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Policy Announcements and SOE Stock Returns: A Multi-Event Study of Indonesia's Sovereign Wealth Fund

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ABSTRACT

This study examines market reactions to events related to the inauguration and strategic activities of Indonesia's Sovereign Wealth Fund, investigating whether investors in Indonesian state-owned enterprise stocks responded to a sequence of Indonesia's SWF-related announcements through significant changes in cumulative abnormal returns. The study focuses on firms included in the IDXBUMN20 index listed on the Indonesia Stock Exchange. This study employs a quantitative explanatory design using a multi-event study framework. The observation period covers three major Indonesia's SWF-related events in 2025, namely Indonesia's SWF Inauguration on 24 February 2025, the Indonesia's SWF Town Hall Meeting on 28 April 2025, and the MoU with ACWA Power on 2 July 2025. The analysis uses a five-day event window before and after each event. The findings indicate that, in general, there is no statistically significant difference in CAR before and after the examined events across most event windows ($p\text{-value} > 0.05$). However, a significant difference is observed in the ± 3 -day window for the inauguration event, suggesting a temporary adjustment in investor response. These findings suggest that the market may have viewed the announcements as anticipated information, insufficiently material for immediate repricing, or still too uncertain in their economic implications for state-owned enterprises.

INTRODUCTION

The downstream processing of natural resources alongside the enhancement of research, innovation, and workforce productivity represent foundational stages in Indonesia's transformation towards realizing Golden Indonesia 2045. During this transformative phase, economic growth is projected to reach 8% in the 2025–2029 period. Economic transformation may be further facilitated through augmented investment supporting priority project development. For example, the 2025 investment strategy includes establishing Indonesia's Sovereign Wealth Fund (SWF) namely Danantara Indonesia, which will serve as a coordinating body to manage national investment

funds supporting Indonesia's economic transformation. The emergence of Indonesia's SWF is closely aligned with the government's objectives to expedite national development, facilitate downstream industrialization, and foster long-term strategic investment. Given Sovereign Wealth Fund role in coordinating and managing major state-owned enterprises, its establishment may be perceived as significant by capital market participants. Should investors view the creation of Sovereign Wealth Fund as an indication of improved governance, more efficient asset allocation, and enhanced long-term value creation, a positive market reaction may ensue. Nevertheless, investor perceptions are not always

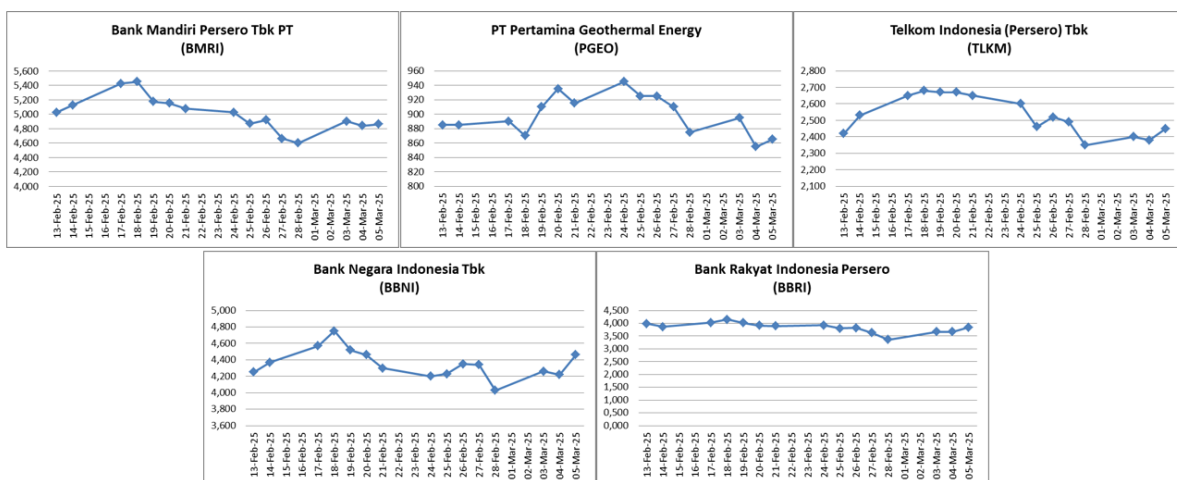


Figure 1: Movement of State-Owned Enterprise Shares

Source: yaboo.finance.com

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positive. If Sovereign Wealth Fund is seen as introducing uncertainty regarding implementation, political intervention, or institutional effectiveness, the market may remain cautious or respond negatively. Reflecting this, Indonesian capital market volatility, especially SOE shares has increased since early 2025. For example, data from the IDX shows the IDXBUMN20 index experienced a notable spike of 10–12% between late February and March, with sharp fluctuations resuming in July. These swings corresponded with key announcements about Indonesia's SWF formation and activities. Further, stock price movements of large SOEs such as BBRI, TLKM, and ANTM during this period, as reported by official sources, illustrate the impact of public policy on the capital market.

