ESG activist investors, Selfish or selfless?

Activist investing for Sustainability: Effects on firms, shareholders and society

JOSHUA WAN
KACPER WIERZBICKI

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Abstract

This study examines the effects of investor activism centered around Environmental, Social, and Governance issues (ESG) by analyzing over 3000 activist engagements targeting public companies. The study evaluates three perspectives: the engaged company, society and shareholders. Target company impact is assessed using Return On Assets (ROA) and Return On Equity (ROE). MSCI ESG scores are used as a proxy for societal effects and shareholder impact is analyzed using abnormal stock returns. Using Difference in Difference (DiD) models and an event study we find no statistically significant effect on ROA following engagement in the full sample. We find positive effects on ROE indicating that targeted companies implement short-term measures to improve profitability. We find no statistically significant effects on ESG scores post-engagement. Engaged companies seem to have higher ROA and ROE but lower ESG scores on average compared to non-engaged control firms. We also find Cumulative Abnormal Returns (CARs) upwards of 6% on average for engaged companies in the 5 weeks following the start of engagement and CARs above 20% in the following year. The returns are driven by stocks of companies targeted in engagements using non-confrontational tactics and successful engagements. While ESG focused activists may not have any effects on target company performance or societal impact they still fill a vital control function in markets by highlighting and engaging companies that pose ESG risks. Activists are likely to continue to fill this function since there is a possibility of generating positive abnormal returns.

Keywords:
Sustainable finance, Sustainability, ESG, activist investing, Capital IQ activism screener.

Authors:
Joshua Wan (42651)
Kacper Wierzbicki (42670)

Supervisor:
Jan Starmans, Assistant Professor, Department of Finance

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1. Introduction

Today's world faces many escalating systemic challenges such as climate change, environmental degradation, societal inequality, human rights abuses and corruption, to name a few. The urgency to address these challenges has pushed sustainable finance to become part of the mainstream investment landscape. Financial markets are critical in allocating capital towards responsible and sustainable practices. Finance aimed at promoting sustainable development or sustainable finance as it has become known has been facing some strong headwinds recently, particularly with the current rhetoric surrounding Diversity Equity and Inclusion (DEI) and climate change in the United States. The opposition is not uniquely American either; the British oil giant BP has rolled back on its renewable goals, and Shell weakened its climate targets following investor pressure during 2024. In light of these adverse developments, it is interesting to evaluate the effect of a tool that can be used to advance sustainable development in corporations.

Investor activism, which is also used to maximise shareholder value, is increasingly used to advocate for environmental, social, and governance (ESG) considerations in business practices (S&P Global Market Intelligence, 2022). A central part of the argument for sustainable finance is that ESG risks are financially material and that there is a monetary incentive in sustainable business practices. Whilst this argument may be central in pitching sustainable finance to critics, one should not neglect the moral aspect of sustainable finance and investor activism. Individuals and organisations with strong moral convictions and significant resources can use investor activism to influence companies in line with their beliefs. In addition, the moral argument presents a business opportunity for asset managers that offer sustainable finance products to attract retail investors who want to see their capital deployed responsibly.

Investor activism has emerged as a tool for influencing corporate behavior and generating a system of accountability as financial markets have taken more responsibility for the companies they fund and their impact on our planet and society. This development reflects a growing understanding that company health and long-term financial performance are intrinsically linked to sustainable business practices. ESG focused investor activism can be instrumental in pressuring corporations to continue their sustainable development, especially in an environment where companies are abandoning climate ambitions and diversity considerations.

This study evaluates the effect that ESG focused investor activism has on the engaged company as well as on the company's shareholders and stakeholders. The aim is to evaluate whether investor activism has an effect on a broad scale or if significant effects are limited to a few unique engagements. The study also evaluates which stakeholders and shareholders are most affected by investor activism. Thus, the research answers the following questions:

1) Does ESG focused investor activism improve the financial performance of the target company?
2) Does ESG focused investor activism lead to societal benefits and sustainable development?
3) Do investors earn abnormal returns by pursuing ESG focused investor activism?

We use a database of MSCI ESG scores and S&P Capital IQ for information regarding ESG activist engagements. Financial information and price data are retrieved from the Refinitiv Eikon database. We use Propensity Score Matching (PSM) to create a control group for engaged companies and to mitigate selection bias. We use a difference-in-difference model (DiD) to analyze changes in ESG scores, ROA, and ROE. The analysis is performed on the whole dataset and on subsets based on campaign success and approach. We also analyze stock prices and returns using an event study. We look at short- and long-term Cumulative Abnormal Returns (CARs) surrounding the time of engagement to analyze the market's reaction and the possibility to generate returns.

We find no significant improvement in ESG scores overall. The effects are positive but they are not statistically significant. We see the same pattern for the whole sample, split into successful/unsuccessful, and in confrontational campaigns. We do, however, observe that ESG activists tend to target ESG laggards. Many of the coefficients measuring the ESG score of target firms prior to engagement are negative and statistically significant. That means that ESG activists target and engage with companies that are falling behind in sustainability metrics, compared to their peers.

We find non-significant effects following engagements in one of our chosen profitability metrics: ROA. The other one, ROE, is mostly significant and positive. This can imply that ESG activists might have an impact on the operational performance of target firms. The differences in ROA and ROE significance, can imply that improvement in ROE stems from changes in the capital structure or other short-term measures, rather than increased operational efficiency.

When analyzing market abnormal returns, we find positive short-term CARs. The returns are especially high for successful campaigns and campaigns that use

non-confrontational tactics. In the long term full sample CARs tend to flatten whilst successful or non-confrontational campaigns see a linear increase in CARs. The increase in abnormal returns, despite the absence of significant effects on ESG scores following ESG focused campaigns may reflect signalling effects. Investors, having seen the news of engagement, may expect the campaign to be successful, thus improving the company's sustainability metrics. Media attention of such campaigns combined with hopes of increased ESG score may influence investors behaviour and increase market demand for stocks.

2. Literature review

2.1 ESG Activism

ESG-focused activists aim to enhance a firm's sustainability efforts or improve reporting and transparency. Naaraayanan et al. (2021) examine these effects by analyzing greenhouse gas emissions reported under the Greenhouse Gas Reporting Program (GHGRP) and toxic chemical releases under the Toxic Release Inventory (TRI) program. They find improvements in air quality near plants owned by firms targeted by environmental campaigns. Production ratios from TRI data suggest that the improvements stem from better emissions management rather than reduced production.

Dimson et al. (2016) analyze ESG-related active ownership by a large institutional investor over a 10-year period, focusing on publicly listed U.S. companies. The engagement methods used by the institutional investor include direct dialogue, proxy voting, negative screening, and collaboration with other investors. They find positive outcomes both financially and in terms of governance and environmental policies. Firms with weaker governance structures showed measurable improvements after engagement, as captured by the Bebchuk, Cohen, and Ferrell (2009) entrenchment index. Although their study does not directly quantify environmental impact, they conclude that successful engagements can lead to improvements in climate policy, environmental management, and social initiatives.

Barko et al. (2022), using a proprietary dataset, find that ESG scores tend to increase for firms with low ESG performance prior to engagement, while scores for already high-performing companies may decline. This suggests that ESG activism may have the most visible impact when targeting laggards and that implementing sustainable business practices may be easier in companies that do not already have well-established policies. They also

show that institutional investors play a key role in ESG-related engagements, often working behind the scenes to drive long-term changes.

Overall, the literature on ESG activism shows that it can lead to real improvements in sustainability metrics and governance structures. However, the outcomes depend on firm context, activist strategy, and ex ante ESG performance.

