DIJEFA: Dinasti International Journal of Economics, Finance & Accounting
E-ISSN: 2721-303X
P-ISSN: 2721-3021
https://dinastipub.org/DIJEFA dinasti.info@gmail.com +62 811 7404 455
DINASTI PUBLISHER

DOI: https://doi.org/10.38035/dijefa.v6i5.5241
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Received: 17 July 2025 | **Revised:** 28 September 2025 | **Accepted:** 11 October 2025

The Effect of Dividend Announcements on Stock Return Volatility

Annisa Aliffia Romli[1*], Nofal[2], Husnah[3], Anisah[4]
[1]Universitas Tadulako, Palu, Indonesia, anisaromli890@gmail.com
[2]Universitas Tadulako, Palu, Indonesia, nofal_flo@yahoo.com
[3]Universitas Tadulako, Palu, Indonesia, husnahatjo@yahoo.co.id
[4]Universitas Tadulako, Palu, Indonesia, anisah154h@gmail.com

*Corresponding Author: anisaromli890@gmail.com[1]

Abstract: This study aims to examine the effect of dividend announcements on stock return volatility in companies included in the LQ45 index on the Indonesia Stock Exchange, particularly during the post-COVID-19 pandemic recovery period. Dividend information is regarded as an important signal for investors and can trigger market reactions that impact stock price fluctuations. The method used is an event study with the Wilcoxon Signed-Rank test to measure differences in stock return variance before and after dividend announcements over 5-day and 15-day periods. The results show a statistically significant increase in volatility during the 5-day period following the announcement ($p = 0.043$), but no significant change during the 15-day period. These findings indicate that dividend announcements trigger short-term reactions but do not have a lasting impact. This reflects that the Indonesian market is not yet fully efficient, and the price adjustment process to dividend information is still occurring gradually.

Keywords: Dividend announcement, Return volatility, Event study, Post-pandemic, Market efficiency.

INTRODUCTION

Post-COVID-19 pandemic, the Indonesian capital market continues to exhibit a high level of sensitivity to corporate announcements (Yunus Kasim et al., 2022). According to signaling theory, new information received by the market is believed to have a significant impact on stock prices and investor behavior. One form of information frequently analyzed is cash dividend announcements. Cash dividends not only reflect profit distribution decisions but are also considered signals regarding a company's financial condition and future prospects (Asem, 2022; Bask, 2020). Dividend announcements are viewed as a strategic communication tool by management to build investor confidence in the company's performance sustainability (Nofal et al., 2024).

The psychological effects of the previous crisis have not completely dissipated, making

financial information more impactful on price movements. In this context, dividend announcements are seen as signals of stability that can influence investor expectations and uncertainty (Liu & Lee, 2022). Referring to the Risk Information Hypothesis, the absence or inconsistency of dividend announcements can increase information uncertainty, trigger earnings surprises, and raise stock return volatility (Dyl & Weigand, 1998).

There is also the maturity hypothesis, which posits that companies that regularly pay dividends are usually in a mature stage. At this phase, the company's growth rate tends to slow down, and the need for expansion decreases. Therefore, companies focus more on stability and returns for investors, making their stocks generally more stable. (Akpadaka et al., 2024; DeAngelo et al., 2006; Fama & French, 2002) also found that financially established companies tend to be consistent in paying dividends.

Although the impact of dividend announcements has been widely studied, most research has focused on abnormal returns as an indicator of market reaction. However, stock return volatility is also an important variable that reflects price fluctuations and market uncertainty (Wang et al., 2020). High volatility indicates the potential for large price movements in the short term, which can increase investment risk (Chari et al., 1988). In this context, information such as dividend announcements can affect investors' risk perceptions and drive changes in their behavior, especially in markets that have not yet fully recovered (Ali, 2022).