Figure 1 shows the stock price movements of state-owned enterprises (BUMN) managed by Indonesia's SWF. According to Kompas.com, the seven SOEs included are PT Bank Mandiri (Persero) Tbk, PT Bank BRI (Persero) Tbk, PT Bank BNI (Persero) Tbk, PT Pertamina Geothermal Energy, PT Telekomunikasi Indonesia, and Mining Industry Indonesia (MIND ID). From 14 to 18 February 2025, the average stock price of these five companies increased, then declined from 19 February until Indonesia's SWF inauguration, with the sharpest drop on 28 February 2025, the inauguration day. This pattern suggests a possible correlation between Indonesia's SWF inauguration and stock price fluctuations among affiliated Indonesian companies. According to data from the official website of the Indonesia Stock

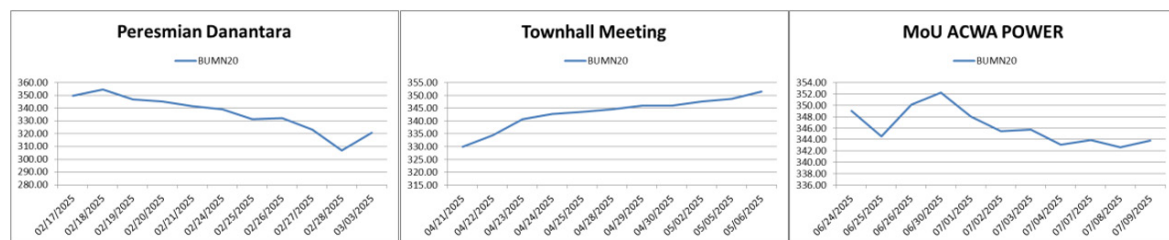


Figure 2: Movement of the IDXBUMN20 Index
Source: *idx.co.id*

Exchange, as depicted in Figure 2, the IDXBUMN20 Index declined by 2.41 points, from 341.41 on 23 February 2025 to 339.00 on 24 February 2025. A similar decline was observed prior to the Indonesia's SWF Inauguration, spanning 18 February 2025 to 22 February 2025. In contrast, during the first Indonesia's SWF Town Hall Meeting, held on 28 April 2025, the IDXBUMN20 Index increased consistently, rising from 334.45 on 21 April 2025 to 351.06 on 6 May 2025. Conversely, during the Memorandum of Understanding signing event between Indonesia's SWF and ACWA Power, the BUMN 20 Index exhibited greater volatility, lacking the distinct downward or upward patterns evident during the Inauguration and Town Hall Meeting events, respectively.

Under the Efficient Market Hypothesis semi-strong form, (Fama 1970), a capital market is efficient if prices reflect not only past and public information but also analysis and unpublished sources. In such a market, public announcements with relevant new information are quickly incorporated into stock prices. Thus, if Indonesia's SWF-related announcements were deemed economically meaningful by investors, they should yield abnormal returns near the event dates. If announcements do not lead to significant abnormal returns, it could mean the market *already* anticipated the information, found it insufficient to affect firm value in the short term, or did not perceive it as credible enough to alter investor expectations.

A tool for testing the presence or absence of information about an event is called an Event Study. According to Nurjannah, Awwaliyah, and Susanto (2023), an event study examines the market's reaction to an event that

provides information affecting stock prices. From this event study analysis, investors attempt to calculate abnormal returns before and after an event. Event study methodology has long been used as a standard approach to testing whether a specific event contains information that affects stock prices. According to MacKinlay (1997), event study analysis allows researchers to assess the economic impact of an event by observing abnormal returns around the event date. According to Dewantara, Awwaliyah, and Singgih (2020), an abnormal return is the difference between the actual return and the normal return.

Empirical evidence on sovereign wealth fund (SWF) investments provides perspective. Their equity market presence often signals strong financial backing, improved governance, and access to strategic resources, which can lower perceived firm risk and boost valuation especially for financially constrained firms, where institutional support holds more informational value.

However, the literature does not offer a clear conclusion. Several studies find positive, significant abnormal returns around SWF-related announcements, while others note these effects are neither persistent nor universal across institutions. In some cases, initial positive market reactions are followed by long-term underperformance, suggesting that early investor optimism may not reflect actual improvements. Other findings show that increased SWF activity does not always cause significant market disruption or abnormal returns, especially when the investment's information is limited or already anticipated by the market.

These mixed findings indicate that market reactions to

SWF-related events depend on factors like institutional credibility, transparency, investment purpose, and the broader economic environment. As a result, the presence of an SWF alone does not ensure a positive or significant market response; instead, it interacts with investor expectations and perceived information quality. Therefore, closer examination of empirical evidence is needed to understand how these conditional dynamics play out across institutional settings.

Cross-country empirical evidence reinforces this conditional pattern. Studies such as Megginson *et al.* (2023) and Ngoc (2015) demonstrate that SWF investments often produce positive short-term abnormal returns, reflecting favorable sentiment at the announcement. Yet, Bortolotti *et al.* (2009) find subsequent long-term underperformance, and Sun and Hesse (2009) observe no significant instability or abnormal return patterns, suggesting informational impact varies with context.

Complementary evidence from event studies on political, regulatory, and institutional announcements in emerging markets such as those by Dewantara, Awwaliyah, and Singgih (2020), Nurjannah, Awwaliyah, and Susanto (2023), and Rizkianto *et al.* (2024) shows that market responses differ based on the credibility, timing, and economic relevance of the information. Taken together, these findings suggest that investor reactions are not triggered solely by an event, but are shaped by how market participants interpret the credibility and economic impact of the information.

