Analysis of Internal and External Factors Affecting Stock Prices in the Energy Sector Listed on the Indonesia Stock Exchange During 2020–2024

Destian Fazri Almadi
Universitas Pelita Harapan, Tangerang, Indonesia
E-Mail: 01619230122@student.uph.edu

Antonius Herusetya
Universitas Pelita Harapan, Tangerang, Indonesia
E-Mail: antonius.herusetya@uph.edu

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ABSTRACT

The Indonesian energy sector plays a strategic role in supporting economic resilience, yet its stock performance has been highly volatile in recent years due to global commodity price fluctuations, macroeconomic instability, and major external shocks. This study aims to investigate the influence of internal financial indicators and external macroeconomic factors on the stock prices of energy-sector firms listed on the Indonesia Stock Exchange during the period 2020–2024. This study uses a quantitative method using multiple linear regression tests. The analysis includes 315 firm-year observations from 63 companies selected using purposive sampling. Profitability and leverage represent internal performance variables, while crude oil price, coal reference price, inflation, and exchange rate serve as macroeconomic predictors. The results reveal that profitability has a negative and significant effect on stock prices, while leverage shows no significant impact. Regarding macroeconomic factors, crude oil prices negatively influence stock prices, whereas coal prices, inflation, and the exchange rate exert positive and significant effects. The study concludes that stock price movements in the Indonesian energy sector are more strongly shaped by external macroeconomic conditions than by firm-specific financial ratios. These findings provide important insights for investors, managers, and policymakers in navigating the dynamics of a commodity-driven market.

Keywords: *Energy Sector, Macroeconomic Factors, Indonesia Exchange Rate, Profitability, Stock Price.*

ABSTRAK

Sektor energi Indonesia memiliki peran strategis dalam mendukung ketahanan ekonomi, namun kinerja sahamnya menunjukkan volatilitas yang tinggi akibat fluktuasi harga komoditas global, ketidakstabilan makroekonomi, serta berbagai guncangan eksternal. Studi ini bertujuan untuk menyelidiki pengaruh indikator keuangan internal dan faktor ekonomi makro eksternal terhadap harga saham perusahaan sektor energi yang terdaftar di Bursa Efek Indonesia selama periode 2020–2024. Penelitian ini menggunakan pendekatan kuantitatif dengan menggunakan uji regresi linear berganda. Analisis mencakup 315 observasi perusahaan-tahun dari 63 perusahaan yang dipilih menggunakan purposive sampling. Profitabilitas dan leverage mewakili variabel kinerja internal, sedangkan harga minyak mentah, harga acuan batubara, inflasi, dan nilai tukar berfungsi sebagai prediktor ekonomi makro. Hasilnya menunjukkan bahwa profitabilitas memiliki pengaruh negatif dan signifikan terhadap harga saham, sedangkan leverage tidak menunjukkan dampak yang signifikan. Mengenai faktor ekonomi makro, harga minyak mentah berpengaruh negatif terhadap harga saham, sedangkan harga batubara, inflasi, dan nilai tukar memberikan pengaruh positif dan signifikan. Studi ini menyimpulkan bahwa pergerakan harga saham di sektor energi Indonesia lebih kuat dipengaruhi oleh kondisi ekonomi makro eksternal daripada rasio keuangan spesifik

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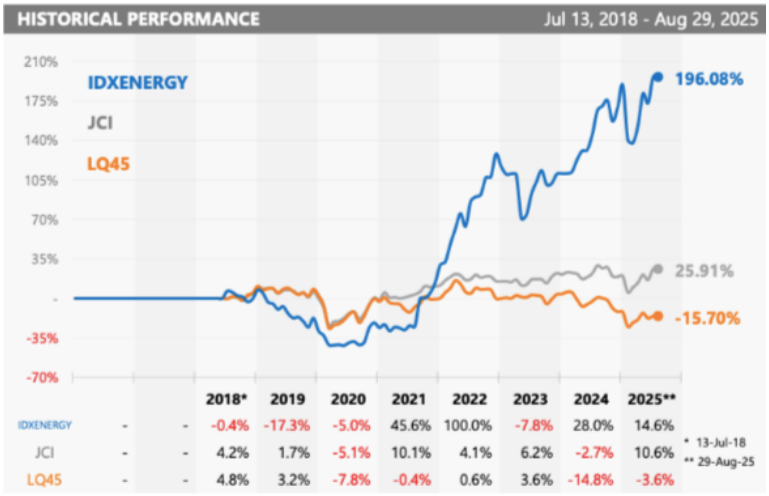
perusahaan. Temuan ini memberikan wawasan penting bagi investor, manajer, dan pembuat kebijakan dalam menavigasi dinamika pasar yang digerakkan oleh komoditas.

