

# Sustainability Disclosure and Retention Ratio on Stock Returns: Firm Value Moderation in Indonesian Listed Banks

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## Abstract

This study examines the effect of ESG performance, measured by the Refinitiv ESG Score, and Retention Ratio on Stock Return, with Firm Value as a moderating variable, in banking companies listed on the Indonesia Stock Exchange. The population of this study consists of all banking companies listed on the Indonesia Stock Exchange, while the sample includes six listed banks selected using purposive sampling based on data availability criteria. The observation period spans 2019–2023, resulting in 30 bank-year observations. This study employs multiple regression analysis and moderated regression analysis to investigate both the direct effects and the moderating effects among the variables. The results indicate that Refinitiv ESG Score has a negative and statistically significant effect on Stock Return. In contrast, Retention Ratio shows a positive but statistically insignificant effect on Stock Return. Furthermore, Firm Value, measured by Tobin's Q, significantly moderates the relationship between Refinitiv ESG Score and Stock Return by weakening the effect. This finding suggests that higher firm value does not necessarily strengthen the market response to ESG performance. Meanwhile, Firm Value does not significantly moderate the relationship between Retention Ratio and Stock Return. Overall, the findings imply that ESG performance and dividend policy do not uniformly translate into higher Stock Return in the banking sector. Therefore, companies are encouraged to enhance their communication strategies to better convey the long-term value of ESG initiatives and retained earnings to investors, particularly in the context of firm valuation.

## KEYWORDS

sustainability disclosure; retention ratio; firm value; stock return.

## Introduction

Companies need to fortify their company strategies to stay afloat in the face of intensified rivalry brought on by the quickening pace of economic globalisation (Putra & Afriyenti, 2021). One of the efforts that can be made is to utilize the capital market as a source of long-term funding. The capital market acts as a means of bringing together companies that need funds with investors who expect returns in the form of dividends or capital gains (Rani Putri & Nuri Honesty, 2024).

Shares are one of the capital market instruments that indicate investor ownership of a company, which carries certain rights and obligations for shareholders (Adyana, 2020). Investors who invest in shares expect a return on shares as compensation for the funds invested. According to Santoso et al. (2023), investors' stock returns include both dividends paid out by the firm and capital gains from rising stock prices. Companies with good financial performance and growth prospects tend to be able to provide higher stock returns because they increase investor confidence and interest (Putra & Afriyenti, 2021).

But stock returns are unpredictable and subject to a wide range of internal and external variables. Listed banking sector businesses in Indonesia had substantial changes to their average stock returns from 2019 to 2023 (as shown in Figure 1). The return on investment for stocks was rising from 2019 to 2021, reaching a high the following year. Conversely, in the 2022–2023 period, stock returns declined to negative



Figure 1. Average stock return

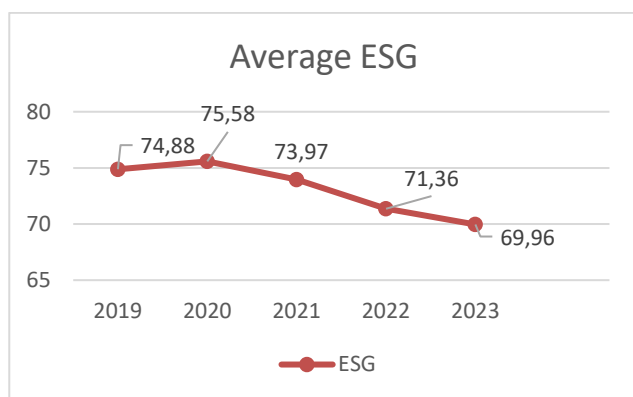


Figure 2. Average ESG

levels. This decline indicates increased market uncertainty and investor caution in responding to banking stock performance after the COVID-19 pandemic.

As the capital market develops, investors' considerations in making investment decisions are no longer focused solely on financial factors. As a result of rising consciousness of ESG concerns, investors are starting to focus on non-financial factors associated with company sustainability (Torre et al., 2020). The 2015 Paris Agreement, which solidified a worldwide commitment, adds weight to the need for businesses to adopt environmentally friendly procedures. The business world must take the lead in lowering emissions and increasing operational sustainability in order to achieve the goal of keeping the global temperature rise below 2°C, with maximal efforts aimed at keeping the increase to 1.5°C relative to pre-industrial levels (Ghinaya et al., 2025). Given this setting, ESG has emerged as a key metric for investors to consider when evaluating a company's sustainability efforts (Giantari, 2024).

In Indonesia, the implementation of ESG has shown significant progress. Since the launch of the first ESG product in 2016, the number of ESG-based products has continued to increase, reaching 15 products with a value of IDR 3.45 trillion in 2021. The Indonesia Stock Exchange also noted that around 70% of issuers that apply ESG principles control a market capitalization of Rp5,407 trillion (Shaïd, 2023). In addition, the Financial Services Authority noted the development of ESG stock indices, with two ESG indices covering 44 issuers in 2021 (Pratiwi & Sulindawati, 2025).