Despite the growing body of event study literature, at least two important gaps remain. First, research on the market consequences of sovereign investment institutions in emerging markets remains limited, especially in the Indonesian context. Most of the literature has focused either on political events, corporate actions, macroeconomic announcements, or sovereign wealth fund evidence from other countries. As such, there is still limited empirical evidence on how investors in an emerging market like Indonesia interpret the establishment of a newly formed national investment management institution such as Indonesia's SWF. Second, most prior event-study research tends to focus on a single event, even though, in reality, investors are often exposed to a series of related announcements that gradually shape market expectations. In cases like Indonesia's SWF, the market may respond not only to the inauguration event but also to subsequent strategic activities that either reinforce or weaken the original policy signal. This gap necessitates further empirical investigation to determine whether the findings align with or diverge from prior studies. Based on initial observations and the existing research gap, this study attempts to examine market reactions through an event study approach to the inauguration and strategic activities of Indonesia's SWF, including those occurring on 24 February 2025 (Indonesia's SWF Inauguration), 28 April 2025 (Indonesia's SWF Town Hall Meeting), and 2 July 2025 (MoU with ACWA Power).

This study addresses these gaps by examining market

reactions to a sequence of policy-driven institutional events related to the establishment and early strategic activities of Indonesia's SWF. Unlike prior studies that focus on single-event analysis, this research adopts a multi-event study framework to capture how investors respond to a series of interconnected announcements over time. By focusing on an emerging market context, this study provides new empirical evidence on how market participants interpret sovereign investment institutions under conditions of uncertainty and evolving institutional credibility. Specifically, this study contributes to the literature by demonstrating that market reactions to policy announcements are not automatic but are conditional on the perceived credibility, informational clarity, and economic relevance of the events.

LITERATURE REVIEW

Efficient Market Hypothesis

Fama (1970) explains that, in general, the capital market is said to be efficient if prices reflect not only past and published information, but also information obtained from analyses and information that is not or has not been published. This idea has become central in financial economics because it links the process of information dissemination with stock price formation. Dobbins and Witt (1979), who also refer to Fama's concept, explain that a market is efficient if asset prices fully reflect all information, whether new or sudden, very quickly, and incorporate it into the price. This is also emphasized by Sabbaghi and Sabbaghi (2018), who argue that competitive financial markets use all available information to form stock prices. According to Fama (1970), efficient markets are grouped into three hypotheses. The three hypotheses are described as follows: (a) Strong Form Efficient Market Hypothesis, which states that the market will be efficient if all information related to stock values, whether publicly available or not, is quickly disseminated and accurately reflects market prices. (b) The semi-strong form efficient market hypothesis, which concludes that all publicly available information is quickly reflected in market prices. It is said that the market will change quickly with the entry of new public information and that prices will move to a new equilibrium level. (c) Weak form efficient market hypothesis, which states that the only relevant information for viewing stock prices is looking at their historical prices. In this case, investors cannot expect to find patterns in the historical sequence of security prices that would provide insight into future price movements or yield abnormal returns.

In the context of this study, the semi-strong form of EMH is particularly important because the events examined are publicly observable announcements related to Indonesia's SWF. If the Indonesian capital market processes such information efficiently, then announcements regarding the inauguration and strategic activities of Indonesia's SWF should be reflected in stock prices around the event dates. Thus, if Indonesia's SWF-related announcements contain new, economically relevant information, investors

are expected to respond with abnormal returns. On the contrary, if no significant abnormal return is detected, this may indicate that the market had already anticipated the information, that it was judged insufficiently material, or was not considered credible enough to change valuation in the short term. This is a crucial point because large public announcements often receive intense media and political attention, but not all of them necessarily translate into immediate changes in stock valuation. For this reason, the Efficient Market Hypothesis serves as a relevant theoretical lens for assessing whether the market interpreted Indonesia's SWF-related announcements as value-relevant information.

Recent empirical evidence suggests that such efficiency is often conditional rather than absolute, particularly in emerging markets. Mairyo *et al.* (2025) find that financial structure variables such as leverage, investment, and dividend policy do not always produce immediate or consistent market outcomes, indicating that investor interpretation and information credibility play a crucial role in shaping price adjustments. This implies that even under semi-strong efficiency, not all public information is instantaneously incorporated into stock prices, especially when uncertainty and informational ambiguity persist.

Event Study as a Framework for Testing Market Reaction

An event study is a method used to test an announcement to determine whether it contains information and to assess the form of market efficiency. MacKinlay (1997) states that the event study method is a tool for measuring the market reaction to a specific event. This event study is used to calculate abnormal returns around the event. According to Rizkianto *et al.* (2024), the purpose of an event study is to evaluate whether investors can gain profits or abnormal returns from new information contained in an event. Thus, an event study is a method for testing the hypothesis that new, relevant information entering the capital market shifts stock prices to a new equilibrium.

Event study methodology has been widely applied to analyze stock market responses to political events, corporate decisions, regulatory announcements, macroeconomic policies, and financial crises. In many cases, the findings are mixed. Some announcements generate significant abnormal returns because they materially alter investor expectations regarding profitability, risk, or institutional credibility. However, other announcements do not elicit significant market responses because the information has already been priced in, is too ambiguous, or lacks direct implications for firm value. This variation shows that market reaction depends not only on the presence of an event but also on how investors interpret its novelty, credibility, and economic significance.

This variability is consistent with broader empirical findings in applied economic research. Abiodun *et al.* (2026) demonstrate that policy interventions, such as persistent interest rate increases, do not uniformly

generate predictable economic outcomes, highlighting that responses to economic signals are highly context-dependent. These findings reinforce the argument that investor reactions are shaped not only by the existence of an event, but also by how the information is interpreted within a given institutional and macroeconomic environment.

