

The Influence of Earnings Volatility, Dividend Policy, and Asset Growth on Stock Price Volatility and Stock Returns in the Indonesian Banking Sector

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ABSTRACT

Purpose: This study aims to investigate the influence of dividend policy, earnings volatility, and asset growth on the stock prices and returns of banking companies listed on the Indonesia Stock Exchange (IDX).

Research Method: This study employs an associative quantitative approach. Secondary data were obtained from the financial statements and annual reports of banking institutions for the years 2019 to 2020. Purposive sampling was used to select companies based on criteria regarding the issuance of financial statements and the distribution of dividends. Descriptive statistics, classical assumption tests, and hypothesis testing were conducted using multiple linear regression analysis via SPSS version 31.

Results and Discussion: The results indicate that asset expansion, dividend strategy, and earnings fluctuations do not have a partial impact on stock prices or stock returns. Furthermore, these three variables do not influence stock price volatility (Sig. 0.848) or stock returns (Sig. 0.79).

Implications: The findings suggest that external factors—including market sentiment and macroeconomic conditions—played a more significant role in influencing stock price fluctuations and investment returns for Indonesian banking companies during the study period.

Originality: This study contributes to the literature by analyzing the impact of earnings volatility, dividend policy, and asset growth on stock price volatility and stock returns among banking companies on the Indonesia Stock Exchange during the 2021–2025 period.

Keywords: earnings volatility; dividend policy; asset growth; stock price volatility; stock returns; indonesian banking.

1. Introduction

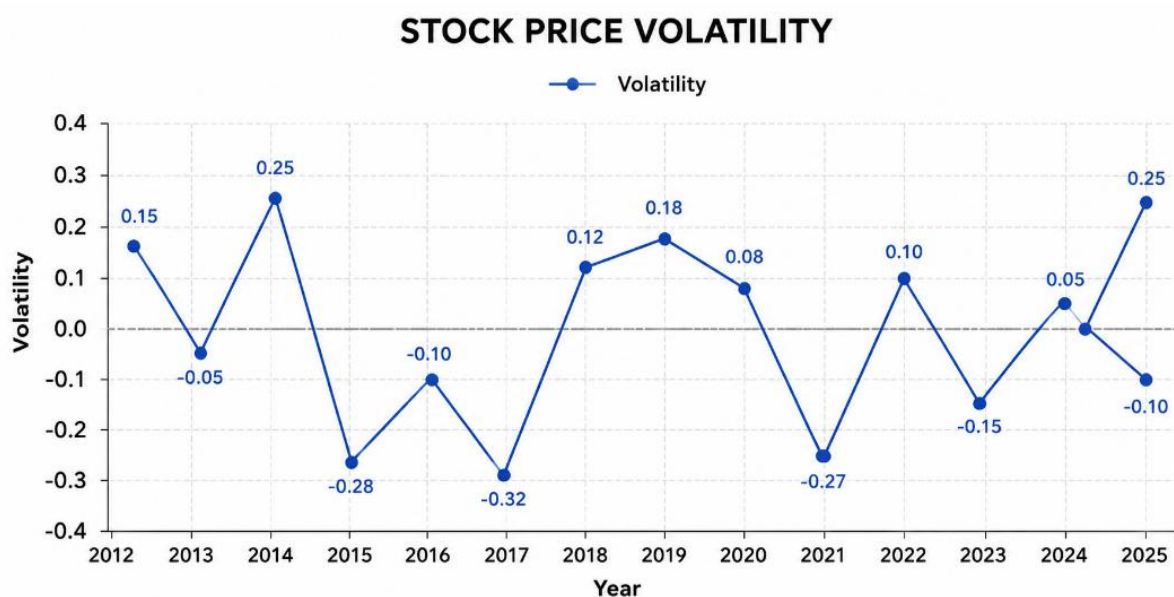
Stock prices are inherently forward-looking and respond continuously to changes in investors' expectations regarding firms' future cash flows, risk, and growth opportunities. In an environment characterized by rapidly changing information and heterogeneous investor expectations, stock prices may exhibit substantial volatility. This phenomenon is consistent with the random walk perspective, which posits that successive stock-price movements cannot be systematically predicted from past price movements because new information is incorporated into market prices in an unpredictable manner (Hase & Haryono, 2018). Accordingly, understanding the determinants of stock price volatility remains an important issue in capital market research, particularly in emerging markets, where information

asymmetry, market liquidity, and investor responses to firm-specific fundamentals may be more pronounced.

The Indonesian banking sector provides an especially relevant setting in which to examine these issues. Banks play a central role in financial intermediation and constitute an important component of the Indonesian capital market. At the same time, banking stocks are exposed to changes in macroeconomic conditions, monetary policy, investor sentiment, and firm-specific financial policies. One institutional feature that may affect the trading dynamics of listed banking firms is free float, which represents the proportion of shares available for public trading. Changes in the availability of publicly tradable shares may affect market liquidity and, consequently, the extent to which information and investor demand are reflected in stock prices (Nurhayati *et al.*, 2022). Thus, stock price volatility in the banking sector should be considered not merely a market phenomenon but also an outcome potentially linked to firms' financial characteristics and policy decisions.

The dynamics of Indonesian banking stocks during 2019–2024 illustrate the relevance of this issue. Over this period, the sector experienced substantial changes in market conditions, including the COVID-19 pandemic, shifts in domestic and international monetary policy, changes in investor participation, and fluctuations in domestic economic expectations. These developments generated considerable variation in banking-stock prices and returns. Figure 1 illustrates the movement of banking stock prices over the period and provides an initial indication of the volatility characterizing the sector.