***Kata kunci**: Sektor Energi, Faktor Makroekonomi, Nilai Tukar Indonesia, Profitabilitas, Harga Saham.*

INTRODUCTION

The Indonesian energy sector plays a crucial role in economic resilience by supporting industry, transportation, and domestic energy supply (Setiawan et al., 2025). During 2020–2024, energy stock performance on the Indonesia Stock Exchange (IDX) was heavily influenced by volatility in global crude oil and coal prices, alongside the COVID-19 crisis, economic contraction, and geopolitical shocks. Energy stock prices are shaped by both internal financial factors, such as profitability and leverage, and external macroeconomic variables, including inflation, exchange rates, and commodity prices. However, prior studies report inconsistent findings, highlighting the need for updated and sector-specific empirical analysis.



Sources: www.idx.co.id

Figure 1. Historical Performance of IDXENERGY, JCI, and LQ45 (2018 – 2025)

Based on Figure 1, the period 2018–2025 represents one of the most dynamic phases in Indonesia's capital market, particularly for the energy sector. As illustrated in Figure 1, the IDXENERGY index exhibited significantly higher volatility than the Jakarta Composite Index (JCI) and LQ45, reflecting its sensitivity to global commodity cycles, geopolitical tensions, macroeconomic conditions, and post-pandemic economic adjustments.

IDXENERGY declined sharply in 2019 (–17.3%) and 2020 (–5.0%) due to the global economic contraction and the collapse of energy commodity prices during the COVID-19 pandemic. The index rebounded strongly in 2021 (+45.6%) and surged by nearly +100% in 2022, driven by rising global energy prices, supply imbalances, and economic recovery. After a correction in 2023 (–7.8%), IDXENERGY recovered in 2024 (+28.0%) and continued to grow by +14.6% through mid-2025. IDXENERGY recorded cumulative growth of +196.08% during 2018–2025, far outperforming the JCI (+25.91%) and LQ45 (–15.70%), underscoring the sector's cyclical nature and strategic importance. At the firm level, energy stock performance is influenced by internal financial factors such as profitability and leverage. Strong and stable profitability tends to enhance investor confidence and support stock prices, whereas declining financial performance and high leverage may exert downward pressure on valuations.

Financial ratio analysis is widely used to assess firms' financial health and operational efficiency (Paramitha & Sisdianto, 2024). In the energy sector, Return on Assets (ROA) has been shown to positively and significantly affect stock returns, indicating that higher efficiency strengthens investor confidence (Endri et al., 2021). However, empirical evidence on leverage, particularly the Debt-to-Equity Ratio (DER), remains mixed, as investor responses depend on sectoral risk, macroeconomic conditions, and firm-specific characteristics. Firm size also yields inconsistent results as a determinant of stock performance.

In this study, financial performance is measured by Gross Profit Margin (GPM) as a proxy for profitability and DER as a proxy for leverage. A higher GPM reflects stronger cost efficiency and revenue generation, which may enhance stock prices, while excessive leverage increases financial risk despite its potential to support growth. Beyond internal fundamentals, energy stock performance is highly sensitive to external factors, especially global crude oil prices and Indonesia's Coal Benchmark Price (*Harga Barubara Acuan*/HBA), which directly influence revenues and valuation. The 2020–2024 period was marked by major shocks, including the COVID-19 pandemic and the Russia–Ukraine conflict, which caused sharp commodity price fluctuations. Empirical studies show asymmetric effects, with oil prices significantly affecting energy stock returns, while coal prices often show weaker impacts (Endri et al., 2021). Macroeconomic variables also matter, as USD/IDR depreciation negatively affects firms with foreign-currency liabilities but may benefit exporters, while inflation raises costs and pressures profitability, particularly for downstream energy firms (Ady, 2021).