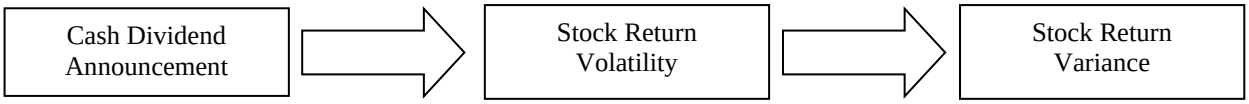
In this context, it is important to note that although dividend announcements are often regarded as positive signals, not all investors respond in the same way. Some investors, particularly those with a growth orientation, may be less interested in dividends because they prefer capital gains (Amrulloh & Muis, 2019). They argue that profits that would otherwise be distributed as dividends are better reinvested to support expansion and innovation, which in turn can increase the company's value in the long term. This aversion to dividends creates a complex dynamic in the market, where reactions to dividend announcements are influenced not only by the information conveyed but also by the diverse preferences and investment strategies among investors (Jayanti, 2019). Therefore, a deeper understanding of how dividend announcements affect stock return volatility, as well as how investor preferences may influence market reactions, becomes crucial in the context of Indonesia's post-pandemic recovery.

Several studies have provided empirical evidence related to these three approaches. For example, Anwar et al. (2015) found that stock return volatility tends to increase after cash dividend announcements, especially in the short term, although the increase was not statistically significant. They explained that this rise might be influenced by a low-information environment and increased trading activity around the announcement period. Meanwhile, Phan and Tran (2019) found that under uncertain economic conditions, dividend announcements still have a significant impact on market responses. On the other hand, Sun et al. (2022) showed that companies paying dividends during the COVID-19 pandemic tended to dampen excessive market reactions and experienced lower stock price volatility compared to companies that did not pay dividends.

These inconsistent results are likely influenced by market characteristics, company conditions, observation periods, and investor behavior. Additionally, there is still limited research specifically examining the relationship between dividend announcements and return volatility in the context of emerging markets like Indonesia, especially using the latest data from 2024. Therefore, this study aims to fill this gap by re-examining how dividend announcements affect stock return volatility in the Indonesian market during the post-pandemic recovery period.

Market uncertainty is a key factor influencing investor behavior in decision-making. In such conditions, dividend announcements serve as an important form of information that can provide clarity and direction for investors. This information acts as a signal regarding the company's prospects, thereby eliciting responses from market participants.

Investor reactions to dividend announcements subsequently impact stock return volatility. Changes in volatility may occur, reflecting the market's immediate response to the information disclosed:



Hipotesis :

H_0: There is no significant difference in stock return variance before and after the cash dividend announcement during the (5- and 15-day) periods.

H_1: There is a significant difference in stock return variance before and after the cash dividend announcement during the (5- and 15-day) periods.

METHODS

Data Description and Sample Size

All companies included in the LQ45 index listed on the Indonesia Stock Exchange (IDX) during the observation period, from April 26, 2023, to January 21, 2025. Based on IDX data as of December 7, 2023, there are 45 companies included in the LQ45 index. The sampling technique used in this study is purposive sampling, which is a non-random method where samples are selected based on specific criteria relevant to the research objectives (Lenaini, 2021).

1. The company is a member of the LQ45 index.
2. Officially announces cash dividends.
3. Does not release other material information during the event window.
4. Has complete daily stock price data during the estimation window and event window.

Out of the 45 companies included in the LQ45 index, only 38 companies recorded cash dividend distributions. Among these, 7 companies do not have available cash dividend announcement data, and 13 other companies released other material information around the event window, thus not meeting the selection criteria. Therefore, the final sample size used in this study is 25 companies.

Event Study Metodologi

Volatility Analysis

Variance is used as an indicator of risk level because it reflects the degree of uncertainty as well as fluctuations in systematic risk. Therefore, variance plays a role in determining the accuracy level of the statistical inference performed (Wahyudi, 2017). In addition, variance has been recognized as a commonly used measure and widely applied in previous research (Dravid, 1987; Dubofsky, 1991).