As event study research has grown in its ability to measure capital market reactions to events, recent research has begun developing a multi-event event study. According to Sandler & Sandler (2014), a multi-event event study is a development of the event study method, used when one observation unit (e.g., a company or individual) experiences more than one event within a short or repeated time period. Therefore, investors will seek information from several references to similar events that occurred at different times in the capital market, thereby identifying whether specific events generate significant reactions or convey no information. This research aims to identify events related to Indonesia's SWF, including the Indonesia's SWF Inauguration, the Indonesia's SWF Town Hall Meeting, and the MoU with ACWA Power.

Indonesia's Sovereign Wealth Fund (Danantara Indonesia)

This perspective is consistent with recent empirical evidence emphasizing that institutional and policy-driven changes do not automatically translate into immediate market reactions. Mairyo *et al.* (2025) suggest that structural financial decisions and policy signals often require time to influence firm-level outcomes, particularly in emerging markets characterized by higher uncertainty and information asymmetry. Therefore, the establishment of Indonesia's Sovereign Wealth Fund may function more as a gradual institutional signal rather than an immediate value-relevant event in the capital market.

Indonesia's Sovereign Wealth Fund (Danantara Indonesia), in its role as coordinator, holds and manages national investment funds to support the transformation of the Indonesian economy. With a professional approach and implementing good governance, Indonesia's SWF is committed to increasing asset efficiency, attracting global investment, and strengthening Indonesia's competitiveness in strategic sectors, thereby creating equitable prosperity for all Indonesian people (Indonesia's SWF, 2025). The vision of Indonesia's SWF is to be a leading investment manager, with strategic SOEs as the enablers of investment placement. Indonesia's SWF encourages the transformation of the Indonesian economy by building a world-scale Sovereign Wealth Fund, supporting national development, and creating prosperity for all Indonesian people.

From the perspective of capital market participants, the establishment of Indonesia's SWF may be interpreted as an important institutional signal. On one hand, investors may view its formation positively because it suggests stronger coordination of state-owned assets, more professional investment management, and greater commitment to

long-term national development. The event in question is the Indonesia's SWF Inauguration itself. Indonesia's SWF Inauguration took place on 24 February 2025. On average, the shares of the five state-owned enterprises (BUMN) strengthened before the inauguration day of Indonesia's SWF, starting from 14 February 2025, to 18 February 2025, and weakened from 19 February 2025, until the inauguration day of Indonesia's SWF, with the sharpest weakening on 28 February 2025. This indicates the influence of Indonesia's SWF's inauguration on shares in the Indonesian capital market, especially those of SOE companies whose assets will be managed by Indonesia's SWF. Another event highlighted was the Indonesia's SWF Town Hall Meeting held on 28 April 2025. Quoted from setneg.go.id, the meeting attended by President Prabowo Subianto was held behind closed doors. The President further directed that Indonesia's SWF's management must be transparent and strictly enforced, as the funds under its management reach USD 1 trillion. He also ordered management to evaluate all directors, assessing their performance, character, morals, and achievements. The signing of the memorandum of understanding with ACWA Power on 2 July 2025 represents an external strategic linkage that could signal implementation capacity and international cooperation. Because these three events may provide different informational content to investors, analyzing them together offers a more comprehensive picture of how the market interprets the emergence and early strategic trajectory of Indonesia's SWF.

MATERIALS AND METHODS

This study adopts a quantitative explanatory research design to empirically examine market reactions. The main objective of the study is to empirically test the capital market's reaction to the announcement of Indonesia's SWF's inauguration policy and strategic steps as a policy shock affecting state-owned enterprises (SOEs) in Indonesia. The approach used is a multi-event study, a design developed from an event study that examines several events or policies across regions and time. Therefore, in this case, investors will seek information from several references to similar events that occur at different times in the capital market, so that they can determine which specific events generate significant reactions or whether the event contains no information at all. The event window used in this study is 5 days before and 5 days after the event.

The sampling technique used in this study was saturated sampling, where the entire population was sampled. According to Sugiyono (2019), a sampling technique where all members of the population are sampled is called saturated sampling. The index used was the shares of the IDXBUMN20 members, which served as the sample in this study. The sample comprises all firms in the IDXBUMN20 index, which represents the largest SOEs in Indonesia.

The data collection method used in this study is a literature review, which involves reading and gathering information

from sources supporting the research, such as various written records and secondary data, to support the analysis of the problems in this study. Daily stock price data is collected to calculate returns, abnormal returns, and cumulative abnormal returns. The measurement scale used is tailored to the variable's characteristics. The CAR variable is measured on a ratio scale because it is a quantitative number with an absolute zero.

