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TRANSPARENCY FAILURE AND INDEX PROVIDER PRESSURE: HOW THE THREAT OF MSCI RECLASSIFICATION AFFECTED JAKARTA COMPOSITE INDEX VOLATILITY AND FOREIGN FUND FLOWS

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Abstract

Morgan Stanley Capital International questioned the reliability of Indonesian share ownership data in late 2025 and raised the possibility of moving the country from Emerging Market to Frontier Market status. This paper measures how the Jakarta Stock Exchange responded. The sample covers 632 trading days between 2 January 2024 and 9 September 2026. We apply three methods: a market-model event study benchmarked on MSCI Emerging Markets, a GJR-GARCH(1,1) model of conditional volatility, and least squares regression with Newey-West standard errors. The consultation announcement of 27 October 2025 produced a cumulative abnormal return of -2.89 per cent over the [0,+1] window, significant at 5 per cent, but the effect faded within two weeks. The consultation outcome released on 27 January 2026 was far more damaging: -7.86 per cent over [0,+1] and -11.45 per cent over [0,+10], both significant at 1 per cent and with no reversal. Annualised index volatility rose from 16.57 to 30.23 per cent, and the Levene test rejects equal variances at 1 per cent. After controlling for the VIX, the rupiah, and emerging market returns, the post-announcement regime dummy raises log volatility by 0.6214, roughly an 86 per cent increase. Prices fell without any change in corporate earnings or macroeconomic conditions. What changed was an outside assessment of how much the ownership data could be trusted.

Keywords: MSCI reclassification, free float transparency, event study, stock market volatility, foreign capital flows.

INTRODUCTION

Index membership is not only a measure of performance. Roughly ten trillion US dollars track the MSCI family of indices, so what the index provider decides determines how much passive money reaches a given market. For an emerging market such as Indonesia, the weight assigned within the MSCI Emerging Markets Index works as a source of demand that responds weakly to price. A change in that weight can therefore move prices even when nothing about the underlying companies has changed.

Between October 2025 and June 2026 Indonesia faced this pressure in an unusually direct form. On 27 October 2025 MSCI opened a public consultation on how free float should be calculated for Indonesian issuers, proposing that the Monthly Holding Composition Report published by the central securities depository be used as an additional reference. The consultation closed on 31 December 2025. On 27 January 2026 MSCI released the outcome. It froze a set of index changes for Indonesian securities, citing investor concerns about opaque ownership structures and possible coordinated trading that interfered with fair price formation. MSCI added that if transparency did not improve, it would reassess Indonesia market accessibility, which could mean a lower weight or reclassification to Frontier Market. At the June 2026 market classification review Indonesia kept its Emerging Market status, with a warning that a reclassification consultation could open if progress was not visible by the November 2026 review.

These events give an unusual research setting. The shock came from abroad, the timing is documented to the day, and the substance concerns the quality of ownership information rather than corporate earnings. That makes

it possible to ask a question that is normally hard to isolate. How much does the price of Indonesian equities depend on whether ownership data is believed?

Work on index composition effects is extensive, but it concentrates on single stocks entering or leaving an index. Country-level reclassification has received much less attention, and reclassification threats that never took effect have received almost none. This paper addresses that gap in three ways. It studies a threat rather than a completed change. It treats ownership transparency as a risk factor whose consequences can be measured at the market level. And it supplies Indonesian evidence that regulators can use when designing ownership disclosure rules.

We ask whether the MSCI announcements produced significant abnormal returns, whether they raised index volatility in a way that lasted, and whether the pressure was specific to Indonesia or simply reflected a broader emerging market shock.

LITERATURE REVIEW

1. Semi-strong form efficiency

Under semi-strong form efficiency, share prices adjust quickly and without bias to all publicly available information (Fama, 1970). The testable implication is that a public announcement carrying new information should appear in prices within days rather than weeks. The MSCI announcements qualify as economically relevant public information because they change expectations about future passive demand for Indonesian shares.

2. Price pressure and downward sloping demand

Harris and Gurel (1986) found that changes to the S&P 500 list were accompanied by price and volume spikes that partly reversed within weeks, which they read as pressure from temporary demand. Shleifer (1986) offered a different reading: demand curves for stocks slope downward, so a shift in demand changes prices permanently. Wurgler and Zhuravskaya (2002) supported the second interpretation by showing that price effects are larger for stocks that are harder to arbitrage. Chakrabarti, Huang, Jayaraman, and Lee (2005) documented comparable patterns for MSCI constituent changes across countries, and Afego (2017) surveyed this literature and concluded that the size of the effect depends heavily on how much of the stock is held by benchmark-tracking investors.

