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Market Response to Green Investment Alternative in Indonesia: Readiness for Global Sustainability Standards

Rintan Nuzul Ainy^{1*}, Lukhi Mulia Shitophyta², Sirly Noviani³, Navaya Helena⁴, Dina Nurleva⁵

1,2,3 Department of Accounting, Universitas Ahmad Dahlan, Indonesia*Corresponding Author

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Abstract

This research examines how the Indonesian capital market reacts to announcements of the ESG Leaders Index as a green investment indicator. It assesses the market's readiness to adapt to upcoming international sustainability reporting standards, such as IFRS S1 and S2. Using an event study approach, the study analyzes market reactions before, during, and after these announcements. The findings reveal that some companies, particularly in the property and energy sectors, experience significant early responses during the anticipation period, while others show delayed reactions in the adjustment phase. A key novelty of this research is its focus on Indonesia's market readiness for global sustainability standards. This area has been less explored in previous studies focused on developed markets. By incorporating both anticipation and adjustment periods, this study provides a more comprehensive understanding of how investors process ESG information in a developing market context.

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Introduction

Environmental, Social, and Governance (ESG) principles, including Indonesia, have gained significant importance in the global business landscape (Syahfi, 2022; Yulianti & Siregar, 2023). With the upcoming introduction of international sustainability reporting standards, such as IFRS S1 and S2, the urgency to understand the readiness of Indonesia's capital market to respond to sustainability information is increasing. These standards aim to enhance corporate transparency and accountability in reporting ESG performance, providing investors with a more comprehensive view of the risks and opportunities related to sustainability (IFRS, 2023). For Indonesia, which is in the process of developing regulations related to ESG, this research becomes highly relevant in assessing how the market and major companies in the country are prepared to adapt to these global sustainability reporting standards (Rahayu, 2024; Trisnowati et al., 2023). In recent years, the Indonesian government has encouraged companies to prioritize sustainability through initiatives such as the issuance of Green Sukuk and other environmentally friendly policies (Adnan & Dadi, 2023; Putri & Halimatusyadiah, 2024; Yunita & Silalahi, 2024). According to Adnan and Dadi (2023) and Aulia et al. (2023), Indonesia has demonstrated its commitment to sustainability by implementing various regulations related to ESG. While awareness of ESG among investors in Indonesia remains early compared to more developed countries, there are promising signs of progress, particularly among large publicly listed companies (Gunawan et al., 2022; Handayati et al., 2022; Taswin et al., 2023).

ESG encompasses a company's corporate responsibility towards the environment and its treatment of employees, engagement with communities, and adherence to fair business governance. Prior research has demonstrated that strong ESG performance is positively correlated with a company's overall performance (Friede et al., 2015; Giese et al., 2019; Ye & Dela, 2023). This is evident in the increasing demand from investors for more sustainable investment options (Broadstock et al., 2021; Nareswari et al., 2023; Puspitasari et al., 2020). Companies that demonstrate strong ESG performance are becoming increasingly attractive to investors who prioritize the long-term social and environmental impact of their investments (Ainy et al., 2024; Handayati et al., 2022). Handayati et al. (2022) and Tamara and Budiman (2022) also noted that many Indonesian companies have started incorporating ESG principles to meet market demand and global investor expectations.

Green investment is a tangible form of ESG implementation where investors seek financial returns while considering the environmental impact of their investments. Aini et al. (2023) and Amir and Serafeim (2018) noted that companies involved in green investments aim to minimize adverse environmental impacts while generating social benefits. The link between green investment and ESG lies in the "E" (Environmental) aspect, focusing on natural resource management, climate change mitigation, and ecosystem sustainability (Aulia et al., 2023; Nodhiva et al., 2024).

