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Dividends, Investment Opportunities, and Company Performance: The Moderating Role of Corporate Governance

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Abstract

Purpose: This study aims to analyze the influence of dividend policy and investment opportunities set on firm performance, with corporate governance as a moderating variable. The study focuses on mining sector companies listed on the Indonesia Stock Exchange during the 2021–2024 period.

Methodology/approach: This study is quantitative approach. Firm performance is proxied by Return on Equity, dividend policy by Dividend Payout Ratio, and IOS by the ratio of capital expenditure to total assets. Corporate governance is assessed through an index comprising 17 indicators aligned with the principles of Good Corporate Governance. Data analysis was conducted using panel data moderation regression with the Generalized Least Squares.

Results/findings: The results indicate that dividend policy tends to positively influence ROE, whereas IOS shows no direct significant impact on ROE. Conversely, corporate governance negatively moderates the relationship between dividend policy and ROE, suggesting that stricter corporate governance weakens the positive effect of dividend policy on firm performance. However, corporate governance does not significantly moderate the relationship between IOS and ROE

Conclusion: Dividends positively affect ROE; IOS has no direct effect; governance weakens the dividend effect on ROE but does not moderate the IOS–ROE relationship.

Limitations: This research was limited to mining companies in Indonesia. Therefore, the results are limited to one industry and cannot be generalized to all companies in Indonesia.

Contribution: This study offers practical implications, emphasizing that management of mining companies should carefully design balanced dividend policies, considering their long-term effects and highlighting the importance of effective corporate governance implementation.

Keywords: *Corporate Governance, Dividend Policy, Investment Opportunities Set, Mining Sector, Return on Equity*

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1. Introduction

The mining industry is one of the key sectors in the Indonesian economy. As a country rich in natural resources, Indonesia has a variety of strategic mining commodities such as coal, nickel, copper, gold, and tin. The sector's contribution to national Gross Domestic Product (GDP) and exports is significant, so the mining sector is not only a motor of economic growth, but also an important source of state revenue through tax and royalty revenues (Estefania, Sativa, & Noorliana, 2021). Indonesia's mining

industry faces complex dynamics volatility in commodity prices, changing government policies, environmental pressures, and shifts to renewable energy, so companies must maintain financial performance, competitiveness, and company value (Prastyo & Setiartiti, 2018; Whetyningtyas, 2023). Company value signals investors' view of a firm's performance and prospects. Return on Equity (ROE) is a common metric that measures management's ability to generate profit from shareholder equity and serves as a key benchmark of managerial effectiveness. Higher ROE increases investor confidence and shareholder value. Therefore, management should pursue strategic financial decisions capital structure, dividend policy, and growth strategies to raise ROE as a proxy for firm value (Liviani & Rachman, 2021).

One of the important financial decisions that is of primary concern is dividend policy. The dividend policy reflects the company's decision to distribute a portion of the net profit to shareholders or withhold profits for reinvestment purposes In the mining industry, which is heavily influenced by commodity price volatility, the determination of dividend policy is a challenge in itself. When commodity prices increase, companies tend to have enough liquidity to distribute dividends. However, in times of price declines, companies need to carefully consider between maintaining dividend payments to maintain investor confidence or holding back profits to maintain internal financial stability (Hafsyah, Mersela, & Lestari, 2022). The basic concept of the importance of good corporate governance in reducing agency conflicts (Farooq, Ahmed, Khan, & Munir, 2025). They highlight that the mismatch of interests between management and shareholders can be minimized through effective governance mechanisms. In research Basit (2020), It was found that companies with strong governance systems have greater ability to manage financial structures and set dividend policies optimally, because governance helps oversee the utilization of the company's internal funds. Governance also has a moderation role in the relationship between investment opportunities and company value, especially in emerging markets (Benkraiem, Berrich, Lakhal, Nizar, & Lakhal, 2025).

By referring to these studies, it can be concluded that *corporate governance* functions as a moderation mechanism that strengthens or weakens the influence between dividend policies and growth opportunities on company performance. In the context of certain industries such as mining, Annesi, Battaglia, Ceglia, and Mercuri (2025) emphasizing that governance is becoming increasingly crucial because the sector is highly vulnerable to environmental, social, and *governance* (ESG) risks. Therefore, effective governance not only reduces the risk of agency conflicts, but also plays a strategic role in ensuring the long-term sustainability and competitiveness of companies in complex and dynamic industries. As research progresses, many empirical studies have found that *corporate governance* is not only an independent variable that influences performance, but also serves as a moderation variable in various causal relationships. *Corporate governance* is an important element that can moderate the relationship between dividend policy, growth opportunities, and company performance. Good governance mechanisms can reduce the risk of agency conflicts between management and shareholders, increase transparency in decision-making, and encourage companies to adopt sustainable financial practices. According to Annesi et al. (2025), In the context of the mining industry, the implementation of effective governance is increasingly important, given the sector's high exposure to environmental, social, and *governance (ESG*) risks.

The relationship between dividend policy, growth opportunities, corporate performance, and *corporate governance* is increasingly relevant to be studied, especially in the mining sector which has unique characteristics in the form of high dependence on commodity price fluctuations, high capital intensity, and exposure to global regulations and uncertainty. Companies in this sector often face a *trade-off* between distributing dividends to shareholders or reinvesting profits to support long-term growth. This dilemma can affect investor perception, financing structure, and ultimately the company's performance. Therefore, it is important to understand how dividend policies interact with growth opportunities and corporate governance mechanisms in influencing corporate performance, particularly in strategic sectors such as mining. However, until now, research that specifically examines the influence of dividend policy on company performance in the Indonesian mining sector by considering the role of *investment opportunity set* and *corporate governance* as moderation variables is still relatively limited (Khatib, 2025).

