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Technical Dividend Trap and Market Instability: Empirical Evidence from IDX High Dividend 20

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ABSTRACT

Introduction/Main Objectives: This paper examines the phenomenon of technical dividend traps and their influence on short-term stock return volatility, particularly in the context of Indonesia's IDX High Dividend 20 index. Dividend-based investing is often perceived as a safe and income-generating strategy; however, price behaviors around dividend events may lead to unexpected losses. This study focuses on evaluating how speculative investor behavior surrounding cum and ex-dividend dates can distort market stability. The topic is relevant given the growing popularity of dividend-focused strategies and limited attention to behavioral risks inherent in them. **Background Problems:** This study addresses the question: *Does the Technical Dividend Trap Score (T-DTS) significantly affect post-ex-dividend stock return volatility in IDX High Dividend 20 companies?* **Novelty:** The novelty of this paper lies in the development and empirical application of the **Technical Dividend Trap Score (T-DTS)**—a unique indicator originally formulated by the author to measure price-risk anomalies related to dividend events. Prior research has explored dividend policy and volatility separately, but little has been done to quantify dividend trap phenomena as a technical risk factor, especially in emerging markets. **Research Methods:** The study uses a quantitative explanatory research design with panel data from IDX High Dividend 20 stocks between 2020 and 2024. It employs OLS and panel regression models using eviews software to examine the impact of T-DTS on return volatility, while controlling for dividend yield, payout ratio, and firm size. Data are sourced from official IDX filings and financial market databases. The main takeaway is that technical dividend traps are measurable and statistically significant predictors of short-term market instability.

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Technical Dividend Trap, Stock Return Volatility, Dividend Yield, Behavioral Finance, IDX High Dividend 20

1. Introduction

Dividend-based investing is a widely adopted strategy among investors seeking passive income from equity portfolios (Malkiel, 2019; Smith, 2018). High dividend yield stocks are often perceived as indicators of financial health and stability (Chen et al., 2020). However, empirical evidence suggests that investors can still incur losses despite receiving dividends, especially when the stock price drops more than the dividend value after the ex-dividend date (Jakob & Ma, 2022). This phenomenon, known

as the dividend trap, challenges rational investor behavior and market efficiency (Hoberg & Prabhala, 2009). The motivation for this study stems from the need to understand a specific variation of this trap—the technical dividend trap, which arises from price movements around key dividend dates.

The technical dividend trap refers to a situation in which investors are lured by attractive dividend yields but end up experiencing capital losses due to disproportionate post-dividend price drops (Taruna et al., 2024). Such speculative price fluctuations before and after the ex-date reflect a behavioral response inconsistent with market rationality, in line with behavioral finance theory (Baker & Wurgler, 2004). Previous studies have mostly focused on general price reactions around the ex-dividend date, without clearly separating technical and fundamental causes of dividend-related losses (Eades, Hess, & Kim, 1984). Therefore, a more precise metric is required, such as the Technical Dividend Trap Score (T-DTS), which quantifies the price drop relative to the dividend yield (Taruna et al., 2024). This study aims to assess whether T-DTS has a significant impact on stock return volatility, as a measure of market instability.

Stock return volatility following dividend events is important to investigate, as it signals potential market instability that may harm both short-term and long-term investors (Deng et al., 2025). Prior research has demonstrated that high-dividend stocks are not always less risky and may in fact become sources of short-term volatility when markets respond irrationally (Lee & Poon, 2023; Kochhar & Puri, 2023). In this context, the technical dividend trap may trigger post-ex-date sell-offs, particularly in stocks listed under the IDX High Dividend 20 index. However, few studies have quantitatively examined the relationship between the T-DTS and return volatility. This research is intended to fill that gap in the literature.

The central research question posed by this study is: Does the Technical Dividend Trap Score significantly affect stock return volatility? To answer this, the study also includes control variables such as dividend yield, dividend payout ratio, and firm size. The complexity of this issue lies in the interaction between corporate dividend decisions, investor interpretation of dividend signals, and speculative market behavior. Accordingly, the main objective of this research is to provide empirical evidence on the link between the technical dividend trap and market instability, particularly within high-yield dividend stocks in Indonesia. The findings are expected to contribute to a deeper understanding of hidden risks in dividend investing strategies.