In Indonesia, green investment has developed in tandem with the increasing adoption of ESG principles across various economic sectors (Pujiastuti et al., 2024). According to Adnan and Dadi (2023) and Aini et al. (2023), ESG-based financial instruments, like the Green Sukuk issued by the Indonesian government in 2018, are designed to fund sustainable and environmentally friendly initiatives, including renewable energy, water management, and forest conservation. Green investment within the ESG framework signals to the market that companies prioritizing sustainability are more appealing to investors, particularly those focused on minimizing long-term risks and fostering economic stability in the context of global climate change (Liang & Renneboog, 2020; Qoyum et al., 2022; Yunita & Silalahi, 2024). Giese et al. (2019) further highlighted that companies involved in green investments often achieve higher ESG scores and are included in indices like the ESG Leaders Index. This demonstrates the strong link between ESG and green investment, as companies committed to environmental sustainability tend to receive higher evaluations from ESG-conscious investors (Tamara & Budiman, 2022; Taswin et al., 2023).

However, the effectiveness of these green investments in Indonesia is still debated, as factors such as regulatory enforcement, investor confidence, and financial literacy influence the actual impact of ESG-oriented investments on the economy (Trisnowati et al., 2023). Breliastiti et al. (2025) and Puspitasari et al. (2020) found that while ESG investments show promising returns in Indonesia, their effectiveness is significantly influenced by the governance mechanisms and the commitment of firms to sustainability. Furthermore, Sukasmanto et al. (2025) and Yulianti and Siregar (2023) emphasized that the effectiveness of sustainable investment in Indonesia could be enhanced through improved transparency, better ESG disclosures, and strengthened regulatory frameworks. In Indonesia, implementing green investments aligned with ESG principles is expected to enhance the competitiveness of the capital market by attracting sustainability-focused investors and minimizing long-term environmental risks (Ainy et al., 2024; Handayati et al., 2022; Nareswari et al., 2023).

Studies in developing countries indicate that markets are often slower to respond to green investment information compared to those in developed markets (Aulia et al., 2023; Yunita & Silalahi, 2024). Broadstock et al. (2021) and Rahayu (2024) found that investor responses to ESG-related announcements vary depending on financial literacy and environmental awareness in countries such as China. In Indonesia, research on how the market responds to green investment information is still limited. However, Aini et al. (2023) and Handayati et al. (2022) found that investors have a positive response to announcements by companies adopting ESG policies, although the impact may not be immediately visible. Indonesia's capital market is still in the early stages of integrating sustainability information, and further research is needed to understand the market's response to ESG announcements (Qoyum et al., 2022).

The ESG Leaders Index serves as a crucial indicator in assessing a company's sustainability performance. According to Giese et al. (2019) and Tamara and Budiman (2022), the ESG index acts as a strong proxy for investors to evaluate a company's commitment to sustainable business practices. In developed countries, companies' announcements of being included in the ESG Leaders Index are often followed by stock price increases, as these companies are perceived to have lower long-term risks (Liang & Renneboog, 2020; Pujiastuti et al., 2024; Ye & Dela, 2023). In Indonesia, specific research on the impact of ESG indices on the capital market is still scarce. However, this index can be an effective tool for investors to assess green investment potential in developing countries (Aini et al., 2023; Gunawan et al., 2022).

This research aims to fill the gap in the literature regarding how Indonesia's capital market responds to green investment information, particularly announcements of companies included in the ESG Leaders Index. While several studies have explored the relationship between ESG performance and market response in developed countries, research on developing countries, including Indonesia, remains limited (Ainy et al., 2024; Ainy & Ariesanti, 2022; Broadstock et al., 2021). This study also aims to assess the readiness of Indonesia's capital market to respond to the imminent implementation of international sustainability reporting standards. As the Indonesian capital market is still in the development phase in terms of integrating ESG information, it faces challenges in adopting these global standards. Through this research, it is expected to reveal the extent to which Indonesia's market is ready to respond to international sustainability reporting standards. The findings are anticipated to help enhance the competitiveness of Indonesian companies in a global market that is increasingly focused on sustainability. This study, therefore, contributes to the literature by providing further insights into the importance of ESG and its impact on Indonesia's capital market.

Literature Review

Theoretical Background and Hypothesis Development

The Efficient Market Hypothesis (EMH), introduced by Fama (1970), suggests that stock prices in the capital market reflect all available information. According to this theory, any new relevant information related to Environmental, Social, and Governance (ESG) performance should be immediately reflected in stock prices (Gunawan et al., 2022; Silalahi et al., 2024). In the context of this research, the efficient market theory is

used to analyze whether Indonesia's capital market reacts efficiently to the announcement of companies being included in the ESG Leaders Index. Based on EMH, this announcement should impact companies' stock prices as it is seen as valuable information for investors (Karyani & Perdiansyah, 2022).