This study adds to the existing literature by evaluating ESG focused investor activism broadly. Many prior studies look at investor activism through a very narrow lens, by focusing on a specific investor or type of investor. The papers by Barko et al. (2021) and Dimson et al (2016) use data provided by a single institutional investor. The paper by Naaraayanan et al (2021) looks at engagements that were part of the Boardroom Accountability Project initiated by one institutional investor. This study takes a broader approach, looking at ESG activism through an industry and investor-agnostic lens by not focusing on any specific type of investor or target, whene gathering engagement data. The data used in this study comes from third-party sources and includes many different types of activist investors such as institutional investors, Non-Governmental Institutions (NGOs), religious institutions, and hedge funds. Moreover, we examine the effects of ESG activism across multiple outcome dimensions, including profitability (ROA/ROE), sustainability performance (ESG scores), and market reactions and investor returns (abnormal returns). This allows us to assess the effects of ESG activism and determine which channel the effects are the most prominent in, adding to the existing sustainable finance literature by studying ESG activism's effect on financial performance, social impact, environmental impact, and corporate governance. We split the analysis into successful/unsuccessful engagements and confrontational / non-confrontational tactics to assess if different outcomes or approaches yield different results.

Our findings do not match perfectly with the literature. We see that activists tend to engage ESG laggards, but we cannot see any significant change in target company ESG scores following ESG activist engagement. While studies of Naaraayanan et al. (2021) and Dimson et al. (2016) suggest a positive role of ESG activists, we look at a broader dataset and find no such effects. The reason behind that might be that some activists, analyzed by those researchers, are extremely successful at improving targets, but when looking at a wider portion of the industry, it seems the effects are insignificant. It is the know-how and the skills of investors that make the difference and not the sole presence of activists. Another explanation for discrepancies might be the methodology. We use an ESG score, while studies like Naaraayanan et al. (2021) examine the change through plant level emissions, which are easier to quantify and subject to immediate effects.

2.2 Hedge Funds and Traditional Activism

Denes et al. (2016) find that activist campaigns initiated by hedge funds are associated with significant improvements in firm value and operating performance, while non-hedge fund campaigns generally do not lead to meaningful profitability changes. Hedge funds tend to push for restructuring, cost optimization, reduced CAPEX, and asset sales.

Klein and Zur (2009) define confrontational activism through 13D filings, where investors acquiring 5% or more of voting shares disclose their intention to influence management. They find that hedge fund targets experience abnormal returns of 10.2% around filing, compared to 5.1% for non-hedge fund targets. Over the following year, both groups experienced additional returns, with hedge fund targets increasing 11.4% and non-hedge fund targets 17.8%. Klein and Zur (2009) also note that hedge funds tend to select more profitable, stable firms with larger cash reserves, which may partially explain their higher returns. Non-hedge fund activists, in contrast, are more likely to push for strategic changes rather than quick payouts. Their findings could indicate that hedge funds tend to target firms in the interest of getting a short-term cash payout, whilst other types of activist investors engage targets in order to improve firm performance and returns in the medium to long term.

Bebchuk et al. (2015) explore the critique behind myopic activist investing, where short-term gains are chased and long-term performance is sacrificed. After studying circa 2000 active engagements initiated by hedge funds, the authors find no support for the claims. Instead, they find that hedge fund activism is correlated with improvements in firm performance in the 5 years following the initial engagement.

We contribute to this literature by analyzing ESG activism, not only traditional financial campaigns. This approach allows us to explore whether the positive effects on returns apply to ESG focused activism as well. We observe positive short-term abnormal returns in the event window around the announcement, primarily driven by successful and non-confrontational engagements. This is consistent with Brav et al. (2018) and Klein & Zur (2009). While we see a rise in abnormal returns a year after the engagement, the growth seems to stagnate and flatten as time progresses which is in contrast to the findings made by Bebchuk et al. (2015). Additionally, in line with Denes et al. (2016), we observe significant improvements in target firm profitability following activist engagement, when profitability is measured in terms of ROE.

The existing literature shows positive effects on one or two stakeholders in isolation. However, there is little research that examines the effect on the three stakeholders and there is

no consensus on whether ESG focused activism can provide benefits for investors, the company itself and society at large or if it is only possible to positively affect one or two stakeholders at a time. We address the gap by using a broad dataset and looking at both ESG score increase, profitability improvement and market performance.

3. Theory

3.1 Activist Investing as a Governance Mechanism

The idea of separating powers to create a system of accountability has been around for hundreds of years and is not limited to corporate governance. One of the most relevant theories applying this principle to companies is agency theory.

Agency theory, introduced by Jensen and Meckling (1976), explains how organizations navigate the conflicts of interest between agents - such as company management and principals - shareholders. The theory suggests that managers may act in their own interest and not necessarily in the interest of maximising value for their shareholders, thus creating agency costs. To mitigate this issue, firms implement various mechanisms to align managerial interests with shareholder interest, such as incentive plans (Eisenhardt, 1989).

A separation of control between management and shareholders does not mean that the existence of activist investors is necessary. Traditionally, large corporate ownership in firms created a system of accountability. However, the rise of passive investing, driven by ETFs and other index-based products, has rendered this traditional form of checks and balances less effective, shifting power back toward management. Heath et al. (2021) find that passive index funds, especially low-fee funds, are more likely to vote in line with management on corporate governance issues compared to active investors.

Denes et al. (2016) explain that shareholder activism rose alongside passive index-based ownership. Because institutional investors often cannot sell poorly performing companies due to diversification mandates, they may engage instead (Monk & Minow, 1991). This shift in ownership structure led to increased oversight responsibilities for traditionally passive institutions (Smith, 1996).

Activist investors can reduce agency costs by increasing managerial accountability, improving transparency, and setting up the right incentive policies. They play a critical role in

addressing governance issues that arise from passive ownership trends. Activists limit managerial opportunism and help align company actions with shareholder priorities (Gillan & Starks, 2000).

This shows that activist investing functions as a modern governance tool, ensuring accountability where traditional mechanisms like shareholder voting and board monitoring are weakened by passive ownership structures. Poor corporate governance can have a direct negative impact on financial performance, this incentivizes engagement.

While traditional activism primarily focuses on reducing agency costs to protect shareholder value, a more specific form of activism has emerged that considers environmental, social, and governance (ESG) related issues.

3.2 ESG Motivations for Activism and Its Effects

Investor or shareholder activism is a way for investors to demand change at a firm. The demanded change can be anything that the activist deems to be material, from corporate strategy to environmental and social issues (Goranova & Ryan, 2014).

The term ESG - Environmental, Social, and Governance - was introduced in a 2004 UN report, which argued that integrating ESG into investing improves markets and societal outcomes (Pollman, 2022). ESG considerations can be financially material, evaluating social policies of a company as part of an investment due diligence could provide insights into the workforce which ultimately affects the productivity and profitability of firms.

Activism today increasingly targets ESG issues as well as financial performance. Stakeholder theory (Freeman, 1984) suggests that companies perform better when they consider the interests of employees, communities, and the environment, not just shareholders. This contrasts with the shareholder-first approach (Friedman, 1970).

Activist engagements can increase transparency, reduce ESG risk, and potentially improve ESG scores, thus aiding target companies in becoming less exposed to regulatory fines, reputational damage or adverse effects following the implementation of new laws and regulations. According to traditional finance theory, such reduced systematic risk should lead to higher prices and lower expected returns. Lower systematic risk can lead to higher firm value in asset pricing theory (Sharpe, 1964) through a decreased required rate of return and a lower discount rate. Through this mechanism, activists may benefit from returns generated by a reduction in perceived risk (Hoepner et al., 2018).

However, there might be costs associated with implementation of ESG activists' demands. Reducing pollution using newer technology at plants, addressing social issues by giving employees medical insurance, or improving governance transparency by implementing new reporting processes require cash investments and might hurt firm's profitability and cash-flows in the short-term (Dimson et al., 2015).

Activism is a tool to push companies towards sustainability, but its effectiveness is often debated, especially given the risk of greenwashing and the fact that firms can integrate ESG considerations in the way that suits their firm best (Pollman, 2022). Thus, ESG activism's effect on firm performance and returns is theoretically ambiguous. It depends heavily on specific ESG issues addressed, the costs of reforms and the size of their impact on operations.