Cumulative Abnormal Return (Y)

The difference between the expected return and the actual return is called the abnormal return. The accumulation of all abnormal returns over the observation period is called the cumulative abnormal return. According to Gumanti (2011), the steps for calculating abnormal return are as follows:

$$AR_{it} = R_{it} - E(R_{it}) \quad (1)$$

Cumulative abnormal return calculated using the following formula:

$$CAR_{it} = \sum AR_{it} \quad (2)$$

Actual return is the return that has already occurred and is calculated using historical data. It can also be used as a measure of company performance. Gumanti *et al.* (2018) define it as follows:

$$R_{it} = \ln((P_{it} - (P_{it-1})) / (P_{it-1})) \quad (3)$$

Expected return is the return investors expect. In this study, expected return is calculated using the Market-Adjusted Model, which assumes that the best predictor of a security's return is the current market index return. The formula is as follows.

$$RM = (IDXBUMN20_t - (IDXBUMN20_{t-1})) / (IDXBUMN20_{t-1}) \quad (4)$$

The data analysis method used in this study was the t-test. The analysis begins by estimating abnormal returns as the primary variable, namely the abnormal return. Next, a normality test was performed using the Shapiro-Wilk test at a 5% significance level. Hypothesis testing was then performed using the paired sample t test for normally distributed data and the Wilcoxon signed-rank test for non-normally distributed data. The testing stages are explained as follows:

Determining Variable Values

The first step is to determine the difference between the expected and realized returns, known as the abnormal return. Then, the accumulation of all abnormal returns over the observation period is called the cumulative abnormal return.

Data Normality Test

Data normality testing should be performed on data processed based on research models (Nugroho, 2005). This normality test determines whether the data are normally distributed. This study uses the Shapiro-Wilk test because the sample size for each event is less than 50. If the data are normally distributed, the paired sample t test is used. The Wilcoxon signed-rank test is used if the data are not normally distributed.

If $\text{Sig} > \alpha = 0.05$, then the data is normally distributed
If $\text{Sig} < \alpha = 0.05$, then the data is not normally distributed

Hypothesis Testing

According to Siyoto and Sodik (2015), hypothesis testing is the process of testing a hypothesis against observable events. This study used the paired sample t test for normally distributed data and the Wilcoxon signed-rank test for non-normally distributed data. The first step in this study was determining the hypothesis formula.

H0: There was no significant difference in cumulative abnormal returns before and after the inauguration event and Indonesia's SWF's strategic policy on SOE shares on the Indonesia Stock Exchange.

Ha: There is a significant difference in cumulative abnormal return before and after the establishment and strategic policies of Indonesia's SWF on SOE shares on the Indonesia Stock Exchange.

The second step is to test the hypothesis using the two tests mentioned above: the t-test (paired sample t-test) for normally distributed data and the Wilcoxon signed-rank test for non-normally distributed data. Then calculate the p-value and compare it directly with the significance level. H0 is accepted if $p\text{-value} > \alpha = 0.05$

H0 is rejected if $p\text{-value} < \alpha = 0.05$

Furthermore, the final step is concluding the hypothesis.

Robustness Test

To ensure the reliability of the findings, robustness analysis is conducted by comparing results across different event windows (± 1 and ± 3 days). This approach allows the study to examine whether the significance of market reactions is sensitive to the length of the observation period. Consistent results across multiple windows strengthen the validity of the conclusions, whereas variations may indicate differences in the timing of market information absorption.

By combining a multi-event framework with multiple event windows and complementary statistical tests, this study aims to provide a comprehensive assessment of how investors respond to sequential policy announcements in an emerging market context.

RESULTS AND DISCUSSION

Results

Descriptive Analysis

Descriptive analysis in this study is used to describe the research sample by measuring the mean, minimum, maximum, and standard deviation of the main variable, namely cumulative abnormal return, for each event. The following is a descriptive analysis of cumulative abnormal return.

Descriptive analysis results: cumulative abnormal return 5

Table 1: Descriptive Analysis Table of cumulative abnormal return at event window -5 and +5

Event	N	Mean		Min		Max		Std. Dev	
		Before (-5)	After (+5)	Before (-5)	After (+5)	Before (-5)	After (+5)	Before (-5)	After (+5)
Inauguration of Indonesia's SWF	20	.00218	-.01060	-.051	-.114	.050	.094	.026253	.048994
Indonesia's SWF Town Hall Meeting	20	.01642	-.00078	-.038	-.084	.095	.162	.039736	.054655
MoU with ACWA Power	20	.01006	.02047	-.075	-.034	.081	.118	.040258	.036735

Source: processed data, 2026

days before and 5 days after. The events in Table 1 show that the Indonesia's SWF Inauguration event received a negative response from capital market players. The mean CAR decreased from 0.00218 before the event to -0.01060 after the event. This illustrates that the Indonesia's SWF inauguration generally had a negative signal for investors. A similar pattern is observed at the Indonesia's SWF Town Hall Meeting event, even though President Prabowo Subianto was present, it did not result in market players obtaining a positive cumulative abnormal return from their investments in state-owned companies. Although the IDXBJURN20 index showed a positive trend during this event, the value of -0.0008 indicates that the market generally reacted negatively to the Indonesia's SWF Town Hall Meeting. Different results were found in the MoU event with ACWA Power, where the average value after

the event received a positive response from capital market players. Cumulative abnormal return increased from before to after the event, rising by 1.03%. One possible interpretation is that the MoU with ACWA Power may have been viewed as a more concrete and externally oriented strategic signal compared with the inauguration and Indonesia's SWF Town Hall Meeting, which may have been perceived as more institutional and communicative in nature. However, this descriptive improvement alone is not sufficient to conclude that the market reaction was statistically meaningful.

The descriptive analysis of cumulative abnormal return (CAR) for the event window, 3 days before and 3 days after the event, in Table 2 shows a clearer market response dynamic compared to the longer event window. For the Indonesia's SWF Inauguration, the average

CAR after the event was -0.00980, indicating a negative response from capital market participants. Compared to the pre-event average of 0.01697, a significant decrease is observed, reinforcing the indication that the information released during the inauguration failed to meet investor expectations. However, this negative response was relatively more controlled than in the longer event window, suggesting that in the short term, the market tends to adjust its expectations more quickly to the information received.