Figure 1. Stock-Price Volatility of Indonesian Banking Firms, 2019–2024



The evolution of the Indonesian capital market during this period was shaped by both domestic and global developments. In 2019, market sentiment was affected by concerns about economic expansion, Indonesia's trade balance, energy prices, and changes in the U.S. Federal Reserve's monetary policy stance (Sutarmin *et al.*, 2022). The subsequent period was marked by substantial uncertainty stemming from the COVID-19 pandemic and its economic consequences. As financial markets gradually recovered, investor participation increased, with the number of registered investors rising substantially according to data reported by the Indonesia Central Securities Depository (KSEI) and the Indonesia

Stock Exchange (IDX) (Seventeen & Shinta, 2021). These developments underscore the importance of examining firm-level characteristics that may help explain differences in stock-price dynamics beyond aggregate market conditions.

Stock returns provide a complementary perspective. For investors, return represents the economic payoff generated from holding a security and generally consists of capital gains or losses and income received during the investment period (Pertiwi, 2022). Because investors evaluate securities according to the trade-off between expected return and risk, changes in stock prices and return volatility can influence investment decisions. Consequently, investors may pay particular attention to observable firm-level characteristics that signal future performance and risk, including earnings volatility, dividend policy, and asset growth (Fadila & Nuswandari, 2022).

These firm characteristics are particularly relevant in the banking industry. Earnings volatility may capture uncertainty in firms' operating and financial performance and, therefore, affect investors' assessments of future cash flows and risk. Dividend policy, in contrast, is a mechanism by which firms distribute earnings to shareholders and may convey information about current performance and management's expectations for future cash flows. Asset growth may reflect investment opportunities and expansion strategies, but rapid asset expansion may also alter firms' risk profiles and financing requirements. Accordingly, these three characteristics may provide distinct information to investors and potentially influence both stock-price volatility and stock returns.

The descriptive pattern observed in Indonesian banking firms over 2019–2024 further motivates this investigation. During the earlier part of the period, changes in earnings, dividends, and asset growth coincided with notable movements in stock prices and returns. In subsequent years, however, these relationships appear less straightforward. For example, changes in dividend payments do not always coincide with proportional changes in stock-price volatility or returns. Similarly, changes in asset growth appear to coincide with distinct patterns of stock price movements across subperiods. Such observations suggest that the relationship between firm-specific financial characteristics and market outcomes may not be uniform over time. Rather than assuming that higher earnings stability, dividend payments, or asset expansion necessarily translate into predictable stock-price responses, empirical examination is required.

Prior empirical research provides mixed evidence, further reinforcing the need for investigation. Jannah and Haridhi (2019) examine dividend policy and stock-price volatility and report that leverage is positively associated with stock-price volatility. In contrast, Erviana (2021) finds no significant effect of dividend policy on stock-price volatility. Evidence concerning earnings volatility is similarly inconclusive. Patriadjati (2020) reports an association between firm size and stock-price volatility, whereas Ramadhani and Nurbaiti (2022) find that earnings volatility does not significantly affect stock-price volatility. These divergent findings indicate that the information contained in firms' earnings characteristics may not be incorporated into stock prices uniformly across institutional and market settings.

Evidence regarding asset growth is also mixed. Mustika (2018) documents a positive association between asset growth and stock-price volatility, whereas Septiani and Karlina (2020) report a negative relationship between asset growth and both stock returns and price volatility. Rosyida *et al.*, (2020) likewise identify an association between asset growth and stock-price volatility. Similarly, research on dividend policy produces inconsistent results: Utami and Purwohandoko (2021) report a positive relationship between dividend policy and stock-price volatility, while Sutandijo (2019) finds no significant effect of dividend policy on stock returns or stock-price volatility. Taken together, the existing

literature does not provide a consistent prediction regarding how earnings volatility, dividend policy, and asset growth are reflected in stock-market outcomes.

This inconsistency represents an important empirical gap. First, prior studies frequently examine individual determinants of stock price volatility or returns in isolation, making it difficult to assess whether earnings volatility, dividend policy, and asset growth provide incremental information when considered jointly. Second, the evidence is predominantly drawn from various institutional and economic contexts, while the Indonesian banking sector has distinctive characteristics arising from its regulatory environment, its role in financial intermediation, ownership structures, and sensitivity to monetary and macroeconomic conditions. Third, the 2019–2024 period encompasses an unusually heterogeneous sequence of market conditions, providing an opportunity to examine whether the association between firm fundamentals and market outcomes remains observable across periods characterized by substantial economic and financial uncertainty.

Against this background, this study examines the associations between earnings volatility, dividend policy, and asset growth and stock price volatility and stock returns among Indonesian banking firms during 2019–2024. By examining these variables within a common empirical framework, the study seeks to determine whether firm-specific financial characteristics are systematically reflected in market-based outcomes after accounting for their simultaneous presence. The study contributes to the literature in three ways. First, it extends research on stock-market responses by jointly examining three firm-level characteristics that represent different information dimensions—earnings uncertainty, shareholder distribution policy, and corporate expansion. Second, it provides evidence from the Indonesian banking sector, an economically important emerging-market setting in which financial firms are particularly sensitive to changes in market expectations and macroeconomic conditions. Third, by focusing on the 2019–2024 period, the study provides evidence from a period encompassing substantial changes in market conditions and investor participation.

The study therefore addresses the following research question: To what extent are earnings volatility, dividend policy, and asset growth associated with stock-price volatility and stock returns among Indonesian banking firms? Answering this question is relevant not only to investors seeking to evaluate the information content of firm-level financial characteristics but also to managers and policymakers concerned with the functioning and informational efficiency of the Indonesian capital market.

The remainder of this paper is organized as follows. Section 2 reviews the relevant literature and develops the research hypotheses. Section 3 describes the research methodology. Section 4 presents the empirical findings and robustness analyses. Finally, Section 5 concludes the study by summarizing the main findings.

2. Literature Review and Hypothesis Development

2.1 Earnings Volatility

Earnings are an important source of firm-specific information for capital-market participants because they signal a firm's operating performance, future cash-flow prospects, and underlying risk. Earnings volatility captures the extent to which reported earnings fluctuate over time and can therefore provide information about the uncertainty surrounding future firm performance. From an investor's perspective,

greater earnings instability may increase uncertainty regarding future cash flows and make the valuation of equity securities more difficult.