For each event *I* (cash dividend announcement), varians (enoted as σ^2) dihitung berdasarkan Persamaan 3:

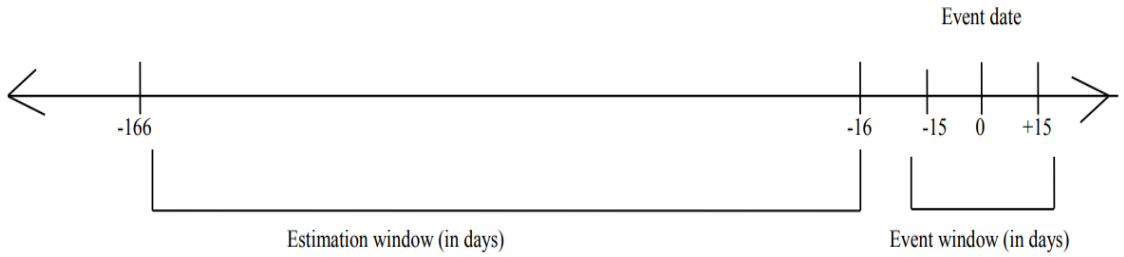
$$\sigma^2 = \sum_{i=1}^{N} \frac{(R_t - R)^2}{N} \qquad (3)$$

The observation period (event window) covers a span of 31 days, from 15 days before to 15 days after the announcement date, including the announcement day itself. The announcement day is considered day 0 (zero), which is the day the cash dividend announcement

is first published. Meanwhile, the estimation period (estimation window) runs from day 166 to day 16 before the start of the event window, covering a total of 150 trading days. Figure 1 presents an illustration of the event window and estimation window

To assess significant differences, the pre-announcement and post-announcement averages of the measurements (for the specified time period) have been compared using the Wilcoxon Signed-Rank Test (Viphindrartin et al., 2025).

Figure 1. Timeline for the event study (in days)



RESULTS AND DISCUSSION

The research results using the Wilcoxon test can be seen in the following Table 1:

Tabel 1. Analisis perusahaan sempel

$H_0 = \mu_1$ (Variance before) = μ_2 (Variance after) (D=5 days)

Ratio Measure	Before (Mean)	After (Mean)	Difference of Means	Calculated Z-Value	Sig. (2-tailed)	Decision at 5% Level of Significance
Variance	0.0003146	0.0011989	0.0008843	-2.023	0.043	H_0 – Rejected

$H_0 = \mu_1$ (Variance before) = μ_2 (Variance after) (D=15 days)

Ratio Measure	Before (Mean)	After (Mean)	Difference of Means	Calculated Z-Value	Sig. (2-tailed)	Decision at 5% Level of Significance
Variance	0.0006844	0.00291221	0.00222781	-1.533	0.125	H_0 – No Rejected

The results of this study show that dividend announcements have a significant impact on stock return volatility, especially in the short term. The statistically significant increase in volatility during the 5-day period following the announcement (Z-value = 0.043) strongly supports the signaling theory, which states that dividend announcements serve as important signals regarding a company's financial condition and prospects. This rapid and intense market reaction, reflected in high price fluctuations, demonstrates how investors respond to the signal with increased trading activity. This phenomenon can also be linked to the risk information hypothesis, where although dividends are a positive signal, the process of interpreting and adjusting market expectations—still in a post-pandemic recovery phase—can trigger short-term uncertainty and a surge in volatility.

However, this volatility effect proves to be temporary. Although there is an increase in variance during the 15-day period, the result is not statistically significant (Z-value = 0.125). The fading of this volatility effect aligns with the maturity hypothesis, which suggests that companies that regularly pay dividends tend to have more stable stock prices after the initial adjustment to information.

Furthermore, this study highlights the increase in trading activity following dividend announcements, which triggers volatility spikes often influenced by trading noise and short-term speculative behavior, especially in emerging markets like Indonesia that are dominated

by retail investors (Dai et al., 2020). This dynamic indicates that the Indonesian market is not yet fully efficient in instantly integrating dividend information. Despite a strong initial reaction, the price adjustment process occurs gradually and indirectly, showing that investor sentiment still plays a major role in stock price movements, hindering market efficiency in absorbing information rationally and quickly.

The market generally shows a fairly intense increase in activity, both in terms of transaction volume and trading frequency (Kauba, 2019). This phenomenon reflects that investors are actively responding to information announced by companies. This increased activity often directly impacts changes in stock return variance because prices adjust more quickly and more frequently due to the incorporation of various types of investor expectations into the market. In the context of the post-COVID-19 pandemic, the market conditions that are not yet fully stable make investors tend to be more reactive to information such as dividend announcements, which are considered strong financial signals amid uncertainty (Kasim et al., 2022; Liu & Lee, 2022).