Gollier and Pouget (2022) use an asset pricing model to assess factors that influence incorporation of responsible business practices in corporations. They find that companies can be influenced to adopt responsible business practices even if the majority of their investors do not incorporate ESG considerations in their investment decisions. They attribute this to Socially Responsible Investors (SRIs) tendency to overweight sustainable companies in their portfolios. SRIs consider a firm's positive and negative externalities in their investment decisions. Thus, the externalities become priced in. SRIs will choose responsible assets over non-responsible assets which leads to overweighting of responsible companies, the increased demand for responsible firms can lower their cost of capital in equilibrium which incentivizes companies to implement sustainable business practices. Conversely, this mechanism causes SRIs to underweight non-responsible companies that produce many negative externalities. ESG focused activist investors can push companies towards implementing sustainable business practices. If engagement creates positive externalities, the activists can increase demand for the firms among SRIs, leading to increased stock prices, a lower cost of capital, and positive returns for the activist.

3.3 Market Effects and Behavioural Mechanisms

Signalling theory, first portrayed by Spence (1973), explains how organizations handle information to reduce information asymmetry. In the context of ESG activism, signalling theory might explain why companies accept investors' proposals. According to Connelly et al. (2011) companies strategically disclose ESG information to attract responsible investors,

and reduce the risk of being negatively screened-out. Companies that fail to provide credible ESG information can be perceived as risky in the long-term (Spence, 1973).

The Efficient Market Hypothesis (Fama, 1970) says that prices reflect all available information. Under this framework, abnormal returns following engagements may indicate that activism introduces new information or helps the market incorporate previously overlooked risks. Studies like Brav et al. (2018) and Becht et al. (2015) show that successful activist campaigns can generate abnormal returns, not necessarily violating the EMH but functioning as a channel for price correction following the release of new information.

Market responses to activism, however, are not necessarily purely rational. Behavioral finance suggests that investors are influenced by cognitive shortcuts, such as availability bias. Public activist campaigns often attract media attention, which can drive investor attention and short-term buying pressure (Tversky & Kahneman, 1973). Another important consideration is selection bias. Activists tend to target companies with certain characteristics - such as poor profitability, low ESG score or weak governance - with potential to improve in those regards (Klein & Zur, 2009; Brav et al., 2010)

3.4 Myopic activism

The fact that activist investors are able to generate abnormal returns through engagement is part of the criticism against this class of shareholders. Myopic activism is a term often used by critics of shareholder activism. This criticism revolves around hedge funds chasing short-term gains that engage with companies. According to critics, these engagements are often centred around a few key issues that would give the hedge fund a significant short-term payout but would negatively affect the company in the long run. The claims of detrimental myopic activism lack empirical backing and any evidence is mainly anecdotal. (Bebchuk et al, 2015). Even if the claims lack substantial evidence the criticism should still be acknowledged as it is entirely possible that activist demands may only be filed to benefit the activist and not the remaining stakeholders and shareholders.

4. Data selection

4.1 ESG scores

This study uses ESG scores as a proxy for sustainable performance and societal impact. An increased ESG score should indicate that the company in question improves its performance from an ESG perspective. The chosen provider for these ESG scores is MSCI, data is available for over 10,000 companies in the time period of 2007-2022 (Swedish House of Finance, n.d.). MSCI produces ratings from a risk perspective, similar to a traditional credit rating. The scores measure resilience to long-term ESG risks that are financially material to firms based on their industry.

Some detailed metrics specific to certain issues are not available for the whole data set. Since data availability varies across years, we choose a metric that has been included in the rating since the earliest available dataset.

We choose to use the Final Industry-Adjusted Company Score as our proxy for ESG performance. This score is calculated by normalizing the Weighted Average Key Issue Score (WAKIS). WAKIS is the weighted average of the company's scores in key environmental and social issues and the government pillar score. The governance pillar score is an absolute measurement of how a company scores on different governance issues. The key environmental and social scores are based on exposure to risks and opportunities and how they are managed. The scores are based on the issues that are most material to the company's industry and thus allow for comparison across peers and not industries. The Final Industry-Adjusted Company Score also reflects any amendments made by MSCIs Ratings Review Committee. MSCI assigns a letter grade to a company between AAA (leader) and CCC (laggard). The letter grade corresponds to a bucket that a company falls into based on its Final Industry-Adjusted Company Score (MSCI ESG Research, 2024a). By using this numerical score instead of a categorical rating we can capture subtle increases in ESG performance that may not lead to an upgraded rating. WAKIS is also subject to weekly updates if any weighted key issue score is updated, MSCI has daily monitoring of media and corporate events. The WAKIS would thus be updated within a week in the event of material company related updates that have an effect on key issue scores. The MSCI ESG rating is only reviewed annually with a few exceptions, thus, by using WAKIS we are able to capture changes in ESG scores with greater frequency (MSCI ESG Research, 2024b).

4.2 Activism data

Investor activism data is collected using a screener in S&P Capital IQ Pro. S&P Capital IQ Pro has a screening function that allows users to identify campaigns initiated by activist investors. Activist investors can be either legal entities or individual investors. Information used to determine whether or not a person/entity should be classified as an activist is sourced from regulatory filings, press releases and the investors own information. The S&P data contains a broad range of activists including large institutional asset owners, individual investors, mutual fund companies, nonprofits and activist hedge funds.

In addition to the self-classification that S&P uses to identify activists they also flag investors based on the impact the campaign is attempting to achieve, previous activism history, primary business activities, current involvement with activism campaigns, and associations with known activists. Campaigns are only covered when a company is publicly targeted with specific demands. Sources used to collect information about engagements include over 25 official SEC filings such as Schedule 13D or DEF 14A, press releases, filings from non-US regulatory bodies, company websites and trade publications. S&P labels if campaigns have been announced, successful, unsuccessful, settled, or withdrawn. They also distinguish between different tactics that are used by activists. These tactics include confrontational and non-confrontational engagements, threats of actions, proxy fights, shareholder proposals, legal proceedings, take-over bids, and public declaration of voting intentions (S&P Global, 2021). The screener also allows for the sorting of campaigns based on the desired objective, i.e., if the engagement is focused on environmental, social, or governance issues. Technically, this would allow us to test the effect of environmental campaigns on the environmental score of the targeted company for example. Whilst this may shed light on marginal improvements following ESG focused investor activism this does not align with the main focus of the study. The study aims to evaluate any material effects on society following ESG investor activism where improvements in ESG score serve as a proxy for real-world impact. By focusing on WAKIS which is a score that is weighted based on materiality we aim to capture improvements in ESG scores that are more likely to have a real-world impact.

Since ESG scores from our chosen source are available from 2007 to 2022, we choose this time period for our activism data as well. We include activism campaigns focused on all three ESG pillars and all tactics used by activists. S&P divides the different activism tactics into the categories that can be seen in Table A1. We deem all engagements to be

confrontational unless the only tactic listed under the engagement is either "Non-confrontational communication and engagement" or "Non-confrontational request for board representation". If the engagement starts out as a non-confrontational request or communication but escalates to a confrontational type of engagement, the whole engagement is classified as confrontational in the data set.

The Capital IQ investor activism screen does not seem to be widely used in academia. It does appear in some papers published in journals; Tian et al. (2024) use Capital IQ as a source for their activism data in their paper evaluating activism and tax avoidance. This does not necessarily indicate that the data is of low quality. Much of the existing literature regarding investor activism is focused on a certain type of investor such as in the papers written by Brav et al. (2018) and Bebchuk et al. (2015). Much of the literature also uses data provided directly by an investor such as in the papers by Dimson et al. (2016) and Barko et al. (2022), in which the engagement data is provided by large institutional investors. In our holistic and generalized approach to evaluating the effects of investor activism we require a data source that covers more of the relevant universe. The data has been used in corporate settings McKinsey (Cyriac et al., 2014), Accenture (Adams et al., 2024), and the Royal Bank of Canada (Patrick, 2022) use the Capital IQ screener to report on investor activism, to name a few.

Most of the engagements in the dataset are centered around corporate governance issues, and most of the engagements are classified as confrontational. A majority of the engagements were unsuccessful. More information regarding the distribution of engagements can be found in Table A2 and a breakdown of results can be found in Table A3. A majority of the engagement targets are companies in the capital goods industry group and most engaged targets are domiciled in the developed markets and in the United States in particular. Full industry distribution can be seen in Table A4 and geographical distribution can be seen in Table A5. The full screening criteria used to obtain the engagement dataset can be found in Table A6.