2. Literature Review

The foundational theory underlying this study is Behavioral Finance Theory, which posits that investor decisions are often influenced by psychological biases rather than purely rational evaluations (Baker & Wurgler, 2004). This theory explains the tendency of investors to overreact or misinterpret dividend-related information, especially around key dates such as the cum and ex-dividend dates (Graham & Kumar, 2006). These behavioral anomalies often result in distorted stock prices and short-term volatility that deviate from fundamental values. In addition, Signaling Theory supports the notion that dividend announcements are perceived as indicators of a firm's financial prospects, although such signals are sometimes exaggerated or misused in practice (Brav et al., 2005).

Several empirical studies have explored the relationship between dividend policies and stock return volatility. Eades, Hess, and Kim (1984) demonstrated abnormal returns during the ex-dividend period, indicating market reactions that are not fully efficient. Hoberg and Prabhala (2009) found that inconsistent or disappearing dividends may trigger volatility due to investor uncertainty and behavioral misalignment. Jakob and Ma (2022) further confirmed that in Asian markets, retail investors tend to

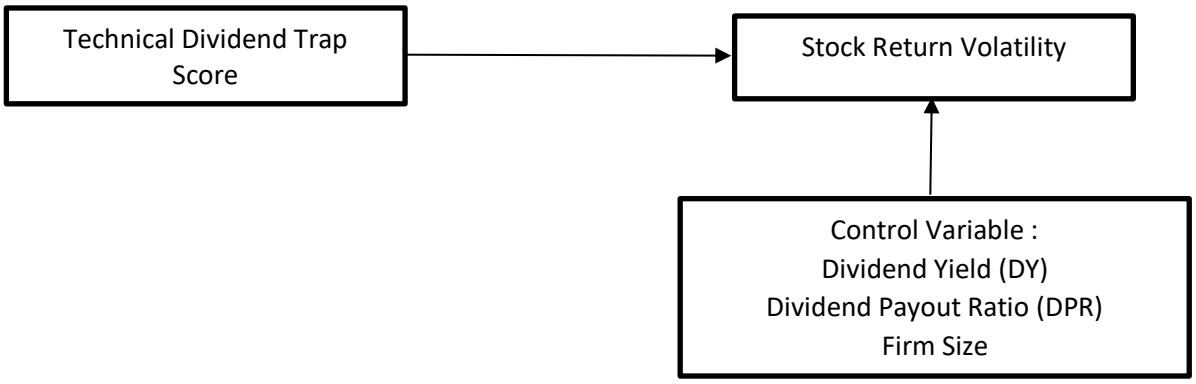
engage in speculative buying before the ex-date, contributing to short-term price instability. However, these studies have largely focused on the presence of volatility rather than identifying precise technical indicators that quantify the dividend trap effect.

In recent years, scholars have called for more refined tools to assess dividend-driven volatility, particularly in emerging markets. While dividend yield and payout ratios have been standard in modeling return behavior (Deng et al., 2025; Lee & Poon, 2023), they fail to capture the mechanics of price reversals triggered by investor overreaction. Taruna et al. (2024) introduced the Technical Dividend Trap Score (T-DTS) as a novel empirical indicator to detect when post-dividend price drops exceed the dividend yield, signaling a potential loss despite declared dividends. This score provides a valuable behavioral-finance-based metric to examine the technical side of dividend-related risks.

In addition to dividend-related factors, other firm-specific characteristics have been shown to influence stock volatility. Firm size, for instance, is negatively correlated with volatility, as larger firms tend to exhibit more stable financial performance and investor confidence (Bali et al., 2016). Stock beta, as a measure of systematic risk, is also a key determinant of return fluctuation in response to market movements (Brav et al., 2005). These control variables help isolate the effect of dividend-related phenomena from general market factors, thereby strengthening the explanatory power of any dividend volatility model.