At country level, Burnham, Gakidis, and Wurgler (2018) studied MSCI market reclassifications and found that prices overshoot between the announcement and effective dates. Markets moved to an index with less benchmarked ownership, such as from Emerging to Frontier, fall in price and then recover most of the loss within a year. Petajisto (2011) showed that the hidden cost of index replication grows when passive demand concentrates in shares with limited free float. That logic applies directly here, since the MSCI freeze operated on exactly those variables: the Foreign Inclusion Factor and the number of shares.

3. Transparency, information asymmetry, and foreign ownership

International finance research consistently finds that foreign investors avoid markets and firms whose information is unclear. Kang and Stulz (1997) documented a home bias linked to information costs. Gelos and Wei (2005) found lower international portfolio holdings in less transparent countries and heavier outflows from those countries during crises. Leuz, Lins, and Warnock (2009) showed that foreigners hold fewer shares in firms whose ownership structures invite expropriation, and that the effect strengthens when earnings quality is poor, which they attribute to information asymmetry and monitoring costs.

This framework explains why the MSCI objections cannot be treated as a technical matter. When an index provider states that shareholder categorisation is not reliable enough to assess free float, the complaint is about the quality of the information used to judge investability. In the Leuz framework, such a statement amounts to a rise in information costs for foreign investors, and should therefore reduce their demand for Indonesian shares.

4. Hypotheses

H1 : The free float consultation announcement of 27 October 2025 produced significant negative abnormal returns on the Jakarta Composite Index.

H2 : The consultation outcome and reclassification warning of 27 January 2026 produced larger negative abnormal returns than H1.

H3 : Index volatility was significantly higher in the regime after 27 January 2026 than before it, once global risk factors are controlled for.

H4 : The pressure was specific to Indonesia, which would show up as a fall in the return spread between Indonesian and general emerging market instruments during the event window.

METHOD

1. Data and sample period

This is a quantitative study using daily secondary time series data. The observation period runs from 2 January 2024 to 9 September 2026 and yields 632 return observations after trading day adjustment. Prices for the Jakarta Composite Index, the USD/IDR exchange rate, the iShares MSCI Emerging Markets ETF (EEM), the iShares MSCI Indonesia ETF (EIDO), the CBOE volatility index, and the US dollar index come from Yahoo Finance. Event dates follow official MSCI announcements as documented in Indonesian financial media.

We identify four dates. E1 is 27 October 2025, the consultation announcement. E2 is 31 December 2025, the close of consultation. E3 is 27 January 2026, the consultation outcome with the index freeze and reclassification warning. E4 is 24 June 2026, the annual market classification review. Testing focuses on E1, E3, and E4, since E2 carried no new information.

2. Variable definitions

Table 1. Variable definitions

Variable	Notation	Measurement
Index return	Rt	ln(JCIt / JCIt-1)
Realised volatility	RV20t	Standard deviation of Rt over 20 trading days, times the square root of 252
Benchmark return	REMt	ln(EEMt-1 / EEMt-2), lagged one day for the time zone gap
Indonesia return spread	SPREADt	EIDO return minus EEM return on the same day
Rupiah depreciation	RUSDt	ln(USDIDRt / USDIDRt-1)
Change in global risk	DVIXt	VIXt minus VIXt-1
Event window dummies	D_E1, D_E3, D_E4	Equals 1 within five trading days either side of the event
Regime dummy	D_POST	Equals 1 from 27 January 2026 onward

Source: authors, 2026

The EEM return is lagged one day because the Jakarta exchange closes before US trading opens, so it is the previous US session that is relevant for trading in Jakarta. Without this adjustment the market model beta is biased by non-synchronous trading.

3. Event study design

The event study follows Brown and Warner (1985) and MacKinlay (1997). Market model parameters are estimated over the [-120,-21] trading day window around each event using Rt = ai + bi REMt + et. Abnormal returns are the difference between observed and predicted returns, cumulated over several windows: [-10,-1], [-1,+1], [0,+1], [0,+5], [0,+10], and [-5,+5]. Significance uses the Brown-Warner t statistic, which divides the cumulative abnormal return by the estimation window residual standard deviation times the square root of the number of days in the event window.