Green investment highlights how companies are increasingly considering the environmental impact of their operations, partly because more investors are taking this information into account when making decisions (Nurahman et al., 2024; Rahmaniati & Ekawati, 2024). Environmental factors, such as reducing carbon emissions and sustainable resource use, have become key considerations for investors when selecting their assets (Anis et al., 2024; Shine & Atahau, 2023; Singh et al., 2021; Yunita & Silalahi, 2024). In Indonesia, the issuance of financial instruments like the Green Sukuk is a concrete example of how green investment is being applied to support sustainable projects (Adnan & Dadi, 2023; Qoyum et al., 2022). This theory is relevant to this study because it links green investment to the performance of companies listed on the ESG Leaders Index.

According to the semi-strong form of the Efficient Market Hypothesis, a company's stock price should reflect all relevant public information (Adrianto, 2023; Gunawan et al., 2022). The announcement that a company is listed in the ESG Leaders Index sends a positive signal to the market about the company's commitment to sustainability and social responsibility. This suggests that such companies are perceived to have lower risk and more stable long-term potential (Loeis & Alexander, 2023; Tamara & Budiman, 2022). Giese et al. (2019) found that markets in developed countries respond positively to such announcements, while Broadstock et al. (2021) observed an increasing market focus on ESG in developing countries. However, the response tends to be slower.

In Indonesia, the ESG Leaders Index is still a relatively new phenomenon. However, based on Signaling Theory, the announcement of a company's inclusion in the index can be seen as a strong signal to investors about the company's sustainability quality (Nurahman et al., 2024). Handayati et al. (2022) found that Indonesian companies that are transparent in their ESG performance tend to receive positive responses from investors, often reflected in rising stock prices. Investors view green investment as a means of mitigating risk, particularly in the face of environmental and social changes that may impact long-term business outcomes (Putri & Halimatusyadiah, 2024). Information related to ESG, such as the announcement of a company's inclusion in the ESG Leaders Index, is generally well-received by the market, with stock prices increasing for companies committed to sustainability.

H: Indonesia market responds to the green investment announcement

Method

The target population of this study includes all companies publicly listed on the Indonesia Stock Exchange (Bursa Efek Indonesia or BEI). The research sample, however, focuses on companies that are part of the ESG Leaders Index. The sampling method used in this study is purposive sampling, based on specific criteria: companies listed on the BEI during the 2021-2023 period and companies included in the 2021-2023 ESG Leaders Index.

This research aims to analyze the Indonesian market's response to green investments. Green investment means focusing on sustainability in investment decisions. In this study, it is reflected through the ESG Leaders Index, a market index that follows ESG principles. This research employs an event study approach to assess the market's reaction. An event study is a standard method for analyzing the impact of a specific event on a dependent variable. In this case, the event is the announcement of the ESG Leaders Index, and the dependent variable is the reaction of the Indonesian market, which is measured by the abnormal returns of the companies involved. The event study method generally includes an event window and an estimation period. The event window is used to track market reactions both before and after the event, with t=0 marking the date of the event itself (Ngoc et al., 2021). In this study, the event date is the announcement

date of the ESG Leaders Index. The event window spans eleven days, including five days before the event (t = -5) and five days after the event (t = +5). The estimation period is used to estimate market coefficients to calculate abnormal returns (Ngoc et al., 2021). In this research, the estimation period covers fifty days (from t = -55 to t = -5). A sufficiently long estimation period helps to generate a more accurate estimation of expected stock returns while minimizing the impact of short-term fluctuations (Ngoc et al., 2021).