This study examines how dividend policy affects the financial performance of mining companies listed on the Indonesia Stock Exchange, incorporating Investment Opportunity Set (IOS) as an additional independent variable and corporate governance as a moderator. Using financial statement data from both dividend-paying and non–dividend-paying firms, the research tests whether dividend policy and IOS directly influence Return on Equity (ROE) and whether corporate governance strengthens or weakens those effects. The mining sector's exposure to commodity price volatility, high capital intensity, and regulatory and ESG risks makes the dividend-versus-reinvestment trade-off especially consequential for firm value and long-term competitiveness. By jointly analyzing dividend policy, IOS, and governance, the study fills a gap in the literature on Indonesian mining firms and offers empirically grounded recommendations for managers and investors. Findings are expected to inform corporate finance decisions capital allocation, payout strategy, and governance reforms that enhance ROE and shareholder value while helping policymakers and stakeholders understand how governance frameworks shape financial outcomes in a strategically important, high-risk industry.

2. Literature review and hypothesis development

2.1 Signal Theory

In the corporate context, signalling theory focuses on how company management sends signals to investors to reveal the internal conditions of the company that cannot be fully observed from the outside (Connelly, Certo, Reutzel, DesJardine, & Zhou, 2025). When the market experiences information asymmetry, which is a condition where the management knows more about the company's prospects than investors, then the company's actions such as dividend payments, capital restructuring, or business expansion can be considered as a signal. The signaling by the company aims to reduce investor uncertainty and provide confidence in future performance. Investors capture various corporate actions as signals, which then influence their investment decisions (Xia, Tian, Zhang, & Liu, 2025).

2.2 Firm Value

A company's performance reflects the extent to which the organization has successfully achieved its operational and strategic goals, both in financial and non-financial aspects. Company performance has traditionally been associated with the ability to maximize shareholder well-being (Tricker, 2019). In this framework, financial performance is the main benchmark of management's effectiveness in managing company assets to create value for capital owners. In contemporary research, there is a paradigm shift that expands the definition of corporate performance to multidimensional, covering financial, operational, social, and environmental dimensions (Hilman & Laturette, 2021). With the increasing attention to *sustainability*, many investors are now considering not only the financial performance, but also the environmental and social performance of the company (Dorothy & Endri, 2024). The factors that affect a company's performance are complex, including dividend policies, growth opportunities, capital structure, *corporate governance*, company size, and leverage levels. Study by Basuony, Zaher, Bouaddi, and Noureldin (2023), It shows that a combination of conservative financial policies and strong corporate governance practices can significantly improve a company's financial performance.

2.3 Dividends

The dividend policy is a strategic decision of the company in determining the allocation of net profit, which is related to the amount of profit that will be distributed to shareholders as dividends and the portion that will be withheld to support the financing needs of future expansion or investment activities. Under perfect market conditions, dividend policy does not affect the value of the company (Brigham & Ehrhardt, 2020). However, perfect market assumptions are rare in the real world, so dividend policy remains an important element that both financial managers and investors pay attention to. *Dividend Policy* is one of the strategic financial policies that companies can use to send signals to the market about the company's prospects and financial health. The signaling theory states that companies that pay dividends consistently provide positive signals to investors, which in turn can increase investors' confidence in the company's prospects and improve its financial performance (Utami, Muhamad Muslih, & MM, 2022). Thus, based on the theoretical foundation, the first hypothesis developed is:
H1: Dividend policy affects the company performance

2.4 Investment Opportunities Set (IOS)

The Investment Opportunities Set (IOS) describes a set of investment opportunities available to companies that are expected to generate profits in the future (Nurlatifah, 2024). IOS also plays an important role in determining the company's financing policy. Companies with high IOS prefer internal financing to maintain financial flexibility, as external financing can be expensive due to greater asymmetric information issues (Al-Najjar and Kilincarslan, 2023). The high level of *investment opportunities set* (IOS) reflects that companies have a variety of investment opportunities that can be leveraged to drive business growth and increase the value of shares in the market (Ismail et al, 2023). *Investment Opportunities Set* (IOS) describes the growth opportunities that companies have in the future. Companies with high IOS rates have more positive investment projects that can be realized to increase revenue and profits. In the financial literature, IOS is often associated with market expectations of a Company's future profit growth (Sholikhah & Baroroh, 2021). Extensive investment opportunities are expected to improve the company's performance through business expansion and product diversification. Therefore, the second hypothesis is formulated as follows:

H2: *Investment opportunities set* (ios) affects the Company's performance

2.5 Corporate Governance

Corporate governance is understood not only as an internal mechanism to oversee management behavior, but also as a strategic tool to improve company performance and attract investor trust (Mallin, 2022). Good corporate governance allows companies to optimize their financial and operational decisions by taking into account the interests of all stakeholders (Khatib, 2025). Corporate governance, as a mechanism for internal supervision and control of companies, plays an important role in strengthening the relationship between dividend policy and company performance. In the context of agency theory, good corporate governance is able to reduce conflicts of interest between management and shareholders, as well as ensure that financial policies, including dividend policies, are taken based on the interests of maximizing the company's value (Farooq, Ahmed, et al., 2025). With strong corporate governance, the signals sent through the dividend policy will be more credible and able to be received more positively by the market. In addition to moderating the relationship between dividend policy and performance, corporate governance is also expected to strengthen the relationship between the investment opportunities set (IOS) and company performance. In this context, effective corporate governance can assist management in managing available investment opportunities more carefully, ensuring that investment decisions are based on value-added considerations for the company and not simply to increase the size of the company (Lestari & Tumirin, 2024). Therefore, a third hypothesis was developed as follows:

H3: *Corporate governance* has a moderation role that strengthens the positive relationship between dividend policy and company performance

H4: *Corporate governance* has a moderation role that strengthens the positive relationship of *investment opportunities set* to the company's performance

3. Research methodology

This research was carried out quantitatively. The quantitative approach allows this research to produce generalizations that can be measured and tested, especially in the context of the relationship between dividend policy, *investment opportunities set* (IOS), *corporate governance*, and corporate performance in the mining sector. The data used in this study includes financial and non-financial information from mining sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2021 to 2024. The mining sector is worth studying because of its strategic economic role in contributing significantly to GDP, exports, and state revenues, so the findings have real policy implications; global commodity price volatility creates natural conditions to test the impact of dividend and IOS policies on performance amid uncertainty; high capital intensity and long investment cycles clarify the tradeoff between dividend distribution and reinvestment so that it is relevant to be analyzed; as well as large exposure to ESG and regulatory risks makes the role of corporate governance crucial in determining managerial decisions and corporate sustainability.

The number of samples analyzed consisted of 89 companies, with a total initial observation of 356 entries. After *a winsorizing* process was carried out to address the presence of extreme and *outlier* values, the number of final observations used in the analysis was reduced to 288. Corporate governance is measured by an index constructed based on 17 indicators of corporate governance disclosure in the annual report, referring to the principles of *Good Corporate Governance* (GCG) from the KNKG 2006 (National Committee *for Governance Policy*) and previous literature measured based on an internal scale which includes *Audit Committee Structure*, *Board Committee Structure*, *Compensation Structure*, *Ownership Structure*, and Transparency (Farooq, Khan, Kainat, & Mumtaz, 2025).

Table 1. Corporate Governance *Disclosure Index*

No.	Variable
1	Revealing the duties and responsibilities of the audit committee (KNKG, 2006)
2	Revealing about the reward and sanction system (KNKG, 2006)
3	Number of independent commissioners (Shah et al., 2009)
4	President director president commissioner (Cornett et al., 2006)
5	Number of board of commissioners (Cornett et al., 2006)
6	Revealing the duties and responsibilities of the board of commissioners (KNKG, 2006)
7	Disclose the company's code of conduct and/or ethics (KNKG, 2006)
8	Revealing the existence of a remuneration committee (Achjari et al., 2009)
9	Disclosure of remuneration of directors and commissioners (KNKG, 2006)
10	Revealing the company's strategy (KNKG, 2006)
11	Institutional ownership (Cornett et al., 2006)
12	Percentage of shares held by members of the board of directors (Shah et al., 2009)
13	The shareholder structure is disclosed in full (KNKG, 2006)
14	No dual-class shares (1 share = 1 vote) (international practice)
15	Environmental Compliance (KNKG, 2006)
16	Revealing CSR programs in the Annual Report (KNKG, 2006)
17	Revealing the GCG system and implementation (KNKG, 2006)

Source: (Surifah, 2010)

Information related to the distribution of cash dividends is obtained through the Stockbit (www.stockbit.com) platform, especially in the *Corporate Action* section, which records the dividend policy every year. In addition, the *Financials* and *Balance Sheet sections* of the platform are used to access financial data such as EPS, equity book value, and shareholding structure, which are relevant in the measurement of independent and moderation variables. The closing price of the stock at the end of the year was obtained from the Yahoo Finance (https://finance.yahoo.com) platform. The data is retrieved automatically using Python scripts through the yfinance library, with a retrieval time range between December 1 and 31 each year, to ensure the accuracy of the market price used in the calculation of the market value of equities. This closing price is required in the ratio construction or calculation of the *Investment Opportunity Set* (IOS). In identifying these relationship patterns, several panel regression models were used which were formulated as follows:

Model 1: The Effect of Dividend Policy on Company Performance

$$ROE_{it} = \beta_0 + \beta_1 \mathrm{DPR}_{it} + \beta_2 \mathrm{SIZE}_{it} + \beta_3 \mathrm{LEV}_{it} + \beta_4 \mathrm{CFO}_{it} + \beta_5 \mathrm{Growth}_{it} + \varepsilon_{it} \quad \text{..... (1)}$$

Model 2: The Effect of *Investment Opportunity Set* on Company Performance

$$ROE_{it} = \beta_0 + \beta_1 \mathrm{IOS}_{it} + \beta_2 \mathrm{SIZE}_{it} + \beta_3 \mathrm{LEV}_{it} + \beta_4 \mathrm{CFO}_{it} + \beta_5 \mathrm{Growth}_{it} + \varepsilon_{it} \quad \text{..... (2)}$$

Model 3: Corporate governance moderation on the relationship between dividend policy and corporate performance

$$ROE_{it} = \beta_0 + \beta_1 \mathrm{DPR}_{it} + \beta_2 \mathrm{CG}_{\mathrm{Index}_{it}} + \beta_3 \left(\mathrm{DPR}_{it} \times \mathrm{CG}_{\mathrm{Index}_{it}}\right) + \beta_4 \mathrm{SIZE}_{it} + \beta_5 \mathrm{LEV}_{it} + \beta_6 \mathrm{CFO}_{it} + \beta_7 \mathrm{Growth}_{it} + \varepsilon_{it} \quad \text{..... (3)}$$

Model 4: Corporate governance moderation of IOS relationship and company performance
$ROE_{it} = \beta_0 + \beta_1 \mathrm{IOS}_{it} + \beta_2 \mathrm{CG}_{\mathrm{Index}_{it}} + \beta_3 (\mathrm{IOS}_{\mathrm{it}} \times \mathrm{CG}_{\mathrm{Index}_{it}}) + \beta_4 \mathrm{SIZE}_{it} + \beta_5 \mathrm{LEV}_{it} + \beta_6 \mathrm{CFO}_{it} + \beta_7 \mathrm{Growth}_{it} + \varepsilon_{it} \ldots\ldots$ (4)

