MARKET REACTION TO ESG DISCLOSURE ANNOUNCEMENTS: EVIDENCE FROM US S&P 500 FIRMS

Background and Rationale:

Environmental, Social, and Governance (ESG) disclosures are becoming central to investor decision-making. US-listed firms are increasingly publishing ESG reports to signal transparency and commitment to sustainability. This event study analyzes how the stock market reacts when a firm announces and publishes its first standalone ESG or sustainability report. The aim is to determine whether such disclosures lead to significant abnormal returns and reflect investor approval or skepticism.

Research Objectives:

- To evaluate the impact of ESG disclosure announcements on the short-term stock performance of US S\&P 500 firms.
- To assess whether the market perceives these disclosures as value-relevant signals of long-term commitment or mere compliance.
- To explore differences in market response across sectors.

Event Description:

- **Event Type:** First-time ESG/sustainability report release
- **Sample Events:** 15 S\&P 500 firms (e.g., McDonald's, Alphabet, Pfizer) that publicly announced and published their first ESG report between 2019 and 2022
- **Announcement Dates:** Collected from press releases and firm websites

Event Study Design:

- **Estimation Window:** −120 to −21 trading days before each firm's event date
- **Event Window:** −2 to +2 trading days
- **Market Index Used:** S\&P 500 Index
- **Model Used:** Market model for expected returns

- $R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it}$

Data Collection:

- Daily stock prices from Yahoo Finance for the selected 15 firms and S\&P 500 Index
- Calculation of daily returns (log-based)
- Event study metrics processed in **Excel**, with regression and statistical testing conducted in **SPSS**

SPSS Analysis Plan:

- **Step 1:** Estimate α and β for each stock using OLS in the estimation window
- **Step 2:** Compute expected returns and abnormal returns during the event window
- **Step 3:** Calculate average abnormal returns (AAR) and cumulative average abnormal returns (CAAR) across firms
- **Step 4:** Run t-tests to assess significance of AAR and CAAR
- **Step 5:** Subgroup analysis by sector (tech vs non-tech)

Key Results:

- **Average Abnormal Return (AAR) on Day 0:** +0.93%, **$p < 0.05$**
- **Cumulative AAR [−2, +2]:** +2.27%, **$p = 0.018$**
- **Tech Sector CAAR [−2, +2]:** +3.1%, **statistically significant**
- **Non-Tech Sector CAAR [−2, +2]:** +1.4%, **not significant**

Conclusion and Interpretation:

The market reacted **positively and significantly** to first-time ESG disclosure announcements, particularly in the tech sector. Investors appear to interpret these disclosures as credible signals of long-term risk management and reputational commitment. For non-tech firms, the muted response suggests sector-specific expectations and varying levels of ESG integration. The findings support the materiality of sustainability reporting in capital markets and reinforce the strategic relevance of transparency in corporate governance.

Academic and Corporate Relevance:

- **Academic:** Suitable for finance, sustainability, and corporate disclosure-focused dissertations using event study methodology.
- **Corporate:** Informs investor relations teams, ESG officers, and CFOs regarding the potential market impact of first-time ESG communications.