In the banking sector, sustainability disclosure is a very important aspect given that banks play a role not only as financial intermediaries but also as drivers of sustainable economic development. Figure 2 demonstrates that between 2019 and 2023, there was some variation in the average ESG of banking sector enterprises. ESG improved in the 2019–

2020 period, followed by a decline in the 2021–2023 period. This pattern reflects the dynamics of banking companies' commitment to implementing sustainability practices amid economic pressures and global uncertainty.

Similarly, prior studies examining the impact of ESG on stock performance have shown contradictory results. During the COVID-19 pandemic era, research conducted by Liu et al. (2023) discovered a favourable correlation between ESG and market performance. An other source stating that ESG impacts stock returns favourably and significantly is Hanjani & Yanti (2024). Yet, studies by Richard Santoso & Sofian (2025) and Sihombing et al. (2024) found little evidence that ESG factors influenced stock returns. The differences in these research results indicate a research gap that still needs to be explored.

In addition to sustainability disclosure, internal company factors such as retention ratio also have the potential to affect stock returns. The retention ratio shows the proportion of net income that a company retains for reinvestment rather than distributing as dividends (Budiantini, 2024). A high retention ratio reflects a company's focus on long-term growth, but it can reduce the interest of investors who expect dividends, thereby potentially having a negative impact on stock returns (Santoso et al., 2023).

The average retention ratio of banking sector enterprises over the period 2019–2024 had quite different trends, as shown in Figure 3. The retention ratio increased in the 2019–2021 period, then decreased in 2022–2023. Interestingly, the movement of the retention ratio is not always in line with stock returns, indicating a discrepancy with signaling theory predictions.

Another crucial aspect that impacts how investors see a company's future is its valuation. By contrasting the market value and book value of an organization's assets, Tobin's Q ratio emerges as a prominent measure of corporate worth (Pratama & Robinson, 2024). According to Lestari & Erdiana (2024), a high Tobin's Q value shows that the market is optimistic about the company's potential to produce additional value, whereas a low value shows that the market is less optimistic.

The average Tobin's Q value of banking sector businesses from 2019 to 2023 remains reasonably steady, below one, as shown in Figure 4. This consistency suggests that despite the substantial volatility in stock returns, market views of the underlying worth of firms remain relatively stable. This situation shows that stock market performance is not reflecting the true worth of enterprises.

The impact of Tobin's Q on stock returns has been the subject of conflicting findings in prior research. Although Saleh et al. (2024) discovered that Tobin's Q significantly affects stock returns, (Lestari & Erdiana, 2024) concluded that it does not. To add to that, according to many research (e.g., Nurnaningsih & Handajani, 2025; Pratama & Robinson, 2024; Qodary & Tambun, 2021), Tobin's Q may either amplify or dampen the impact of ESG and retention ratio on stock returns.

Previous studies investigating the relationship between sustainability disclosure and stock returns have reported mixed and inconclusive findings. While some studies document a positive effect of sustainability disclosure on stock returns, others find insignificant or negative relationships, suggesting that the market valuation of sustainability information is highly context-dependent. Empirical evidence focusing specifically on the banking sector remains limited, despite the sector's unique characteristics, such as higher regulatory scrutiny, reputational sensitivity, and its strategic role in supporting sustainable economic development.

In addition, prior research has predominantly relied on self-developed or aggregated sustainability disclosure indices, which may reduce the comparability and objectivity of empirical findings. Studies employing Refinitiv ESG Score as a proxy for sustainability disclosure, a standardized and globally

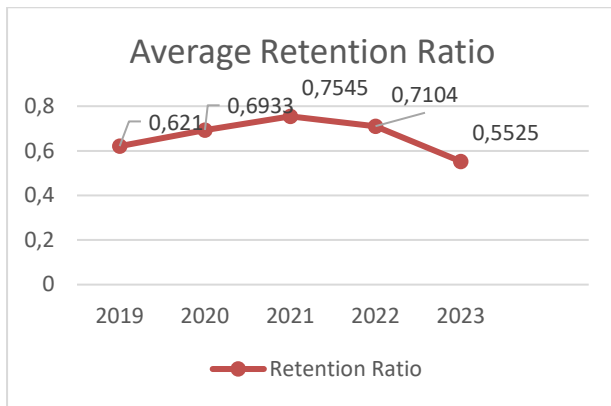


Figure 3. Average retention ratio

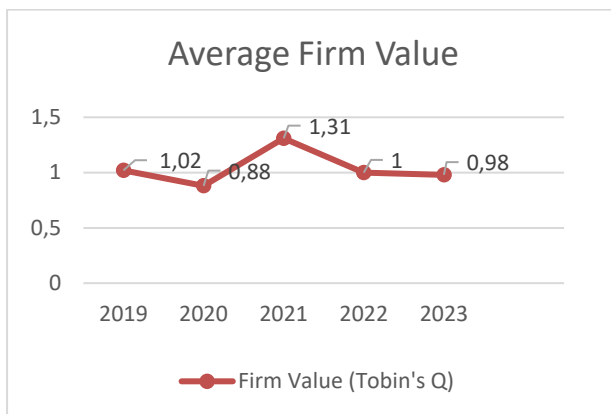


Figure 4. Average Firm Value

recognized metric widely used by investors, remain relatively scarce in the context of Indonesian banking companies. The use of this measure is therefore expected to provide more robust insights into how capital markets respond to banks' sustainability disclosure practices.