Regression equation model with moderation (*Corporate Governance* as Moderator):
$ROE_{it} = \beta_0 + \beta_1 \mathrm{DPR}_{it} + \beta_2 \mathrm{IOS}_{it} + \beta_3 \mathrm{CG}_{\mathrm{Index}_{it}} + \beta_4 (\mathrm{DPR}_{it} \times \mathrm{CG}_{it}) + \beta_5 (\mathrm{IOS}_{it} \times \mathrm{CG}_{it}) + \beta_6 \mathrm{SIZE}_{it} + \beta_7 \mathrm{LEV}_{it} + \beta_8 \mathrm{CFO}_{it} + + \beta_9 \mathrm{Growth}_{it} + \varepsilon_{it} \ldots$

Information:

ROE_{it}	= Company performance (company *i* in year *t*)
DPR_{it}	= Dummy dividend policy (1 = distribute dividends, 0 = no)
IOS_{it}	= *Investment Opportunity Set*
$\mathrm{CG}_{\mathrm{Index}_{it}}$	= Indeks *Corporate Governance*
SIZE_{it}	= Company Size (ln Assest)
LEV_{it}	= Leverage (DER)
CFO_{it}	= Cash Flow from Operating
Growth_{it}	= Revenue
ε_{it}	= *Error term* (residual)
i	= Specific company
t	= Specific time

Tabel 2. Measurement Variable

Variable	Definition	Indicators/Proxies	Unit of Measurement
Company Performance (Y)	The effectiveness of the company in generating profits from the capital owned by shareholders.	ROE = Net Income / Total Equity (Delen, Kuzey, & Uyar, 2013)	Ratio
Dividend Policy (X1)	Refers to the company's managerial decision in distributing profits to shareholders, as well as reflecting signals on the financial outlook.	DPR = Dividend per Share / Earning per Share (Lintner, 1956 dalam (Dewasiri, Baker, Banda, & Rathnasiri, 2022)	Ratio
Investment Opportunities Set (X2)	The company's growth opportunities, which are valued by the market, reflect the potential of future investment projects.	Market to Book Value of Equity (MBVE) (Chosiah, Purwanto, & Ermawati, 2019)	Ratio
Corporate Governance (M)	The company's internal management mechanism to ensure accountability, transparency, and control of conflicts of interest between management and shareholders.	CG Index: Scores from 17 GCG indicators (disclosure of GCG according to KNKG, (2006) and literature analysis.) Proportions of Audit Committee Structure, Board Committee Structure, Compensation Structure, Ownership Structure, and Transparency	Score
Company Size / *Firm Size* (C1)	The operational scale of a company that describes the	The natural logarithm of total assets	Logarithm

	resources and scope of business activities.	(Nguyen, Dang, & Dau, 2021)	
Leverage (C2)	The level of dependence of the company on external funding through debt.	Debt to Equity Ratio (Nguyen et al., 2021)	Ratio
Cash Flow from Operating Avtivities (C3)	The company's ability to generate cash from its main operational activities.	Ratio between operating cash flows to total assets (Dechow, Hutton, Kim, & Sloan, 2012)	Ratio
Pertumbuhan/*Growth* (C4)	The growth of the company's performance is a reflection of expansion or increase in business volume.	Annual percentage change in revenue (net sales) (Chosiah et al., 2019)	Percentage

Source: Previous ResearchPrevious research

The data analysis method applied in this study uses a quantitative approach with panel data regression techniques

4. Results and discussion

This study aims to analyze the influence of dividend policies and *investment opportunities sets* on company performance with the mediation of *corporate governance* in mining companies listed on the Indonesia Stock Exchange (IDX) in 2021–2024.

Table 3. Descriptive Statistics

Variable	Obs.	Mean	Std. dev.	Min	Max
ROE (*Return on equity*)	288	0.14	0.26	-0.94	1.37
DPR (Dividen)	288	0.24	0.55	-0.08	4.97
IOS (*investment opportunities set)*	288	1.76	3.14	0.27	42.97
CG (*Corporate governance*)	288	0.81	0.07	0.55	0.95
SIZE (*Company Size*)	288	22.13	1.95	16.97	25.91
DER (*Debt to equity ratio*)	288	1.24	1.69	-1.99	10.79
CFO (*Cashflow Operational*)	288	0.11	0.17	-1.23	0.78
Growth (*Revenue growth*)	288	0.36	1.07	-0.96	11.44

Sumber: Data diproses menggunakan Stata (2022)

The selection of the most appropriate estimation model in this study is based on the results of a gradual test using three methods, namely the Chow Test, the Hausman Test, and the Lagrange Multiplier Test. The three tests were used to assess the model's compatibility between *Common Effect*, *Fixed Effect*, and Random Effect against each combination of variables in the model. A summary of the test results and the final results of the model selection are presented in the following table 4.