The relationship between earnings volatility and stock-market outcomes can be understood from an information perspective. When earnings exhibit substantial fluctuations, investors may face greater uncertainty in assessing the persistence of current earnings and forecasting future profitability. Such uncertainty can lead to greater dispersion in investor expectations and consequently generate stronger adjustments in stock prices when new information becomes available. Conversely, relatively stable earnings may reduce uncertainty and facilitate more consistent valuation by market participants.

Prior empirical evidence, however, does not provide a uniform conclusion. Bradley *et al.*, (1984), Sutandijo (2019), and Jannah and Haridhi (2016) examine earnings-related information in relation to stock-market outcomes, while Brian (2015) conceptualizes earnings volatility as a measure of variation in firms' reported earnings. More recent evidence also suggests that the relationship between earnings volatility and stock-price volatility may depend on firm and market characteristics. Ramadhani and Nurbaiti (2022), for example, report that earnings volatility does not significantly affect stock-price volatility. This mixed evidence suggests that the extent to which earnings uncertainty is incorporated into market prices remains an empirical question, particularly in emerging-market settings.

From an investor-risk perspective, higher earnings volatility is expected to increase uncertainty about future cash flows and, consequently, increase the sensitivity of stock prices to new information. Therefore, this study predicts a positive association between earnings volatility and stock-price volatility.

H1a: *Earnings volatility is positively associated with stock-price volatility.*

Earnings volatility may also affect stock returns because investors require compensation for bearing greater uncertainty. If greater earnings instability reflects greater firm-specific risk, investors may demand higher expected returns. Accordingly, firms with more volatile earnings may exhibit different return profiles from those of firms with relatively stable earnings.

H1b: *Earnings volatility is significantly associated with stock returns.*

2.2 Dividend Policy

Dividend policy concerns management's decision on how to allocate current earnings between distributions to shareholders and retained earnings for future investment. This decision is important because dividends can serve as both a mechanism for distributing corporate wealth and a signal of management's expectations for future firm performance. Dividend policy is particularly relevant to capital-market participants because dividend payments may convey information about a firm's financial condition and future prospects. From a signaling perspective, firms that maintain or increase dividend payments may signal management's confidence in the firm's ability to generate future cash flows. Conversely, reductions or omissions of dividends may be interpreted as signals of deteriorating financial conditions or weaker future prospects. Sugianto *et al.*, (2021) similarly emphasize that a higher dividend payout ratio implies a larger proportion of earnings being distributed to shareholders and a smaller proportion being retained by the firm.

The information conveyed by dividend policy may consequently influence stock price volatility. If dividend announcements reduce information asymmetry between managers and investors, they may reduce uncertainty surrounding firm value. However, changes in dividend policy can also generate substantial price reactions when they differ from investors' expectations. Thus, dividend policy may

affect stock price volatility through the information content of dividend decisions and investors' responses to them.

Empirical evidence regarding this relationship remains mixed. Jannah and Haridhi (2019) examine dividend policy and stock-price volatility and provide evidence that firm-level financial characteristics can influence price volatility. Utami and Purwohandoko (2021) report a positive association between dividend policy and stock-price volatility, whereas Sutandijo (2019) finds no significant relationship. These contrasting findings suggest that the market response to dividend policy may vary across firms and institutional settings. Given the information content of dividend decisions, this study expects dividend policy to be associated with stock-price volatility.

H2a: *Dividend policy is significantly associated with stock-price volatility.*

Dividend policy may also influence stock returns. From the investor's perspective, dividends constitute a direct component of investment return, while dividend announcements may simultaneously affect capital gains through changes in stock prices. Consequently, dividend-paying firms may generate different return characteristics from firms that retain a larger proportion of their earnings.

Prior evidence is again inconclusive. Some studies document significant relationships between dividend policy and stock returns, whereas others find no significant association (Sutandijo, 2019). This inconsistency provides an opportunity to reassess the relationship in the Indonesian banking sector, where dividend decisions may contain important information about profitability, capital adequacy, and future growth prospects. Accordingly, the study proposes:

H2b: *Dividend policy is significantly associated with stock returns.*

2.3 Asset Growth

Asset growth reflects the expansion of a firm's resource base and indicates its investment and business development activities. Siregar (2021) conceptualizes assets as economic resources employed by firms to support their operating activities. Growth in assets may therefore indicate an expansion of operating capacity, investment opportunities, or strategic development. In capital markets, asset growth can provide investors with information regarding a firm's future growth potential and the extent to which management is expanding the firm's economic resources.

The implications of asset growth for stock-market outcomes are not unambiguously positive. On the one hand, asset expansion may signal stronger investment opportunities, increasing expected future cash flows and firm value. On the other hand, rapid asset growth may require additional financing and increase financial or operational risk. Ramadhani and Nurbaiti (2022) note that expansion of corporate assets may be accompanied by increased external financing and changes in the firm's capital structure. Thus, investors may interpret asset growth differently depending on whether expansion is perceived as productive investment or as an increase in risk exposure.

Asset growth may, in turn, affect stock price volatility. Higher growth may increase uncertainty regarding the future economic benefits of newly acquired assets and the firm's ability to convert those investments into sustainable earnings. At the same time, strong asset expansion may attract investor attention and generate changes in expectations regarding future firm performance.

Empirical evidence provides mixed findings. Mustika (2018) reports a positive relationship between asset growth and stock-price volatility, while Septiani and Karlina (2020) find that asset growth is negatively associated with stock returns and stock-price volatility. Rosyida *et al.*, (2020) also identify

an association between asset growth and stock-price volatility. These inconsistent findings indicate that the market implications of asset growth remain unresolved.

Accordingly, the present study predicts that asset growth is associated with stock-price volatility.