A relatively similar pattern was observed at the Indonesia's SWF Town Hall Meeting, with the average CAR decreasing from 0.00670 before the event to -0.00502 afterwards. This

confirms that the market generally responded negatively to the information conveyed during the event, albeit with a lower intensity than during the inauguration. Conversely, a different pattern was observed at the MoU with ACWA Power, with the average CAR increasing from 0.00097 before the event to 0.00896 afterwards. This increase reflects a positive response from market participants, with approximately 8.24%, indicating that information related to the strategic collaboration is perceived as having greater economic value and promising prospects for the company's future performance.

The descriptive analysis of cumulative abnormal return (CAR) for the event window, 3 days before and 3

Table 2: Descriptive Analysis Table of cumulative abnormal return at event window -3 and +3

Event	N	Mean		Min		Max		Std. Dev	
		Before (-3)	After (+3)	Before (-3)	After (+3)	Before (-3)	After (+3)	Before (-3)	After (+3)
Inauguration of Indonesia's SWF	20	.01697	-.00980	-.060	-.102	.090	.081	.035355	.041453
Indonesia's SWF Town Hall Meeting	20	.00670	-.00502	-.048	-.067	.085	.065	.029989	.038531
MoU with ACWA Power	20	.00097	.00896	-.036	-.024	.061	.057	.027984	.021901

Source: processed data, 2026

days after the event, in Table 2 shows a clearer market response dynamic compared to the longer event window. For the Indonesia's SWF Inauguration, the average CAR after the event was -0.00980, indicating a negative response from capital market participants. Compared to the pre-event average of 0.01697, a significant decrease is observed, reinforcing the indication that the information released during the inauguration failed to meet investor expectations. However, this negative response was relatively more controlled than in the longer event window, suggesting that in the short term, the market tends to adjust its expectations more quickly to the information received.

A relatively similar pattern was observed at the Indonesia's

SWF Town Hall Meeting, with the average CAR decreasing from 0.00670 before the event to -0.00502 afterwards. This confirms that the market generally responded negatively to the information conveyed during the event, albeit with a lower intensity than during the inauguration. Conversely, a different pattern was observed at the MoU with ACWA Power, with the average CAR increasing from 0.00097 before the event to 0.00896 afterwards. This increase reflects a positive response from market participants, with approximately 8.24%, indicating that information related to the strategic collaboration is perceived as having greater economic value and promising prospects for the company's future performance.

Table 3: Descriptive Analysis Table of cumulative abnormal return at event window -1 and +1

Event	N	Mean		Min		Max		Std. Dev	
		Before (-1)	After (+1)	Before (-1)	After (+1)	Before (-1)	After (+1)	Before (-1)	After (+1)
Inauguration of Indonesia's SWF	20	.00569	-.00025	-.027	-.031	.046	.030	.016741	.016011
Indonesia's SWF Town Hall Meeting	20	.01074	.01049	-.028	-.033	.063	.131	.021677	.037170
MoU with ACWA Power	20	-.00179	.00829	-.016	-.026	.023	.058	.011167	.020389

Source: processed data, 2026

The mean value indicates variations in market response to each event. For the Indonesia's SWF inauguration event, the mean return decreased from 0.00569 before the event to -0.00025 after, indicating a shift in market sentiment from positive to negative, albeit on a relatively small scale. This can be interpreted as indicating that investor expectations had formed before the event, so that the revelation of information was unable to sustain this positive sentiment. Meanwhile, for the Indonesia's SWF Town Hall meeting, the mean value remained relatively stable, at 0.01074 before and 0.01049 after the event. This condition indicates that the market responded consistently positively, without any significant changes, suggesting that the information conveyed during the event had been anticipated by investors beforehand. Unlike these two events, the MoU with ACWA Power saw a more noticeable shift, from a negative mean of -0.00179 before the event to a positive mean of 0.00829 after. This change shows a stronger market reaction to information perceived as more economically relevant for the company's future performance. In summary, strategic

events with direct economic impact on a company produce more significant shifts in average returns, unlike informational or ceremonial events, which the market generally anticipates. Overall, the descriptive analysis provides two early insights. First, Indonesia's SWF-related announcements did not produce a consistent directional pattern across all events. Second, even when the mean values changed, the magnitude of those changes appears relatively modest compared to the data's dispersion. These observations justify the need for formal normality testing and inferential analysis to determine whether the observed differences are statistically significant.

Normality Test

This normality test determines whether the data are normally distributed. This normality test uses the Shapiro-Wilk test because the sample for each event is less than 50. If the data are normally distributed, the paired sample t test is used. The Wilcoxon signed-rank test is used when the data are not normally distributed.

