

Table 1. Descriptive Statistics of Research Variables

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Inflasi	60	1.32	5.95	174.30	2.9050	1.30067
Harga_Minyak_Dunia	60	18,84	114,67	4027,30	67,1217	20,41247
Nilai_Tukar_Rupiah	60	13650	15880	874867	14581,12	514,091
Return_Indeks_Saham	60	2.4	36.1	734.3	12.238	8.2243
Valid N (listwise)	60					

The inflation variable was coded on a scale based on inflation category ranges based on the analysis's findings, producing a mean of 2.90, a standard deviation of 1.30, and a median of 3. The average score for global oil prices was 67.12, with a standard deviation of 20.41 and a median of 40. For the rupiah exchange rate construct, the mean value was 14,581, accompanied by a standard deviation of 514.091 and a median of 500.000.

Table 2. Pearson Correlation Results

		Correlations			
		Inflasi	Harga_Minya k_Dunia	Nilai_Tukar_ Rupiah	Return_Indek s_Saham
Inflasi	Pearson Correlation	1	,410 ^{**}	,519 ^{**}	,277 [*]
	Sig. (2-tailed)		,001	,000	,032
	N	60	60	60	60
Harga_Minyak_Dunia	Pearson Correlation	,410 ^{**}	1	,405 ^{**}	,372 ^{**}
	Sig. (2-tailed)	,001		,001	,003
	N	60	60	60	60
Nilai_Tukar_Rupiah	Pearson Correlation	,519 ^{**}	,405 ^{**}	1	,582 ^{**}
	Sig. (2-tailed)	,000	,001		,000
	N	60	60	60	60
Return_Indeks_Saham	Pearson Correlation	,277 [*]	,372 ^{**}	,582 ^{**}	1
	Sig. (2-tailed)	,032	,003	,000	
	N	60	60	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Based on the information shown in the table, the results indicate that inflation shows a negative correlation with stock index returns ($r = 1, p > 0.05$), the rupiah exchange rate also exhibits a negative correlation ($r = 0.519, p > 0.05$), and global oil prices are negatively correlated with stock index returns ($r = 0.410, p > 0.05$). These findings show that there is no statistically significant relationship between the three factors and stock index performance.

Table 3. Multiple Linear Regression Results

Partial Corr

			Correlations		
Control Variables			Inflasi	Harga_Minya k_Dunia	Nilai_Tukar_ Rupiah
Return_Indeks_Saham	Inflasi	Correlation	1,000	,344	,458
		Significance (2-tailed)	.	,008	,000
		df	0	57	57
Harga_Minyak_Dunia	Harga_Minyak_Dunia	Correlation	,344	1,000	,249
		Significance (2-tailed)	,008	.	,057
		df	57	0	57
Nilai_Tukar_Rupiah	Nilai_Tukar_Rupiah	Correlation	,458	,249	1,000
		Significance (2-tailed)	,000	,057	.
		df	57	57	0

After controlling for the stock index return variable, the results of the partial correlation analysis revealed inflation and stock index results are significantly correlated ($r = 0.01 < p = 0.05$). Global oil prices also remain significant ($r = 0.08 < p = 0.05$), the connection between stock index returns and the rupiah exchange rate has become clearer ($r = 0.00 > p = 0.05$). These findings illustrate that the relationships among the variables are complex and indicate that inflation, global oil prices, and exchange rate movements do not consistently exert a direct influence on stock index returns.

Table 4. Multiple Linear Regression Coefficients

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-119,970	28,319		-4,236	,000
	Inflasi	-,536	,814	-,085	-,658	,513
	Harga_Minyak_Dunia	,074	,048	,184	1,527	,132
	Nilai_Tukar_Rupiah	,009	,002	,552	4,301	,000

a. Dependent Variable: Return_Indeks_Saham

Inflation: The regression results show a coefficient of -0.536 with a standard error of 0.814 , a significance level of 0.513 and a t-value of -0.658 . The negative coefficient indicates a 0.536 decrease in stock index returns with an increase in inflation. However, it is clear that stock index results are not much impacted by inflation, and since the p-value (0.513) is greater than 0.05 , there is no statistical significance to this impact.

Global Oil Prices: The coefficient for the global crude oil price variable is 0.074 and a significance level of 0.132, a standard error of 0.048, and a t-value of 1.527. This positive coefficient indicates that when global crude oil prices rise, stock index returns also tend to increase by about 0.074. Nevertheless, the impact is statistically negligible as the p-value is greater than 0.05, indicating that oil price fluctuations don't have a big impact on stock index results.

Rupiah Exchange Rate: The rupiah exchange rate shows a coefficient of 0.009 with a standard error of 0.002, a t-value of 4.301, and a significance value of 0.000. A positive and highly significant coefficient indicates that the exchange rate of the rupiah has a very influence on stock index performance that is statistically significant. This suggests that exchange rate fluctuations have a big effect on the explanation of return variability.

Discussion

The results indicate that inflation has a negative but insignificant effect on sectoral stock index returns in the energy sector. This finding aligns with the theory that rising inflation reduces purchasing power and increases production costs, which can suppress corporate profitability (Mankiw, 2021). However, the insignificant result supports previous empirical studies suggesting that the impact of inflation on stock returns varies across sectors and economic conditions (Febriyanto, 2024; Sofiyan, 2023). In the energy sector, inflationary pressures may be partially offset by commodity price movements, reducing its direct impact on stock returns.

The findings also show that global crude oil prices have a positive but statistically insignificant effect on energy sector stock index returns. This result is consistent with the argument that higher oil prices can increase revenues for energy companies, thereby supporting stock performance (Utomo, 2023). However, the insignificant impact suggests that oil price fluctuations alone are not sufficient to explain stock return variability, as other factors such as production efficiency and government regulation may play a role. Similar results were reported by Indrawati (2023), who found that oil prices do not always directly translate into higher stock returns.

The rupiah exchange rate is found to have a positive and statistically significant effect on sectoral stock index returns, indicating that exchange rate movements play a dominant role in influencing stock performance. This finding supports previous studies by Nugroho (2020) and Ririn (2025), which emphasize the importance of exchange rate stability for firms with foreign currency exposure. Appreciation or controlled depreciation of the rupiah can improve export competitiveness and revenue performance in the energy sector. Therefore, the exchange rate serves as a key transmission mechanism linking global economic conditions to domestic stock market performance.

Conclusion

The findings of this study indicate that inflation and global crude oil prices do not have a statistically significant impact on sectoral stock index returns in the energy sector listed on the Indonesia Stock Exchange. In contrast, the rupiah exchange rate has a significant influence on stock returns, highlighting its dominant role among macroeconomic variables. These results suggest that exchange rate movements are a crucial factor to consider when analyzing stock performance in the energy sector. Consequently, investors and policymakers should closely monitor exchange rate dynamics to mitigate risks and enhance investment decision-making.

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