4.3 Financial data

Price data and operating performance metrics are collected for the chosen engaged firms and benchmark firms using Refinitiv Eikon. Refinitiv Eikon is a platform provided by the London Stock Exchange Group that offers financial data covering over 175 countries. Return on assets (ROA) and return on equity (ROE) are chosen as two performance indicators to

evaluate investor activism effects on operating performance. Price data is collected to test for stock price effects following investor activism. Both price data and operating performance metrics are collected in a weekly interval for the time period between 2007-01-01 and ending on 2022-12-31. The operating metrics are not updated as frequently since this data only becomes publicly available in conjunction with company reporting, thus, many consecutive weeks have the same ROA and ROE values. Weekly price-to-book ratios and market cap figures are downloaded to match engaged firms with comparable benchmark firms.

4.4 Comparable assets

The study uses the MSCI ACWI index constituents as benchmark assets. In particular, the index constituents are downloaded from the holdings of the iShares MSCI ACWI ETF provided by Blackrock (iShares, n.d.).

The MSCI ACWI index covers 2,645 large and mid-cap companies in 24 emerging and 23 developed markets (MSCI, 2025). According to MSCI the index covers 85% of the investable equity universe. The majority of the companies in the index are American which is in line with the distribution of our target data set. The constituent data set is merged with the ESG score data set to ensure that the engaged companies and benchmark companies have the same data. Firms in both the list of engaged companies and in the benchmark data are removed from the benchmark data set resulting in a final benchmark dataset consisting of 1733 companies. We use this dataset in the construction of the control group, the count of the control group matches the count of analyzed engaged companies.

4.5 Fama-French factors

To test for abnormal returns and stock performance we use the Fama French 3 factor model. For this, Fama French factors are downloaded for emerging and developing markets, these factors are matched to companies in the data set based on the companies domicile. Companies are assigned to developed or emerging markets if the country of domicile is covered by Fama-French.

4.6 The data set

The two primary data sources from which the dataset has been constructed are the ESG scores and the investor activism screen results.

We assign companies to one of 25 industry groups in line with based on The Global Industry Classification Standard (GICS). GICS classification is used by MSCI in their ESG ratings which is our reason for using GICS classification in favor of other classifications such as SIC. GICS is a 4 tiered industry classification system (MSCI, n.d.), we divide companies based on industry groups which is the second tier in the hierarchy since we deemed this tier to be sufficiently narrow to ensure that companies within the same category are likely to have the same characteristics whilst still being broad enough to maintain computational efficiency and to ensure that the categories are not too niche.

Since firm identifiers vary across the different data providers we choose to match firms using the company names. Matching Issuer names from MSCI ESG data and the target name in the S&P data yields an overlap of 622 engaged companies. It is possible that matching companies based on international firm identifiers such as ISIN or CUSIP codes could yield a larger overlap between the datasets. However, since we are unable to add ISIN and CUSIP codes to the output in the Capital IQ screen, mapping is not completely straightforward. Adding these firm identifiers would require an extra computational step and the use of another data source. After matching companies using PSM and removing NA values we are left with 463 companies for analysis. We conclude that a sample of circa 450 engaged companies is large enough to draw meaningful inferences. In comparison, the paper by Naaraayanan et al. (2021) only includes 181 engaged companies and the study performed by Klein and Zur (2009) has around 150 companies in both their samples.

5. Methodology

This chapter outlines the methodology used to evaluate the impact of ESG activism. We follow an approach commonly used in literature (Brav, Jiang, and Kim, 2015; Brav, Jiang, Ma, and Tian, 2018; Naaraayanan et al., 2021). Firstly, we construct a control group, comparable with engaged companies, for which we use PSM. Having both control and treatment groups we analyze the activists' impact on ESG score, ROA and ROE using a DiD model. To study the stock performance effects we use an event study model with weekly returns.

5.1 Propensity Score Matching

We use PSM to construct a balanced dataset of control and treatment companies needed for DiD analysis. Constructing a control group using PSM helps us mitigate selection bias and ensures that effects captured in further study are likely results of activist intervention. Our algorithm estimates the probability of engagement based on the following firm characteristics: return on assets, return on equity, market capitalization, price to book ratio and ESG score, all captured as of the time of engagement. We use a logistic regression model to calculate the propensity score based on those firm-specific characteristics. Then, each engaged company was assigned a matching company from the same industry with the closest propensity score that month. Matching was conducted using the K-nearest neighbours model, where K=1. Using within-industry matching we control for industry-specific trends and obtain well-balanced treatment and control groups.

5.2 Difference-in-difference

Having done PSM matching, we apply a DiD model to estimate the real effect of ESG activism on engaged companies. We compare effects on ESG scores, ROA and ROE between the treatment and control groups. The model looks as follows:

$$Y_{it} = \beta_0 + \beta_1 Post_{it} + \beta_2 Engaged_i + \beta_3 (Post_{it} \times Engaged_i) + \epsilon_{it}$$

Where:

Y_{it} : Outcome variable (ESG score, ROA or ROE)

β_0: The intercept

$Post_{it}$: Binary variable indicating post-treatment period

$Engaged_i$: Binary variable indicating if a company was treated

$Post_{it} \times Engaged_i$: Interaction term capturing the activism effect

All DiD regressions are run with clustering of standard errors at the firm level using ISIN numbers to account for autocorrelation. We first run a DiD model on the full sample of companies. We further deepen the analysis by implementing filtering. Subsets are created for companies based on engagement outcome: successful or unsuccessful, and based on engagement tactic style: confrontational or non-confrontational. Running the DiD model

separately on those subgroups helps verify whether the effect is influenced by the activist approach or their ability to ensure the campaign's success.

5.3 Event study

To measure the market's reaction to engagements, we use an event study conducted on weekly stock returns. Firstly, we estimate the expected returns using the Fama-French three-factor model and an estimation window from -30 to -6 weeks before the engagement's launch date. The launch date is defined as the date that a campaign is launched or announced to the public, i.e., the first date when the engagement becomes public knowledge. We chose this estimation window because it mitigates the risk that we capture any information that could be leaked before the engagement. It is also long enough to estimate expected returns robustly and consistently. We exclude companies with fewer than 10 observations in the estimation window to account for noisy and unreliable predictions. We also use the winsorization technique, capping the excess returns on the 5th and 95th percentiles to deal with the outliers, this is an industry standard approach. Then we compute abnormal returns and cumulative abnormal returns during the event window of -5 to +5 weeks. This event window is standard in the literature and captures the short-term anticipation, the event itself and any post-event reaction. It is also short enough to avoid any parallel events. We also look further into the future and compute cumulative abnormal returns in a -5 to +52 weeks window, to study the results in the longer term. We also tested the event study for robustness by moving the launch date back 2 years for each engagement, which is called a placebo test. Abnormal returns are calculated as follows:

$$AR_{it} = R_{it} - \widehat{R}_{it}$$

And cumulative abnormal returns are as follows:

$$CAR_{it} = \sum_{k=-20}^{t} AR_{ik}$$

Cumulative abnormal returns are then averaged across all firms on a weekly basis. Similarly to the DiD analysis we also perform filtering based on engagement outcome and style. This is done to evaluate how different tactics and outcomes affect stock returns.

6. Results

This chapter presents the results from DiD regressions on operating performance metrics and ESG scores as well as results from an event study performed on target firm stock returns.

