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Market Reaction to Sharia Securities Reclassification: Infrastructure Sector in Indonesia Stock Exchange

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Abstract

The periodic reclassification of the Sharia Securities List (DES) by the OJK can theoretically trigger market reactions through buying and selling pressure from Sharia institutional investors. This study aims to analyze capital market reactions to DES reclassifications involving infrastructure sector stocks on the Indonesia Stock Exchange during the 2021–2025 period by comparing the CAAR between stocks added to and removed from the DES over an 11-day event window surrounding each reclassification announcement, employing a quantitative event study method with a Market Model estimated over a 120-trading-day estimation window to calculate normal returns. The final sample consists of 45 observations after excluding those with insufficient historical data due to recent IPO's or prolonged trading suspensions. The results show that the CAAR for both the inclusion and exclusion groups is not statistically significant, and that the market reaction is, in fact, opposite to the price-pressure hypothesis commonly proposed in the indeks-effect literature. A formal two-group difference test also indicates that the asymmetry between the inclusion and exclusion groups is not yet significant. The implications of this study suggest that investors cannot consistently obtain abnormal returns from trading strategies around DES announcements.

Keywords DES; Event Study; CAAR; Infrastructure Sector; Market Reaction

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1. INTRODUCTION

Indonesia's Sharia capital market has shown significant growth alongside increasing investor awareness of value-based investment principles (Hasan et al., 2025). One of the main instruments underpinning this ecosystem is the Sharia Securities List (Daftar Efek Syariah, DES), a collection of stocks declared by the Financial Services Authority (OJK) to meet Sharia criteria, based on financial ratios and the issuer's line of business. The DES is revised twice a year, in May and November, so that stocks may move in or out of the list based on changes in the company's financial and operational conditions.

A change in a stock's DES status carries potentially significant economic implications. Institutional investors such as Sharia mutual funds, Sharia insurance, and Sharia pension funds are generally

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required to hold only stocks listed in the DES. When a stock is removed from the DES, such investors are mechanically required to divest their holdings. Conversely, when a stock is added to the DES, demand from Sharia institutional investors may increase. This phenomenon is known in the international finance literature as the index effect, which has been widely studied in the context of conventional indices such as the S&P 500 (Shleifer, 1986).

Most prior research on Sharia stock reclassification in Indonesia has focused only on the aggregate market level, such as the Indonesia Sharia Stock Index (ISSI) or the Jakarta Islamic Index (JII), without considering variation across industry sectors, such as environmental, social, and governance (ESG) disclosure practices among companies listed on the ISSI (Gati et al., 2026). However, that research still focuses on describing the characteristics of Sharia stocks as a whole, rather than examining market reactions to the discrete reclassification event itself. Furthermore, research that separates analysis by industry sector remains very limited. The characteristics of each sector, including liquidity levels, ownership structure, and sensitivity to government policy, should influence the magnitude and direction of market reactions to the same reclassification event. In Indonesia, the infrastructure sector has unique characteristics, dominated by national strategic projects, State-Owned Enterprises (BUMN) involvement, and government fiscal policy volatility, which can produce market reaction patterns distinct from other sectors.

Prior research on market reactions to Sharia index reclassification in Indonesia, such as Wahyono (2023) on ISSI reconstitution, generally uses cross-sector samples without distinguishing sectoral dynamics and tends to focus on the role of political connections as a moderator of market reactions. That study found that market reactions to both inclusion and exclusion from the Sharia index were generally not significant, but did not examine whether this pattern is consistent across industry sectors or instead varies. In addition, research documents abnormal return patterns around merger and acquisition announcements among Sharia-compliant companies with political connections in Indonesia (Wahyono, 2021). Research on similar phenomena in conventional capital markets, such as studies of index reconstitution in the CSI 300, shows that index rebalancing effects can persist over the long term and even produce patterns that run counter to the predictions of the classical price pressure theory (Harris & GurelL, 1986).

A study on Sharia IPOs in Indonesia by Hanafi & Hanafi (2022) found that Sharia status can serve as both a quality signal and a trigger for investor overreaction, depending on the investment time horizon. This finding is consistent with the study by Albada (2024), which also identifies the signaling role of Sharia status in emerging IPO markets, and is generally consistent with evidence from Boulanouar & Alqahtani (2016) regarding the price effect of Sharia compliance in the Saudi Arabian insurance IPO market. Other internal determinants of IPO pricing in Indonesia, as in Yandes & Setyo

Nugroho (2023), also show that firms' financial characteristics interact with market perception in ways not yet fully understood in the specific context of Sharia status changes. The conflicting findings in the literature regarding whether Sharia status conveys new information (signaling) or merely reflects demand pressure without informational content (price pressure) indicate that this phenomenon still requires further empirical testing, particularly in specific sectoral contexts that have not been widely explored in the Indonesian literature.