H3a: *Asset growth is significantly associated with stock-price volatility.*

Asset growth may also have implications for stock returns. Firms with greater growth opportunities may generate higher expected future cash flows, potentially resulting in stronger investor demand and higher stock returns. However, growth investments may require substantial resources and may not immediately generate realized returns. The market response may therefore depend on investors' assessment of the quality and expected profitability of the firm's expansion. The mixed findings reported by Septiani and Karlina (2020) and Rosyida *et al.*, (2020) suggest that the relationship between asset growth and stock returns warrants further empirical examination. Therefore:

H3b: *Asset growth is significantly associated with stock returns.*

3. Research Method

This study employs a quantitative associative research design to examine the relationships among the variables under investigation. A quantitative approach is appropriate because the study seeks to empirically test predetermined hypotheses using measurable variables and statistical procedures. Consistent with Sugiyono (2021), quantitative research is grounded in a positivist paradigm and is designed to examine relationships within a defined population through systematic data collection and statistical analysis.

The study focuses on banking firms listed on the Indonesia Stock Exchange (IDX) during the 2018–2024 research period. The sample selection is based on specific inclusion criteria, namely banking firms that consistently publish their financial statements and provide dividend information during the observation period. Firms that do not meet these criteria are excluded from the sample. The resulting observations are therefore based on firms for which the required financial and market information is available throughout the study period. The study relies primarily on secondary data obtained from publicly available corporate financial statements and annual reports. These sources provide information on the financial and corporate characteristics required to operationalize the study variables. Secondary data are appropriate for this research because the variables examined can be measured objectively using archival financial and market information.

The empirical analysis is conducted using panel data regression in SPSS Version 25. The analysis proceeds in several stages. First, descriptive statistics are employed to summarize the characteristics and distribution of the variables. Second, diagnostic tests are conducted to assess the principal assumptions underlying the regression model, including normality, multicollinearity, heteroskedasticity, and autocorrelation. Finally, hypothesis testing is performed to evaluate the statistical significance and direction of the relationships between the independent variables and the dependent variables. Overall, this methodological design enables the study to examine whether earnings volatility, dividend policy, and asset growth are systematically associated with stock-price volatility and stock returns among Indonesian banking firms over the 2018–2024 observation period.

4. Results and Discussion

4.1. Analysis Result

4.1.1 Descriptive Statistics

Table 1 reports the descriptive statistics for the variables used in the empirical analysis, including earnings volatility (EVOL), dividend policy (DPR), asset growth (AG), stock-price volatility (SPV), and stock returns (RET). The table presents the minimum, maximum, mean, and standard deviation for each variable. Earnings volatility ranges from 0.00 to 16.11, with a mean of 2.3299 and a standard deviation of 4.5723. The relatively large standard deviation compared with the mean indicates substantial cross-sectional and temporal variation in firms' earnings volatility. This dispersion suggests considerable heterogeneity in earnings stability across the sampled banking firms. The maximum value also indicates the presence of observations with substantially higher earnings volatility than the sample average.

Table 1. Descriptive Statistics

Statistics	Earnings Volatility	Dividend Policy	Asset Growth	Stock-Price Volatility	Stock Return
N – Valid	75	75	75	75	75
N – Missing	1	1	1	1	1
Mean	2.3299	0.3806	0.0783	-4.4300	-0.0371
Median	0.0050	0.3644	0.0710	-4.4482	-0.0276
Std. Deviation	4.25723	0.25524	0.08202	0.55647	0.20358
Range	16.11	1.24	0.55	2.50	1.02
Minimum	0.00	-0.11	-0.12	-5.78	-0.45
Maximum	16.11	1.12	0.43	-3.27	0.57

Source: Authors' own work (2026)

Dividend policy ranges from -0.11 to 1.12, with a mean of 0.3806 and a standard deviation of 0.2552. The mean indicates that, on average, approximately 38.06% of earnings are distributed as dividends, although the range suggests considerable heterogeneity in payout decisions across firms and years. The negative minimum value may reflect observations in which the dividend payout ratio is affected by negative earnings or other accounting characteristics and therefore warrants careful consideration in the interpretation of the variable.

Asset growth ranges from -0.12 to 0.43, with a mean of 0.0783 and a standard deviation of 0.0820. The positive mean indicates that the sample firms experienced, on average, approximately 7.83% annual asset growth. Nevertheless, the negative minimum indicates that some firms experienced a contraction in their asset base during the observation period. The dispersion of asset growth is relatively moderate, suggesting differences in the pace of expansion among the sampled banks.

Stock-price volatility ranges from -5.78 to -3.27, with a mean of -4.4300 and a standard deviation of 0.5565. The negative values suggest that the measure is expressed in a transformed form, presumably following the logarithmic transformation described in the methodology. Accordingly, these values should not be interpreted as economically negative volatility; rather, they reflect the scale of the transformed measure.

Stock returns range from -0.45 to 0.57, with a mean of -0.0371 and a standard deviation of 0.2036. The negative mean indicates that the average observed return over the sample period was approximately -3.71%. The relatively high dispersion compared with the mean further indicates

substantial variation in investment outcomes across firms and periods. Overall, the descriptive statistics indicate substantial heterogeneity across the banking firms in terms of earnings stability, dividend distribution, asset expansion, stock-price volatility, and stock returns. Such heterogeneity provides sufficient variation for examining whether firm-specific financial characteristics are systematically associated with market-based outcomes.

4.1.2 Diagnostic Tests

4.1.2.1 Normality Test

The normality assessment is conducted using the one-sample Kolmogorov–Smirnov (K–S) test on the unstandardized residuals of each regression model. A significance level above 0.05 indicates that the null hypothesis of normally distributed residuals cannot be rejected. Model 1: Stock-Price Volatility Table 2 reports a K–S test statistic of 0.079 with an asymptotic two-tailed significance level of 0.200. Because the reported p-value exceeds the 0.05 threshold, the null hypothesis of normally distributed residuals cannot be rejected.

The residuals of the stock-price-volatility model therefore do not exhibit statistically significant departures from normality. Model 2: Stock Returns For the stock-return model, Table 3 reports a K–S statistic of 0.081 and a significance level of 0.200. The result similarly indicates that the residuals do not significantly deviate from a normal distribution. Taken together, the diagnostic results suggest that the residual distributions of both regression models satisfy the normality criterion.