Table 4. Best Model Selection

Model	Chow Test	Haussman Test	Uji Lagrange	Selected Models
Model 1	*Fixed*	*Fixed*	-	*Fixed Effect Model*
Model 2	*Fixed*	*Fixed*	-	*Fixed Effect Model*
Model 3	-	Random	Random	*Random Effect Model*
Model 4	-	Random	Random	*Random Effect Model*

Source: Data Processing Results (2025)

The selection of the best model was carried out with three Chow, Hausman, and Lagrange tests for each combination of variables. Test results on Model 1 and Model 2 consistently show that *the Fixed Effect Model* is the most appropriate approach. This is shown by the results of the Chow Test and the Hausman

Test which both support the use of *the Fixed Effect* model. Therefore, both models were analyzed using *the Fixed Effect approach*. Meanwhile, the Model 3 and Model 4 did not go through the Chow Test, but the Hausman Test showed compatibility with *the Random Effect Model*, and the results of the Lagrange Multiplier Test further strengthened the decision. Therefore, the *Random Effect* approach was chosen as the best model for these two models. Thus, this study establishes *a Fixed Effect Model* for Model 1 and Model 2, as well as *a Random Effect Model* for Model 3 and Model 4. This decision was taken to ensure that the modeling used was able to optimally capture the characteristics of the panel variables and produce more accurate estimates. In this study, the initial approach was carried out through Pearson correlation matrix analysis between independent variables. The following are the results of the correlation matrix between variables.

Table 5. Multicollinearity

Variable	DPR	IOS	CG	SIZE	DER	CFO	Growth
DPR	1.0000						
IOS	0.1047	1.0000					
	0.0761*						
CG	0.1805	0.0147	1.0000				
	0.0021***	0.8032					
SIZE	0.2197	0.0260	0.2744	1.0000			
	0.0002***	0.6601	0.0000***				
DER	-0.1414	-0.0510	-0.0794	0.01156	1.000		
	0.0163**	0.3883	0.1793	0.0500**			
CFO	0.2414	0.0690	0.0257	0.2644	-0.0903	1.0000	
	0.0000***	0.2428	0.6638	0.0000***	0.1261		
Growth	-0.0852	0.0091	-0.1013	-0.0295	-0.0174	0.1227	1.0000
	0.1495	0.8981	0.0861*	0.6182	0.7687	0.0374**	
ROE	0.3111	0.1097	0.0315	0.2348	-0.1667	0.5496	0.1605
	0.0000***	0.0629	0.5950	0.0001***	0.0046***	0.0000***	0.0063***

All correlation values between independent variables show relatively low numbers and are well below the threshold of 0.80 which is commonly used as an indicator of multicollinearity. Next is to conduct a heterokedasticity test. In this study, heteroscedasticity was detected using *the Wald* test, with the following results.

Table 6. Heterokedasticity Test Results

Model	Chi2	Prob	Results
Model 1	3.5E+34	0.000	Heterokedasticity occurs
Model 2	3.5E+34	0.000	Heterokedasticity occurs
Model 3	-	-	-
Model 4	-	-	-

Source: Data Processing Results (2025)

Based on the results in table 6, it is known that Model 1 and Model 2 show a probability value of 0.000, which is well below the significance level of 5% ($\alpha = 0.050$). Thus, it can be concluded that there is a problem of heterokedasticity in the two models. This shows that the variance of error is not constant between observation units, so the use of *the Ordinary Least Squares* (OLS) estimation method becomes less efficient. Next is to perform serial correlation testing. In this study, the detection of the possibility of autocorrelation was carried out using the *Wooldridge Test* for Autocorrelation on Data Panel. The decision-making criteria are based on the probability value (p-value), where if the value is < 0.05, then the model is considered to contain autocorrelation.

Table 7. Wooldridge *Autocorrelation Test Results*

Model	F	Prob	Results
Model 1	2.375	0.128	No autocorrelation occurs

Model 2	2.388	0.127	No autocorrelation occurs
Model 3	2.011	0.161	No autocorrelation occurs
Model 4	2.048	0.157	No autocorrelation occurs

Source: Data Processing Results (2025)

Based on the results in table 7, all models in this study showed a probability value above the significance limit of 5% (α = 0.050). This indicates that there is no autocorrelation in the Model 1 to Model 4. Thus, the regression model used in this study can be said to meet the assumption that there is no *serial correlation*, so that the estimated results obtained are more reliable and valid for the purpose of hypothesis testing. Next is to conduct a cross-sectional dependency test. *Cross-sectional dependence testing* was carried out using the Pesaran CD Test with the following results.

Table 8. Cross-Dependency *Test Results*

Model	With	Prob	Results
Model 1	3.8264	0.0001	Cross-dependency *occurs*
Model 2	3.1374	0.0017	Cross-dependency *occurs*
Model 3	5.8906	0.0000	Cross-dependency *occurs*
Model 4	6.1531	0.0000	Cross-dependency *occurs*

Source: Data Processing Results (2025)

Based on the table above, all models produce a probability value (p-value) < 0.05, so it can be concluded that there is a significant *cross-sectional dependence* across all regression models. These findings indicate a statistical correlation between the observation units in the data panel, which can lead to potential bias and inefficiency in estimates if standard regression methods are used that assume independence between units. The hypothesis test is based on the results of classical assumptions where there are several regression models with heteroscedasticity problems. Due to the heteroscedasticity problem, the test was carried out with *a general least square*. The following are the results of the hypothesis test using *the general least square* estimate:

Table 9. Hypothesis Test Results

Variabel	Model 1	Model 2	Model 3	Model 4
DPR (Dividend)	0.083***		0.65**	
IOS (*investment opportunities set)*		0.005		0.161
SIZE (*Company Size*)	0.012*	0.016**	0.022**	0.018**
DER (*Debt to equity ratio*)	-0.017**	-0.02***	-0.036***	-0.021***
CFO (Cashflow Operational)	0.724***	0.772***	0.525***	0.757***
Growth (Revenue growth)	0.029**	0.025**	0.025**	0.023*
CG (*Corporate governance*)			-0.362	0.229
DPRxCG			-0.717*	
IOSxCG				-0.187
Phi Prob/Prob C	0.000	0.000	0.000	0.000

Source: Data Processing Results (2025)