The research gap identified in prior studies is the scarcity of event-study research on DES reclassification that focuses on a single industry sector, leaving the heterogeneity of market reactions across sectors largely unexplored. In addition, few studies have explicitly compared the asymmetry of market reactions between inclusion and exclusion events within a single analytical framework, and few have linked empirical findings on Indonesian Sharia reclassification to the theoretical debate between the price pressure hypothesis and the downward-sloping demand curve hypothesis that has developed in the international literature.

The novelty of this study lies in its deliberate sampling of a single industry sector that is homogeneous in business characteristics, namely the infrastructure sector, as the unit of analysis to test whether market reactions to DES reclassification are symmetric or asymmetric between inclusion and exclusion events. The authors descriptively refer to this comparative testing approach as a sectoral reclassification asymmetry framework, intended as a methodological lens that isolates sectoral dynamics that are typically obscured when DES reclassification is analyzed in aggregate across heterogeneous sectors, as in prior studies such as (Wahyono, 2023). By narrowing the analysis to a single sector with a relatively homogeneous ownership structure and business risk profile, this study reduces the confounding influence of cross-sector heterogeneity on abnormal return estimation, thereby providing a cleaner empirical test of the price pressure and semi-strong market efficiency hypotheses within a specific industry context.

The selection of the Infrastructure sector as the focus of further analysis is justified on theoretical and empirical grounds specific to its market structure. Most Infrastructure sector issuers in Indonesia are state-owned enterprises (BUMN) or companies with significant government ownership, such that their stock price behavior is often more closely tied to the allocation of the State Budget (APBN), announcements of national strategic projects, and government policy signals than to routine changes in index membership status. Infrastructure assets also generally require large upfront capital expenditure and generate long-term cash flows, thereby attracting a different investor base, including pension funds and other long-term institutional investors, whose portfolio decisions are driven by yield and duration-matching considerations rather than short-term reclassification signals. In addition, several Infrastructure sector stocks are thinly traded or experience prolonged trading suspensions, indicating

structurally lower liquidity compared to more actively traded stocks in the consumer or financial sectors. These combined characteristics dominant state ownership, long-term capital-intensive cash flows, and variable liquidity provide a strong theoretical justification for expecting that the Infrastructure sector's market reaction to DES reclassification will differ from patterns found in more liquid, privately owned sectors. This is what motivates a sectorally isolated empirical test.

This study also makes a methodological contribution by transparently documenting the sample selection process, including the criteria for excluding observations due to historical data limitations or prolonged trading suspensions. This transparency is important because event study research in emerging capital markets such as Indonesia often faces data constraints that are rarely discussed explicitly in the literature. This study also provides methodological guidance for other researchers facing similar constraints.

This study seeks to address several questions related to the growth of retail Sharia investors in Indonesia. Data from the Indonesian Central Securities Depository (KSEI) show an increasing trend in the number of young retail investors investing in Sharia instruments. This study aims to understand how the market reacts to DES reclassification and to provide practical insights for retail investors in formulating investment strategies around DES announcement periods. In addition, this study also seeks to address questions regarding the unique characteristics of the infrastructure sector, given that Indonesia's infrastructure sector is closely tied to government fiscal policy, national strategic projects, and BUMN participation, such that the dynamics of market reaction to Sharia reclassification in this sector may differ significantly from the consumer or financial sectors that have been more extensively studied. Finally, to address questions regarding its contribution to the market efficiency debate, this study provides additional empirical evidence on the applicability of the semi-strong form market efficiency hypothesis in emerging Sharia capital markets, an important debate in the contemporary Islamic finance literature, particularly regarding whether Islamic market anomalies are universal or context-specific.

Based on the background, research gap, and novelty described above, this study aims to analyze and compare capital market reactions, as measured by abnormal return and cumulative abnormal return, to the inclusion and exclusion events of Infrastructure sector stocks from the Sharia Securities List on the Indonesia Stock Exchange over the period 2021-2025.

2. METHODS

This study uses a quantitative approach, employing the event study method, to measure capital market reactions to DES reclassification events. The event study method was chosen for its ability to

isolate the impact of a specific event on security prices while controlling for general market movements (Mackinlay, 1997).

The population of this study comprises all Infrastructure sector stocks classified under the IDX Industrial Classification (IDX-IC) that experienced a change in DES status (inclusion or exclusion) between 2021 and 2025, spanning 9 transition periods. DES data were obtained from the official OJK Board of Commissioners Decisions published each semester. Based on initial identification, 63 status change events were identified, consisting of 38 inclusion events and 25 exclusion events.