Furthermore, the moderating role of firm value, as measured by Tobin's Q, in the relationship between sustainability disclosure, dividend policy (retention ratio), and stock returns has not been sufficiently explored. Firm value may influence how investors interpret sustainability information and retained earnings, particularly in the banking sector where market valuation reflects expectations of stability and long-term performance. Accordingly, this study examines the moderating effect of firm value on the relationship between sustainability disclosure, retention ratio, and stock returns in Indonesian banking companies during the period 2019–2023.

#### Stakeholder Theory

According to stakeholder theory, businesses have a duty to consider the interests of everyone who stands to gain or lose from their operations, including workers, residents, government agencies, regulators, and vendors. In order for businesses to remain sustainable in the long run, [Awa et al. \(2024\)](#) state that stakeholder theory stresses the significance of stakeholders' interactions with the company.

According to this view, a company's success depends on its potential to do more than just make money; it also has to benefit society, the environment, and the economy. Through active engagement and transparent communication, companies can enhance social legitimacy, strengthen their reputation, and maintain public trust ([Syuchron Kurnia & Raharja, 2021](#)). Therefore, stakeholder theory positions ethical, accountable, and sustainable business practices as the fundamental foundation of corporate continuity.

#### Signaling Theory

To lessen the knowledge gap between the firm's internal management and outside stakeholders like creditors and investors, signalling theory elucidates how management communicates with these groups. Information asymmetry arises because management possesses more comprehensive knowledge regarding the firm's condition, performance, and future prospects than external parties ([Elwisam et al., 2024](#)).

Within this framework, companies employ various forms of signals such as financial reports, dividend policies, investment decisions, and other strategic disclosures as communication mechanisms with the market. Signals that are delivered consistently and credibly can assist external parties in assessing the firm's quality and stability, thereby shaping a more accurate perception of firm value ([Nur et al., 2024](#)). Consequently, managerial decisions not only carry economic implications but also function as strategic communication tools.

#### Stock Return

According to ([Karmilah & Komara, 2024](#)), the rate of return on investment for stock ownership over a certain time period is known as the rate of profit. Stock returns can come from capital gains or capital losses arising from changes in stock prices, as well as from dividends distributed by companies ([Nurmansyah et al., 2024](#)). [Bhowmik & Wang \(2020\)](#) state that stock returns are a key indicator in capital market analysis because they reflect the market's response to economic conditions and company information.

Changes in stock return reflect the dynamics of supply and demand in the market as well as investors' perceptions of risk and company prospects. Therefore, stock return is often used as a measure of investment performance and company performance in the capital market.

$$R_t = \frac{P_t - P_{t-1}}{P_{t-1}}$$

#### Sustainability Disclosure

Sustainability disclosure is a form of corporate disclosure of information related to sustainability performance that covers environmental, social, and governance aspects, known as ESG ([Yulianti & Wicaksana, 2023](#)). Companies' management of the effects of their activities on society, the environment, and internal governance systems may be evaluated using ESG, as explained by [Hanggraeni \(2023\)](#).

The purpose of sustainability disclosure is to educate stakeholders about a company's social and environmental duties in an open and honest manner. Companies may meet the rising expectations of stakeholders for ethical and sustainable business operations via sustainability disclosure, according to [Syuchron Kurnia & Raharja \(2021\)](#). Businesses hope that by being more transparent, they may gain more trust and legitimacy from the general public.

The Refinitiv ESG Score, a composite metric created by Refinitiv to objectively and consistently evaluate the ESG performance of firms, is used as a sustainability disclosure metric in this research. The Refinitiv ESG Score combines various indicators that reflect companies' environmental, social, and governance practices based on verified public data ([Escobar-Saldívar, 2025](#)).

#### Retention Ratio

The retention ratio represents the proportion of a company's net income that is retained within the firm for reinvestment rather than distributed to shareholders as dividends. It reflects management's decision regarding earnings allocation between internal financing and dividend distribution ([Linda & Ramli, 2024](#); [Triyonowati & Maryam, 2022](#)). A higher retention ratio indicates a greater emphasis on earnings retention to support future growth, whereas a lower ratio suggests a

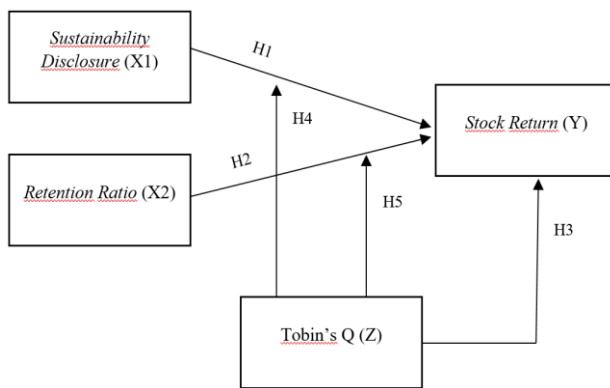


Figure 5. research paradigm

operationally measured using the following standard formula:

$$RR = \frac{\text{Retained Earnings}}{\text{Net Income}}$$

stronger focus on dividend payments. In this study, the retention ratio is

#### Firm Value

The worth of a firm is a reflection of how investors see its past and future success. The Tobin's Q ratio, which compares a company's market value to its book value, is a popular metric for evaluating its worth (Shofiya & Susyani, 2025). The value that the market places on a company's capacity to generate value is determined by its Tobin's Q value, according to Pratama & Robinson (2024).