Heavy trading activity during announcements can trigger volatility spikes, where most fluctuations during this period can also be influenced by trading noise (Metelski & Sobieraj, 2024). Trading activity is not entirely based on fundamental information but is more influenced by sentiment, speculation, or impulsive behavior of investors, especially retail investors (Lei et al., 2020). Trading noise can cause seemingly large price fluctuations over a short period but is not systematically strong enough to significantly affect variance on the overall sample scale. The presence of trading noise is increasingly relevant given the characteristics of the developing Indonesian capital market, where the proportion of individual investors is quite large and they often react emotionally to circulating information (Wen et al., 2019). As a result, stock return variance can increase significantly during active trading, although essentially the market will return to a stable condition after the information is fully absorbed and processed.

Therefore, the fluctuations that occur during trading do not only reflect actual changes in return variance but also represent the market's adjustment mechanism to new information and short-term market behavior (Abudy, 2020). In the post-pandemic recovery period, this dynamic reinforces the understanding that the Indonesian market is not yet fully efficient in instantly integrating dividend information. Thus, the price adjustment process still occurs gradually and indirectly (Assaf et al., 2021).

New information announced by companies, such as cash dividends, should be immediately reflected in stock prices through a process known as price adjustment acceleration (Carpenter et al., 2020). The more efficient a market is, the faster and more accurately stock prices adjust to such information. However, the results of this study show that although there is an increase in the average variance of stock returns within 5 days after the dividend announcement, these changes are not consistently statistically significant over longer periods, such as 15 days, 60 days, or 120 days.

These findings indicate that the market is not yet fully efficient in responding to dividend information, or that the price adjustment process occurs gradually and indirectly (Assaf et al., 2021). This is increasingly relevant in the context of the post-COVID-19 pandemic recovery, where the Indonesian capital market still shows high reactivity to financial information but has not yet demonstrated consistent investor behavior stability based on fundamentals. The reliance on sentiment and the dominance of retail investors make the market more vulnerable to temporary short-term volatility spikes.

It is important to note the potential for selection bias in the sample determination (Silva et al., 2021), considering that this study only involves companies included in the LQ45 index and officially distributing dividends. This sample does not represent the entire population of companies listed on the Indonesia Stock Exchange, especially smaller companies or those inconsistent in their dividend distribution policies.

Based on the available data, dividend announcements trigger a significant spike in stock return volatility within a 5-day period, indicating a quick reaction from dividend-oriented investors who view it as a positive signal. However, this volatility effect is temporary and subsides over a longer 15-day period, suggesting that investors who are less dividend-oriented or focused on long-term stability do not maintain the same reaction. The dominance of retail investors and "trading noise" also contribute to short-term fluctuations in the Indonesian market, which is not yet fully efficient.

CONCLUSION

This study examines the impact of dividend announcements on stock return volatility in the Indonesian capital market post-pandemic. The results show that dividend announcements trigger a significant spike in stock return volatility in the short term. This market reaction reflects a market condition that remains sensitive and investor responses that are quick but not always rational.

However, this volatility effect is temporary and tends to subside over a slightly longer period. The fluctuations often result from trading noise and short-term speculative behavior, especially considering the dominance of retail investors in the Indonesian market. This indicates that the market is not yet fully efficient in instantly absorbing dividend information, and the price adjustment process occurs gradually. This study is limited to LQ45 index companies that announce dividends, so the results may not necessarily represent the entire Indonesian stock market.

Investors need to be aware that dividend announcements can trigger significant short-term stock price volatility, so investment decisions should consider the potential for such fluctuations and focus on fundamental analysis rather than sentiment-driven or trading noise fluctuations. On the other hand, companies must understand that dividend announcements serve as an important signal to investors. Therefore, clear and consistent communication regarding dividend policy is crucial to managing investor expectations and reducing uncertainty, especially given that the Indonesian market is not yet fully efficient in instantly absorbing information.

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