Research Procedures and Data Analysis

Stage 1: Calculate abnormal returns (AR) for each stock during the event study period for each day.

$$AR_{i,t} = R_{i,t} - E(R_{i,t})$$

Where:

- AR_{it} = Abnormal return of stock i during period t
- R_{i,t} = Realized return of stock i during period t
- $E(R_{i,t})$ = Expected return of stock i during period t

The realized return for each stock is calculated using the difference between period t and period t-1t-1t-1:

$$R_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}}$$

The expected return is calculated using the constant return model. This model assumes that the expected return will equal the average daily return of the estimation window.

$$E(R_{i,t}) = \propto_i + \beta_i R_{m,t} + \varepsilon_{i,t}$$

Where:

- $R_{m,t}$ = Market return during period ttt
- α_i and β_i = Market model coefficients
- $\varepsilon_{i,t}$ = Error term

The market model coefficients are estimated through linear regression between the company's stock price and the market index. This study uses the Composite Stock Price Index (IHSG) as the market index.

Stage 2: Calculate the cumulative abnormal return (CAR).

Stage 3: Perform a t-test to examine the significance of the abnormal return values. If the results of the t-test show that the CAR value is significantly different from 0, it indicates that the market reacted to the announcement of the green investment.

Result and Discussion

The ESG Leaders Index in Indonesia comprises 30 companies recognized for their strong commitment to sustainability, environmental responsibility, and good corporate governance. This study examines how the market responds (using cumulative abnormal returns, or CAR) when the ESG Leaders Index is announced. The results are presented in Table 1. However, this research does not account for the ranking or position of the companies within the index during the observation period; therefore, the order of the companies at the time of the announcement is not considered in the analysis.

In an event study, the p-value helps determine whether there is a noticeable market reaction to an event (in this case, the announcement of companies being added to the ESG Leaders Index). Table 1 shows that only 13% of the ESG Leaders Index announcements elicited a market response (BSDE, CTRA, DMAS, EMTK, EXCL,

JSMR, MNCN, SCMA, TLKM, TOWR, UNVR), while the rest did not exhibit any significant movement. The findings reveal that while the ESG Leaders Index announcement had a significant impact on some companies, many others did not trigger a strong market reaction. This aligns with earlier studies, which suggest that markets in developing countries tend to respond more slowly and less consistently to ESG-related news compared to those in more developed markets (Broadstock et al., 2021; Friede et al., 2015; Giese et al., 2019). This result aligns with the Efficient Market Hypothesis, which posits that financial markets efficiently incorporate and reflect all available information. However, the variation in market responses—where only 13% of companies exhibited significant reactions—indicates that Indonesia's market may still operate in a semi-strong form of efficiency, where not all publicly available information is immediately absorbed and reflected in stock prices. Additionally, companies with more international exposure or those already recognized for their strong ESG practices (such as TLKM, UNVR, EXCL, and TOWR) are more likely to experience a positive market reaction (Amir & Serafeim, 2018; Liang & Renneboog, 2020). Market responses to ESG information can also vary by industry or sector (Amir & Serafeim, 2018; Broadstock et al., 2021; Friede et al., 2015; Giese et al., 2019; Liang & Renneboog, 2020). For example, companies in sectors that are more exposed to sustainability issues, such as property (BSDE, CTRA), telecommunications (TLKM, EXCL, TOWR), or infrastructure (TOWR, JSMR), may experience more positive market reactions. On the other hand, sectors less affected by environmental policy changes may not experience the same market impact.