Information:
*** : Hypotheses supported at alpha 1%
** : Hypotheses supported at alpha 5%
* : Hypothesis supported at alpha 10%

Testing of dividend policy variables in model 1 shows a positive coefficient of 0.083*** (α = 1%) and in model 2 shows a coefficient value of 0.650** (α = 5%), this shows that the dividend ratio has a significant positive effect on ROE. This means that the higher the proportion of profits distributed to investors, the more management tends to show confidence in the prospects of profitability, so the market assesses the company's performance better. The results of this study are in line with those carried out by Utami et al. (2022) and Njoku and Lee (2024) which shows that the dividend policy has an effect on profitability. The influence of dividend policy on company performance can occur due to several

factors, first, the very capital-intensive and high-risk nature of the mining business encourages investors to seek cash returns as compensation for the volatility of commodity prices, so that the more reliable the company is in distributing dividends, the lower the cost of equity and the more optimal the model structure. Second, the dividend payment serves as a credible signal that management is truly realizing positive cash flow from extraction operations, thereby increasing market confidence and spurring stock price appreciation which leads to an improvement in equity ratios. Thus hypothesis 1 in this study is accepted. According to signaling theory, management uses observable decisions (like dividend payments) to convey private information about future prospects to outside investors. In your findings, higher dividend payouts act as a positive signal: they indicate managers' confidence in sustained cash flows from extraction activities, reduce information asymmetry, and reassure investors about earnings quality (Kodriyah, Mahardini, Malik, & Wulandari).
Testing the *variable investment opportunities set* on Model 2 and Model 4, the IOS coefficient was only 0.005 (insignificant) and 0.161 (insignificant), respectively. This means that the investment opportunities currently measured have not shown a direct effect on the company's profitability. The results of this study are in line with those carried out by Chosiah et al. (2019) It shows that *the investment opportunities set* has no effect on the company's financial performance. The absence of IOS's influence on company performance is likely to occur because mining projects generally require large capital commitments and long development and mining times from exploration, licensing, to production, so that cash flows and new return on investment are only visible in the medium or long term, rather than directly in the ROE measurement period. Thus hypothesis 2 in this study is rejected.

Moderation from *corporate governance* on the influence of dividend policy on financial performance showed significant results with a coefficient value of -0.717*, this shows that the better the company implements *corporate governance*, the weaker the influence of dividend policy on financial performance. *Corporate governance* can moderate the negative impact of *the dividend payout ratio* (DPR) on profitability if the implementation of strict governance emphasizes the importance of maintaining internal funds for investment and innovation. Strong corporate governance changes how dividend signals are interpreted: when governance emphasizes internal monitoring and retention for investment, high dividend payouts no longer clearly signal superior future prospects but may signal underinvestment or misaligned payout choices. This produces three linked effects that explain your negative moderation result. With strong oversight through an independent board of directors and a responsive audit committee, the company will be more careful in managing its profit allocation, so that high dividend distributions (which should encourage profit distribution to shareholders) can indirectly reduce the company's capacity to make strategic reinvestments to support long-term growth. Under these conditions*, strict corporate governance* can exacerbate the negative impact of *the dividend payout ratio* on profitability by identifying excess dividend distribution as the main obstacle to internal funding, so that potential future earnings are depressed due to reduced funds for expansion and innovative projects. Thus, hypothesis 3 in this study is supported, but the direction of the influence of moderation is negative.

Moderation of *corporate governance* on the effect of *investment opportunities set* on financial performance showed insignificant results with a coefficient value of -0.187, this shows that the better the company implements *corporate governance*, the influence of *the investment opportunities set* financial performance is weakening, but the results of the study show that the effect is not significant. *Corporate governance* cannot moderate the influence of the Investment Opportunity Set (IOS) on profitability because the governance mechanism focuses on oversight, transparency, and accountability in decision-making, rather than on the creation or enhancement of investment opportunities themselves. IOS reflects investment and growth potential which is primarily influenced by market conditions, growth strategies, and the company's internal ability to identify value-added projects. While good *corporate governance* practices can ensure that investment decisions are taken appropriately and funds are used efficiently, they do not change the essence of existing investment opportunities; thus, the relationship between IOS and profitability will remain dominated by underlying fundamental factors, thus limiting its moderation role by corporate governance. Thus hypothesis 4 in this study is not supported.

The size of the company had a positive and consistent effect on all models, where the test results in model 2 showed a coefficient value of 0.012* and in model 4 showed a coefficient value of 0.016**. The nature of the influence given is positive, indicating that larger companies tend to have higher probability, which may be due to economies of scale, *bargaining power*, or cheaper access to financing and therefore have a higher ROE. DER showed significant negative effects across the study models, −0.017** (Model 1), −0.020*** (Model 2), −0.036*** (Model 3), and −0.021*** (Model 4). The results of these tests show results consistent with the fact that high *leverage* increases interest expense and financial risk thereby lowering the profitability of the company. In the results of the variable *operating cash flow* (CFO) test, all models placed CFO as a strong predictor because it had a fairly high coefficient value in all models, namely 0.724*** in model 1, 0.772*** pad model 2, 0.525*** in model 3, and 0.757*** in model 4. This means that high operating cash flow can directly strengthen net income to equity. A healthy CFO also signifies internal efficiency and adequate liquidity. The growth rate has a positive and significant effect on the company's performance as measured by ROE with a coefficient value of 0.029** (Model 1), 0.025** (Model 2), 0.025** (Model 3), and 0.023* (Model 4). This shows that income reinvestment can increase equity profitability, although the contribution is relatively moderate

5. Conclusions and Suggestions

5.1 Conclusion

The results indicate that dividend policy tends to positively influence ROE, whereas IOS shows no direct significant impact on ROE. Conversely, corporate governance negatively moderates the relationship between dividend policy and ROE, suggesting that stricter corporate governance weakens the positive effect of dividend policy on firm performance. However, corporate governance does not significantly moderate the relationship between IOS and ROE. The results of this study confirm the importance of designing a consistent dividend policy as a signal tool for management's confidence in the long-term profitability prospects. By maintaining a stable and transparent dividend ratio, companies can lower *the cost of equity* and increase attractiveness for investors.