The market views a firm with high Tobin's Q as having great management efficiency, promising financial performance potential, and solid growth possibilities. On the other hand, if the Tobin's Q value is low, it means that investors don't think the firm will be able to manage its assets well and make profits going forward.

$$\text{Tobin's Q} = \frac{\text{Market Value of Equity} + \text{Book Value of Debt}}{\text{Total Assets}}$$

#### The Effect of Sustainability Disclosure on Stock Returns

Companies should manage and disclose their sustainability efforts in a way that fulfils the interests of stakeholders (Awa et al., 2024; Hanggraeni, 2023). This will increase legitimacy and public confidence. In addition, according to signalling theory, sustainability disclosure may help investors evaluate a company's quality, stability, and future prospects, which in turn reduces capital market information asymmetry (Elwisam et al., 2024).

Several studies have found that sustainability disclosure increases stock returns. This is because investors' perceptions of company value are improved and the market responds positively to ESG transparency (La Torre et al., 2020; Liu et al., 2023) (Yin et al., 2023) (Giantari, 2024) (Hanjani & Yanti, 2024) (Gantine Lestari et al., 2024). Here is the research hypothesis, set forth in accordance with the theoretical framework and the actual findings:

*"H1: Sustainability disclosure has a positive effect on stock returns."*

#### The Effect of Retention Ratio on Stock Return

To lessen the impact of information asymmetry, corporate finance policies are crafted in accordance with signalling theory. An encouraging indicator for the future and stability of the firm is the retention ratio, which shows that management is choosing to keep profits in-house to fund expansion (Elwisam et al., 2024).

The retention ratio is associated with higher stock returns, according to many empirical investigations. According to

Budiantini (2024), retained profits may boost stock values by sending a good signal to investors. Supporting these results, studies conducted by Pratama & Robinson (2024) and Richard Santoso & Sofian (2025) found that the retention ratio positively affects stock returns. This is due to the fact that retained profits are seen as an internal source of capital that contributes to long-term growth. The following is the research hypothesis, which is based on the theoretical framework and prior research:

*"H2: The retention ratio has a positive effect on stock returns."*

#### The Effect of Firm Value on Stock Returns

The market's estimation of a company's past and future success determines its firm value. A high firm value boosts investor confidence and share demand since it shows the business can properly manage its assets and build long-term value. According to Elwisam et al. (2024), this situation has the potential to cause stock prices to rise, which would improve stock returns.

The research uses Tobin's Q ratio, which is a comparison of a company's market value to its book value of assets, to determine the firm's worth. In this ratio, we can see how the market values the assets and future prospects of a firm. Dean Subhan Saleh et al. (2024) shown that when company value is evaluated by Tobin's Q, it significantly affects stock returns. This suggests that investors in the capital market react favourably to increasing firm value.

Theoretical and empirical data point to a positive link between corporate value and stock performance. So, here is how the research hypothesis is put forth:

*"H3: Firm value has a positive effect on stock returns."*

#### Firm Value Moderates the Effect of Sustainability Disclosure on Stock Returns

Firm value is expected to strengthen the effect of sustainability disclosure on stock returns. Investors tend to respond more positively to sustainability disclosures made by firms with high firm value, as such firms are perceived to have stronger growth prospects and greater financial stability. Based on signalling theory, firms convey signals to investors through various forms of disclosure in order to reduce information asymmetry (Elwisam et al., 2024).

Qodary & Tambun (2021) demonstrate that the effect of ESG on stock returns becomes stronger when moderated by firm value. This finding is further supported by Pratama & Robinson (2024) as well as Nurnaningsih & Handajani (2025), who report that firms with strong sustainability disclosures and high firm value receive more favorable market responses. The following hypothesis is advanced in light of the preceding discussion:

*"H4: Firm value strengthens the effect of sustainability disclosure on stock returns."*

#### Firm Value Moderates the Effect of Retention Ratio on Stock Returns

A high retention ratio indicates that a corporation prefers to keep a portion of its profits in-house for future expansion. Earnings retention, in accordance with signalling theory ((Elwisam et al., 2024), is a way for management to show investors that they are confident in the firm's ability to develop and attract investment. When the retention ratio is high, it means that management is confident in the company's capacity to create value in the long run. The worth of the business, nevertheless, affects how convincing this signal is. Investors may be more receptive to profits retention rules if firm value, as shown by Tobin's Q, indicates market confidence in the company's future and stability.

When controlling for company valuation, the impact of retention ratio on stock returns becomes even more

pronounced, according to research by Pratama & Robinson (2024) and Qodary & Tambun (2021). Nurnaningsih & Handajani (2025) and Richard Santoso & Sofian (2025) both show that businesses with a high firm value and a high retention ratio have more favourable market reactions, which supports this result. In light of everything said thus far, I suggest the following hypothesis:

*"H5: Firm value strengthens the effect of retention ratio on stock returns."*

The following might be the conceptual framework of the research that is based on the theoretical framework that was stated above (see figure 5)

## Methods

This study employs a quantitative research design with a causal approach to examine the effect of sustainability disclosure and retention ratio on stock returns, with firm value acting as a moderating variable. The analysis is conducted using secondary data obtained from the annual reports, sustainability reports, and audited financial statements of banking companies listed on the Indonesia Stock Exchange (IDX) during the period 2019–2023.