The final sample was determined through purposive sampling, with the criteria that the available stock data consist of daily price data covering a minimum 60-trading-day estimation window and a complete 11-trading-day event window (H-5 to H+5), and that there was no trading suspension causing the price data to remain frozen throughout the estimation window. The estimation window was targeted at 120 trading days, ending five trading days before the start of the event window, i.e., from day -125 to day -6 relative to the event date. This is consistent with common practice in the event study literature (Mackinlay, 1997). A 60-trading-day threshold was applied as the minimum acceptable window for a statistically meaningful OLS regression when the full 120-day estimation window could not be obtained due to data availability constraints. Based on these criteria, 17 observations were excluded from the sample, comprising 11 observations excluded due to estimation window limitations caused by recent IPOs or suspected prolonged trading suspensions, and 6 observations for which data could not be obtained from available sources. The final sample comprises 45 observations: 24 inclusion events and 21 exclusion events.

The data used are secondary data comprising historical DES data from OJK, daily closing price data for individual stocks from the Indonesia Stock Exchange and market data providers, and Jakarta Composite Index (IHSG) data as a proxy for market return. The data range covers the estimation window and event window for each of the 45 event observations. This study did not systematically screen for other corporate actions, such as rights issues, dividends, or financial statement publications, that might coincide with the 11-day event window for each observation, given time constraints and limited access to a complete historical archive of corporate actions across all 45 observations. However, the effective date of DES reclassification is administrative and fixed on a set schedule, namely June 1 and December 1. It is therefore structurally unrelated to issuers' dividend announcements or financial reporting cycles, which generally follow each company's shareholders' meeting (RUPS) or quarterly/annual reporting calendar. The spread of the sample across 45 observations, 9 transition periods, and different issuers also reduces the likelihood that, if confounding events exist, they are systematically concentrated in one reclassification direction. Nevertheless, this limitation should still be taken into account when interpreting the results, as discussed further in the limitations section.

Data analysis was carried out through the following steps:

First, determination of the event date, i.e., the effective date on which the DES decision takes effect (June 1 for the May period and December 1 for the November period), with an 11-trading-day event window (H-5 to H+5) and an estimation window preceding the event window.

Second, estimation of expected returns using the Market Model with the equation:

$$Rit = \alpha i + \beta i\ Rmt + \varepsilon it$$

Where:

Rit = stock i's return on day t

Rmt = market return (IHSG) on day t

αi βi = OLS regression parameters estimated over the estimation window

εit = error term.

Third, the calculation of Abnormal Return (AR) over the event window is given by the equation:

$$ARit = Rit - (\alpha i + \beta i\ Rmt)$$

Where:

ARit = Abnormal Return of stock i on day t

Rmt = market return (IHSG) on day t

αi βi = OLS regression parameters estimated over the estimation window

Fourth, aggregation of Average Abnormal Return (AAR) and Cumulative Average Abnormal Return (CAAR) for each group (inclusion and exclusion) using the equation:

$$AARt = (1/n)\ \Sigma\ ARit\ ;\ \ CAAR = \Sigma\ AARt \text{ (from H-5 to H+5)}$$

Where:

AARt = Average Abnormal Return on day t

ARit = Abnormal Return of stock i on day t

n = number of stocks in the group (inclusion or exclusion)

Σ = summation symbol

CAAR = Cumulative Average Abnormal Return

Fifth, statistical significance testing using a one-sample t-test on each group's CAAR value to test whether CAAR is significantly different from zero at the 5% significance level. To anticipate the possibility of a non-normal return distribution, a common characteristic in emerging capital markets, this parametric test is complemented by a non-parametric Wilcoxon signed-rank test as a robustness check for each group.

Sixth, the asymmetry between the inclusion and exclusion groups is formally tested by directly comparing the CAR values of the two groups using an independent-samples t-test with Welch's correction for unequal variances, complemented by a Mann-Whitney U test as a non-parametric alternative. This was done given the difference in group sizes and the possibility of non-normal distribution.

The hypotheses of this study are as follows:

H1: There is a positive and significant Cumulative Average Abnormal Return (CAAR) for stocks included in the Sharia Securities List in the Infrastructure sector.

H2: There is a negative and significant Cumulative Average Abnormal Return (CAAR) for stocks excluded from the Sharia Securities List in the Infrastructure sector.

H3: There is a significant difference (asymmetry) between the magnitude of CAAR in the inclusion group and the exclusion group of the Sharia Securities List.

3. FINDINGS AND DISCUSSION

3.1 Sample Descriptive Statistics

The final sample of this study consists of 45 observations of DES reclassification events for Infrastructure sector stocks over the period May 2021 to November 2025, comprising 24 inclusion events (53.3%) and 21 exclusion events (46.7%). This composition indicates a relatively adequate balance between the two groups, enabling a statistical comparison of market reaction asymmetry.