4.1.2.2 Multicollinearity Test

Table 2. Normality Test Result

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		75
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.55333713
Most Extreme Differences	Absolute	.079
	Positive	.079
	Negative	-.053
Test Statistic		.079
Asymp. Sig. (2-tailed) ^c		.200 ^d
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		
e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 926214481.		

Source: Authors own work (2026)

Multicollinearity is assessed using the tolerance and variance inflation factor (VIF) statistics. Conventional diagnostic criteria indicate potential multicollinearity when tolerance falls below 0.10 or VIF exceeds 10. The results indicate that these thresholds are not approached in either regression model. For both the stock-price-volatility and stock-return models, earnings volatility has a tolerance value of 0.823 and a VIF of 1.214, while dividend policy has a tolerance value of 0.823 and a VIF of 1.215. Asset growth exhibits a tolerance value of 0.999 and a VIF of 1.001. These values are substantially within the conventional diagnostic thresholds. Accordingly, the explanatory variables do not exhibit evidence of

problematic multicollinearity. The estimated coefficients can therefore be interpreted without substantial concern that excessive linear dependence among the independent variables is distorting the regression estimates.

4.1.2.3 Heteroskedasticity Test

The study further examines whether the variance of the regression residuals is systematically related to the explanatory variables. The Glejser test is employed for this purpose. A significance level greater than 0.05 indicates that the null hypothesis of homoscedasticity cannot be rejected. For the stock-price-volatility model, the significance levels are 0.155 for earnings volatility, 0.949 for dividend policy, and 0.137 for asset growth. All three values exceed 0.05, providing no statistical evidence of heteroskedasticity. The corresponding results for the stock-return model are 0.358, 0.118, and 0.785 for earnings volatility, dividend policy, and asset growth, respectively. Again, all significance levels exceed 0.05. Overall, the Glejser results provide no evidence of systematic heteroskedasticity in either regression specification. The residual variance therefore appears reasonably stable across the observations.

Table 3. Normality Test for Y2 (Stock Returns)

One-Sample Kolmogorov-Smirnov Test	Unstandardized Residual
N	75
Normal Parameters^{a,b}	
Mean	0.000000
Std. Deviation	0.19412275
Most Extreme Differences	
Absolute	0.081
Positive	0.081
Negative	−0.035
Test Statistic	0.081
Asymp. Sig. (2-tailed)^c	0.200 ^d

Source: Authors' own work (2026)

4.1.2.4 Autocorrelation Test

Serial correlation is assessed using the Durbin–Watson (DW) statistic. With 75 observations and three explanatory variables, the reported lower and upper bounds are $dL = 1.543$ and $dU = 1.709$, respectively. Under the conventional decision rule, values between dU and $4 - dU$ (i.e., 1.709 to 2.291) indicate no evidence of first-order autocorrelation. For the stock-price-volatility model, the DW statistic is 0.788, which is below the lower bound of 1.543. This result indicates positive first-order autocorrelation in the residuals. The finding suggests that the regression errors may exhibit temporal dependence across observations, which is particularly relevant when observations are organized by firm and year.

This diagnostic result warrants caution in interpreting the conventional standard errors and statistical significance of the coefficients in the stock-price-volatility model. Although serial correlation does not necessarily imply biased coefficient estimates under the classical linear regression framework, it can lead to inefficient estimates and, more importantly, biased conventional standard errors. Consequently, inference based solely on conventional p-values should be interpreted cautiously. By contrast, the stock-return model produces a DW statistic of 2.005, which falls within the no-autocorrelation interval of 1.709–2.291. Thus, the stock-return model does not exhibit evidence of first-order autocorrelation based on the Durbin–Watson criterion.

Table 4. Multicollinearity Test for Y1 (Stock-Price Volatility)

Model	Variable	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-4.429	0.157	—	-28.205	0.000	—	—
1	Earnings Volatility	0.012	0.017	0.089	0.681	0.498	0.823	1.214
1	Dividend Policy	-0.069	0.284	-0.032	-0.244	0.808	0.823	1.215
1	Asset Growth	-0.014	0.801	-0.002	-0.018	0.986	0.999	1.001

Source: Authors' own work (2026)

Table 5. Multicollinearity Test for Y2 (Stock Returns)

Model	Variable	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Tolerance	VIF
1	(Constant)	0.017	0.055	—	0.301	0.764	—	—
1	Earnings Volatility	-0.008	0.006	-0.170	-1.365	0.176	0.823	1.214
1	Dividend Policy	-0.193	0.100	-0.242	-1.939	0.056	0.823	1.215
1	Asset Growth	0.494	0.281	0.199	1.759	0.083	0.999	1.001

Source: Authors' own work (2026)

Table 6. Heteroskedasticity Test for Y1 (Stock-Price Volatility)

Model	Variable	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	0.465	0.088	—	5.262	<0.001
1	Earnings Volatility	0.014	0.010	0.182	1.437	0.155
1	Dividend Policy	0.010	0.159	0.008	0.065	0.949
1	Asset Growth	-0.677	0.450	-0.173	-1.503	0.137

Source: Authors' own work (2026)

Table 7. Heteroskedasticity Test for Y2 (Stock Returns)

Model	Variable	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	0.200	0.033	—	6.092	<0.001
1	Earnings Volatility	-0.003	0.004	-0.119	-0.925	0.358
1	Dividend Policy	-0.094	0.059	-0.203	-1.580	0.118
1	Asset Growth	-0.046	0.168	-0.032	-0.274	0.785

Source: Authors' own work (2026)

4.1.3 Hypothesis Testing

4.1.3.1 Earnings Volatility, Dividend Policy, Asset Growth, and Stock-Price Volatility

The first regression specification examines whether earnings volatility, dividend policy, and asset growth are associated with stock-price volatility. The analysis evaluates both the joint explanatory power of the independent variables and their individual associations with stock-price volatility. Joint Significance Test Table 10 reports an F-statistic of 0.269 with a significance level of 0.848. Because the p-value substantially exceeds the 0.05 significance threshold, the null hypothesis that the coefficients of the explanatory variables are jointly equal to zero cannot be rejected. Thus, earnings volatility, dividend policy, and asset growth do not jointly provide statistically significant explanatory power for stock-price volatility in the sample. The result suggests that variation in stock-price volatility is not sufficiently explained by the three firm-level characteristics considered in this specification. This finding is noteworthy because the theoretical arguments suggest that earnings uncertainty, dividend decisions, and asset expansion may convey information relevant to investors' valuation decisions.