Based on Table 4,5,6, it is explained that in the Indonesia's

Table 4: Table of Normality Test Results for cumulative abnormal return Data at event window -3 and +3

Event	N	Normality Test							
		Before (-5)				After (+5)			
		α	p-value	Decision	Data Distribution	α	p-value	Decision	Data Distribution
Inauguration of Indonesia's SWF	20	0.05	0.901	p-value > α	Normal	0.05	0.759	p-value > α	Normal
Indonesia's SWF Town Hall Meeting	20	0.05	0.357	p-value > α	Normal	0.05	0.103	p-value > α	Normal
MoU with ACWA Power	20	0.05	0.987	p-value > α	Normal	0.05	0.070	p-value > α	Normal

Source: processed data, 2026

Table 5: Table of Normality Test Results for cumulative abnormal return Data at event window -3 and +3

Event	N	Normality Test							
		Before (-3)				After (+3)			
		α	p-value	Decision	Data Distribution	α	p-value	Decision	Data Distribution
Inauguration of Indonesia's SWF	20	0.05	0.191	p-value > α	Normal	0.05	0.166	p-value > α	Normal
Indonesia's SWF Town Hall Meeting	20	0.05	0.738	p-value > α	Normal	0.05	0.646	p-value > α	Normal
MoU with ACWA Power	20	0.05	0.355	p-value > α	Normal	0.05	0.256	p-value > α	Normal

Source: processed data, 2026

Table 6: Table of Normality Test Results for cumulative abnormal return Data at event window -1 and +1

Event	N	Normality Test							
		Before (-1)				After (+1)			
		α	p-value	Decision	Data Distribution	α	p-value	Decision	Data Distribution
Inauguration of Indonesia's SWF	20	0.05	0.513	p-value $> \alpha$	Normal	0.05	0.641	p-value $> \alpha$	Normal
Indonesia's SWF Town Hall Meeting	20	0.05	0.600	p-value $> \alpha$	Normal	0.05	0.001	p-value $< \alpha$	Abnormal
MoU with ACWA Power	20	0.05	0.086	p-value $> \alpha$	Normal	0.05	0.230	p-value $> \alpha$	Normal

Source: processed data, 2026

SWF Inauguration event in the event window (-5 + 5; -3 + 3; -1 + 1), the p-value of the cumulative abnormal return before and after the event is more than 0.05. This suggests that the conclusion or the data distribution pattern from the Indonesia's SWF Inauguration is normally distributed, so the hypothesis test used is the Paired sample t-test. Similar to the Town Hall Meeting event in the event window (-5 + 5; -3 + 3), it has a p-value greater than 0.05, with the paired sample t test used. However, unlike the event window (-1 + 1), the p-value (0.001) is lower than the significance level ($\alpha = 0.05$), indicating that the data do not follow a normal distribution and that the Wilcoxon signed-rank test is appropriate. Similar to the Indonesia's SWF Inauguration event, in the MoU event with ACWA Power in the event window (-5+5; -3+3; -1+1), the p-value both before and after the event is more than 0.05, so that the data distribution pattern is normally

distributed, and the hypothesis testing uses the paired sample t test.

Hypothesis Test

Hypothesis testing is the activity of matching or verifying a hypothesis with observable events. Hypothesis testing uses a 5% significance level. If the p-value is $> 5\%$, then H_0 is accepted, indicating that there is no significant difference in cumulative abnormal return before and after the event. If the p-value is $< 5\%$, then H_0 is rejected, indicating a significant difference in cumulative abnormal returns before and after the event. The paired sample t test is used to test hypotheses when the data are normally distributed. The Wilcoxon signed-rank test is used to test hypotheses when the data is not normally distributed. The complete results of the hypothesis testing are presented in Tables 7, 8, and 9.

Table 7: Results of cumulative abnormal return Hypothesis Test at event window -5 and +5

Event	Variables	N	Normality Test			
			α	p-value	Decision	Conclusion
Inauguration of Indonesia's SWF	CAR before and after	20	0.05	.342	p-value $> \alpha$	There is no significant difference
Indonesia's SWF Town Hall Meeting		20	0.05	.185	p-value $> \alpha$	There is no significant difference
MoU with ACWA Power		20	0.05	.258	p-value $> \alpha$	There is no significant difference

Source: data processed, 2026

The hypothesis test results in Table 7 indicate no significant difference in CAR for the Indonesia's SWF inauguration, Indonesia's SWF Town Hall Meeting, and MoU with ACWA Power when comparing 5 days before and after the event. All events had p-values above 0.05, indicating no significant differences in CAR before and after the events. This suggests that, over a slightly longer observation period, the market does not exhibit meaningful reactions to the announcements.

Robustness Analysis

The hypothesis test results in Table 4.3, using a 0.05 significance level, show that only the Indonesia's SWF Inauguration had a p-value below 0.05 (0.049). This result leads to rejection of the null hypothesis, indicating a significant difference in cumulative abnormal return before and after the event. This suggests the market reacted strongly, and the event conveyed information perceived as value-relevant by investors, as reflected in

stock prices. By contrast, the Indonesia's SWF Town Hall Meeting and the MoU with ACWA Power had p-values of 0.369 and 0.340, respectively, both above 0.05, indicating no significant difference in CAR for those events.