3.2 Market Model Regression Results

The Market Model regression was run individually for each of the 45 observations using daily return data over the estimation window. The regression results show variation in beta (β) values, reflecting differences in individual stocks' sensitivity to IHSG movements, as commonly found among stocks with diverse market capitalizations and liquidity levels within a single sector. One observation, a stock that experienced a trading suspension with a frozen price throughout the estimation window, produced a degenerate regression coefficient ($\alpha = \beta = 0$) and was excluded from further analysis, such that the final number of observations analyzed at the Abnormal Return stage is 45 observations.

3.3 Abnormal Return and Significance Testing

Table 1. CAAR test results for both observation groups.lelellelelele

Group	N	CAAR	CAAR (%)	t-statistic	p-value	W (p)	Test Result
Inclusion DES	24	-0.0378	-3.78%	-1.96	0.062	95.00 (0.121)	Not Significant
Exclusion DES	21	0.0517	5.17%	1.16	0.262	83.00 (0.272)	Not Significant

Source: Processed Data (2026)

The test results show that the group of stocks added to the DES has a CAAR of -3.78%, with a t-statistic of -1.96 and a p-value of 0.062, indicating that it is not statistically significant at the 5% level. The non-parametric Wilcoxon signed-rank test confirms this result, with W = 95.00 and p = 0.121. Based on this result, **H1**, which states that CAAR is positive and significant for the inclusion group, is not supported by the data under either testing approach. On the contrary, the direction of CAAR found is negative.

The group of stocks excluded from the DES shows a CAAR of +5.17%, with a t-statistic of 1.16 and a p-value of 0.262, which is also not statistically significant. The Wilcoxon signed-rank test confirms this result, with W = 83.00 and p = 0.272. Thus, **H2**, which states that CAAR is negative and significant for the exclusion group, is also not supported by either test, because the direction of CAAR found is in fact positive.

H3 is tested by directly comparing the CAR value of the inclusion group (mean = -3.78%) with the exclusion group (mean = 5.17%) using an independent-samples t-test with Welch's correction for unequal variances. This test yields a mean difference of -8.94 percentage points, with t = -1.84 and p = 0.077. This value does not reach conventional statistical significance at the 5% level. The Mann-Whitney U test, used as a non-parametric robustness check, confirms this result, with U = 180.00; p = 0.104. Although **H3** cannot be confirmed at the 5% significance threshold, the marginal p-value from the direct comparison of the two groups is substantially lower than the p-values obtained when each group is tested separately against zero, suggesting that the asymmetry between inclusion and exclusion reactions, although not conclusively confirmed, warrants further investigation with a larger sample or broader sectoral coverage.

3.4 Daily Dynamics of Abnormal Return

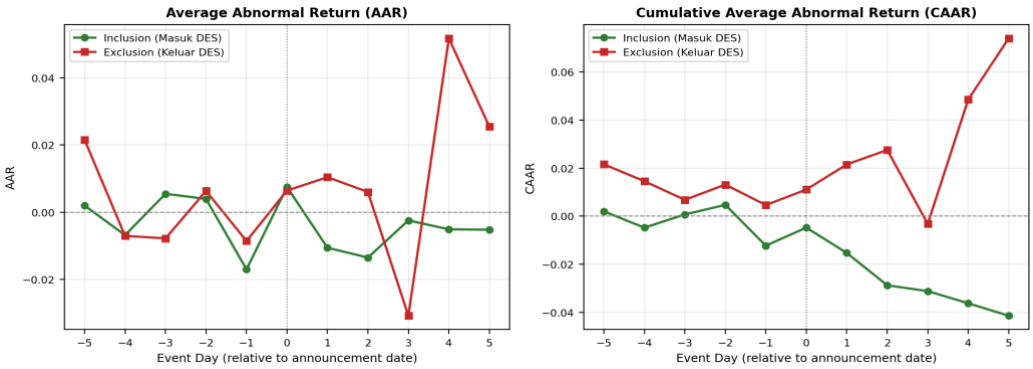
To examine whether the aggregate CAAR result conceals pre-announcement leakage or post-announcement drift, daily Average Abnormal Return (AAR) and running cumulative CAAR were calculated for both groups over the 11-day event window (H-5 to H+5).

Table 2. Daily AAR and running cumulative CAAR

Event Day	AAR (Inclusion)	CAAR (Inclusion)	AAR (Exclusion)	CAAR (Exclusion)
-5	0.0020	0.0020	0.0216	0.0216
-4	-0.0068	-0.0048	-0.0070	0.0145
-3	0.0055	0.0007	-0.0077	0.0068
-2	0.0040	0.0047	0.0063	0.0132
-1	-0.0170	-0.0123	-0.0085	0.0046
0	0.0075	-0.0048	0.0065	0.0111
1	-0.0105	-0.0153	0.0104	0.0215
2	-0.0135	-0.0288	0.0060	0.0276
3	-0.0024	-0.0312	-0.0308	-0.0032
4	-0.0051	-0.0362	0.0517	0.0485
5	-0.0052	-0.0414	0.0255	0.0740

Source: Processed Data (2026)

Figure 1 Daily AAR and running cumulative CAAR chart



Source: Processed Data (2026)

In the exclusion group, the daily pattern shows a moderate positive AAR on the announcement day (day 0) (AAR = 0.65%) and a substantial positive spike on day +4 (AAR = 5.17%), which is the main driver of this group's overall positive CAAR. Without this single-day spike, the exclusion group's cumulative pattern would be far more moderate. This indicates that the exclusion group's aggregate CAAR is sensitive to a small number of extreme daily observations, rather than reflecting a broad and sustained market reaction. This is consistent with earlier findings regarding thin trading and occasional suspensions among Infrastructure sector issuers.