The population of this study consists of all banking companies listed on the Indonesia Stock Exchange, totaling 48 banks. The sample is selected using a purposive sampling technique based on the following criteria: (1) banking companies that are consistently listed on the IDX during the 2019–2023 period; (2) banking companies with available and complete Refinitiv ESG Score data throughout the observation period; and (3) banking companies with complete data on stock return, retention ratio, and firm value. Based on these criteria, six banking companies are included in the final sample.

With an observation period of six years, this study yields 30 firm-year observations (6 banks × 5 years). The panel data used in this study are balanced, as each sampled bank is observed consistently for all years during the study period.

All variables are measured based on the definitions and formulas presented in the Variable Measurement section. Stock return is measured using annual stock price changes. Sustainability disclosure is measured using the Refinitiv ESG Score, which reflects firms' environmental, social, and governance performance. The retention ratio is measured based on retained earnings relative to net income, while firm value is measured using Tobin's Q.

To ensure consistency and economic interpretability, observations with negative net income are excluded from the analysis, as the retention ratio is not meaningful in such cases. Firms reporting zero dividend payments are assigned a retention ratio value of one, indicating that all net income is retained within the firm. All components used to calculate firm value are measured using consistent units as reported in the financial statements to avoid potential scale and rounding issues.

Panel data regression analysis is conducted using EViews 12. The study applies panel regression techniques to examine both the direct effects of sustainability disclosure and retention ratio on stock returns and the moderating role of firm value. Model selection is performed using the Chow test and Hausman test to determine the most appropriate estimation approach. Based on the test results, the analysis employs a fixed effects model with firm-specific effects.

Hypothesis testing is conducted to evaluate the significance of the estimated coefficients, and classical assumption tests are performed to ensure the robustness of the regression results. The moderating effect of firm value is

examined using Moderated Regression Analysis (MRA) by incorporating interaction terms between firm value and the independent variables.

## Result and Discussion

### Descriptive Statistical Analysis

An overview of the research data features, including the mean, median, maximum, and minimum values as well as the standard deviation of each research variable, may be provided by descriptive statistical analysis. In order to better comprehend the distribution of the data, this study is designed to help pave the way for further statistical tests (Abdullah et al., 2022). Table 1 displays the outcomes of the descriptive statistics.

Based on the results of the descriptive statistics, the stock return variable has a mean value of 0.018621, indicating that, on average, stock returns of the sampled banking companies are relatively small and close to zero. The maximum value of 0.410000 and the minimum value of -0.480000 indicate substantial fluctuations in stock returns across firms and periods. The standard deviation of 0.203868 suggests a relatively high level of variability compared to the mean, reflecting the volatility of banking sector stock returns during the observation period.

The ESG Score variable has a mean value of 7.318034, with a maximum value of 8.748000 and a minimum value of 5.496000. This indicates that the overall level of environmental, social, and governance practices among the sampled banks ranges from moderate to high, although there are observable differences in ESG implementation across firms. The standard deviation reflects a reasonable degree of variation, indicating differences in sustainability strategies among banking companies.

Furthermore, the retention ratio variable has a mean value of 0.669961, suggesting that, on average, banking companies retain a substantial portion of their earnings for reinvestment purposes. The maximum value of 1.000000 indicates periods in which firms did not distribute dividends, while the minimum value of 0.062626 reflects periods in which a larger portion of earnings was distributed to shareholders. The standard deviation of 0.221200 indicates moderate variation in dividend retention policies across firms and periods.

The firm value, measured by Tobin's Q, has a mean value of 0.997315, indicating that, on average, the market value of the sampled banks is relatively close to their book value. The narrow range between the minimum value (0.987746) and the maximum value (1.000000) suggests limited variation in firm value among banks during the observation period.

The TQESG variable, representing the interaction between ESG Score and Tobin's Q, has a mean value of 7.298479, while the TQRR variable, representing the interaction between retention ratio and Tobin's Q, has a mean value of 0.668306. These values indicate variation in the interaction between sustainability practices, dividend retention policies, and firm value. However, these findings are descriptive in nature and do not imply causal relationships.

Overall, the descriptive statistics indicate that the data exhibit reasonable and consistent characteristics that reflect conditions in the banking sector. This descriptive analysis provides a general overview of the distribution and characteristics of the variables. Further interpretation regarding relationships among variables is addressed in the subsequent inferential analysis.