5.2 Suggestion

At the same time, companies need to maintain a balanced capital structure: leverage for *tax shields* without exceeding the interest expense threshold that risks lowering ROE. Management should focus efforts on managing operating cash flow through accelerating receivables collection, inventory optimization, and production process efficiency as CFO variables prove to be a key driver of profitability. In terms of investment decision-making, companies are advised to develop a project evaluation framework tailored to their industry characteristics, using metrics such as NPV, IRR, and payback period, as well as prioritizing projects with Tobin's Q above 1 or efficient CAPEX/asset. Finally, while the aggregate corporate governance index has not had a direct impact on ROE, companies should strengthen specific practices such as independent audit committees, performance-based remuneration committees, and reporting transparency to improve long-term accountability and reduce agency costs.

For governments and regulators, this study opens up opportunities to re-evaluate the methodology of *measuring corporate governance* (CG) so that its weight better reflects effective practices in mitigating agency risks, especially the dimensions of audit committees and stakeholder reporting mechanisms. Regulators can provide fiscal incentives in the form of tax relief for companies that distribute dividends above a certain threshold, thereby encouraging improvements *in the cost of equity* and capital market stability. In addition, there needs to be an industry-specific leverage regulation policy so that financial institutions do not trigger systemic risks due to excessive corporate debt. The government can also facilitate access to information through public portals that provide data on mine reserves, mineral prospects, and MSME clusters, thereby increasing the accuracy of *the investment opportunities set* (IOS) assessment. The support of working capital management and operational efficiency training programs organized by ministries or industry associations will help companies, especially medium-scale, optimize operating cash flow and stabilize financial performance.

For investors, the results of this study confirm the importance of placing primary attention on dividend payout history and CFO's ratio to equity as indicators of long-term performance. Before allocating funds, investors should apply a DER threshold filter, for example keeping the DER below 1.0x to avoid companies with interest expenses that have the potential to reduce profitability. In addition, the analysis of governance quality needs to focus on the composition of independent boards and the existence of audit committees, not just aggregate CGIs, to evaluate the effectiveness of oversight mechanisms. In terms of scale and business phase, large companies tend to offer stability, while medium-sized companies with moderate growth can provide higher upside ROE. Since conventional IOS *proxies* do not yet reflect the risk and duration of project paybacks, investors are advised to diversify their portfolios based on their investment profile—especially in capital-intensive sectors such as mining and use advanced analysis techniques, such as *quantile regression* or *stress-testing*, to test the sensitivity of ROE to changing macro and corporate conditions

5.3 Limitation

This research was limited to mining companies in Indonesia. Therefore, the results are limited to one industry and cannot be generalized to all companies in Indonesia. Therefore, it is hoped that the next research will be able to conduct comparative analysis on various industries and also the analysis as a whole, so that the results of the research can be obtained more in-depth

References

Annesi, N., Battaglia, M., Ceglia, I., & Mercuri, F. (2025). Navigating paradoxes: Building a sustainable strategy for an integrated ESG corporate governance. *Management Decision, 63*(2), 531-559. doi:https://doi.org/10.1108/MD-10-2023-2006

Basit, A. (2020). Pengaruh harga emas dan minyak dunia terhadap Indeks Harga Saham Gabungan (IHSG) periode 2016-2019. *REVENUE: Jurnal Manajemen Bisnis Islam, 1*(2), 95-110. doi:https://doi.org/10.24042/revenue.v1i2.6073

Basuony, M. A., Zaher, A. A., Bouaddi, M., & Noureldin, N. (2023). Sustainability, corporate governance, and firm performance: Evidence from emerging markets. *Corporate Ownership and Control, 20*(3), 268-276. doi:https://doi.org/10.22495/cocv20i3siart3

Benkraiem, R., Berrich, O., Lakhal, N., Nizar, H., & Lakhal, F. (2025). Balancing ecology and finance: The impact of carbon performance on dividend payout policy. *Research in International Business and Finance, 74*, 102710. doi:https://doi.org/10.1016/j.ribaf.2024.102710

Chosiah, C., Purwanto, B., & Ermawati, W. J. (2019). Dividend policy, investment opportunity set, free cash flow, and company performance: Indonesian's agricultural sector. *Jurnal Keuangan dan Perbankan, 23*(3), 403-417. doi:https://doi.org/10.26905/jkdp.v23i3.2517

Connelly, B. L., Certo, S. T., Reutzel, C. R., DesJardine, M. R., & Zhou, Y. S. (2025). Signaling theory: state of the theory and its future. *Journal of Management, 51*(1), 24-61. doi:https://doi.org/10.1177/01492063241268459

Dechow, P. M., Hutton, A. P., Kim, J. H., & Sloan, R. G. (2012). Detecting earnings management: A new approach. *Journal of accounting research, 50*(2), 275-334. doi:https://doi.org/10.1111/j.1475-679X.2012.00449.x

Delen, D., Kuzey, C., & Uyar, A. (2013). Measuring firm performance using financial ratios: A decision tree approach. *Expert systems with applications, 40*(10), 3970-3983. doi:https://doi.org/10.1016/j.eswa.2013.01.012

Dewasiri, N. J., Baker, H. K., Banda, Y. W., & Rathnasiri, M. S. H. (2022). The dividend decision model: A possible solution for the dividend puzzle *Exploring the latest trends in management literature* (pp. 249-267): Emerald Publishing Limited.