In the inclusion group, the AAR pattern shows a mild negative trend beginning around day +1 and continuing through the post-event days, without a single dominant spike. This indicates a gradual erosion of abnormal return following inclusion, rather than a sharp reaction triggered by a single event. This gradual pattern is more consistent with mild post-announcement drift than with an immediate price-pressure response on the announcement date itself.

Neither group shows pronounced abnormal returns in the days leading up to the announcement (H-5 to H-1), indicating no strong evidence of information leakage in this sample.

Discussion

Anomaly in the Direction of Market Reaction

The main finding of this study is that the direction of CAAR is opposite to the prediction of the classical price pressure theory proposed by (Harris & GurelL, 1986) and (Shleifer, 1986), in which stocks added to an index should experience a positive abnormal return due to buying pressure from institutional investors replicating the index, while stocks removed from the index experience a negative abnormal return due to selling pressure. In the Infrastructure sector on the Indonesia Stock Exchange, the pattern observed is, in fact, reversed, although not statistically significant under either parametric or non-parametric tests.

The insignificance of this result is consistent with the findings of Wahyono (2023), who also found no significant market reaction to the inclusion or exclusion of stocks from the Indonesian Sharia Index (ISSI) at the aggregate level. The consistency between this sectoral study and aggregate market-level research strengthens the indication that the DES reclassification mechanism in Indonesia is generally anticipated by market participants before the effective date, leaving little room for significant abnormal returns at the time of announcement. This is consistent with the semi-strong form market efficiency hypothesis, in which all public information, including the widely known criteria and schedule for DES reclassification, is already reflected in stock prices before the event occurs. Other event-based anomaly research in Indonesia, such as the study of the Ramadan effect on the Indonesian Sharia Stock Index by Husen et al. 2021), also finds evidence that calendar-related abnormal returns vary considerably across periods. This further reinforces the notion that anomalies in the Indonesian Sharia capital market tend to be contextual and event-specific rather than universal.

The direction of CAAR being opposite to the theoretical prediction, although not significant, can also be discussed through the lens of Hanafi & Hanafi (2022) regarding Sharia status in the context of Indonesian IPOs, which found that Sharia status can trigger long-term investor overreaction rather than functioning solely as a quality signal. A similar phenomenon may occur in the context of DES reclassification, in which individual investors may overreact to a stock's exclusion from the DES in certain periods before the price subsequently corrects. However, a deeper examination of this mechanism is beyond the scope of this study.

The Infrastructure sector has characteristics that may help explain the insignificance of this result. First, many issuers in this sector are BUMN or have significant government ownership, so institutional investors' decisions are often influenced more by long-term fundamental considerations and

government policy than by DES status alone. Second, as found during this study's sample selection process, several Infrastructure sector stocks experienced prolonged trading suspensions, indicating relatively low liquidity among some issuers in this sector. Low liquidity conditions may distort price discovery around reclassification events, consistent with the findings of Bongaerts et al. (2022) on how price shocks propagate differently in less-liquid market microstructures.

The reversal in CAAR direction can be further contextualized within the macroeconomic and institutional environment of the 2021-2025 period. This period encompasses Indonesia's post-pandemic economic recovery, the global monetary tightening cycle, and substantial government infrastructure spending under national strategic project programs, all of which may have shaped investor sentiment toward Infrastructure sector stocks independently of DES status. Sharia mutual fund and Sharia pension fund participation in the Indonesian stock market, while continuing to grow, remains relatively modest in aggregate trading volume compared with that of conventional institutional investors, which may limit the capacity of DES-based institutional rebalancing to generate price pressure, as documented in more mature markets such as the S&P 500. Combined with the relatively low liquidity identified among several Infrastructure sector issuers during sample selection, these factors plausibly weaken the transmission mechanism that would otherwise cause DES reclassification to produce a measurable price impact.