Table 8. Autocorrelation Test for Y1 (Stock-Price Volatility)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.106 ^a	0.011	-0.031	0.56491	0.788

Source: Authors' own work (2026)

The insignificant joint effect therefore indicates that these firm-specific characteristics, at least in aggregate, may not be sufficient to explain variation in stock-price volatility among the sampled Indonesian banking firms. Partial Significance Test: The coefficient-level results reported in Table 12 show that earnings volatility has a t-statistic of 0.681 ($p = 0.498$), dividend policy has a t-statistic of -0.244 ($p = 0.808$), and asset growth has a t-statistic of -0.018 ($p = 0.986$). None of these coefficients is statistically significant at the 5% level. Accordingly, the results do not provide empirical support for a significant association between any of the three explanatory variables and stock-price volatility. These findings imply that the market response, as reflected in stock price volatility, may be influenced by factors beyond the firm's earnings volatility, dividend policy, and asset growth. In the banking sector, for example, stock price movements may also reflect broader market conditions, monetary policy, regulatory developments, interest rate expectations, investor sentiment, and other firm-specific characteristics not captured by the present specification.

Table 9. Autocorrelation Test for Y2 (Stock Returns)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.301 ^a	0.091	0.052	0.19818	2.005

Source: Authors' own work (2026)

4.1.3.2 Earnings Volatility, Dividend Policy, Asset Growth, and Stock Returns

The second regression specification examines whether earnings volatility, dividend policy, and asset growth are associated with stock returns. Joint Significance Test Table 11 reports an F-statistic of 2.362. The reported significance level is 0.079. Because $p = 0.079$ exceeds the 0.05 threshold, the null hypothesis that the explanatory variables are jointly equal to zero cannot be rejected at the conventional 5% significance level. However, the result is relatively close to the 10% threshold. Thus, while the model

does not demonstrate statistically significant joint explanatory power at the 5% level, it may provide weak or marginal evidence of joint association at the 10% level. This distinction is important and should be reported rather than characterizing the model simply as having “no effect.”

Table 10. F-Test for Y2 (Stock Returns)

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.278	3	0.093	2.362	0.079 ^b
	Residual	2.789	71	0.039	—	—
	Total	3.067	74	—	—	—

Source: Authors' own work (2026)

4.1.3.3 Partial Significance Test

Table 13 reports the coefficient-level results for the stock-return model. Earnings volatility has a t-statistic of –1.365, dividend policy has a t-statistic of –1.939, and asset growth has a t-statistic of 1.759. The reported significance levels are 0.764, 0.056, and 0.083, respectively. Based on the reported p-values, none of the variables reaches conventional statistical significance at the 5% level. Nevertheless, dividend policy and asset growth exhibit p-values below 0.10, suggesting marginal evidence of association at the 10% level. Dividend policy is negatively associated with stock returns, whereas asset growth is positively associated with stock returns based on the reported coefficient directions. Accordingly, the evidence does not support the hypotheses at the conventional 5% significance level. However, the relatively close p-values for dividend policy and asset growth suggest that these relationships may warrant further investigation, particularly through alternative model specifications and robustness tests.

Table 11. F-Test for Y2 (Stock Returns)

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.278	3	0.093	2.362	0.079 ^b
	Residual	2.789	71	0.039	—	—
	Total	3.067	74	—	—	—

Source: Authors' own work (2026)

Table 12. t-Test for Y1 (Stock-Price Volatility)

Model	Variable	t	Sig.
1	(Constant)	–28.205	<0.001
	Earnings Volatility	0.681	0.498
	Dividend Policy	–0.244	0.808
	Asset Growth	–0.018	0.986

Source: Authors own work (2026)

Table 13. t-Test for Y2 (Stock Returns)

Model	Variable	t	Sig.
1	(Constant)	0.301	0.764
	Earnings Volatility	–1.365	0.176
	Dividend Policy	–1.939	0.056

Source: Authors' own work (2026)

4.2 Discussion

The empirical evidence provides limited support for the proposition that earnings volatility, dividend policy, and asset growth are systematically associated with stock market outcomes among Indonesian banking firms. Although these firm-level characteristics are theoretically relevant to investors' assessments of risk, expected cash flows, and future growth opportunities, none of the three variables exhibits a statistically significant association with stock price volatility or stock returns at the conventional 5% significance level. The findings therefore suggest that the information embedded in these accounting and financial characteristics is not, by itself, sufficient to explain variation in the market outcomes examined in this study.

The absence of a significant association between earnings volatility and stock-price volatility is noteworthy from an information perspective. Greater earnings volatility is generally expected to increase uncertainty about the persistence of earnings and future cash flows, potentially inducing greater disagreement among investors and stronger price adjustments when new information arrives. However, the insignificant coefficient observed in this study suggests that investors may not rely primarily on historical earnings variability when evaluating Indonesian banking stocks. This result is consistent with evidence reported by Ramadhani and Nurbaiti (2022), who find no significant association between earnings volatility and stock-price volatility. The finding may indicate that market participants place greater weight on forward-looking information, macroeconomic conditions, regulatory developments, or other risk indicators when pricing banking stocks.