### Panel Data Regression Estimation Model

This study's panel data regression model was chosen after

**Table 1.** Descriptive Statistical Analysis

Variable	Mean	Std. Dev	Min	Max	Observation
Stock Return	0.0186	0.2039	-0.4800	0.4100	30
ESG Score	7.3180	0.9357	5.4960	8.7480	30
Retention Ratio	0.6700	0.2212	0.0626	1.0000	30
Tobin's Q	0.9973	0.0032	0.9877	1.0000	30
TQESG	7.2985	0.9346	5.4832	8.7469	30
TQRR	0.6683	0.2211	0.0624	1.0000	30

**Table 2.** Panel Data Regression Estimation Model

Test	Probability Value	Conclusion
Chow Test	0.0008<0.05	Fixed Effect Model
Hausman Test	0.0018<0.05	Fixed Effect Model

**Table 3.** Result of the Heteroskedasticity Test (LR Test)

Test	Statistic	df	Probability
Likelihood Ratio	5.050590	6	0.5373

**Table 4.** Multicollinearity Test Result

Variable	Centered VIF
Retention Ratio (RR)	1.140819
Sustainability Disclosure (ESG)	1.144338
Tobin's Q (TQ)	1.004717

**Table 5.** Regression Result (Equation 1)

Variable	Coefficient	T-Statistic	Prob.
C	150.8797	2.679940	0.0137
Sustainability Retention Ratio	-2.123753	-2.746095	0.0118
	11.91614	0.594264	0.5584

$$\text{Stock Return} = 150.8797 - 2.1238\text{SD} + 11.9161\text{RR}$$

extensive testing using the Chow and Hausman tests, among others. Table 2 displays the outcomes of these examinations. Chow Test

The Cross-section Chi-square probability value of 0.0008 shown by the Chow test is less than the 5% significance threshold ( $\alpha = 0.05$ ). So, we accept  $H_1$  and reject  $H_0$ , which means that the Fixed Effect Model (FEM) is better than the CEM. The Hausman test was therefore used in the study.

#### Hausman Test

The Hausman test results indicate a probability value of 0.0018, which is also below 0.05. This result implies that  $H_0$  is rejected and  $H_1$  is accepted, meaning that the FEM is more suitable than the REM. Thus, the FEM was selected as the final regression model in this study.

#### Classical Assumption Tests

##### Heteroskedasticity Test

If the panel regression model's residual variance remains consistent across data, then the heteroskedasticity test may be used to draw conclusions. To guarantee accurate and efficient parameter estimations, a well-specified regression model needs homoskedastic residuals. Panel Cross-section Heteroskedasticity LR Test was used to test for heteroskedasticity in this research.

The probability value is 0.5373, which is more than the 5% significance threshold (0.05), according to Table 3. This means that the regression model is not heteroskedastic, and researcher accept  $H_0$  as a result. This result implies that the

residual variance is constant (homoskedastic), and the panel regression model satisfies the classical assumption of homoskedasticity, allowing it to be reliably used for further analysis.

##### Multicollinearity Test

The statistical validity and accuracy of a regression model may be compromised by multicollinearity, which happens when the independent variables are strongly associated with one another. Therefore, a multicollinearity test is necessary to ensure that each independent variable contributes unique explanatory power to the regression model.

This research used the VIF to look for signs of multicollinearity. If the centred VIF values are less than 10, then the regression model is free from multicollinearity concerns, according to accepted econometric criteria (Gujarati & Porter, 2010).

Table 4 shows that all of the independent variables' centred VIF values are much lower than the 10 criterion. This proves that the independent variables included in the regression model do not exhibit any signs of multicollinearity. There is no bias due to intercorrelation among the explanatory factors, thus the regression estimates are credible, and we can understand the correlations between the independent variables and stock return.

##### Hypothesis Test

The data from the test of Equation 1 in Table 5 show that sustainability disclosures significantly and negatively impacts stock return ( $\beta = -2.1238$ ;  $p < 0.05$ ). Stock returns tend to drop when the amount of sustainability disclosure increases, according to these studies. Additionally, stock returns are positively impacted by the retention ratio, but this effect is not statistically significant ( $\beta = 11.9161$ ;  $p > 0.05$ ). Thus, retained profits have failed to have a significant impact on stock returns.

The results of testing Equation 2 in Table 6 show that the relationship between sustainability disclosure, retention ratio, and stock return is moderated by firm value. The interaction term between sustainability disclosure and firm value ( $\text{SD} \times \text{FV}$ ) is negative and statistically significant ( $\beta = -275.1342$ ;  $p < 0.05$ ), indicating that firm value weakens the effect of sustainability disclosure on stock returns. This suggests that the market response to sustainability disclosure depends on the level of firm valuation.

Although the coefficient of sustainability disclosure is positive ( $\beta = 273.0892$ ;  $p < 0.05$ ), this coefficient represents the conditional effect of sustainability disclosure when firm value equals zero. Therefore, the overall effect of sustainability disclosure on stock returns becomes less positive as firm value increases, and may diminish at higher levels of firm valuation.

In contrast, the retention ratio continues to show a positive but statistically insignificant effect on stock returns ( $\beta = 216.8759$ ;  $p > 0.05$ ). The interaction between the retention ratio and firm value ( $\text{RR} \times \text{FV}$ ) is negative and insignificant, indicating that firm value does not significantly moderate the relationship between retained earnings and stock returns.