4. Volatility modelling

Volatility is modelled with the ARCH family introduced by Engle (1982) and generalised by Bollerslev (1986). We estimate a symmetric GARCH(1,1) first and compare it with the asymmetric GJR-GARCH(1,1) of Glosten, Jagannathan, and Runkle (1993), which allows negative shocks to affect conditional variance more than positive shocks of the same size. Errors follow a Student-t distribution to accommodate the fat tails typical of daily data. Model selection uses the Akaike and Schwarz information criteria.

5. Regression models

H3 and H4 are tested through two equations. The first explains log realised volatility. The second explains the Indonesian return spread over emerging markets, used as a proxy for foreign fund pressure.

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$$\ln RV20t = b0 + b1\ D_E1t + b2\ D_E3t + b3\ D_E4t + b4\ D_POSTt + b5\ DVIXt + b6\ RUSDt + b7\ REMt + et$$

$$SPREADt = c0 + c1\ D_E1t + c2\ D_E3t + c3\ D_E4t + c4\ D_POSTt + c5\ Rt\text{-}1 + c6\ RUSDt + c7\ DVIXt + ut$$

Daily financial data usually carries heteroskedasticity and autocorrelation, so all standard errors use the Newey and West (1987) estimator with ten lags. Each series is first tested for stationarity with the Augmented Dickey-Fuller test (Dickey & Fuller, 1979), and ARCH effects are tested with a Lagrange multiplier test. Variance differences between the regimes before and after E3 are tested with the median-based Levene test, which tolerates non-normality better than the classical F test. All computation was done in Python 3.12 using statsmodels 0.15 and arch 8.0.

RESULTS AND DISCUSSION

1. Descriptive statistics

Table 2. Descriptive statistics

Variable	N	Mean	Std. dev.	Minimum	Maximum	Kurtosis	Jarque-Bera
Rt	632	-0.00014	0.01295	-0.08232	0.07299	9.915	1,325.42***
RV20t	614	0.18334	0.09593	0.06998	0.48146	4.227	243.83***
SPREADt	632	-0.00169	0.01561	-0.11225	0.07039	8.935	942.35***
RUSDt	632	0.00019	0.00584	-0.04246	0.04950	20.639	8,225.31***
DVIXt	632	0.00383	2.29404	-18.710	33.640	86.441	185,662.17***
REMt	632	0.00087	0.01399	-0.14656	0.06702	24.479	12,536.67***

*Note: *** significant at 1 per cent. Source: authors calculations.*

Mean daily index return over the sample is slightly negative. Skewness of -0.793 and kurtosis of 9.915 indicate a left-skewed distribution with fat tails. Jarque-Bera rejects normality for every variable. This is ordinary for daily financial data and it justifies both the Student-t distribution in the volatility model and the robust covariance estimator in the regressions.

2. Preliminary tests

Table 3. Augmented Dickey-Fuller and ARCH-LM tests

Series	ADF statistic	5% critical value	p-value	Conclusion
Rt	-13.418	-2.866	0.000	Stationary
RV20t	-3.369	-2.866	0.012	Stationary
SPREADt	-11.658	-2.866	0.000	Stationary
RUSDt	-11.509	-2.866	0.000	Stationary
DVIXt	-10.860	-2.866	0.000	Stationary
ARCH-LM(5) on Rt	58.355	-	0.000	ARCH effects present

Source: authors calculations, 2026

All series are stationary in levels, so the regressions need no further differencing. The Lagrange multiplier statistic of 58.355 with a p-value below 0.001 rejects the null of no ARCH effects, which supports conditional variance modelling in the next step.

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3. Price reaction

Table 4. Cumulative abnormal returns around three MSCI announcements

Event window	E1 CAR	E1 t	E3 CAR	E3 t	E4 CAR	E4 t
[-10,-1]	-1.66%	-0.625	-1.00%	-0.362	12.88%	2.636***
[-1,+1]	-3.28%	-2.256**	-7.73%	-5.105***	1.46%	0.545
[0,+1]	-2.89%	-2.438**	-7.86%	-6.357***	1.58%	0.725
[0,+5]	-1.08%	-0.527	-10.85%	-5.068***	-2.82%	-0.745
[0,+10]	-0.11%	-0.040	-11.45%	-3.951***	3.95%	0.770
[-5,+5]	2.34%	0.842	-13.32%	-4.595***	-5.47%	-1.067

*Note: *** and ** denote significance at 1 and 5 per cent. Market model parameters estimated over [-120,-21]. Source: authors calculations.*

Table 4 supports H1 and H2. The consultation announcement drew a negative response of -2.89 per cent over [0,+1], significant at 5 per cent, but the effect faded and the [0,+10] cumulative return is indistinguishable from zero. That pattern fits the price pressure account of Harris and Gurel (1986). The market reacted to a possible weight reduction, then gave part of it back once investors recognised that no decision had been made.