Table 1. Abnormal Return on ESG Leaders Index Announcement Day

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Company	Mar-21	Sep-21	Mar-22	Sep-22	Mar-23	Sep-23
ACES	0,113	0,631	0,750	0,517	0,348	0,581
AGII				0,104		
AKRA	0,274	0,518	0,821	0,743	0,900	0,591
ASII	0,743					
ASRI			0,551			
ASSA		0,736	0,694	0,892	0,811	0,228
BBCA	0,898	0,479	0,689	0,328	0,985	0,283
BBNI	0,367	0,181	0,824	0,819	0,836	0,225
BBRI	0,588	0,685	0,653	0,434	0,896	0,989
BBTN	0,505	0,486				
BEST	0,789	0,676				
BFIN			0,960	0,521	0,941	0,158
BMRI	0,889	0,865	0,676	0,683	0,517	0,435
BMTR		0,515	0,644		0,965	0,473
BRPT			0,496	0,935	0,750	0,931
BSDE	0,475	0,596	0,775	0,514	0,005***	0,744
BUKA					0,998	0,872
BULL	0,876					
CTRA	0,451	0,646	0,857	0,023**	0,551	0,781
DMAS	0,961	0,808	0,012**			
EMTK				0,981	0,083*	0,090*
ERAA	0,341	0,697	0,318	0,635	0,744	0,774
EXCL	0,973	0,461	0,211	0,555	0,018**	
GOTO					0,801	0,890
HMSP	0,709	0,295	0,159	0,917		
INTP	0,769					
IPTV		0,232				
JSMR	0,846	0,755	0,790	0,319	0,047**	0,568
LPPF	0,329	0,237	0,988	0,630		
MAPI	0,805	0,601	0,476	0,960	0,119	0,615
MIKA			0,543	0,181	0,839	0,935
MNCN	0,798	0,426	0,952	0,600	0,099*	0,571
MPMX						0,892
MTEL				0,447		
			175			

PGAS			0,825	0,708		
PWON	0,264	0,894	0,886	0,530	0,698	0,562
RALS	0,794	0,496				
RMKE					0,511	0,157
SCMA	0,920	0,219	0,300	0,615	0,076*	0,199
SIDO			0,530	0,320	0,439	0,742
SMGR		0,954				
SRIL	0,356					
TBIG	0,983	0,981	0,389	0,972	0,737	0,567
TLKM	0,690	0,901	0,986	0,346	0,818	0,041**
TOWR	0,216	0,948	0,171	0,233	0,029**	0,129
TPIA					0,892	0,550
UNVR	0,605	0,865	0,001***	0,302	0,154	0,240
WOOD	0,020**	0,757				

*** : significance at 1%

** : significance at 5%

* : significance at 10%

Source : Primary Data Processed, 2024

The anticipation period is before the official announcement of companies included in the ESG Leaders Index. Information can sometimes leak, or market speculation may arise before the official announcement date. Some investors may engage in trading based on early information they have acquired, causing stock prices to move before the official announcement. Boehmer et al. (1991) note that the anticipation period is crucial in event studies, as some investors act on market expectations before the actual event, which can lead to stock price movements prior to the announcement. As a result, this study also analyzes market movements during the anticipation period.

Table 2 shows that a market response occurred before the announcement day. The results indicate that several announcements received a response during the anticipation period but not on the actual index announcement day. These companies include BBCA, BFIN, BRPT, BUKA, PGAS, SIDO, TPIA, and WOOD. Research by Friede et al. (2015) suggests that market reactions to ESG information can start earlier if institutional investors anticipate a company's inclusion in the index. According to Amir and Serafeim (2018), large investors often react before the official announcement because they have access to more in-depth information or analysis. Market reactions to ESG tend to be stronger in specific sectors, such as property and energy, which could explain why companies like TPIA showed an early reaction (Friede et al., 2015).

Table 2. Abnormal Return on Anticipation Period

Company	Mar-21	Sep-21	Mar-22	Sep-22	Mar-23	Sep-23
ACES	0,662	0,855	0,152	0,615	0,360	0,721
AGII				0,429		
AKRA	0,297	0,703	0,919	0,175	0,872	0,620
ASII	0,825					
ASRI			0,583			
ASSA		0,267	0,431	0,299	0,118	0,762
BBCA	0,724	0,736	0,045**	0,602	0,751	0,896
BBNI	0,350	0,839	0,724	0,628	0,782	0,542
BBRI	0,700	0,284	0,343	0,295	0,419	0,970
BBTN	0,190	0,672				
BEST	0,193	0,860				
BFIN			0,393	0,818	0,058*	0,252
BMRI	0,658	0,465	0,791	0,786	0,542	0,759
BMTR		0,427	0,841		0,374	0,696
BRPT			0,426	0,296	0,568	0,099*
BSDE	0,361	0,596	0,173	0,958	0,823	0,406