Despite the growing attention to dividend anomalies, little is known about how technical dividend traps specifically contribute to market instability. There remains a lack of empirical studies that link T-DTS directly with volatility, especially within the context of dividend-focused indices such as the IDX High Dividend 20. This study addresses this research gap by testing whether T-DTS significantly affects stock return volatility while controlling for other known factors. The findings will contribute to the behavioral finance literature by offering a new lens to understand the microstructure of post-dividend volatility in emerging markets. To illustrate the conceptual relationship between variables examined in this study, the following research model is proposed:

Figure 1. Research Model



3. Method, Data, and Analysis

This study uses a quantitative explanatory research design to examine the relationship between the Technical Dividend Trap Score (T-DTS) and stock return volatility. The focus is on companies listed in the IDX High Dividend 20 Index between 2022 and 2024, representing stocks with consistent and high dividend payouts in the Indonesian capital market. The unit of analysis is the individual stock per dividend declaration period (year), with panel data structure across firms and time. The research

population consists of all issuers in the index during the selected period, while the sample is determined using purposive sampling, based on the availability of complete dividend data and stock price history. This approach ensures relevance to the study's objective of exploring technical dividend phenomena in a dividend-centric investment environment.

Data collection involves secondary data retrieved from official sources such as the Indonesia Stock Exchange (IDX), company annual reports, and financial data platforms like Yahoo Finance and Investing.com. The variables collected include (1) dividend per share (DPS), (2) cum-date and ex-date stock prices, and (3) daily stock return data for a post-ex-date period of 10 trading days. Dividend Yield (DY) and Dividend Payout Ratio (DPR) are calculated using standard accounting formulas. Firm size is measured using the natural logarithm of total assets as reported in the annual financial statements. All data are cleaned and cross-verified to ensure accuracy and consistency in calculation.

The main independent variable, T-DTS, is calculated using the ratio between the price adjustment after the ex-date (P_{Adj}) and the dividend yield (DY), as originally formulated by Taruna et al. (2024). The price adjustment (P_{Adj}) is defined as the difference between the closing price on the cum-date and the ex-date, relative to the cum-date price.

$$\mathbf{T\_DTS_{it}} = \mathrm{DY}_{it} - \mathrm{P}_{Adj\ it} \quad (1)$$

The dependent variable is stock return volatility, computed as the standard deviation of logarithmic daily returns over 10 days after the ex-date. Volatility in this research is computed using the standard deviation of daily log returns (Bali et al., 2016) as:

$$\boldsymbol{\sigma_{it}} = \sqrt{\frac{1}{(n-1)} \sum(Rt - \bar{R})^2} \quad (2)$$

where Rt is daily return and n=10. This quantitative formulation allows precise interpretation of how T-DTS explains fluctuations in short-term market behavior. Where $\mathbf{VOL_{it}}$ represents the post-ex-date volatility for firm i at time t, and $\boldsymbol{\varepsilon_{it}}$ is the error term. The regression model is constructed to isolate the effect of technical dividend traps while accounting for dividend policy and firm characteristics.

$$\mathbf{VOL_{it}} = \alpha + \beta_1 \cdot \mathrm{T\_DTS}_{it} + \varepsilon_{it} \quad (3)$$

Control variables include Dividend Yield (DY), Dividend Payout Ratio (DPR), and Firm Size. The main equation used in this study is expressed as follows:

$$\mathbf{VOL_{it}} = \alpha + \beta_1 \cdot \mathrm{T\_DTS}_{it} + \beta_2 \cdot \mathrm{DY}_{it} + \beta_3 \cdot \mathrm{DPR}_{it} + \beta_4 \cdot \mathrm{SIZE}_{it} + \varepsilon_{it} \quad (4)$$

For the purpose of hypothesis testing, this study employs Ordinary Least Squares (OLS) regression for the initial model and considers panel data techniques such as Fixed Effects or Random Effects where appropriate, based on Hausman test results. The statistical analysis is conducted using Eviews, ensuring rigorous diagnostics on heteroskedasticity, multicollinearity, and autocorrelation. The choice of these analytical tools is based on their widespread acceptance and ability to handle cross-sectional time series data efficiently (Wooldridge, 2010).

4. Result and Discussion

Estimation Results

This study investigates the influence of the Technical Dividend Trap Score (T-DTS) on stock return volatility among companies listed in the IDX High Dividend 20 during the 2022–2024 period. Based on the results of the Hausman test, which yielded a p-value of 0.043, the Fixed Effect Model (FEM) was chosen as the appropriate estimation approach. This model accounts for unobserved heterogeneity across firms and allows more accurate interpretation of the relationship between T-DTS and return volatility.