The outcome announcement was different in both size and persistence. The cumulative abnormal return reached -7.86 per cent over [0,+1] with a t statistic of -6.357, then widened to -11.45 per cent over [0,+10]. Daily abnormal returns show the damage concentrated on the first trading day after the announcement, 28 January 2026, with an abnormal return of -7.77 per cent and a t statistic of -8.89, followed by 2 February 2026 at -5.16 per cent and -5.91. The gap between E1 and E3 matches the finding of Burnham et al. (2018) that price impact depends on how much benchmarked ownership is genuinely at risk. E1 threatened a methodology. E3 froze the mechanism for weight increases and put reclassification on the table.

E4 produced no significant abnormal return near the announcement date. What was significant was the 12.88 per cent cumulative return over [-10,-1], which suggests the market had already priced the decision to retain Emerging Market status before it was published. This is consistent with semi-strong efficiency, since the direction of the decision had reached prices ahead of the formal release.

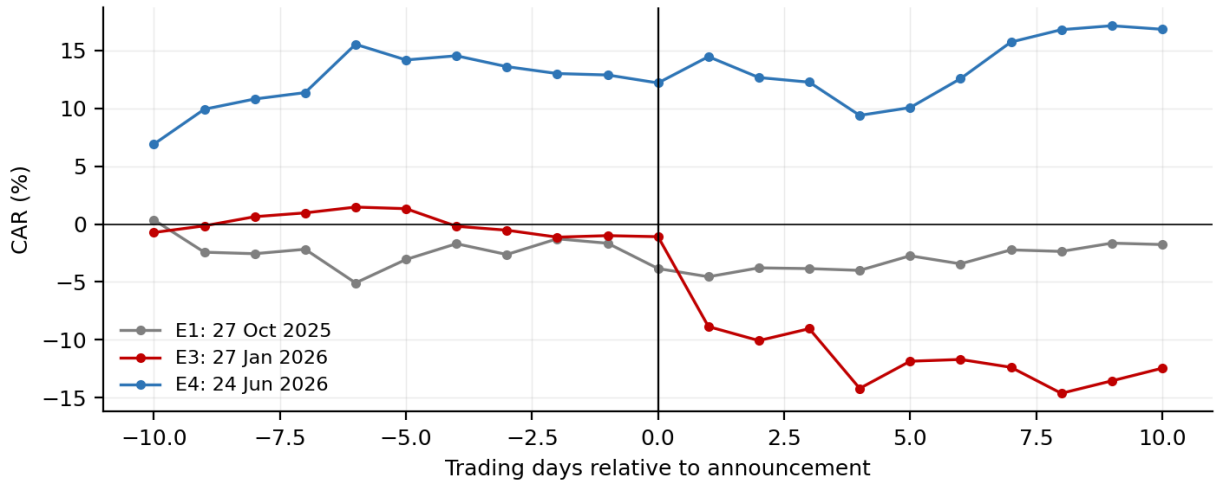

Figure 1. Cumulative abnormal returns around three MSCI announcements

4. Volatility reaction

Table 5. GARCH(1,1) and GJR-GARCH(1,1) estimates

Parameter	GARCH (1,1)	t statistic	GJR-GARCH (1,1)	t statistic
Variance constant	0.0784	1.517	0.0931	1.692*
ARCH (alpha)	0.1616	2.256**	0.0000	0.000
Asymmetry (gamma)	-	-	0.2297	2.444**
GARCH (beta)	0.7944	8.821***	0.8059	9.272***
Degrees of freedom (nu)	5.491	3.939***	5.957	3.578***
Persistence	0.9560	-	0.9207	-
Log-likelihood	-944.12	-	-937.07	-
AIC	1,898.25	-	1,886.13	-
BIC	1,920.49	-	1,912.83	-

*Note: ***, **, and * denote significance at 1, 5, and 10 per cent. Source: authors calculations.*

The asymmetric model wins on both information criteria. An asymmetry coefficient of 0.2297 with a t statistic of 2.444 indicates a strong leverage effect. Bad news raises conditional variance while good news of equal size does almost nothing, since the ARCH coefficient is effectively zero. Persistence of 0.9207 means volatility shocks decay slowly. Together these two features explain why a negative announcement such as E3 could shift the level of volatility for months rather than days.