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BUKA					0,476	0,016**
BULL	0,563					
CTRA	0,842	0,782	0,371	0,925	0,714	0,153
DMAS	0,211	0,691	0,029**			
EMTK				0,306	0,530	0,259
ERAA	0,883	0,613	0,390	0,971	0,245	0,171
EXCL	0,413	0,030**	0,401	0,359	0,584	
GOTO					0,204	0,500
HMSP	0,816	0,579	0,696	0,386		
INTP	0,540					
IPTV		0,782				
JSMR	0,612	0,421	0,248	0,545	0,453	0,587
LPPF	0,385	0,585	0,681	0,323		
MAPI	0,344	0,940	0,790	0,161	0,166	0,474
MIKA			1,000	0,529	0,386	0,139
MNCN	0,919	0,995	0,250	0,914	0,648	0,439
MPMX						0,196
MTEL				0,493		
PGAS			0,044**	0,261		
PWON	0,429	0,803	0,285	0,666	0,124	0,879
RALS	0,895	0,604				
RMKE					0,657	0,115
SCMA	0,290	0,865	0,082*	0,819	0,026**	0,477
SIDO			0,012**	0,379	0,031**	0,647
SMGR		0,919				
SRIL	0,561					
TBIG	0,896	0,819	0,654	0,708	0,700	0,521
TLKM	0,844	0,699	0,777	0,510	0,317	0,601
TOWR	0,450	0,946	0,752	0,970	0,871	0,594
TPIA					0,593	0,000***
UNVR	0,964	0,333	0,892	0,718	0,206	0,866
WOOD	0,005***	0,935				

*** : significance at 1%

** : significance at 5%

* : significance at 10%

Source: Primary Data Processed, 2024

In addition to examining the anticipation period, this research also tests market movements during the adjustment period. By considering both the anticipation and adjustment periods, we can get a clearer picture of how the market reacts overall in the days leading up to and following the announcement (Broadstock et al., 2021). The adjustment period refers to the time after the official announcement, during which the market continues to process and adjust to the new information. Market reactions may not always be immediate on the announcement day, particularly in emerging markets like Indonesia, where investors may require more time to fully comprehend and digest ESG-related information. Therefore, it is essential to observe stock price changes not only on the announcement day but also in the days or weeks that follow.

The results in Table 3 show that many company announcements were responded to during the adjustment period rather than on the day of the ESG Leaders Index announcement. These companies include AKRA, ASSA, BBCA, BBNI, BMRI, BUKA, ERAA, HMSP, SRIL, and MTEL. Interestingly, ESG information related to the banking sector received a delayed market response. Broadstock et al. (2021) noted that emerging markets often react more slowly to new information due to lower ESG literacy or limited data availability. The market may need time to adjust stock prices in response to ESG announcements, as investors require time to analyze the long-term impact of such information on a company's value (Giese et al., 2019). Delayed reactions to new information are common, especially in emerging markets (Bernard & Thomas, 1989; Marais, 1989).

Markets in developing countries, like Indonesia, may not be as efficient as those in more developed economies. Therefore, market responses to ESG information can occur gradually as investors take time to understand its significance and potential impact on companies.