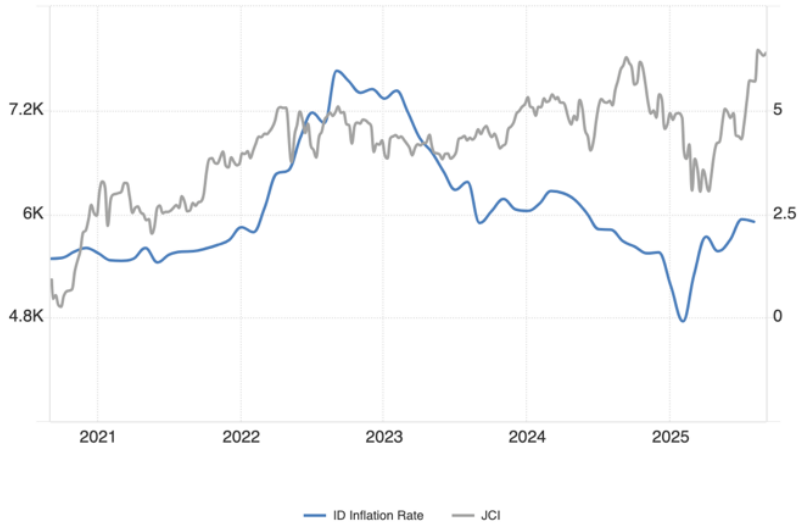


Figure 2. Inflation Growth in Indonesia (2020–2025)

Figure 2 shows the inflation growth in Indonesia during 2020-2025. Inflation fluctuations significantly influence stock prices. Rising inflation often reduces net profit margins and weakens investor sentiment, leading to declining equity demand and falling stock valuations. High inflation also triggers monetary tightening, increasing interest rates and raising firms' cost of capital (Tarkom & Ujah, 2023; Jamilzada, 2024). The USD/IDR exchange rate is one of the most critical indicators for assessing macroeconomic stability. Exchange rate movements influence the competitiveness of exports, the burden of foreign-denominated debt, and corporate financial performance.

Figure 3. Growth of USD/IDR Exchange Rate (2016 –2025)

Figure 3 illustrates the exchange rate fluctuation in 2016-2025. The USD/IDR exchange rate is a crucial indicator of macroeconomic stability that influences export competitiveness, foreign-currency debt exposure, and corporate financial performance in the energy sector. Indonesia has experienced several depreciation episodes driven by global monetary tightening, pandemic-related capital outflows, and geopolitical shocks, resulting in asymmetric effects across firms: exporters benefit from favorable currency translation, while companies reliant on imported inputs or USD-denominated liabilities face higher cost pressures. Empirical studies confirm strong interactions between exchange rate movements, commodity prices, and financial indicators in shaping energy stock performance in Indonesia (Ady, 2021; Endri et al., 2021; Supriyanto et al., 2022). In addition, recent literature highlights the growing importance of non-financial factors, particularly Environmental, Social, and Governance (ESG) performance, in influencing investor decision-making within the energy sector.

The determinants of energy-sector stock prices report mixed findings, particularly with respect to external macroeconomic factors. While internal variables such as profitability, EPS, ROA, and ROE tend to demonstrate consistent effects on stock prices, external variables, including oil prices, inflation, exchange rates, and coal prices, produce inconsistent or even contradictory results. This inconsistency highlights a research gap that justifies re-examining the relationship using more recent data from the 2020–2024 period, which encompasses the COVID-19 pandemic and the early economic recovery that significantly reshaped global and domestic energy markets. Therefore, this study aims to investigate the influence of internal financial indicators and external macroeconomic factors on the stock prices of the energy sector.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