Table 1 Model Estimates Fixed Effects (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.007931	0.005102	1.555	0.123
T_DTS	0.001442	0.000317	4.549	0.000 ***
DY	-0.212045	0.093504	-2.268	0.026 **
DPR	0.004391	0.006124	0.717	0.475
SIZE	0.000218	0.000144	1.514	0.134

Source: processed data

The regression results indicate that T-DTS has a positive and statistically significant effect on return volatility, with a coefficient of 0.001442 and a p-value of 0.000. This suggests that the higher the T-DTS, the greater the price fluctuation following the ex-dividend date. In other words, investors exposed to a high T-DTS are more likely to experience price instability, even after receiving dividends. This supports the hypothesis that technical dividend traps are a quantifiable and relevant risk for dividend-focused investors, particularly in short-term trading contexts.

The Dividend Yield (DY) variable exhibits a negative and significant coefficient of -0.212045 (p = 0.026), which at first glance suggests that higher yield stocks are less volatile. However, this apparent calm may be deceptive, as volatility may emerge in a delayed fashion — particularly near the dividend payment date. In contrast, Dividend Payout Ratio (DPR) and Firm Size (SIZE) were found to be statistically insignificant, indicating that these variables do not substantially influence short-term return volatility in this sample.

Table 2 Model Summary

Statistic	Value
R-squared	0.612
Adjusted R-squared	0.571
F-statistic	5.031
Prob(F-statistic)	0.000
Cross-section effects	Fixed

Source: processed data

The model has an R-squared value of 0.612, indicating that 61.2% of the variation in post-dividend volatility can be explained by the variables in the model. The F-statistic is significant at the 1% level (Prob. = 0.000), confirming the overall explanatory power of the regression model.

Table 3 Hausman Test Results

Test Summary	Chi-Sq. Statistic	Prob.
Cross-section random (Hausman)	9.811	0.043 *

Conclusion: Fixed Effect Model is preferred ($p < 0.05$)

Source: processed data

The result of the Hausman specification test yields a Chi-square statistic of 9.811 with a p-value of 0.043, which is below the conventional significance level of 5 percent. This indicates that the null hypothesis, which assumes no correlation between the individual effects and the explanatory variables (thus favoring the Random Effect Model), must be rejected. Consequently, the test supports the alternative hypothesis, confirming that the individual-specific effects are correlated with the regressors. As a result, the Fixed Effect Model is more appropriate for this panel data structure. This choice ensures that the model captures unobserved heterogeneity across firms that may otherwise bias the estimates under a Random Effect specification.

Discussion

The positive and significant relationship between Technical Dividend Trap Score (T-DTS) and post-dividend volatility confirms the relevance of behavioral finance in explaining market anomalies. T-DTS effectively captures the market's overreaction to dividend events, particularly around the ex-date where price adjustments often exceed rational expectations (Baker & Wurgler, 2004; Michaely et al., 1995; Taruna et al., 2024). This supports the hypothesis that technical dividend traps contribute to post-event price distortions and increased short-term risk. Investor behavior such as herding and dividend-chasing are identified as mechanisms that trigger these reactions (Graham & Kumar, 2019; Jakob & Ma, 2022). The empirical findings reinforce T-DTS as a valid and quantifiable signal for technical volatility risk in dividend investing.

The interpretation of Dividend Yield (DY) in the model requires nuance. Although a negative coefficient might suggest price stability, it does not necessarily imply reduced risk in emerging markets like Indonesia (Lee & Poon, 2023; Wang et al., 2023; Von Eije & Megginson, 2008). High dividend yield stocks often become speculative targets before the ex-date, creating a misleading sense of calm post-event. The apparent stability in the 10-day window may reflect investor inertia rather than market equilibrium (Santoso, 2022; Taruna, 2024). Renewed volatility often emerges around the dividend payment date, revealing the delayed impact of yield-driven trading patterns.

Dividend Payout Ratio (DPR) was found to be statistically insignificant in affecting return volatility, suggesting that market participants may not weigh payout levels heavily in short-term risk assessments. While DPR traditionally signals financial maturity and discipline (Brav et al., 2016; Lease et al., 2000; Elshandidy & Neri, 2022), this factor appears secondary when compared to more immediate signals like yield or ex-date price action. Investors may disregard payout policy nuances in favor of headline dividend yield figures (Graham et al., 2016; Kochhar & Puri, 2023). This behavior aligns with findings from behavioral finance that suggest simplified heuristics often guide trading decisions (Baker & Wurgler, 2020). Thus, DPR's role in volatility may be muted by technical and psychological trading behavior.