6.1 Operating performance

Table 6. Full sample DiD regression

The table contains the results from the difference-in-difference regression on Return on Assets (ROA) and Return on Equity (ROE) using the full sample of companies. The $\beta_0\ Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. The data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level

	Return On Assets ROA **(1)**	**Return On Equity ROE** **(2)**
$\beta_0\ Intercept$	-0.0858***	-0.0383***
	(0.030)	(0.001)
$\beta_1 Post_{it}$	0.0258	0.0038
	(0.038)	(0.003)
$\beta_2 Engaged_i$	0.1048**	0.0221***
	(0.052)	(0.008)
$\beta_3(Post_{it} \times Engaged_i)$	0.0240	0.0758**
	(0.071)	(0.037)

The full sample DiD regression on the two chosen operating performance metrics ROA and ROE yields the results seen in Table 6. The intercept is negative whilst the $\beta_1 Post_{it}$ coefficient is positive for both ROA and ROE regressions. A positive $\beta_1 Post_{it}$ coefficient indicates that non-engaged companies in the control group experience an increase in both ROA and ROE in the same time period as the engaged firms. We also find positive

$\beta_2 Engaged_i$ coefficients for both ROA and ROE which indicates that firms targeted by the activists in our sample on average have higher ROA and ROE in comparison to the firms in the control group. We also find a positive coefficient for the $\beta_3(Post_{it} \times Engaged_i)$ interaction term, this points towards engagement having a positive effect on the operating metrics of the target firms in comparison to their non-engaged counterparts, however, this coefficient is only statistically significant for ROE. $\beta_1 Post_{it}$ for both ROA and ROE and $\beta_3(Post_{it} \times Engaged_i)$ for ROA are not statistically significant which means that any inference should be done with caution. We do however find that the $\beta_2 Engaged_i$ coefficient is statistically significant at the 1% level for the ROE regression and significant at the 5% level for the ROA regression.

Table 7. DiD successful vs unsuccessful engagements - ROA

The table contains the results from the difference-in-difference regression on Return on Assets (ROA) using two subsets of the data: successful engagements and unsuccessful engagements. The $\beta_0\ Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. The data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level

	Return On Assets (ROA)	
	Successful engagements	**Unsuccessful engagements**
	(1)	**(2)**
$\beta_0\ Intercept$	-0.0707	-0.0714*
	(0.056)	(0.038)
$\beta_1 Post_{it}$	0.0196	0.0208
	(0.073)	(0.046)
$\beta_2 Engaged_i$	0.0754	0.1336**
	(0.087)	(0.062)
$\beta_3(Post_{it} \times Engaged_i)$	0.0752	-0.0438
	(0.109)	(0.073)

Table 8. DiD successful vs unsuccessful engagements - ROE

The table contains the results from the difference-in-difference regression on Return on Equity (ROE) using two subsets of the data: successful engagements and unsuccessful engagements. The $\beta_0\ Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. The data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level

	Return On Equity (ROE)	
	Successful engagements	**Unsuccessful engagements**
	(1)	**(2)**
$\beta_0\ Intercept$	-0.0369***	-0.0328***
	(0.001)	(0.002)
$\beta_1 Post_{it}$	0.0020	0.0042
	(0.002)	(0.004)
$\beta_2 Engaged_i$	0.0264**	0.0245***
	(0.011)	(0.009)
$\beta_3(Post_{it} \times Engaged_i)$	0.0825*	0.0763*
	(0.047)	(0.041)

Splitting the data into successful and unsuccessful engagements yields the results seen in Table 7 and Table 8. Again, we find that the $\beta_2 Engaged_i$ coefficient is positive for both successful and unsuccessful engagements and for both ROA and ROE. These coefficients are also statistically significant, except for in the ROA-successful regression. The ROE $\beta_3(Post_{it} \times Engaged_i)$ coefficients for both successful and unsuccessful engagements are statistically significant at the 10% level (5% level for unsuccessful), this indicates that firms targeted by campaigns, even ones that fail seem to experience a small but statistically significant increase in ROE. Interestingly, we find that the $\beta_3(Post_{it} \times Engaged_i)$ is non significant for both successful and unsuccessful engagements when we measure operating performance in terms of ROA. These results indicate that engaged firms experience ROE growth that is greater than that of their peers but no ROA growth.

Even if an engagement is unsuccessful it generates attention around the company and may highlight some issues with the company and investor grievances. A possible explanation for increased ROE we observe following unsuccessful activist engagement can be the result of the target firm taking action to appeal to investors. Taking measures to increase profitability in the short term following engagement can serve as a signalling tool used by the target company to provide investors with a positive sentiment. Short term changes to increase profitability measured in ROE such as decreased development spending, dividend payouts or employee layoffs can negatively impact profitability in the long run. These changes could

negatively impact profitability measured in terms of ROA, however, these effects would most likely appear in the long run which could explain why we do not observe any statistically significant negative impact on ROA following unsuccessful engagements.

Table 9. DiD confrontational vs non-confrontational engagements - ROA

The table contains the results from the difference-in-difference regression on Return on Assets (ROA) using two subsets of the data: confrontational engagements and non-confrontational engagements. The $\beta_0\ Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. The data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level

	Return On Assets (ROA)	
	Confrontational engagements (1)	**Non-confrontational engagements (2)**
$\beta_0\ Intercept$	-0.1131***	0.0539
	(0.033)	(0.060)
$\beta_1 Post_{it}$	0.0310	0.0473
	(0.040)	(0.102)
$\beta_2 Engaged_i$	0.1554***	-0.1587
	(0.055)	(0.107)
$\beta_3(Post_{it} \times Engaged_i)$	0.0020	0.0477
	(0.073)	(0.160)

Table 10. DiD confrontational vs non-confrontational engagements - ROE

The table contains the results from the difference-in-difference regression on Return on Equity (ROE) using two subsets of the data: confrontational engagements and non-confrontational engagements. The $\beta_0\ Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. Since the data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level

	Return On Equity (ROE)	
	Confrontational engagements (1)	**Non-confrontational engagements (2)**
$\beta_0\ Intercept$	-0.0407***	-0.0238
	(0.001)	(0.030)
$\beta_1 Post_{it}$	0.0038	0.0363
	(0.003)	(0.049)
$\beta_2 Engaged_i$	0.0233***	0.0680
	(0.009)	(0.104)
$\beta_3(Post_{it} \times Engaged_i)$	0.0816**	-0.1228
	(0.039)	(0.131)

When splitting the data into engagements using confrontational and non-confrontational tactics we find that engaged companies seem to have higher ROA and ROE than the control companies. Engagement seems to have different effects on ROA and ROE, the magnitude of the change in operating performance seems to be greater when measured in ROE compared to ROA. This could indicate that a large portion of a perceived increase in operating performance following activist engagements could be attributable to changes in capital structure. This is also supported by the $\beta_3(Post_{it} \times Engaged_i)$ coefficient of ROE change in confrontational engagements. It is statistically significant at 5% level, which can indicate that

ESG activists are able to successfully increase ROE when approaching the engagement in a confrontational way.

We find positive $\beta_2 Engaged_i$ coefficients for ROA and ROE. A positive $\beta_2 Engaged_i$ coefficient indicates that engaged firms tend to have higher ROE/ROA on average compared to the matched control firms. This could indicate that activists tend to target firms that are profitable and where the operating performance does not translate to superior stock returns. This might potentially indicate selection bias, and the possibility that the market rewards the activists not for improving the firm but for selecting those likely to perform well regardless. Many activism campaigns may not touch on stock performance and shareholder returns explicitly, especially engagements centered around environmental and social issues. Any increase in stock price following such engagements would therefore come from more indirect channels. Engagement that is visible in the public domain could lead to more media attention and more coverage by investors. This increased coverage could result in appreciating stock prices if investors find that the target company stock is undervalued based on its operating metrics.