The Effect of Profitability and Leverage on Stock Prices

Capital market theory explains the mechanisms through which securities, including stocks, are priced and traded in financial markets. In an efficient capital market, stock prices reflect available information, enabling investors to make rational decisions based on risk–return considerations (Jensen, 1972). Stock price reflects the current market valuation of a firm's equity and signals investors' expectations about future performance. Changes in stock prices are influenced by both internal corporate conditions and external macroeconomic forces (Huy et al., 2020; Supriadi et al., 2024). In commodity-dependent industries such as energy, global oil and coal price fluctuations play a particularly influential role. Financial statements summarize a company's economic activities and serve as the primary basis for evaluating financial performance (Olayinka, 2022; Barman,

2023). Among various metrics, profitability and leverage are crucial for understanding a firm's operational strength and financial risk. These ratios provide essential information for investors assessing firm value and expected return (Odhiambo et al., 2025).

Empirical studies indicate that profitability indicators such as Return on Assets (ROA), Return on Equity (ROE), and Earnings per Share (EPS) consistently have a positive and significant effect on stock prices in the energy sector (Sari & Nugroho, 2020; Wahyudi & Rahmawati, 2025). High profitability reflects operational efficiency and value creation, which strengthens investor confidence and leads to higher stock valuations. In contrast, leverage, commonly measured by the Debt-to-Equity Ratio (DER), shows mixed effects. Arhinful and Radmehr (2023) find that leverage significantly affects stock prices, as a higher DER signals greater financial risk due to increased debt obligations, which can negatively influence investor perception and suppress stock prices. A higher DER also implies higher interest and repayment burdens that may reduce future profitability. However, other studies report different findings. Adiputra (2021) and Ady (2021) observe that leverage does not significantly influence stock prices in the energy sector, suggesting that investors may place less emphasis on capital structure when evaluating firm value in this industry.

H1: Profitability has a significant effect on stock prices.
H2: Leverage has a significant effect on stock prices.

The Influence of Crude Oil Price and Coal Price on Stock Prices

Signaling Theory was introduced by Spence (1974), posits that managers convey important information to external stakeholders through observable indicators such as financial statements, dividend policies, and capital structure decisions. Signals reduce information asymmetry by enabling investors to differentiate high-quality firms from low-quality ones. Within this framework, Profitability represents a strong positive signal of operational efficiency and sustainable earnings. Leverage also functions as a signal: firms with stable cash flows may adopt higher leverage, signaling managerial confidence, whereas financially weaker firms avoid high leverage due to bankruptcy risk. Thus, financial ratios used in this study serve as strategic signals influencing investor perception and stock valuation.

For energy-sector firms, oil and coal prices directly impact production costs, revenues, and market expectations (Guo et al., 2024). Meanwhile, inflation and exchange rates affect purchasing power, capital costs, and risk premiums, making them essential variables in stock price analysis (Hardi et al., 2023). Research on commodity prices shows mixed results, as some studies find that increases in oil prices negatively affect stock performance due to higher operational costs, while others report positive effects when rising commodity prices enhance revenue for producers. Oil and electricity prices were major contributors to the dynamics of clean energy stock returns in the USA and the EU respectively, whereas other energy prices played a minor role in shaping clean energy stock returns, with evidence showing symmetric energy price impact (Reboredo & Ugolini, 2018). A 1% increase in coal price return raises coal sector returns by between 0.22% and 0.30%, with these results being robust across developed, emerging, and groups of Asia-Pacific and Pacific countries (Ratti & Hasan, 2015). Similarly, the impact of coal prices on stock performance remains inconsistent, reflecting differences in firm exposure and specialization within the energy sector.

H3: Crude oil price has a significant effect on stock prices.
H4: Coal price has a significant effect on stock prices.

The Effect of Inflation and Exchange Rate on Stock Prices

The Efficient Market Hypothesis posits that stock prices fully reflect available information and consists of weak, semi-strong, and strong forms (Fama, 1970). In Indonesia's capital market, the semi-strong form is most relevant, as publicly available

macroeconomic indicators (such as commodity prices, inflation, and exchange rates) and firm fundamentals (including profitability and leverage) are rapidly incorporated into stock prices, thereby influencing the valuation of energy-sector stocks. Empirical evidence on the impact of inflation on stock prices remains mixed. Some studies suggest that inflation negatively affects stock valuations by increasing production costs and eroding purchasing power, thereby weakening corporate profitability. However, other research finds no significant relationship, particularly in sectors that are able to pass higher costs on to consumers or benefit from revenues linked to commodity prices (Jaravel, 2021). More recent empirical analyses on inflation risk and stock returns reveal a generally negative relationship in aggregate market data, with the energy sector standing out as an exception. In this sector, inflation is often associated with a positive effect on stock returns, reflecting its potential role as an inflation hedge due to rising commodity prices (Salisu et al., 2020; Chiang & Chen, 2023; Nasreddine & Essafi, 2025).