The insignificant and reversed-direction CAAR pattern found in this study can be further contextualized against recent evidence on the state-owned enterprise segment of the Indonesia Stock Exchange. (Fitria & Abrori, 2025) Examining the market reaction of 22 state-owned enterprises to the inauguration of the BUMN superholding, Danantara, found that abnormal returns and trading volume activity did not differ significantly in aggregate before and after the event. However, a sharper reaction was detected in the state-owned banking sub-sector. This finding lends further support to the argument advanced in this study that BUMN-dominated sectors, including Infrastructure, tend to exhibit muted price reactions to portfolio-classification events such as DES reclassification, because investor attention in these stocks is more strongly anchored to broader government policy signals than to individual corporate actions.

The reversed direction of CAAR observed in this study also finds an interesting parallel in evidence from other criteria-based reconstitution indices outside the conventional S&P 500 setting. (Cheung & Roca, 2013) Studying additions to and deletions from the Dow Jones Sustainability World Index in the Asia-Pacific region, they found that both addition and deletion stocks experienced a significant decline in returns, a pattern they termed the "sustainability redundancy hypothesis" rather than the classical price-pressure prediction. This finding demonstrates that non-conventional, criteria-based index reclassification, whether grounded in sustainability or Sharia compliance, does not always produce

reactions consistent with the price pressure hypothesis developed primarily in the context of capitalization-weighted benchmark indices. A parallel asymmetry is documented in the CSI 300 index: Chen & Lin (2016) found a permanent price increase for additions but no significant reaction for deletions, an asymmetry that Chu et al. (2021) later linked partly to differences in state ownership between added and deleted firms. Given that the Indonesian Infrastructure sector similarly features a high proportion of state-controlled issuers, this line of evidence offers a plausible explanation for why the asymmetry between inclusion and exclusion reactions in this study, although suggestive ($p = 0.077$), did not reach conventional significance: state ownership may dampen the differential sensitivity of Infrastructure stocks to reclassification-driven demand shocks that is more clearly observed among the privately-held, widely-held constituents of other reconstituted indices.

On the demand side, Rasyad et al. 2022), examining determinants of IPO oversubscription among Sharia-compliant issuers on the Indonesia Stock Exchange, found that investor demand for Sharia stocks is driven primarily by issue-specific characteristics such as issue price, issue size, and firm size, rather than by Sharia status per se. This finding is broadly consistent with the interpretation offered in this study that DES status, while carrying regulatory significance for institutional Sharia investors, does not appear to function as an independent driver of investor demand strong enough to generate a significant price reaction at the point of reclassification, at least within the Infrastructure sector.

Further supporting the state-ownership explanation, Marwah et al. 2026), examining a decade of data on parent SOE issuers on the Indonesia Stock Exchange, found that stock prices in this segment are more strongly driven by firm-level fundamentals such as earnings per share and return on equity than by administrative or classification-based announcements. Complementing this, Tinungki et al. (2026) found that Indonesian SOEs display distinct, policy-sensitive dividend and market-reaction patterns that shift systematically across crisis and non-crisis periods, rather than responding uniformly to standardized corporate events. Taken together, these two studies reinforce the interpretation that Infrastructure sector stocks, being predominantly SOE-affiliated, are priced primarily on fundamental and macro-policy signals, leaving comparatively little residual price sensitivity to a criteria-based administrative event such as DES reclassification.

Additional robustness evidence on the downward-sloping demand curve hypothesis, drawn from settings with cleaner identification of exogenous supply shocks, offers a mixed picture that is broadly consistent with the ambiguous results of this study. In an emerging-market setting closer to Indonesia's own institutional context, Jain et al. (2019) study an exogenous, regulation-driven supply shock in India and find that the resulting price impact reverses within about 16 days, consistent with a flat rather than downward-sloping long-run demand curve. By contrast, Parthasarathy (2019), examining Nifty index additions in India across two sub-periods, finds that the index effect, while still significant overall, has

visibly weakened in the more recent period as institutional ownership and algorithmic trading have expanded. These emerging-market findings collectively suggest that the demand-curve mechanism underlying the price pressure hypothesis is neither uniformly strong nor stable over time, lending further plausibility to the null result obtained for DES reclassification in the Indonesian Infrastructure sector.

Finally, evidence from a directly comparable Sharia-screening event in Malaysia offers perhaps the closest parallel to this study's setting(Nor et al., 2019) examine the 2013 revision of the Securities Commission Malaysia's Shariah screening methodology, an administrative reclassification event in which 158 stocks were removed from the compliant list, and find that the announcement had no significant impact on the overall return of the affected Shariah index. This finding from a neighboring, institutionally similar Islamic capital market closely mirrors the non-significant CAAR results obtained in this study for DES reclassification in Indonesia. It lends cross-country support to the argument that Shariah-compliance reclassification events, unlike conventional benchmark index changes such as the S&P 500, are generally anticipated and absorbed by the market well before their effective date.