##### Coefficient of Determination (Adjusted $R^2$ ) Test

**Table 6.** Regression Result (Equation 2)

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	-12877.22	7352.081	-1.751506	0.0960
Sustainability Disclosure	273.0892	130.4355	2.093671	0.0499
Retention Ratio	216.8759	108.8345	1.992712	0.0609
Firm Value	12983.25	7339.631	1.768924	0.0930
SD x Firm Value	-275.1342	130.4609	-2.108940	0.0484
RR x Firm Value	-209.5467	110.2734	-1.900247	0.0727

$$\text{Stock Return} = -12877.22 + 273.0892\text{SD} + 216.8759\text{RR} + 12983.25\text{FV} - 275.1342(\text{SD} \times \text{FV}) - 209.5467(\text{RR} \times \text{FV})$$

**Table 7.** Coefficient of Determination (R<sup>2</sup>)

Model	R-squared	Adjusted R-squared
Equation 1	0.4649	0.2946
Equation 2	0.6349	0.4427

The Coefficient of Determination (Adjusted R<sup>2</sup>) Test shows how well the regression model explains changes in the dependent variable. A higher Adjusted R<sup>2</sup> value indicates that the model has stronger explanatory power (Amruddin et al., 2022). The Adjusted R<sup>2</sup> results for each regression equation are presented in Table 7.

The Adjusted R-squared value of Equation 1 is 0.2946, indicating that sustainability disclosure and retention ratio are able to explain 29.46% of the variation in stock returns, while the remaining 70.54% is explained by other factors not included in the model.

In Table 7, the Adjusted R-squared increases to 0.4427, which suggests that sustainability disclosure, retention ratio, firm value, and the interaction terms jointly explain 44.27% of the variation in stock returns, while the remaining 55.73% is influenced by variables outside the research model.

The increase in the Adjusted R-squared from Equation 1 to Equation 2 indicates that the inclusion of firm value as a moderating variable improves the explanatory power of the model. This finding implies that firm value plays an important role in moderating the relationship between sustainability disclosure, retention ratio, and stock returns.

#### The Effect of Sustainability Disclosure on Stock Return

The empirical results indicate that Hypothesis 1 (H1) is rejected, as sustainability disclosure, proxied by the Refinitiv ESG Score, has a negative and statistically significant effect on stock returns ( $\beta = -2.1238$ ;  $p < 0.05$ ). This finding suggests that, within the observation period, higher levels of sustainability disclosure are associated with lower stock returns in the Indonesian banking sector. In the short run, the capital market does not appear to uniformly reward banks with higher ESG scores.

This negative relationship implies that higher ESG scores reflecting more extensive and higher-quality sustainability disclosure are not immediately priced positively by investors. One possible explanation is that enhanced sustainability disclosure may be perceived as increasing operational costs or signaling a trade-off between sustainability initiatives and short-term financial performance. As a result, investors may respond cautiously, leading to lower stock returns.

From a signaling perspective, sustainability disclosure conveys information about a firm's strategic priorities and long-term orientation. While higher ESG scores indicate stronger sustainability disclosure, investors may interpret such disclosures differently depending on market conditions and time horizons. In emerging markets such as Indonesia, where short-term financial performance often remains a dominant consideration, sustainability disclosure may not yet be fully incorporated as a positive signal in stock valuation. This interpretation is consistent with prior studies that document a negative or insignificant relationship between

ESG performance scores and stock returns, suggesting that the market response to sustainability information is context-dependent.

Practically, these findings indicate that higher sustainability disclosure alone does not automatically lead to higher stock returns. Banks may need to complement sustainability reporting with clearer communication regarding the economic relevance and long-term financial benefits of ESG-related initiatives. By strengthening how sustainability information is framed and linked to firm value creation, companies may improve investor understanding and mitigate adverse short-term market reactions.

#### The Effect of Retention Ratio on Stock Return

Researcher may reject H2 since the findings demonstrate that the Retention Ratio shows a positive but statistically insignificant relationship with Stock Return ( $\beta = 11.9161$ ;  $p > 0.05$ ). This indicates that corporations' retained profits have not had a substantial impact on stock returns. This research suggests that retained profits may not be a compelling indication for short-term stock performance improvements to investors just yet.

Consistent with other research showing that the Retention Ratio has no substantial impact on Stock Return, such as that of Qodary & Tambun (2021) and Alvianto & Primasari (2024), our findings support this view.

Practically, these findings emphasize that although retained earnings can be used to finance expansion and long-term company activities, investors tend to be more responsive to direct performance results, such as profits distributed as dividends or rapid changes in stock prices. Therefore, companies need to balance their strategies for using retained earnings and communicating with investors so that the long-term benefits can be understood.

#### The Effect of Firm Value on Stock Return

The findings indicate that Firm Value exhibits a positive but statistically insignificant association with Stock Return ( $\beta = 12,983.25$ ;  $p = 0.0930$ ). Thus, H3 is rejected. This indicates that even though a company has a high market value, an increase in Firm Value does not always translate into an increase in stock returns in the short term.

This contradicts the results of other research that has shown a positive and statistically significant relationship between company valuation and stock performance (Saleh et al., 2024). Lestari & Erdiana (2024) point out that when the market places an emphasis on short-term volatility or other financial performance, Firm Value does not always have a substantial influence on Stock Return.

Practically, these results indicate that companies with high market value do not automatically receive a positive response from investors in terms of stock returns. Investors may view company value as long-term information, so its impact on stock returns is not immediately apparent.