The insignificant association between dividend policy and stock price volatility likewise provides an important qualification of the dividend-signaling perspective. Although dividend payments can convey information about management's expectations regarding future earnings and cash flows, the absence of a significant relationship suggests that dividend information may not generate sufficiently strong or unexpected revisions in investors' expectations to materially affect price volatility. This result is consistent with Erviana (2021), who reports that dividend policy does not significantly affect stock-price volatility. However, it contrasts with the findings of Jannah and Haridhi (2019) and Utami and Purwohandoko (2021), who document positive associations between dividend policy and stock price volatility. These divergent findings reinforce the view that the informational content of dividends may be contingent on institutional characteristics, investor composition, market conditions, and the extent to which dividend announcements differ from market expectations.

Similarly, asset growth does not exhibit a statistically significant association with stock-price volatility. Although asset expansion can signal investment opportunities and future growth potential, it can also increase financing requirements and uncertainty concerning the profitability of newly deployed resources. The insignificant result suggests that investors may not interpret asset expansion in a sufficiently uniform manner to generate systematic variation in stock-price volatility. This finding contributes to the mixed evidence in the prior literature, in which asset growth has been associated with both positive and negative market outcomes across different settings. Such inconsistency suggests that the market consequences of asset growth depend not simply on the magnitude of expansion but also on the quality, financing, and expected profitability of the underlying investments.

The results for stock returns provide a broadly similar picture. Earnings volatility is not significantly associated with stock returns, suggesting that greater variation in accounting earnings does not necessarily translate into a systematic return premium or discount in the sample. Dividend policy also fails to reach statistical significance at the 5% level, although its p-value of 0.056 indicates marginal

evidence at the 10% level. Asset growth likewise remains statistically insignificant at the 5% level, but its p-value of 0.083 provides relatively weak evidence of an association at the 10% level. These results should therefore not be interpreted as evidence that dividend policy and asset growth are completely irrelevant to stock returns. Rather, the evidence indicates that their associations are not sufficiently robust to meet the conventional 5% significance threshold.

Taken together, the findings point to an important distinction between the accounting information environment and the broader set of information incorporated into bank-stock prices. Indonesian banking firms operate in a setting where market valuations can be highly sensitive to interest rates, monetary policy expectations, regulatory developments, economic growth, exchange rate movements, credit conditions, and global investor sentiment. During the study period, these factors were particularly salient because the market experienced the COVID-19 shock, subsequent economic recovery, and substantial changes in global monetary conditions. It is therefore plausible that macroeconomic and market-wide information dominated firm-specific signals contained in earnings volatility, dividend policy, and asset growth.

The relatively limited explanatory power of the models provides further support for this interpretation. The results suggest that a substantial portion of the variation in stock-price volatility and stock returns remains attributable to factors outside the three-variable specification. This does not necessarily imply that the selected accounting variables are economically irrelevant. Instead, it indicates that their incremental explanatory power may be limited once investors simultaneously process broader market information and other firm-specific characteristics. Future research could therefore consider incorporating variables such as firm size, leverage, liquidity, book-to-market ratio, market risk, interest-rate exposure, ownership structure, and broader market returns to provide a more comprehensive explanation of banking-stock dynamics.

An additional consideration concerns the positive autocorrelation detected in the stock-price-volatility model. The Durbin–Watson statistic of 0.788 indicates that the residuals are serially correlated, suggesting that stock-price volatility may exhibit temporal dependence across observations. This finding is particularly relevant given the longitudinal structure of the data. Serial correlation can result in inefficient estimation and potentially biased conventional standard errors, thereby affecting statistical inference. Accordingly, the insignificant coefficients in the stock-price-volatility model should be interpreted with caution. Importantly, this diagnostic issue does not, by itself, establish that the underlying economic relationships are absent; rather, it highlights the need for inference procedures that appropriately account for temporal and potentially firm-specific dependence in the data.

Overall, the findings contribute to the continuing debate concerning whether firm-level accounting and financial characteristics are systematically reflected in stock-market outcomes. The evidence indicates that earnings volatility, dividend policy, and asset growth do not provide strong standalone explanations for stock-price volatility or stock returns among the sampled Indonesian banking firms. The divergence from some prior studies also suggests that the market relevance of these variables is likely to be context-dependent. In particular, differences in institutional settings, observation periods, investor composition, industry characteristics, and prevailing macroeconomic conditions may explain why apparently similar firm-level signals generate different market responses across studies.

Importantly, these findings should be interpreted as associations rather than causal effects, given the observational research design. The results also motivate further analysis using panel-data estimators and robust inference procedures that explicitly account for firm-level heterogeneity and serial dependence. Such extensions would provide a stronger basis for determining whether the observed

insignificant relationships reflect genuinely weak market responses to these accounting signals or limitations arising from model specification and statistical inference.

5. Conclusion

The empirical findings provide no statistical support for the proposed relationships between the firm-level financial characteristics and stock-market outcomes examined in this study. First, Hypothesis 1 is not supported. Dividend policy, asset growth, and earnings volatility do not jointly explain variation in stock-price volatility, as indicated by the insignificant F-statistic ($F = 0.442$; $p = 0.723$). The partial regression results lead to the same conclusion, with significance levels of 0.326, 0.473, and 0.845, respectively, all exceeding the conventional 5% threshold. Thus, the evidence does not indicate a statistically significant association between any of the three explanatory variables and stock-price volatility. Second, Hypothesis 2 is not supported at the 5% significance level. Dividend policy, earnings volatility, and asset growth are not jointly associated with stock returns, as reflected in the regression results ($F = 1.697$; $p = 0.175$). The individual coefficient tests likewise produce significance levels of 0.913, 0.150, and 0.087, respectively.

Although none of the variables reaches the conventional 5% significance threshold, the p-value for asset growth ($p = 0.087$) provides weak evidence of an association at the 10% level. This marginal result should therefore be distinguished from a complete absence of statistical association. Overall, the findings suggest that earnings volatility, dividend policy, and asset growth have limited incremental explanatory power for stock-price volatility and stock returns within the sample and observation period. The results also imply that investors in Indonesian banking firms may incorporate a broader set of market-wide, macroeconomic, regulatory, and firm-specific information when assessing equity prices and returns. Given the observational nature of the analysis, these findings should be interpreted as evidence of statistical association rather than causal effects.