Engagement seems to have different effects on ROA and ROE, the magnitude of the change in operating performance seems to be greater when measured in ROE compared to ROA. The ROA $\beta_1 Post_{it}$ coefficient of 0.0258 is greater than the $\beta_3(Post_{it} \times Engaged_i)$ coefficient of 0.0240 whilst the ROE $\beta_3(Post_{it} \times Engaged_i)$ coefficient of 0.0758 is greater than the $\beta_1 Post_{it}$ coefficient of 0.0038 for the ROE regression as can be seen in Table 6. This means that the growth in ROE in target firms following engagement is greater than the corresponding growth in ROA, both in relative terms and measured in standard deviations. A plausible explanation for this observed relationship could be that ROE is easier to affect than ROA. This could indicate that a large portion of a perceived increase in operating performance following activist engagements could be attributable to changes in capital structure. Mechanically for ROA to increase you would need to reduce assets or increase profits. This is not completely straightforward, changing the asset base could impact company profitability. ROE on the other hand is easier to manipulate without affecting profitability. Mechanically ROE increases if profits increase and/or equity decreases, this can be done by changing the capital structure of the target firm by buying back shares, increasing the proportion of debt financing and paying out retained earnings, to name a few examples. The relationship we observe could indicate that activist investors try to increase ROE in the

target firms by affecting capital structure or dividend policy. However, this interpretation should be made with caution since the coefficients for the $\beta_3(Post_{it} \times Engaged_i)$ variables in the full sample regression are only statistically significant at the at 5% level for ROE. Furthermore, any such interpretation would have to be backed up by looking at changes in target company capital structure or dividend policy. This argument also assumes that activist investors have enough influence to change the capital structure of the target firms. This is not an unreasonable assumption to make for engagements led by activist hedge funds but for large institutional investors such as pension funds this type of influence seems less likely.

6.2 ESG scores

Table 11. Full sample DiD scores regression - ESG scores

The table contains the results from the difference-in-difference regression on MSCI ESG score using the full sample of companies. The $\beta_0\ Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. The data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level.

	ESG score **(1)**
$\beta_0\ Intercept$	0.0170
	(0.054)
$\beta_1 Post_{it}$	0.1061*
	(0.057)
$\beta_2 Engaged_i$	-0.1372**
	(0.069)
$\beta_3(Post_{it} \times Engaged_i)$	0.0679
	(0.080)

Running a DiD regression on the ESG scores in the full sample reveals a small but statistically significant negative coefficient for the $\beta_2 Engaged_i$ variable, this indicates that firms targeted in activist engagements tend to have lower ESG scores compared to their non engaged counterparts. We also observe that the $\beta_3(Post_{it} \times Engaged_i)$ coefficient of 0.0679 is lower and less significant than the $\beta_1 Post_{it}$ of 0.1061 coefficient in the full sample as can be seen in Table 11.

Table 12. DiD successful vs unsuccessful engagements - ESG scores

The table contains the results from the difference-in-difference regression on MSCI ESG score using two subsets of the data: successful engagements and unsuccessful engagements. The $\beta_0 Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. Since the data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level.

	MSCI ESG Score	
	Successful engagements	**Unsuccessful engagements**
	(1)	**(2)**
$\beta_0 Intercept$	0.0559	0.0049
	(0.089)	(0.065)
$\beta_1 Post_{it}$	0.1439	0.0738
	(0.096)	(0.067)
$\beta_2 Engaged_i$	-0.3340***	-0.1084
	(0.109)	(0.087)
$\beta_3(Post_{it} \times Engaged_i)$	0.1776	0.0830
	(0.125)	(0.090)

The relationship we observe in the full sample changes when splitting the engagements into successful and unsuccessful outcomes. When splitting into subsets we find that engaged firms experience a greater increase in their ESG scores compared to their non engaged counterparts

in the same time period. Both the engaged firms and the non engaged firms do however experience improved ESG scores. However, the coefficients are not statistically significant, therefore we cannot be certain that this relationship does in fact exist. We also observe a significant and negative $\beta_2 Engaged_i$ coefficient, which could indicate that ESG activists target companies with much lower ESG scores than their peers.

Table 13. DiD confrontational vs non-confrontational engagements - ESG scores clustered SE

The table contains the results from the difference-in-difference regression on MSCI ESG score using two subsets of the data: confrontational engagements and non-confrontational engagements. The $\beta_0 Intercept$ shows the average outcome for the control group in the pre-treatment period. The $\beta_1 Post_{it}$ coefficient shows the difference in the control group pre- and post-engagement. The $\beta_2 Engaged_i$ coefficient shows the average difference between the engaged companies and the control group. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is the interaction term that shows the additional difference in outcome for target companies after engagement compared to the control group. The data is standardized, the coefficients show changes in terms of standard deviations and not in absolute terms. The table shows the coefficients, standard errors within parentheses and p-values.***significant at the 0.01 level; **significant at the 0.05 level; *significant at the 0.10 level.

	MSCI ESG Score	
	Confrontational engagements	**Non-confrontational engagements**
	(1)	**(2)**
$\beta_0\ Intercept$	-0.0023	-0.0002
	(0.058)	(0.117)
$\beta_1 Post_{it}$	0.1234**	0.2049
	(0.060)	(0.144)
$\beta_2 Engaged_i$	-0.1175	-0.1371
	(0.074)	(0.144)
$\beta_3(Post_{it} \times Engaged_i)$	0.0551	-0.0690
	(0.084)	(0.185)

Splitting the data into confrontational and non-confrontational, we find that engaged firms seem to have lower ESG scores compared to non engaged firms, though the coefficients are not significant. The $\beta_3(Post_{it} \times Engaged_i)$ coefficient is positive for both subsets, however

it is also not significant at any level. We do, however, observe positive (and significant for confrontational engagements) $\beta_1 Post_{it}$ coefficients. For both subsets they are higher than $\beta_3(Post_{it} \times Engaged_i)$, which could mean that non-engaged companies experience a larger growth in ESG scores.

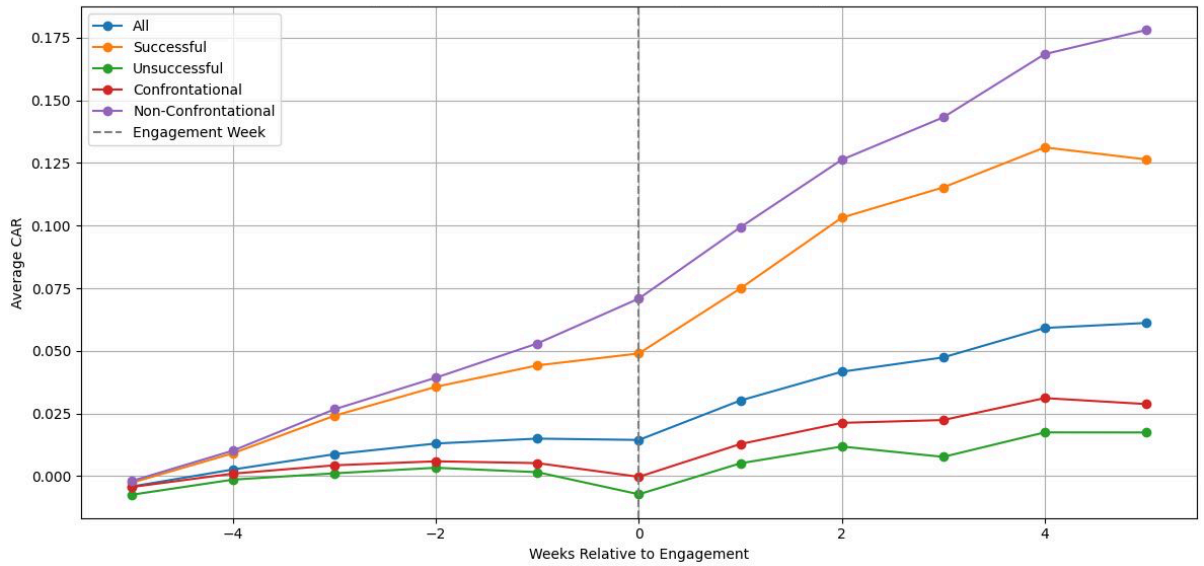
The $\beta_2 Engaged_i$ coefficient is negative in all samples and significant in the full sample and in the successful engagement subset. This indicates that companies targeted by activists in engagement centred around environmental, social and governance-related issues on average have worse ESG scores than their non-engaged counterparts. From a societal perspective this is a positive finding since it suggests that ESG focused activists target companies that perform worse. Activists are not just targeting companies that are best in class from an ESG perspective, they seem to be targeting companies that have more ESG related issues. Enacting positive change in ESG laggards could lead to greater societal benefit compared to making incremental improvements at companies that already perform well from a sustainability perspective. This finding paired with a statistically significant increase in ESG scores post-engagement would suggest that ESG related investor activism has a positive real-world effect and that it is an important tool in creating a more sustainable future. However, whilst we do find increased ESG scores in the for target companies following engagement in the full sample we do not find these increases to be statistically significant and therefore any inference should be made with caution.