Exchange rate movements also play a crucial role in shaping corporate performance and stock returns. The value of a country's currency is determined by market demand and supply conditions, a principle that equally applies to the IDR. When demand for the rupiah exceeds its supply, the currency appreciates; conversely, excess supply leads to depreciation. Exchange rate depreciation increases the cost of imported raw materials, which raises production expenses and ultimately reduces corporate profitability (Hawiwika, 2021). Consistent with this mechanism, several studies, including Ady (2021) and Prasada and Pangestuti (2022), find that a weaker Indonesian rupiah negatively affects stock returns, particularly in industries that depend heavily on imported inputs or hold foreign-currency-denominated liabilities.

H5: Inflation has a significant effect on stock prices.
H6: Exchange rate has a significant effect on stock prices.

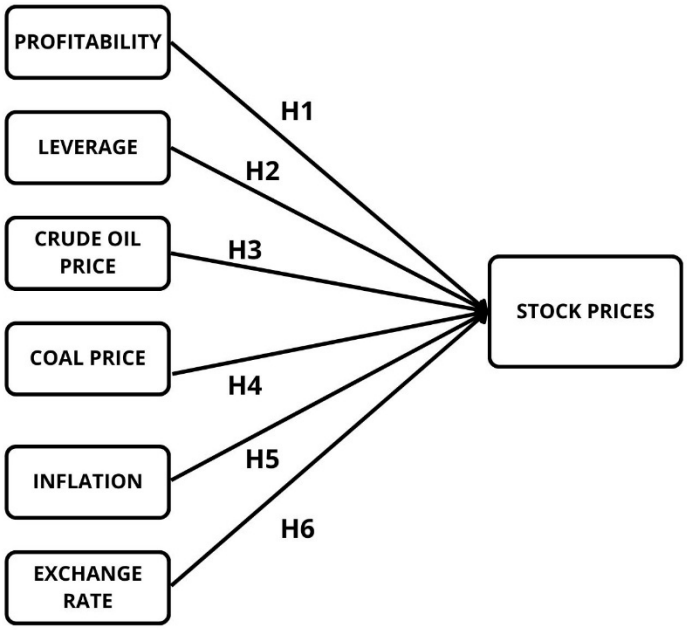


Figure 4. Conceptual framework

Figure 4 illustrates the conceptual framework of the study, showing the hypothesized relationships between internal and external factors and stock prices. Profitability (H1) and leverage (H2) represent firm-specific financial variables, while crude oil price (H3), coal price (H4), inflation (H5), and exchange rate (H6) represent external macroeconomic factors. All variables are hypothesized to have a direct effect on stock prices.

RESEARCH METHODS

This study uses a quantitative explanatory research approach to investigate empirically how external macroeconomic factors and internal financial performance indicators affect the stock prices of companies in Indonesia's energy sector. This study uses statistical testing using secondary numerical data to find causal links between variables. The quantitative approach is acceptable. The explanatory design further enables hypothesis testing based on predetermined theoretical frameworks, aligning with the study's objective of determining the extent to which profitability, leverage, commodity prices, inflation, and exchange rates affect stock prices during 2020–2024.