Several implications follow from these findings. First, investors should avoid relying exclusively on earnings volatility, dividend policy, or asset growth when evaluating Indonesian banking stocks. These indicators should instead be considered alongside market conditions, interest-rate movements, regulatory developments, firm risk, and other financial fundamentals. Second, bank managers should recognize that dividend and asset-growth decisions may not automatically generate predictable stock-market responses. Corporate financial policies should therefore be aligned with long-term investment opportunities, capital requirements, and sustainable value creation, rather than designed solely to influence short-term stock price movements.

Third, future research should employ panel-data estimation techniques and robust standard errors that explicitly account for firm-level heterogeneity and serial dependence. This is particularly important because the stock-price-volatility model exhibits evidence of autocorrelation. Future studies could also incorporate additional determinants, including firm size, leverage, liquidity, book-to-market ratio, ownership structure, market risk, interest-rate sensitivity, and macroeconomic indicators. Such extensions may provide a more comprehensive explanation of variation in stock-price volatility and stock returns. Finally, future research could examine whether the relationships identified in this study vary across different market regimes, such as pre-pandemic, pandemic, and post-pandemic periods. Such an approach would help determine whether the limited associations documented in the full sample reflect stable economic relationships or changes in the information environment and investor behavior over time.

Statement on the Use of Generative AI

During the preparation of this manuscript, the authors used generative artificial intelligence (AI) tools to support the academic writing process. Grammarly was used to check grammar, refine writing style, and improve clarity and readability. All interpretations, analyses, arguments, and conclusions presented in this manuscript remain the sole responsibility of the authors.

References

- Abdullah, M. F., Yunus, A. R., Abdullah, W., Muchlis, S., Indonesia, P., Syariah, S., & Normal, N. (2024). Investasi saham syariah di masa new normal. 7, 43–63.
- Agustin, L., & Anwar, M. (2022). Pengaruh Keputusan Investasi, Kebijakan Dividen Dan Likuiditas Terhadap Nilai Perusahaan Pada Perusahaan Sub Sektor Property Dan Real Estat Yang Terdaftar Di Bei. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, Dan Akuntansi)*, 6(2), 1251–1267. www.idx.co.id
- Apriliansah, L. (2024). Analisis Pengaruh Investasi Terhadap Pertumbuhan Ekonomi. *JICN: Jurnal Intelek Dan Cendekiawan Nusantara*, 1(2), 2401–2413. <https://jicnusantara.com/index.php/jicn>
- Erviana, M. (2021). ... Dan Kebijakan Dividen Terhadap Nilai Perusahaan Pada Perusahaan Bumh Yang Terdaftar Di Bursa Efek Indonesia Periode 2013–2017. *Liabilities (Jurnal Pendidikan Akuntansi)*. <http://jurnal.umsu.ac.id/index.php/LIAB/article/view/2689>
- Fadila, A. N., & Nuswandari, C. (2022). Apa Saja Faktor - Faktor Yang Mempengaruhi Harga Saham. *E-Bisnis: Jurnal Ilmiah Ekonomi Dan Bisnis*, 15(2), 283–293. <https://doi.org/10.51903/e-bisnis.v15i2.837>
- Hase, G. J., & Haryono, N. A. (2018). Pengujian efisiensi pasar pada pasar modal Indonesia Periode Juni 2009-Juni 2015 (Studi Pada Indeks harga saham gabungan). *Jurnal Ilmu Manajemen (JIM)*, 6(4).
- Nurhayati, Devi, Y., Saefurrohman, G. U., & Ningsih, N. W. (2022). Analisis Fundamental Dan Penilaian Saham Guna Keputusan Investasi (Studi Pada Perusahaan Yang Terdaftar Di Daftar Efek Syariah (DES) Periode 2017-2019). *Jurnal Akuntansi Dan Pajak*, 23(1), 19–26. <https://www.jurnal.stie-aas.ac.id/index.php/jap/article/view/4688/pdf>
- Pertiwi, D. (2022). *Jurnal EMAS. Jurnal Emas*, 3(9), 51–70. file:///C:/Users/ASUS/Downloads/17.218-231-1.pdf
- Septiani, D., & Lilis Karlina, A. M. F. (2020). Pengenalan Manajemen Investasi Dan Pasar Modal Bagi Siswa/I Dan Guru Akuntansi Smk Bintang Nusantara. *KUAT: Keuangan Umum Dan Akuntansi Terapan*, 2(1), 58–63. <https://doi.org/10.31092/kuat.v2i1.681>
- Seventeen, W. L., & Shinta, S. D. (2021). Pengaruh Economic Value Added dan return On Equity (ROE) Terhadap Harga Saham pada perusahaan Investasi yang Terdaftar Di BEI Tahun 2016-2019. *JAZ:Jurnal Akuntansi Unihaz*, 4(1), 138. <https://doi.org/10.32663/jaz.v4i1.2094>
- Sugianto, S., Yafiz, M., & Khairunnisa, A. (2021). Interaksi Investasi, Dana Pihak Ketiga dan Pembiayaan Perbankan Syariah Terhadap Pertumbuhan Ekonomi di Sumatera Utara. *Jurnal Ilmiah Ekonomi Islam*, 7(2), 1091–1100. <https://doi.org/10.29040/jiei.v7i2.2601>
- Sutarmin, Ambari, C. F., Anisah, F., & Ma'rifah, M. (2022). Penilaian Obligasi Pemerintah Untuk Tujuan Investasi. *Jurnal Indonesia RICH*, 3(1), 54–60.
- Wijaya, M. L. M., Souisa, J., Wibisono, A. W., Izzulhaq, A. A., & Syafiq, A. (2024). Pengaruh CR, ROA dan DER terhadap Harga Saham:(Pada Perusahaan Food and Beverages Terdaftar di BEI 2019-2022). *Jurnal Manajemen Dan Bisnis Ekonomi*, 2(1), 113-129. <https://doi.org/10.54066/jmbe-itb.v2i1.1057>

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