Table 6. Volatility before and after 27 January 2026

Measure	Before E3	After E3	Test statistic	p-value
Trading days	487	145	-	-
Annualised volatility	16.57%	30.23%	-	-
Mean GJR conditional volatility	16.46%	26.66%	-	-
Levene test (median-based)	-	-	53.101	0.000
F test for equal variances	-	-	3.330	0.000
Mean daily SPREAD	-0.111%	-0.363%	38,454.0 (Mann-Whitney)	0.103

Source: authors calculations.

Annualised volatility rose from 16.57 to 30.23 per cent, an increase of about 82 per cent. The median-based Levene test gives a statistic of 53.101 with a p-value below 0.001, rejecting equal variances at 1 per cent. Mean conditional volatility from the GJR-GARCH model moves the same way, from 16.46 to 26.66 per cent.

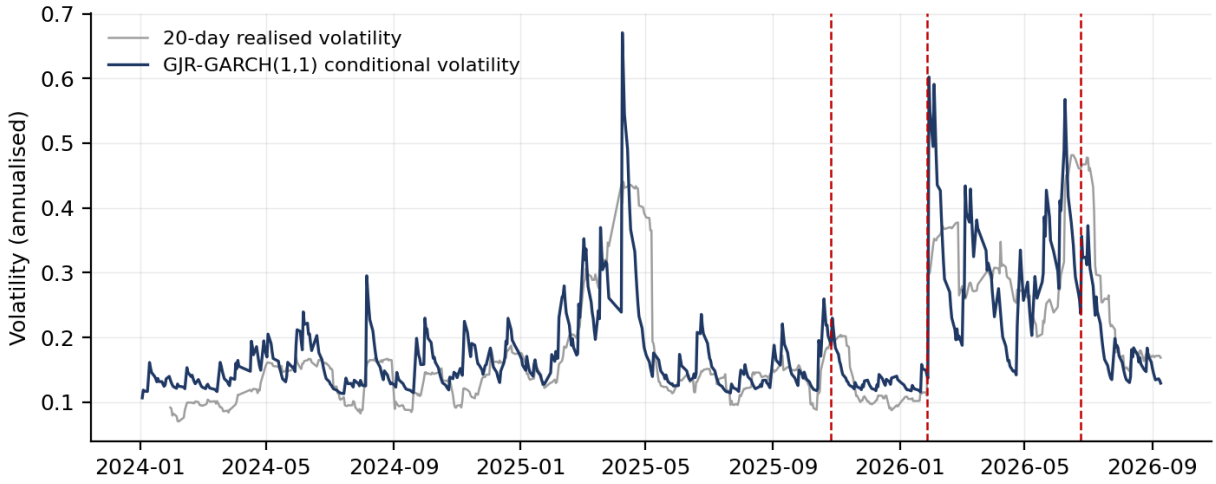

Figure 2. GJR-GARCH conditional volatility and 20-day realised volatility

5. Determinants of volatility

Table 7. Log realised volatility regression with Newey-West standard errors

Variable	Coefficient	t statistic	p-value
Constant	-1.9695	-36.65	0.000
D_E1	0.2998	5.34	0.000
D_E3	-0.0862	-0.84	0.400
D_E4	0.5927	8.16	0.000
D_POST	0.6214	6.90	0.000
DVIX	-0.0007	-0.09	0.932
RUSD	0.4431	0.27	0.790
REM	0.0408	0.03	0.973
N = 614; R-squared = 0.415; adjusted R-squared = 0.408; F = 323.16 (p < 0.001)			

Source: authors calculations.

H3 is supported. The regime dummy coefficient of 0.6214 with a t statistic of 6.90 means volatility after 27 January 2026 was about 86 per cent higher than before, after controlling for global risk, the exchange rate, and emerging market returns. Neither DVIX nor REM is significant, which strengthens the reading that the volatility increase came from within Indonesia rather than from a global shock.