#### Moderation of Firm Value on the Effect of Sustainability Disclosure on Stock Return

A negative and statistically significant impact on Stock

Return ( $\beta = -275.1342$ ;  $p < 0.05$ ) is shown as a consequence of the interaction between Sustainability Disclosure and Firm Value (SD  $\times$  FV). That is, this suggests that Firm Value may mitigate Sustainability Disclosure's impact, although a diminishing one. This means that companies with very high market values do not always receive a positive response from investors when they increase sustainability disclosure. In this context, the additional benefits of sustainability disclosure tend to experience diminishing returns for investors.

This result is consistent with other research that has shown that investors' views of sustainability disclosure may be impacted by the size or value of a firm (Nurnaningsih & Handajani, 2025; Qodary & Tambun, 2021). In high-value companies, investors tend to assess that additional disclosures do not provide significant new information, resulting in a lower or negative market response to stock returns.

In practical terms, these results emphasize that companies not only need to improve sustainability disclosure, but also need to adjust their communication strategies so that the added value for investors is visible, especially in high-value companies. A clear strategy can help optimize investor perceptions of sustainability information.

#### Moderation of Firm Value on the Effect of Retention Ratio on Stock Return

The findings indicate that Stock Return is negatively affected, but not significantly, by the interaction between Retention Ratio and Firm Value (RR  $\times$  FV) ( $\beta = -209.5467$ ;  $p > 0.05$ ). Therefore, H5 is rejected since Firm Value does not attenuate the impact of Retention Ratio on Stock Return. Put another way, investors are not swayed enough by a company's market value to change the way retained profits are turned into stock returns.

This confirms what other research has shown, namely that other variables, such market circumstances or business traits, might impact the impact of the Retention Ratio on stock performance (Qodary & Tambun, 2021; Richard Santoso & Sofian, 2025). This indicates that investors pay more attention to short-term financial results than to profit retention strategies, especially when the company's value is high.

In practical terms, these results show that companies need to balance the use of retained earnings with appropriate communication strategies so that investors understand the long-term benefits of profit retention. Effective communication strategies can help investors assess that retained earnings are used for expansion or projects that increase the company's value in the future.

## Conclusion

This study examines the relationship between sustainability disclosure and dividend policy, as reflected by the retention ratio, on stock returns, with firm value acting as a moderating variable, using a sample of banking companies listed on the Indonesia Stock Exchange. The findings provide a clearer understanding of how financial and non-financial information is priced by the capital market in the Indonesian banking sector.

The empirical results indicate that sustainability disclosure has a negative and statistically significant effect on stock returns, while the retention ratio shows a positive but statistically insignificant effect. Firm value does not exhibit a significant direct effect on stock returns. With respect to moderation, the results show that firm value significantly moderates the relationship between sustainability disclosure

and stock returns by weakening the effect, whereas firm value does not significantly moderate the relationship between the retention ratio and stock returns. These findings suggest that the market response to sustainability disclosure is conditional on firm valuation, while dividend retention decisions are not strongly influenced by firm value in determining stock returns.

Overall, the results indicate that sustainability disclosure and profit retention do not uniformly translate into higher stock returns, particularly in the short term. This suggests that investors may not immediately reward banks with higher sustainability disclosure or greater earnings retention, especially in a market environment where short-term financial performance remains a key consideration.

From a practical perspective, these findings highlight the importance of effective communication strategies in conveying the long-term economic relevance of sustainability disclosure and retained earnings. Banks are encouraged to better articulate how sustainability initiatives and internal financing decisions contribute to future value creation, so that non-financial information can be more effectively incorporated into investor decision-making.

Despite its contributions, this study has several limitations. The analysis is limited to a relatively short observation period and a specific sample of banking firms, which may affect the generalizability of the findings. Future research may extend this study by examining a broader sample, a longer time horizon, or additional moderating factors such as industry characteristics, ESG communication quality, and changing market conditions. Such extensions may provide deeper insights into the mechanisms through which sustainability disclosure and dividend policy influence stock returns in emerging markets.

## Author contributions

In this study, Dhiva Asmara Dwi Nanda was responsible as the principal investigator who carried out the entire research process, from formulating the research problem, developing the theoretical framework and methodology, collecting and processing data, to analyzing and interpreting the research results. Dhiva also led the writing of the manuscript and compiled a comprehensive scientific paper into its final form ready for publication.

Frido Saritua Simatupang contributed to the initial stages of the study by participating in the determination of the research topic, the formulation of the research problem, and the development of the research direction. He also assisted in reviewing the results of the data analysis and provided substantive input on the interpretation of the findings. In addition, he contributed to the manuscript editing process by improving the structure and clarity of the writing and ensuring compliance with scientific writing standards and journal guidelines. Both authors jointly reviewed, revised, and approved the final manuscript prior to its submission for publication.

## Acknowledgements

The author would like to thank Frido Saritua Simatupang, S.E., M.M. for his contribution in reviewing this article and providing input author would like to express sincere gratitude to Dr. Rosmini Ramli, S.E., M.M. and Novi Susyani, S.E., M.M. for their invaluable guidance, insightful suggestions, and continuous support throughout the research process. Their feedback and encouragement greatly contributed to the completion of this study and the preparation of this manuscript

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