The population of this study consists of all firms classified under the IDX Energy subsector as of January 2025, totaling 63 companies. Purposive sampling was used to select the sample based on a number of requirements: companies had to be listed on the Indonesia Stock Exchange (IDX) by December 31, 2020, classified in the energy sector, publish complete audited annual financial statements for the 2020–2024 period, and regularly distribute dividends during the observation period. Based on these criteria, the final sample comprises 63 energy-sector firms observed over five years, resulting in 315 firm-year observations. The study employs secondary data obtained from publicly accessible sources, including annual financial statements from the Indonesia Stock Exchange (www.idx.co.id), daily and annual stock price data from Investing.com, and macroeconomic indicators such as the IDR exchange rate and inflation rate sourced from Bank Indonesia (BI). The primary data collection technique applied is documentary review, which involves systematically extracting and compiling quantitative data from financial reports, market databases, and government publications. All data were subsequently processed and analyzed using SPSS 25.

Stock price is the dependent variable, representing the market value of energy-sector firms' shares on the Indonesia Stock Exchange and reflecting investor assessments influenced by firm fundamentals and macroeconomic conditions. The independent variables include profitability, measured by Gross Profit Margin (GPM), which indicates a firm's efficiency in generating gross profit from net sales, and leverage, proxied by the Debt-to-Equity Ratio (DER), reflecting the proportion of debt relative to equity. Macroeconomic variables consist of crude oil price (OIL) as a global benchmark influencing energy-sector revenues, coal reference price (COAL) measured by Indonesia's Coal Benchmark Price (HBA), inflation (INF) represented by the national annual inflation rate, and exchange rate (EXC) defined as the annual average IDR-to–US Dollar exchange rate, with all macroeconomic data sourced from Bank Indonesia.

A multiple linear regression model is used to investigate how financial and macroeconomic factors affect stock prices. The following is the formulation of the empirical model:

$$\text{Stock Prices}_{it} = \alpha + \beta 1\text{GPM}_{it} + \beta 2\text{DER}_{it} + \beta 3\text{OIL}_{it} + \beta 4\text{COAL}_{it} + \beta 5\text{INF}_{it} + \beta 6\text{EXC}_{it} + \varepsilon_{it}$$

Remarks :
SP = Stock Price
α = Constant
β = Coefficient
GPM = Gross Profit Margin
DER = Debt to Equity Ratio
OIL = World Crude Oil Price
COAL = Coal Reference Price
INF = Inflation Rate
EXC = IDR Exchange Rate (IDR/USD)
ε = error term

RESULTS

An overview of the distribution and features of every variable utilized in the study is given by descriptive statistics. The dependent and independent variables' minimum, maximum, mean, and standard deviation for 35 firm-year observations are shown in Table 1.

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Gross Profit Margin	315	–312.32	93.63	12.51	40.55
Debt to Equity Ratio	315	–32.30	31.22	1.46	3.83
World Crude Oil Price	315	9.43	129.05	72.83	28.36
Coal Reference Price	315	55.71	329.00	144.21	68.73
Inflation Rate	315	1.68	5.51	3.5838	1.46
Exchange Rate	315	12,23	16,870	14,770	1,387
Stock Price	315	50	18,675	1,215	2.195

The data exhibit substantial variation, particularly in profitability and stock price, reflecting the heterogeneity of financial conditions across the Indonesian energy industry during 2020–2024. To verify the validity of the regression model, traditional assumption testing was carried out. Initially, the Kolmogorov-Smirnov normality test revealed that the regression residuals were not regularly distributed. To address this issue, a natural logarithm (Ln) transformation was applied to all variables, after which the significance value exceeded 0.05, confirming that the residuals satisfied the normality assumption.

All independent variables had tolerance values over 0.10, and Variance Inflation Factor (VIF) values below 10, according to the multicollinearity test, demonstrating the lack of multicollinearity and verifying that each variable contributed to the model separately. Autocorrelation was examined using both the Runs Test and the Durbin–Watson statistic. The Runs Test produced a significance value greater than 0.05, while the Durbin–Watson value fell within the acceptable range of 1.5–2.5, indicating no autocorrelation.

Heteroskedasticity was tested using the Glejser method, and all independent variables yielded significance values above 0.05, indicating that the residuals were homoscedastic. Based on these results, the multiple linear regression model was deemed appropriate to analyze the effects of profitability, leverage, crude oil price, coal price, inflation, and exchange rate on stock prices.