Table 8: Results of cumulative abnormal return Hypothesis Test at event window -3 and +3

Event	Variables	N	Hypothesis Test			
			α	p-value	Decision	Conclusion
Inauguration of Indonesia's SWF	CAR before and after	20	0.05	.049	$p\text{-value} < \alpha$	There is a significant difference
Indonesia's SWF Town Hall Meeting		20	0.05	.369	$p\text{-value} > \alpha$	There is no significant difference
MoU with ACWA Power		20	0.05	.340	$p\text{-value} > \alpha$	There is no significant difference

Source: data processed, 2026

Table 9: Results of cumulative abnormal return Hypothesis Test at event window -1 and +1

Event	Variables	N	Hypothesis Test			
			α	p-value	Decision	Conclusion
Inauguration of Indonesia's SWF	CAR before and after	20	0.05	.336	$p\text{-value} > \alpha$	There is no significant difference
Indonesia's SWF Town Hall Meeting		20	0.05	.681	$p\text{-value} > \alpha$	There is no significant difference
MoU with ACWA Power		20	0.05	.955	$p\text{-value} > \alpha$	There is no significant difference

Source: data processed, 2026

Based on the results of the hypothesis test in Table 4.3 with an event window of 1 day before and 1 day after, all events show a p-value greater than the significance level (α) of 0.05. The Indonesia's SWF Inauguration Event has a p-value of 0.336, the Indonesia's SWF Town Hall Meeting has a p-value of 0.681, and the MoU with ACWA Power has a p-value of 0.955. Statistically, these results indicate insufficient evidence to reject the null hypothesis (H_0), so it can be concluded that there is no significant difference in the cumulative abnormal return (CAR) before and after the event within the very short observation period.

Taken together, these results suggest that market reactions to Indonesia's SWF-related events are limited and sensitive to the choice of event window. The only evidence of a statistically significant reaction is confined to a specific event and time window, indicating that any market response is temporary rather than persistent.

Discussion

The results of the hypothesis testing indicate that market reactions to observed events are inconsistent and are significantly influenced by the length of the event window. In the ± 1 -day and ± 5 -day windows, all events did not show a significant difference in cumulative abnormal return (CAR) before and after the event. This indicates that the information contained in the Indonesia's SWF Inauguration, Indonesia's SWF Town Hall Meeting,

and MoU with ACWA Power events is not directly reflected in market response in the very short- or long-term. Statistically, there is no difference in CAR in the event window (± 1 and ± 5). This indicates that market participants have anticipated the event's information content; in other words, it is less credible and unlikely to cause significant stock price movements. From the perspective of the semi-strong form of the efficient market hypothesis, this finding suggests that public information is likely anticipated by investors, leading to little price change at the time of the event. Furthermore, the insignificant results in the longer window also indicate that the effects of information tend to be quickly dampened by market dynamics or distorted by factors other than the observed event.

However, within the ± 3 -day window, a significant difference was found for the Indonesia's SWF Inauguration event, while the other two events remained statistically insignificant. This finding indicates that the market reaction to the inauguration is temporary and occurs over a short- to medium-term horizon, reflecting a process of information adjustment that is not entirely instantaneous. The market does not react immediately on the day of the event; rather, it takes time to interpret the available information, especially if it is complex or uncertain. Conversely, the lack of significance for the Indonesia's SWF Town Hall Meeting and the MoU with ACWA Power events across all time windows indicates

that these two events have relatively weak information content or were fully anticipated by the market, thereby failing to trigger significant changes in abnormal returns. Without clear evidence of how Indonesia's SWF will influence firm-level performance, investors may rationally discount the informational content of related announcements.

Importantly, the findings highlight a distinctive feature of emerging markets such as Indonesia. Unlike in more mature markets, where institutional announcements may trigger immediate, measurable reactions, investors in emerging markets may place greater emphasis on implementation credibility than on formal announcements. This implies that policy-driven institutional changes, such as the establishment of Indonesia's SWF, may require concrete follow-up actions and observable performance outcomes before being fully reflected in stock prices.

This finding aligns with several previous studies showing no difference in abnormal returns before and after an event, as suggested by Aida, Awwaliyah, and Singgih (2024), Nurjannah, Awwaliyah, and Susanto (2023), Dewantara, Awwaliyah, and Singgih (2020), and Sun and Hesse (2009). This consistency reinforces the argument that not all events have sufficient information content to significantly impact the market. However, this study also found significant effects on certain events within specific time windows, which aligns with the findings of Habermann and Steindl (2025) and Rizkianto *et al.* (2024), who reported significant differences in abnormal returns and cumulative abnormal returns around events. Thus, this study demonstrates that the significance of market reactions is contextual and depends on the characteristics of the event and the observation time horizon. From a practical standpoint, the results offer important insights for policymakers and market participants. For policymakers, the findings suggest that institutional announcements alone are insufficient to influence capital market behavior unless they are supported by credible, transparent, and actionable implementation strategies. For investors, the results highlight the importance of evaluating not only the content of policy announcements but also their execution feasibility and long-term economic implications.

CONCLUSIONS

This study finds that market reactions to Indonesia's SWF-related events are limited and highly sensitive to the event window. Across the ± 1 -day and ± 5 -day windows, no significant differences in cumulative abnormal returns (CAR) are observed, indicating that most announcements were either anticipated or perceived as lacking sufficient information content to influence investor decisions. A significant reaction is detected only in the ± 3 -day window for the inauguration event, suggesting a short-lived adjustment process rather than an immediate or persistent market response.

These findings support the view that market efficiency in emerging markets is conditional. While the semi-

strong form of the Efficient Market Hypothesis assumes rapid incorporation of public information into prices, the results indicate that such incorporation depends on the perceived credibility, clarity, and economic relevance of the information. Institutional announcements, such as the establishment of Indonesia's SWF, may function more as signals requiring subsequent validation through implementation. This study contributes by applying a multi-event framework in an emerging market context. However, it is limited to short-term analysis and does not account for firm-level or behavioral factors. Future research should incorporate these dimensions to better capture the dynamics of investor response.

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