Table 3. Abnormal Return on Adjustment Period

Table 3. Abnormal Return on Adjustment Period						
Company	Mar-21	Sep-21	Mar-22	Sep-22	Mar-23	Sep-23
ACES	0,484	0,305	0,673	0,733	0,664	0,403
AGII				0,958		
AKRA	0,437	0,880	0,115	0,225	0,087*	0,382
ASII	0,780					
ASRI			0,468			
ASSA		0,102	0,016**	0,999	0,904	0,869
BBCA	0,501	0,904	0,155	0,202	0,058*	0,087*
BBNI	0,702	0,088*	0,518	0,672	0,329	0,024**
BBRI	0,716	0,946	0,783	0,528	0,585	0,216
BBTN	0,260	0,555				
BEST	0,775	0,775				
BFIN			0,801	0,766	0,979	0,723
BMRI	0,836	0,740	0,494	0,762	0,056*	0,385
BMTR		0,154	0,161		0,899	0,616
BRPT			0,958	0,905	0,171	0,324
BSDE	0,426	0,508	0,589	0,147	0,288	0,960
BUKA	•	•	•	·	0,328	0,081*
BULL	0,725				•	,
CTRA	0,846	0,297	0,620	0,265	0,951	0,768
DMAS	0,413	0,886	0,988	•	•	,
EMTK	•	•	•	0,114	0,767	0,298
ERAA	0,241	0,212	0,072*	0,115	0,431	0,278
EXCL	0,555	0,986	0,690	0,728	0,318	,
GOTO	•	•	•	•	0,276	0,698
HMSP	0,646	0,735	0,695	0,032*	,	,
INTP	0,572	,	,	,		
IPTV	,	0,113				
JSMR	0,492	0,857	0,063*	0,283	0,506	0,553
LPPF	0,605	0,613	0,793	0,833	,	,
MAPI	0,539	0,781	0,883	0,163	0,632	0,495
MIKA	•	,	0,639	0,678	0,807	0,683
MNCN	0,875	0,783	0,139	0,989	0,947	0,367
MPMX	,	,	,	,	,	0,452
MTEL				0,091*		,
PGAS			0,830	0,262		
PWON	0,515	0,986	0,828	0,157	0,913	0,871
RALS	0,757	0,085*	•	,	,	,
RMKE	-, -	,			0,410	0,543
SCMA	0,407	0,940	0,117	0,133	0,545	0,795
SIDO	.,	,	0,909	0,942	0,567	0,606
SMGR		0,550	5,5 55	5,5 :=	5,2 5 1	5,555
SRIL	0,050**	-,500				
TBIG	0,411	0,258	0,749	0,752	0,767	0,519
TLKM	0,972	0,320	0,440	0,907	0,713	0,510
TOWR	0,463	0,723	0,606	0,524	0,612	0,259
	5,-105	0,723	0,000	0,324	0,012	0,233

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TPIA					0,363	0.273
UNVR	0,448	0,392	0,834	0,998	0,128	0,095*
WOOD	0,390	0,759	·	,	,	,

*** : significance at 1%

** : significance at 5%

* : significance at 10%

Source: Primary Data Processed, 2024

Robustness Test

This study conducts a robustness test to ensure that the research findings are not dependent on any specific method or model. The robustness test is conducted by varying the abnormal return measurement methods, utilizing the market-adjusted return and the capital asset pricing model (CAPM). The results of the robustness test, presented in Table 4, indicate that overall, the outcomes from the market-adjusted model and the CAPM are consistent with those obtained using the constant return model (Table 1). There are differences in three announcements, specifically for the companies EMTK (March 2023), MAPI (March 2023), and TOWR (September 2023), with a significance level of 10%. These results indicate consistency across the three methods, meaning that the constant return model, market-adjusted model, and CAPM all yield similar results in measuring market reactions to ESG announcements for most companies.

Table 4. Abnormal Return Using Market Adjusted Model and CAPM

	Mar-2		Sep-2	3
Company	Market adjusted	CARNA	Market adjusted	CADNA
	model	CAPM	model	CAPM
ACES	0,364	0,355	0,627	0,652
AKRA	0,804	0,786	0,443	0,408
ASSA	0,897	0,857	0,341	0,357
BBCA	0,857	0,844	0,610	0,417
BBNI	0,940	0,812	0,389	0,294
BBRI	0,996	0,995	0,599	0,677
BFIN	0,620	0,837	0,316	0,214
BMRI	0,317	0,269	0,463	0,697
BMTR	0,880	0,943	0,560	0,682
BRPT	0,832	0,790	0,944	0,832
BSDE	0,002***	0,002***	0,981	0,939
BUKA	0,925	0,926	0,869	0,732
CTRA	0,390	0,405	0,978	0,976
EMTK	0,046**	0,058*	0,158	0,154
ERAA	0,940	0,763	0,607	0,738
EXCL	0,016**	0,015**		
GOTO	0,954	0,899	0,874	0,934
JSMR	0,066*	0,046**	0,527	0,383
MAPI	0,074*	0,089*	0,687	0,729
MIKA	0,884	0,845	0,836	0,863
MNCN	0,068*	0,088*	0,806	0,823
MPMX			0,663	0,536
PWON	0,837	0,755	0,262	0,347
RMKE	0,446	0,527	0,211	0,168
SCMA	0,079*	0,068*	0,245	0,270
SIDO	0,281	0,393	0,384	0,534
TBIG	0,747	0,793	0,733	0,702
TLKM	0,975	0,882	0,085*	0,056*
TOWR	0,031**	0,029**	0,072*	0,088*
TPIA	0,885	0,938	0,681	0,560
UNVR	0,150	0,159	0,506	0,310