Table 2. Multiple Linear Regression

Variable	Coefficient	T-Statistic	Sig.
Constant	–31.084	–2.010	0.045
Gross Profit Margin	–0.016	–3.141	0.002
Debt to Equity Ratio	–0.006	–0.238	0.812
World Crude Oil Price	–0.059	–4.615	0.000
Coal Reference Price	0.013	2.065	0.040
Inflation Rate	0.373	2.539	0.012
Exchange Rate	0.002	2.651	0.008

Based on the result, the regression equation is Stock Price = -31.084 – 0.016 (GPM) – 0.006 (DER) – 0.059 (OIL) + 0.013 (COAL) + 0.373 (INF) + 0.002 (EX) + e. As presented in Table 2, the multiple linear regression results show that profitability (GPM) has a negative and significant effect on stock prices ($\beta = –0.016$; $p = 0.002$), while leverage (DER) has no significant influence ($p = 0.812$). Among macroeconomic variables, crude oil prices negatively and significantly affect stock prices ($\beta = –0.059$; $p < 0.001$), whereas coal prices ($\beta = 0.013$; $p = 0.040$), inflation ($\beta = 0.373$; $p = 0.012$), and the exchange rate ($\beta = 0.002$; $p = 0.008$) exhibit positive and significant effects. These findings indicate that stock price movements in the energy sector are more strongly driven by external macroeconomic factors than by firm-specific leverage. The t-test results demonstrate that

four macroeconomic variables, oil price, coal price, inflation, and exchange rate, significantly affect energy-sector stock prices, whereas among internal financial indicators, only profitability shows a significant (but negative) effect. Leverage does not exert a significant influence. These findings illustrate the dominant role of external macroeconomic forces in shaping market valuation of energy firms during the volatile 2020–2024 period.

Table 3. F test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	92.832	6	15.472	8.066	.<.001[b]
Residual	504.454	263	1.918		
Total	597.286	269			

The regression model is statistically significant, according to Table 3's F-test result, which displays an F-value of 8.066 with a significance level of $p < 0.001$. This finding demonstrates that the stock prices of companies in the energy sector are significantly impacted by all independent variables, including profitability, leverage, the price of coal and crude oil, inflation, and the currency rate. As a result, the multiple linear regression model is suitable and trustworthy for elucidating changes in energy sector stock prices.

Table 4. Coefficient Determination test

Test	Value
R	0.394
R Square	0.155
Adjusted R Squared	0.136
Std. Error of the estimate	1.38495

Table 4 shows that the Adjusted $R^2 = 0.136$, meaning that the six independent variables account for around 13.6% of the variation in stock prices. Other firm-specific and market factors not included in the model are responsible for the remaining 86.4%.

DISCUSSION

The findings show that Gross Profit Margin (GPM) significantly and negatively affects stock prices, indicating that lower market valuation is linked to higher reported profitability. Although this finding contradicts conventional signaling theory, it reflects the characteristics of commodity-based industries in emerging markets. In the Indonesian energy sector, profitability increases are often driven by short-term cost compression, supply constraints, or commodity price spikes rather than sustainable operational improvements. Consequently, investors may interpret rising GPM as cyclical and transitory, leading to a discounting of its long-term value. This result diverges from Sari and Nugroho (2020) and Wahyudi and Rahmawati (2025), who document positive effects of profitability on stock prices, and from Radetzki and Wårel (2020), who identify profitability as a strong valuation signal in commodity firms. However, it is consistent with Malino et al. (2025), who show that profitability ratios may exert negative or insignificant effects when earnings are perceived as temporarily inflated. These findings suggest that during the volatile 2020–2024 post-pandemic period, profitability signals in the energy sector were interpreted with greater caution by investors.

Leverage (DER) exhibits a negative but statistically insignificant effect on stock prices, indicating that capital structure does not play a decisive role in investor valuation of Indonesian energy firms during the study period. This may be explained by the capital-intensive nature of the energy industry, where high leverage is structurally embedded and therefore provides limited incremental information to the market. Moreover, pandemic-era government support and financial restructuring may have reduced investor sensitivity to debt-related risk. This result is consistent with Ady (2021), Jaya et al. (2024), and Herawan and Dewi (2021), who find limited explanatory power of DER in extractive and

heavy industries. In contrast, Margono and Gantino (2021) report a negative leverage effect, suggesting that post-pandemic structural shifts and changing risk perceptions may have altered how investors evaluate debt in the energy sector.