Dorothy, P., & Endri, E. (2024). Environmental, social and governance disclosure and firm value in the energy sector: The moderating role of profitability. *Problems and Perspectives in Management, 22*(4), 588. doi:https://doi.org/10.21511/ppm.22(4).2024.44

Estefania, E., Sativa, E., & Noorliana, E. (2021). Analisis pertumbuhan PDB Indonesia melalui pengembangan sektor pertambangan. *Jurnal Indonesia Sosial Sains, 2*(5), 465557. doi:https://doi.org/10.36418/jiss.v2i5.293

Farooq, M., Ahmed, A., Khan, I., & Munir, M. (2025). Impact of dividend policy on corporate social responsibility: the role of board governance mechanism. *Journal of Global Responsibility, 16*(1), 52-77. doi:https://doi.org/10.1108/JGR-08-2023-0135

Farooq, M., Khan, I., Kainat, M., & Mumtaz, A. (2025). Corporate social responsibility and firm value: the role of enterprise risk management and corporate governance. *Corporate Governance: the international journal of business in society, 25*(3), 631-663. doi:https://doi.org/10.1108/CG-08-2023-0341

Hafsyah, A. N., Mersela, M., & Lestari, H. S. (2022). Pengaruh corporate governance terhadap agency cost pada perusahaan manufaktur yang terdaftar di BEI. *Jurnal Ekonomi, 27*(1), 34-48. doi:https://doi.org/10.24912/je.v27i1.852

Hilman, C., & Laturette, K. (2021). Analisis perbedaan kinerja perusahaan sebelum dan saat pandemi covid-19. *BALANCE: Jurnal Akuntansi, Auditing Dan Keuangan, 18*(1), 91-109. doi:https://doi.org/10.25170/balance.v18i1.2659

Khatib, S. F. (2025). An assessment of methods to deal with endogeneity in corporate governance and reporting research. *Corporate Governance: the international journal of business in society, 25*(3), 606-630. doi:https://doi.org/10.1108/CG-12-2023-0507

Kodriyah, K., Mahardini, N. Y., Malik, A., & Wulandari, M. Kebijakan Deviden dalam Memediasi Faktor yang Mempengaruhi Nilai Perusahaan. *Studi Akuntansi, Keuangan, dan Manajemen, 4*(2), 391-404. doi:https://doi.org/10.35912/sakman.v4i2.3796

Lestari, W. D. Y., & Tumirin, T. (2024). Pengaruh Good Corporate Governance (GCG), Investment Opportunity Set (IOS) dan Risiko Keuangan Terhadap Nilai Perusahaan. *Jurnal Riset Ekonomi dan Akuntansi, 2*(3), 43-64. doi:https://doi.org/10.54066/jrea-itb.v2i3.2135

Liviani, R., & Rachman, Y. T. (2021). The influence of leverage, sales growth, and dividend policy on company value. *International Journal of Financial, Accounting, and Management, 3*(2), 165-178. doi:https://doi.org/10.35912/ijfam.v3i2.189

Nguyen, H. V., Dang, H. N., & Dau, H. H. (2021). Influence of corporate governance on dividend policy in Vietnam. *The Journal of Asian Finance, Economics and Business, 8*(2), 893-902. doi:https://doi.org/10.13106/jafeb.2021.vol8.no2.0893

Njoku, O. E., & Lee, Y. (2024). Revisiting the effect of dividend policy on firm performance and value: Empirical evidence from the Korean market. *International Journal of Financial Studies, 12*(1), 22. doi:https://doi.org/10.3390/ijfs12010022

Nurlatifah, S. (2024). Investment Opportunity Set (Ios): Between Opportunities and Threats for Pharmaceutical Companies in Indonesia. *Journal Markcount Finance, 2*(1), 142-157. doi:https://doi.org/10.70177/jmf.v2i1.662

Prastyo, E. W. Z., & Setiartiti, L. (2018). Analisis Determinasi Harga Komoditas Pertambangan Terhadap Indeks Mining di IHSG (Indeks Harga Saham Gabungan) Periode Januari 2016–Agustus 2017. *Journal of Economics Research and Social Sciences, 2*(1), 13-22. doi:https://doi.org/10.18196/jerss.v2i1.9947

Sholikhah, Z., & Baroroh, N. (2021). The roles of capital intensity in moderating managerial ownership and investment opportunity set (IOS) on accounting conservatism. *Accounting Analysis Journal, 10*(1), 25-31. doi:https://doi.org/10.15294/aaj.v10i1.40114

Surifah. (2010). ARRANGING THE INDEX OF CORPORATE GOVERNANCE. *Jurnal Dinamika Manajemen, 1*(2), 1-16. doi:https://doi.org/10.15294/jdm.v2i1.2483

Utami, R. P., Muhamad Muslih, S., & MM, C. (2022). *The effect of total asset turnover ratio, return on asset, and dividend policy on the investment opportunity set (IOS).* Paper presented at the International Conference on Industrial Engineering and Operations Management.

Whetyningtyas, A., Arumsari, N. R., Ashari, & Mulyani, S. (2023). Profitability and growth opportunity: Impact on company value. *International Journal of Financial, Accounting, and Management, 1*(2), 114-132. doi:https://doi.org/10.35912/ijfam.v6i4.2614

Xia, H., Tian, Y., Zhang, J. Z., & Liu, Y. (2025). Exploring the impact of online news sentiment and relevance on stock market risks: A signalling theory perspective. *Expert Systems, 42*(1), e13364. doi:https://doi.org/10.1111/exsy.13364