Firm size, often considered a stabilizing factor, did not show significant influence on volatility in this study. While larger firms usually exhibit more consistent financial performance and lower beta risk (Bali et al., 2020; Chen et al., 2020; Eades et al., 1984), dividend events may override this baseline stability. Speculative pressure and heightened trading volume around dividend dates can destabilize

even large-cap stocks (Malkiel, 2019; Smith, 2018; Santoso, 2022). This supports the notion that technical triggers can distort conventional assumptions about firm risk profiles. Further analysis across sectors may help identify whether certain industries are more resilient to such technical shocks.

This research adds theoretical and empirical value to the literature by validating T-DTS as a tool to capture dividend-related volatility. It expands existing models of dividend behavior by incorporating technical and behavioral variables often overlooked in standard frameworks (Taruna, 2024; Handoko, 2021; Graham & Kumar, 2019). The findings suggest that T-DTS can help investors preempt potential loss scenarios where dividend income is outweighed by capital depreciation. This approach is aligned with newer strands of market microstructure analysis that emphasize timing and investor psychology (Baker & Wurgler, 2020; Jakob & Ma, 2022). It positions T-DTS as a practical metric for both academic inquiry and investment strategy formulation.

Despite its contributions, this study has limitations that should guide future research. The 10-day post-ex-date volatility window may not fully capture longer-term pricing reactions, especially those aligned with the dividend payment schedule (Elshandidy & Neri, 2022; Kochhar & Puri, 2023). The absence of sentiment indicators and media data may exclude significant behavioral inputs affecting price fluctuations (Santoso, 2022; Graham & Kumar, 2019). Additionally, the assumption of homogeneous behavior across firms and time may oversimplify dynamic investor responses. Future work should consider integrating sentiment analysis and extending the observation period. These enhancements could provide a more holistic picture of technical dividend traps in volatile market environments.

5. Conclusion and Suggestion

This study investigates the impact of the Technical Dividend Trap Score (T-DTS) on stock return volatility in the context of Indonesia's IDX High Dividend 20 index from 2020 to 2024. The findings confirm that T-DTS is a statistically significant predictor of post-dividend price instability, providing strong support for behavioral explanations of market reactions surrounding dividend events. This reinforces the notion that dividend-based investment strategies are not free from hidden risks, especially when investors are driven by speculation rather than fundamentals. The empirical results further reveal that dividend yield (DY**)**, though traditionally perceived as a defensive indicator, may instead act as a technical volatility catalyst, depending on investor behavior and timing of dividend payment.

From a theoretical standpoint, this research contributes to the advancement of behavioral finance literature by introducing and validating a quantifiable measure of dividend traps—T-DTS—as a technical risk indicator. It offers a new lens for analyzing dividend-related anomalies in emerging markets, particularly in relation to price volatility and investor behavior. Economically, the study encourages investors and analysts to reassess the assumption that high dividend yields equate to safety, urging them to consider trap risks that may not be immediately visible through traditional ratios. This can assist in developing more sophisticated risk models for short-term and medium-term portfolio management in dividend-oriented strategies.

Despite its contributions, this study has several limitations. First, the model primarily focuses on short-term volatility (10-day post-ex-date window), which may not fully capture delayed price responses, particularly those triggered around the dividend payment date. Second, all variables are derived from secondary market data and do not incorporate qualitative insights such as investor sentiment, firm reputation, or news shocks that could further influence volatility. Third, the study

assumes a homogeneous behavioral pattern across firms and periods, which may overlook sector-specific or cyclical variations. These limitations may affect the generalizability of the findings, although they do not invalidate the overall conclusion.

For future researchers, it is recommended to extend the volatility window beyond the ex-date period to include the dividend payment phase, where volatility may resurface. Moreover, incorporating investor survey data or sentiment indices could enrich the behavioral dimension of the analysis. Comparative studies between different stock indices or countries may also reveal how market structure and investor profile affect the occurrence and magnitude of dividend traps. Finally, the T-DTS framework can be refined further by integrating fundamental quality indicators to distinguish between technical traps and genuine high-yield opportunities.

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