Crude oil prices show a negative and highly significant effect on stock prices, indicating that rising global oil prices tend to depress the valuation of Indonesian energy firms. This finding reflects Indonesia's position as a net importer of crude oil, where higher oil prices increase production costs and operational uncertainty, particularly for downstream firms. The result is consistent with Das et al. (2022) and Lee et al. (2025), who document negative stock market responses to oil price shocks in import-dependent economies, as well as Prasada and Pangestuti (2022), who highlight inflationary spillovers in Indonesia. In contrast, Faisal et al. (2025) find positive effects in net oil-producing countries, underscoring the importance of distinguishing between upstream and downstream exposure when interpreting oil price dynamics.

Coal prices have a positive and significant effect on stock prices, aligning with fundamental valuation theory. Higher coal benchmark prices improve revenue expectations and cash flow prospects for coal producers, which dominate Indonesia's energy sector. This finding is strongly supported by Amirullah and Febyansyah (2024) and Nurrahman and Sukarno (2025), as well as international evidence from Xiong et al. (2023). Limited contradictory evidence, such as Putra et al. (2021), suggests that concerns over long-term energy transition may weaken this relationship, but such effects were not dominant during the study period.

Inflation exhibits a positive and significant effect on stock prices, indicating that inflationary periods coincided with rising energy stock valuations. This finding suggests that inflation functioned as a proxy for commodity price booms rather than a deterioration of real returns. Energy firms were able to benefit from cost pass-through mechanisms and higher selling prices, particularly in upstream segments. This result aligns with Singh and Padmakumari (2020) and Gozali (2021), while contrasting with Wulandari and Siregar (2020) and Mishkin (2020), who document negative inflation effects in non-commodity sectors. The evidence confirms that inflation impacts stock prices in a sector-specific and cyclical manner.

The exchange rate has a positive and significant effect on stock prices, indicating that Rupiah depreciation increases the valuation of Indonesian energy firms. As many firms generate USD-denominated revenues, currency depreciation enhances earnings when converted into local currency, supporting higher stock prices. This result is consistent with Ady (2021) and international findings by Gopinathan (2022). However, it contrasts with Mahapatra and Bhaduri (2019), who report negative effects in import-dependent industries, reinforcing the importance of sectoral characteristics in interpreting exchange rate movements.

CONCLUSION

This study examines the effects of internal financial indicators and external macroeconomic variables on the stock prices of energy-sector firms listed on the Indonesia Stock Exchange during 2020–2024. Using multiple linear regression on 315 firm-year observations, the results demonstrate that stock price movements in the Indonesian energy sector are more strongly driven by macroeconomic factors than by firm-level financial performance. Profitability shows a negative and significant effect, indicating that profitability increases during the post-pandemic period were perceived by investors as cyclical or unsustainable. Leverage has no significant effect, suggesting that capital structure variations provide limited valuation signals in this capital-intensive sector. Among macroeconomic variables, crude oil prices negatively affect stock prices, while coal prices, inflation, and exchange rates exert positive and significant effects, reflecting Indonesia's commodity-export orientation and sensitivity to global energy cycles.

From a theoretical perspective, these findings contribute to the literature by supporting market efficiency and commodity-cycle arguments, emphasizing that in emerging, resource-based markets, external shocks often outweigh firm fundamentals in shaping

stock prices. Practically, the results imply that managers should prioritize sustainability-driven profitability, exchange rate risk management, and macroeconomic adaptability. Investors are encouraged to adopt macro-driven valuation approaches, while policymakers should strengthen energy security, reduce import dependence, and support diversification toward downstream and renewable energy.

This study has limitations, including a relatively modest explanatory power, sector-specific focus, use of annual data, and lack of sub-sector differentiation. Future research should incorporate broader financial, market, and ESG variables; apply higher-frequency or advanced panel techniques; distinguish energy sub-sectors; expand cross-country comparisons; and integrate energy transition and sustainability dynamics to better capture evolving market behavior.

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