ESG focused activists can be rewarded by the market for pushing non-responsible companies towards implementing sustainable business practices and generating positive externalities according to the theory proposed by Gollier & Pouget (2022). Underweighting of non-responsible companies by SRIs would incentivize ESG focused activists to target ESG laggards where externalities are not fully priced in.

6.3 Stock Returns

Figure 1. Event window Average Cumulative Abnormal Return (CAR)

The figure shows the estimated Cumulative Abnormal Returns CARs from the event study performed on the stock returns of engaged companies. Cumulative abnormal returns are averaged across all firms on a weekly basis. Expected returns are estimated from the Fama-French three-factor model in the estimation window, which runs from -30 to -6 weeks before the engagement launch date. Companies with less than 10 observations are excluded and the data is winsorized at the 5th and 95th percentiles. The figure shows CARs in the event window defined as -5 to +5 weeks around the engagement launch date. The figure presents the average for all engagements, and for the following subsets: successful engagements, unsuccessful engagements, engagements using confrontational tactics and engagements using non-confrontational tactics. The CARs are presented in decimal form where 0.10 equals 10%.



As can be seen in Figure 1 engagement seems to have a positive effect on the stock returns of the target firms. In the event window, defined as 5 weeks before and after the announcement of an activism campaign we observe positive Cumulative Abnormal Returns (CAR). In some cases, investors seem to be earning abnormal returns even before the announcement of an activism campaign. Looking at the line representing all engagements we can see a clear upwards shift after the engagement date, indicating that investors earn short-term returns after a campaign is announced. On average, engagement leads to CARs around 6% in the 5 weeks following the engagement date.

Firms that are targets of successful engagements seem to experience greater stock returns in the short run. For unsuccessful engagements we observe small cumulative abnormal returns below 5% in the 5 weeks following the initial engagement.

We find large differences in the CAR from confrontational and non-confrontational engagements as well. Non-confrontational engagements seem to vastly outperform confrontational engagements when it comes to stock returns in the short term around the

event. CARs for stocks of target firms engaged in non-confrontational campaigns grows to around 17.5% in the 5 weeks following the engagement.

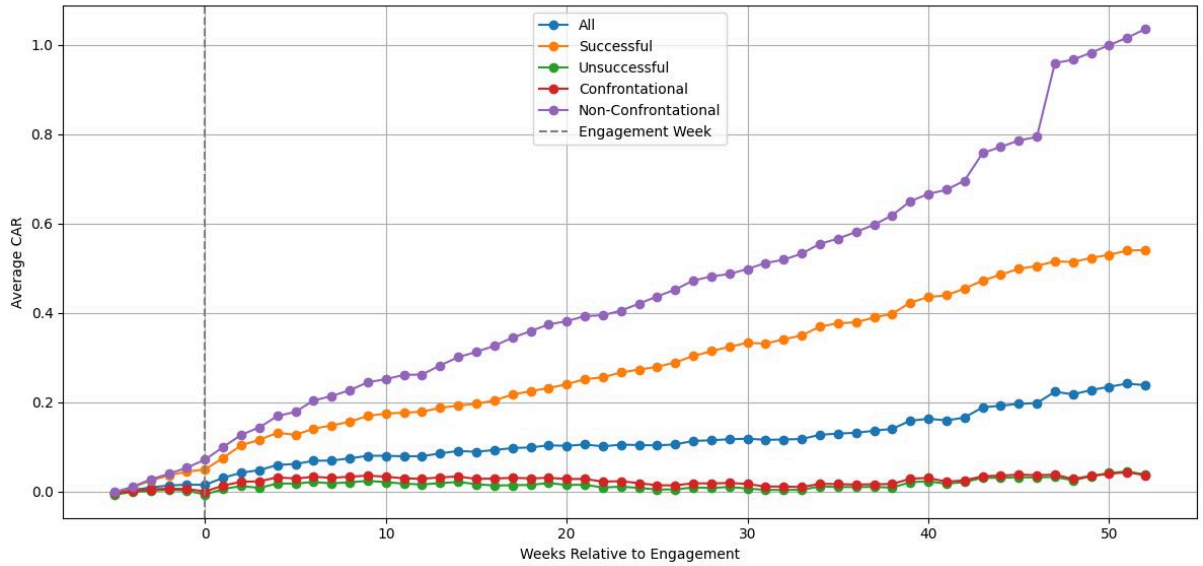
Interestingly, we find positive CARs that start around 3 weeks prior to the engagement date. This pre-event increase does not conform with assumptions made under the efficient market hypothesis. If prices reflect all available information, one would expect the CAR to become significantly positive only after the engagement date, assuming that there is no information leakage prior to engagement or any other source of endogeneity. The pre-announcement increase in CAR could be due to a price increase following increased demand for the stock when an activist investor is building up a significant stock ownership position in the target firm. The investor activism screener used to collect data uses 13D filings as one of the sources of information as is common practice in the existing literature, the papers by Klein and Zur (2009) and Brav et al. (2018) both look at 13D filings. Investors are required to file Schedule 13D with the SEC within 10 days of acquiring 5% or more of the voting stock in a public company (U.S. Securities and Exchange Commission, n.d.). Acquiring 5% or more of a publically listed large or mid cap company is a significant amount of shares, it is not unreasonable to assume that the increased demand following an activist building up such a stake could cause an upward shift in stock prices and thus yield positive CARs in the weeks leading up to the engagement date.

The price increase following the announcement of an engagement could be caused by a positive market reaction incorporating new information into the stock price which would be consistent with the EMH. The price increase and subsequent abnormal returns could also be due to availability bias. Announced engagements should lead to media attention which may influence investor behavior through the availability heuristic. Investors, retail investors in particular may be more likely to buy a stock if the company has received a lot of media attention due to recency/availability bias. This increased demand could lead to increased prices and abnormal returns.

It is important to note that the data is unbalanced, successful engagements are vastly outnumbered by unsuccessful engagements and there are fewer non-confrontational engagements compared to confrontational engagements. Therefore any inference or extrapolation should be done with caution.

Figure 2. Average Cumulative Abnormal Return (CAR) 1 year after Engagement

The figure shows the estimated Cumulative Abnormal Returns CARs from the event study performed on the stock returns of engaged companies. Cumulative abnormal returns are averaged across all firms on a weekly basis. Expected returns are estimated from the Fama-French three-factor model in the estimation window, which runs from -30 to -6 weeks before the engagement launch date. Companies with less than 10 observations are excluded and the data is winsorized at the 5th and 95th percentiles. The figure shows CARs from 5 weeks prior to engagement to 1 year after the engagement launch date. The figure presents the average for all engagements, and for the following subsets: successful engagements, unsuccessful engagements, engagements using confrontational tactics and engagements using non-confrontational tactics. The CARs are presented in decimal form where 0.10 equals 10%.



The trends we observe in the 5 weeks around the engagement date seem to continue in the year following the initial engagement date as can be seen in Figure 2. As we extend the time horizon, data from successful and non-confrontational engagements becomes more sparse. On average we observe positive CARs for all engaged firms in the year following the initial engagement. ESG focused investor activism seems to yield CARs of more than 20% on average in the year following the engagement in the full sample. Unsuccessful engagements and confrontational engagements that make up the majority of the data seem to continue on a relatively flat trajectory without yielding any abnormal returns. Similarly to in the 5 weeks surrounding the engagement we find that successful engagements and non-confrontational engagements seem to deliver superior CARs. This supports the idea that many campaigns yield little to no abnormal returns but that there are certain examples of engagements that have delivered vastly superior returns which makes activism an attractive option for investors.

A Non-confrontational approach seems to lead to greater benefits when we split the

sample into confrontational and non-confrontational engagements, both in the long and short term. This could indicate that markets have a more positive reaction to the news of activist engagements if the tone of the campaign is more friendly. A non-confrontational approach could indicate that the target company is more accepting of the demands of the activist and that changes will be made with less friction and a higher degree of efficiency which could reflect positively in the stock price.