The D_E3 coefficient is insignificant and negative. This is a measurement artefact rather than evidence of no effect. RV20 uses a trailing twenty day window, so within the narrow window around E3 the measure still reflects the calm pre-event period. The actual effect is captured by the regime dummy. The positive and significant D_E4 coefficient shows volatility was still elevated during the June 2026 window, on top of an already higher post-E3 level.

6. Indonesia-specific pressure

Table 8. Indonesian return spread over emerging markets

Variable	Coefficient	t statistic	p-value
Constant	-0.00118	-1.94	0.052
D_E1	0.00504	1.83	0.067
D_E3	-0.00857	-1.96	0.050
D_E4	-0.00315	-0.98	0.329
D_POST	-0.00177	-0.89	0.373
Index return t-1	0.00435	0.07	0.940
RUSD	-0.27731	-1.38	0.168
DVIX	0.00104	2.37	0.018
N = 613; R-squared = 0.040; adjusted R-squared = 0.029; F = 2.56 (p = 0.013)			

Source: authors calculations.

Support for H4 is partial. The D_E3 coefficient of -0.00857 is significant at 5 per cent, meaning that during the eleven day window around the outcome announcement Indonesian instruments returned about 0.86 percentage points per day less than emerging markets generally. Since both instruments trade on the same US exchange and face identical global shocks, the spread isolates the component of pressure specific to Indonesia. At the regime level, however, D_POST is insignificant and the Mann-Whitney test on the spread returns a p-value of 0.103. The most plausible reading is that Indonesia-specific pressure was sharp at the announcement and then merged back into general emerging market movement, while the volatility increase is what persisted.

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Figure 3. Jakarta Composite Index with the three event dates marked

7. Discussion

Taken together, the results indicate that how an index provider judges the quality of ownership information matters materially for Indonesian equities. An eleven per cent loss of value over ten trading days occurred with no change in corporate earnings, monetary policy, or macroeconomic conditions. The only thing that changed was an external assessment of whether the ownership data could be relied on.

The findings extend the index effects literature in two directions. Earlier work studied composition changes that had already been decided, whereas here a threat that never took effect produced a large price adjustment. The paper also links the index effects literature to work on transparency and foreign ownership. The mechanism matches the argument of Leuz et al. (2009) and Gelos and Wei (2005): when information costs rise for foreign investors, their demand falls, and in a market whose effective free float is limited that fall shows up in prices almost immediately.

The asymmetry detected by the GJR-GARCH model carries a further message for policymakers. Indonesian equities react far more to bad news about their standing with index providers than to good news. With persistence of 0.9207, one negative announcement leaves a volatility trace lasting months. Rebuilding confidence therefore takes more time and consistency than losing it, and a one-off transparency fix is unlikely to be enough.

CONCLUSION

Four findings emerge. The consultation announcement of 27 October 2025 produced a cumulative abnormal return of -2.89 per cent over [0,+1], significant at 5 per cent, but the effect was temporary. The outcome announcement of 27 January 2026 produced -7.86 per cent over [0,+1] and -11.45 per cent over [0,+10], both significant at 1 per cent and without reversal. Index volatility rose from 16.57 to 30.23 per cent after that announcement and stayed higher once global factors were controlled for. Pressure was demonstrably specific to Indonesia during the event window, though it did not persist as a significant regime difference.

Several limitations apply. Foreign fund flows are measured through an exchange traded fund return spread rather than daily net foreign buy data from the Indonesia Stock Exchange, because that data was not accessible when the study was conducted. Follow-up work using actual flow figures would give a more direct test. The post-event period covers only 145 trading days, so the question of long-run reversal documented by Burnham et al. (2018) cannot yet be answered. The study also cannot fully rule out confounding events, although the emerging market benchmark absorbs most global shocks.

For regulators the implication is direct. The cost of unclear ownership structures is no longer theoretical: it has been measured in lost market value and higher risk. Improving disclosure of holdings below the five per cent threshold, strengthening shareholder categorisation in central depository data, and monitoring ownership concentration all carry immediate economic value rather than being administrative housekeeping. For investors, the results argue for treating index methodology risk as an explicit exposure, particularly in large capitalisation shares whose effective free float is small. Future research could test the reaction at firm level by relating the size of abnormal returns to each company free float and ownership concentration.

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