A recent theoretical and empirical contribution by Qadi et al. (2026) offers a direct conceptual parallel to this study's findings. Examining Shariah classification events under both U.S. researcher-emulated rulebooks and the Securities Commission Malaysia's official lists, the authors formalize the idea of "permitted investor mass": a reclassification produces measurable price pressure only when it alters an economically relevant, marginal, and tradable investor base, not simply because a formal label changes. Their Malaysian evidence shows that classification events yield significant positive returns only among sufficiently liquid, actively traded inclusions, while thinly traded stocks show no reliable price response. This framework offers a precise theoretical account for the results of the present study. Because a substantial share of Infrastructure sector issuers on the Indonesia Stock Exchange exhibit low liquidity and government-anchored ownership, the "permitted investor mass" affected by DES reclassification may simply be too small or insufficiently marginal to generate a detectable price effect, even though the formal classification itself changes.

The marginal asymmetry detected in this study can also be reconsidered in light of Kumar et al. (2023), who re-examine the well-known S&P 500 asymmetric price response puzzle using a more robust methodology for measuring abnormal returns and adjusting for outliers. In contrast to earlier work, they find that price responses to additions and deletions are, in fact, permanent and largely symmetric once definitional issues around "true" additions and deletions, as well as the influence of extreme observations, are properly addressed. This methodological refinement offers a useful caution for the present study: the marginal but statistically insignificant asymmetry detected here between the inclusion and exclusion groups ($p = 0.077$) may partly reflect the influence of a small number of extreme

daily observations or thinly traded issuers identified during sample selection, rather than a genuine structural difference between inclusion and exclusion effects, reinforcing the need for larger samples and outlier-robust methods in future DES-focused research.

A complementary explanation concerns the information content of reclassification itself. (Goyal et al., 2025) examining a global sample of 198 stock index inclusion events across 21 markets, find that while index inclusion draws greater analyst and media attention and improves firms' access to public debt markets, these information gains do not translate into improved stock price informativeness: bid-ask spreads, price impact measures, and post-earnings-announcement drift remain largely unchanged, particularly where information-insensitive passive investors dominate the affected capital. This global evidence offers a plausible account for the non-significant results of this study: even if DES reclassification confers some informational or reputational benefit on affected Infrastructure sector firms, this need not translate into a measurable price reaction if the marginal investors responding to the reclassification are largely passive, benchmark-driven Sharia funds rather than active, information-processing traders.

Methodologically, the possibility of temporary index-related demand effects being masked or dampened by the scale of institutional "crowding" around a reconstitution date is illustrated by Arnott et al. 2023), who show that stocks discretionarily added to or deleted from major benchmark indices experience substantial price reversals in the period following reconstitution, driven by the concentrated, same-day trading of index-tracking funds. Their finding that reconstitution-related crowding costs are largest when a large pool of indexed capital tracks a single, narrowly defined list highlights that the strength of any index-related price effect is conditional on the scale of institutional capital mechanically tracking that specific list. Given that dedicated Sharia-index-tracking capital in Indonesia remains comparatively small relative to broader institutional benchmarks, as similarly noted in the discussion of (Wahyono, 2021) and (Wahyono, 2023) above, a correspondingly muted, crowding-free price response to DES reclassification in the Infrastructure sector is consistent with this mechanism.

The pre-announcement dynamics of index-related reactions are further illuminated by (Rudkin & Cai, 2023), who apply a generalized synthetic portfolio approach to Dow Jones Sustainability Index North America recomposition using data through 2021 and find that additions show significant positive pre-announcement effects with abnormal returns persisting, and even strengthening, over time, while deletions show positive rather than negative abnormal returns whose significance has weakened in more recent years. This finding suggests that a genuine reclassification effect, where one exists, is more likely to be visible as pre-announcement drift than in the announcement window itself, and that its strength and even its direction can evolve non-trivially over time as market participants adapt. Because DES reclassification criteria and schedules are publicly known well in advance in Indonesia, a similar

anticipation effect may have already been absorbed into prices before the event window examined in this study, consistent with the absence of significant abnormal returns detected here.

Finally, the role of institutional ownership structure in shaping liquidity dynamics in emerging markets more broadly is documented by (Dinh & Tran, 2024), who find, using a comprehensive sample of Vietnamese-listed stocks, that higher institutional ownership is in fact associated with lower stock liquidity, consistent with an adverse-selection channel in which institutional investors' informational advantage widens bid-ask spreads for other market participants. Applied to the Indonesian Infrastructure sector, where BUMN-affiliated firms tend to have ownership structures concentrated among government and domestic institutional holders rather than a broad, diversified investor base, this adverse-selection channel offers an additional explanation for the low liquidity observed among several Infrastructure sector issuers during sample selection, and for why this liquidity constraint may further dampen the price sensitivity needed for a DES reclassification event to generate a measurable market reaction.