*** : significance at 1%

** : significance at 5%

* : significance at 10%

Source: Primary Data Processed, 2024

Conclusions and Recommendations

The Indonesian capital market exhibits varied reactions to the announcement of the ESG Leaders Index, depending on the sector and market expectations. Some companies, such as TPIA, ASSA, and DMAS, experienced significant reactions during the anticipation period, suggesting that the market may have received or anticipated ESG information before the official announcement, possibly due to information leaks or institutional investor expectations. This quick market response often occurs with companies operating in sectors more exposed to sustainability issues, such as property and energy. On the announcement day, several companies, including BSDE, CTRA, and EXCL, exhibited significant reactions, indicating that the ESG announcement had a substantial impact on stock prices when the information was officially released. This suggests that although some information may have been anticipated beforehand, most investors still respond to the official announcement to validate their expectations. The announcement's impact was evident in the property and telecommunications sectors, which are more sensitive to ESG factors. During the adjustment period, companies such as BBCA and TLKM began to show significant reactions, indicating that investors, especially retail investors, were undergoing a process of adjustment. Retail investors, who tend to respond more slowly to ESG information, may take longer to process the information and adjust their portfolios, resulting in significant reactions during the adjustment phase. Overall, this research demonstrates that companies in sectors more exposed to sustainability issues tend to experience earlier market reactions. In contrast, other significant reactions occur after the announcement and during the adjustment period, reflecting the developing ESG literacy among retail investors in Indonesia. The results of this study also indicate that while progress has been made in integrating ESG information into Indonesia's capital market, significant challenges remain regarding the market's readiness to respond to international sustainability reporting standards, such as IFRS S1 and S2. Specific sectors and institutional investors may be better prepared. Still, the market requires better education, stronger regulations, and broader ESG literacy to fully adapt to the global sustainability reporting standards that will soon come into effect.

This study makes an important contribution to understanding how the Indonesian capital market responds to ESG Leaders Index announcements, particularly in the context of emerging markets. By comparing market reactions during the anticipation period, announcement day, and adjustment period, this research reveals different investor behaviors in responding to ESG information. The findings provide empirical evidence that institutional investors react more quickly, while retail investors respond after the official announcement and during the adjustment phase. The study also highlights that companies in sectors more exposed to sustainability issues, such as property and telecommunications, tend to experience more significant market reactions to ESG announcements.

While this study provides valuable insights into how the Indonesian market responds to green investment announcements, it does have some limitations that open up opportunities for future research. First, this study employs an event study approach, focusing on short-term market reactions. While this method helps capture immediate investor responses, it does not fully reflect the long-term impact of ESG commitments on a company's financial performance and value. Future research could take a more long-term perspective, tracking how green investment decisions

influence stock performance, investor confidence, and corporate growth over time. Second, since this research relies on secondary market data from publicly listed companies, it may not capture the complete picture of investor behavior. Understanding why investors react in a certain way requires a more personal approach. Future studies could explore investor perceptions through surveys or interviews to gain deeper insights into what drives investment decisions related to ESG and sustainability. Additionally, Indonesia's regulatory landscape around ESG is evolving, and policies supporting sustainable investment are not yet fully enforced. This study does not account for potential regulatory changes or government incentives that could impact market behavior. Future research could explore how policy developments, tax incentives, and international sustainability reporting standards (like IFRS S1 and S2) impact market reactions to ESG disclosures. Lastly, while this study focuses on Indonesia, examining how other emerging markets respond to green investment could provide valuable comparisons. Conducting a cross-country analysis with similar economies, such as Malaysia, Vietnam, or Thailand, could help uncover patterns and differences in how sustainability efforts are perceived and integrated into capital markets.

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