Theoretical and Practical Implications

The findings of this study theoretically provide additional evidence supporting a weak version of the downward-sloping demand curve hypothesis, or even the semi-strong form market efficiency hypothesis, in the context of emerging Sharia capital markets, in contrast to the strong price-pressure effects observed in developed capital markets such as the S&P 500. This indicates that generalizing the index effect from developed capital markets to emerging Sharia capital markets should be done with caution, as differences in ownership structure, levels of Sharia institutional investor participation, and market liquidity can produce distinct market reaction dynamics. This theoretical caution is reinforced by (Petajisto, 2003), who shows that the slope of a stock's demand curve is governed by the scale of active, fee-charging institutional capital available to absorb a given demand shock, implying that markets with a smaller base of active Sharia-focused capital should exhibit flatter, less price-sensitive demand curves. It is also consistent with Greenwood et al. 2022), who document that even the classical S&P 500 index effect has largely disappeared in recent years as markets have grown better at anticipating and absorbing index-related demand shocks, suggesting that a muted or non-significant reclassification effect, as found in this study, is increasingly the norm even in mature, developed index settings.

In practice, the findings of this study indicate that investors cannot rely on trading strategies that consistently exploit DES reclassification events in the Infrastructure sector to obtain abnormal returns, as the observed market reaction is not statistically significant. For regulators, the findings also indicate

that the current DES reclassification mechanism does not significantly disrupt stock price stability and is a positive indicator of the governance of the Indonesian Sharia capital market.

4. CONCLUSION

This study analyzes the capital market reaction to the reclassification of the Sharia Securities List for Infrastructure sector stocks on the Indonesia Stock Exchange over the period from May 2021 to November 2025, using the event study method, with a final sample of 45 observations comprising 24 inclusion events and 21 exclusion events. The results show that the CAAR for the inclusion group is -3.78%, and for the exclusion group, +5.17%. Neither result is statistically significant at the 5% level under either parametric or non-parametric tests, and the direction is opposite to the prediction of the classical price pressure theory. The formal comparison of the two groups for **H3** shows an asymmetry that approaches, but is not yet, statistical significance, with $p = 0.077$.

These findings confirm that the Indonesian Sharia capital market, particularly in the Infrastructure sector, tends to be semi-strong form efficient with respect to DES reclassification information. This is consistent with previous findings at the aggregate market level (Wahyono, 2023). The anomaly in CAAR direction, opposite to the theoretical prediction, although not statistically significant, nevertheless opens further room for discussion regarding the possibility of investor overreaction, as found in the context of Sharia IPOs (Hanafi & Hanafi, 2022), as well as the influence of the Infrastructure sector's unique characteristics, such as BUMN dominance and varying liquidity levels.

This study proposes concrete policy recommendations for the Financial Services Authority (OJK) and the Indonesia Stock Exchange (IDX). OJK can improve the transparency of the DES reclassification mechanism by establishing a standardized notification period and providing clearer disclosure of the specific financial ratio thresholds underlying each reclassification decision, to reduce the potential for asymmetric information between institutional and retail investors around the announcement date. IDX may consider providing consolidated, machine-readable historical DES data to enhance research transparency and enable more reliable academic and industry monitoring of reclassification effects over time, while also addressing the practical data-access constraints encountered during this study's sample construction process.

This study has several limitations that should be taken into account in interpreting the results and in future research. First, of the 63 reclassification events identified in the Infrastructure sector during the study period, 17 observations (27%) had to be excluded from the sample due to limitations in historical data, either because the company was newly listed through an IPO or was suspected of having experienced a prolonged trading suspension. Although this exclusion was carried out using transparent and consistent criteria, it may affect the generalizability of the findings, given that the excluded stocks

likely have liquidity characteristics that systematically differ from those of the stocks retained in the sample. Second, this study is limited to a single industry sector, so the findings cannot be directly generalized to other sectors with different structural characteristics. Third, this study does not control for other corporate events that may have occurred concurrently with the event window, which could act as a confounding factor; the daily-level analysis shows that the exclusion group's aggregate CAAR is sensitive to a small number of extreme daily observations, indicating that aggregate-level results should be interpreted with caution regarding outlier influence. Fourth, this study did not conduct a comprehensive and systematic screening of other corporate actions, such as dividend announcements, rights issues, or financial statement publications, that may have coincided with the event window of each sample company, due to limited access to a complete historical archive of corporate actions for all 45 observations, such that the possibility of residual confounding from unobserved company-specific events cannot be entirely ruled out.

Future research is encouraged to extend the analysis to other sectors to test the consistency of the anomaly found, or to explicitly incorporate liquidity variables, such as bid-ask spread or trading volume, into the model to test the price pressure hypothesis more comprehensively. Future research may also consider a qualitative approach, such as interviews with Sharia mutual fund investment managers, to understand the underlying considerations behind portfolio rebalancing decisions following DES reclassification, which could not be addressed comprehensively in this study, as a refinement for future event-study research in this field.

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