Our findings of positive CARs following activist engagement, and more precisely successful engagements align with the theory proposed by Gollier & Pouget (2022). Successful ESG focused engagements can lead to the creation of positive externalities in the target firm, this would cause SRIs to allocate more capital towards the company, driving up the price and generating significant CARs for the activist investor that acquired a stake in the target company prior to the surge in SRI investment.

The success of an engagement is of course difficult to know ex-ante, an activist cannot choose to have a successful campaign to access superior abnormal returns. However, successful engagements yielding above-average CARs provide an incentive for activists to push harder for their demands. This, in turn, could lead to greater societal benefits if the demands made by the activist are material for the relevant stakeholders.

7. Discussion

7.1 Introduction

Proving that engagement has a material effect is a prominent question within the field of sustainable finance. The aim of this study is to evaluate whether ESG focused investor activism significantly impacts operating performance, ESG scores and stock price performance of the targeted companies. The discussion chapter aims to offer some plausible explanations for the results found in the study and the implications that these results entail. Here, we will also discuss the limitations of the research as well as areas of improvement for future studies. Previous studies that have evaluated the effects of investor activism have been very specific either through focusing on one activist, a type of activist or a few industries. In this study we look at investor activism through a broader lens in an attempt to capture effects that are pervasive across all types of activism. In this broader analysis of investor activism we find results that are different compared to the findings in much of the existing literature.

7.2 Operating performance

There is no clear significant pattern in the regression outputs once we account for correlation within clusters by clustering the standard errors on ISIN numbers. This could indicate that investor activism in general when analysed through a wider lens does not have any significant impact on the firm's operating performance and profitability, regardless of whether the campaign is successful or not. This does not mean that investor activism never yields any positive effects for shareholders or stakeholders, there are many examples of investor activists improving the financial performance of firms. It does however indicate that such effects are exceptions and not the norm.

It is important to note that many activist campaigns do not have improved target firm operating performance as the main goal of a campaign. Improved performance is still in their best interest since the activists are also investors in the target company. Furthermore, a central part of the arguments in favor of corporate ESG considerations is that systemic risks such as climate risks are financially material for companies which means that addressing these risks should be financially beneficial.

The fact that we fail to find significant positive effects following investor activism when looking at the productivity of assets (ROA) does not need to be the main takeaway. Instead, the conclusion can be that investor activism focused on environmental, social or governance issues does not significantly negatively impact the operating performance of target firms. As can be seen in Table 6, the firms that are engaged do not see a statistically significant change in operating performance measured by ROA. If this is the case then, any increase in ESG score would thus benefit society and not be at the expense of the target company. We do, however, find a positive significant effect on ROE. This could be attributed to investors optimizing the capital structure or convincing the management to increase dividend payments, share buybacks or taking other short term measures that can increase ROE.

We find significant and positive effects when we run the operating performance DiD regressions without clustering standard errors. This could indicate that any positive effects arising from activist investing may be concentrated and limited to certain firms and certain engagements Intuitively this makes sense, engagements launched by certain experienced activist investors who have a track record of “turning around” firms such as pure play activist hedge funds may be more successful in improving struggling companies.

7.3 ESG scores

The findings discussed in chapter 6.2 do not necessarily mean that ESG related activism does not lead to any real-world positive effects and that it is a waste of resources for the activist, the target and everyone else involved. Changes in ESG scores following successful engagements may be hard to capture. A successful engagement may change the sustainable policies of a company, however, this may not materialize until further down the line which makes it hard to distinguish if the effect is a result of activism or from an organic shift in the target company's risk management. Effects may also be complex to capture due to trends, many companies over the past years have been implementing sustainable strategies in their businesses following societal and investor pressure. Investors have undoubtedly played an important part in this but it can be hard to distinguish how much of the pressure is attributable to activism campaigns. Activism may serve as an important signalling mechanism even though there are no immediate material effects on ESG scores.

It is important to note that there may be factors that influence our results. One of the main issues is that ESG scores are inherently noisy. Whilst many ratings providers and analysts may have relatively standardized evaluation models there is still a degree of subjectivity present in ESG scores. Certain actions that have real-world impact may also be hard to quantify and therefore do not appear in ESG scores. Scoring is also limited based on the data made available by the target company and even if companies disclose a lot of data, the quality will likely depend on the company's own estimates. The measurement and quantification of effects are among the main challenges in the field of sustainable finance. It is entirely possible that any positive effects that arise as a result of activist campaigns may be lost in noisy ESG scores. Insignificant change in ESG scores post-engagement might not indicate the ineffectiveness of activists but instead limitations in the ESG measurement framework or lags in ESG score updates.

7.3 Stock returns

We find little significant evidence that engagements lead to improved company profitability or increases in ESG scores, we do however find that engagements on average lead to positive cumulative abnormal returns.

These findings could indicate that many activists' interests are purely financial and that they engage companies to increase short-term returns through market signalling and

taking advantage of investors' behavioural heuristics, and do not seek to improve the companies' operating performance or their impact on society. The findings are not entirely consistent with the argument of myopic activism that is common amongst critics. Whilst we do find that activist investors are able to generate positive abnormal returns in the short and long term. We find no evidence of a tradeoff between stock price appreciation and the health of target companies moving forward, at least not in terms of profitability or ESG scores.

However, even if ESG focused activists on average do not improve the operating performance or societal contribution of targets, it does not necessarily mean that ESG activism only serves as a tool for investors to generate returns. Investor activism saw a rise in popularity once passive investors replaced corporations in company ownership structures. The need for corporate control and accountability is perhaps the main driving factor for traditional and ESG focused activism. The possibility of generating positive abnormal returns is necessary for the existence of investor activism on a broad scale. At the end of the day, investors have a fiduciary duty towards their clients and there is an expectation of capital appreciation. Even if investors would pursue ESG activism due to their values and beliefs they still need to be able to generate returns for engagement to be financially viable. Investor activism serves the function of keeping companies accountable and the possibility of positive abnormal returns ensures that investors engage with companies.

Furthermore, increased stock prices do not only benefit the investors, the underlying company also experiences some indirect benefits. An increased stock price without an increase in expected future cash flows implies a lower discount rate and a lower equity cost of capital. A higher stock price and thus a higher company valuation means that the company can raise capital by issuing shares at a higher price which decreases the dilutive effect of a new issuance.

7.4 Implications

As we discussed before, even when hard financial or ESG effects are not visible in the regression, investor activism can still signal positive change in targeted companies. We do not find any proof of harmful effects following ESG focused investor activism. We believe activism can bring positive change, may that be in financials or governance/social structures of the business which are hard to measure. Here are the implications of our findings from the perspective of different shareholders.

Investors may look at activism as a safe way to generate short-term returns. We find that even though there are no significant changes in the company operations, there are indeed abnormal returns that follow the engagement. It may be driven by signalling, the belief of retail investors that an activist will bring change to a company. It could also be driven by behavioral heuristics following increased attention surrounding the target firm. Markets generally perceive the idea of improving the ESG score positively. Some activists may look for targets knowing they will not be able to influence them but are confident about making a return on investment. While others might really believe in their power to bring positive change, and the perspective of earning a return no matter the results of a campaign makes them more willing to engage. This can also explain why we see no significant improvements. More experienced investors may drive better outcomes and be more reliable in improving ESG scores and profitability metrics, therefore they have double incentives to engage in activism.

We find that activists tend to target ESG laggards. If companies want to avoid being targeted, which can come with unpleasant campaign practices, they should proactively improve their ESG disclosure and performance. Even though we see some abnormal returns after the engagements, even unsuccessful ones, the long-term implications of activism may not be positive. A very confrontational activist may expose flaws in management behaviour and practices which can be a negative signal for shareholders and harm the company's reputation.

One of the explanations for the lack of significance in ESG score improvement might be its architecture. Lack of responsiveness or accuracy can be a problem and might send a signal to regulators and policymakers to work on a better, more standardized ESG scoring system. This would lead to increased transparency, more incentives for companies to improve disclosure and ESG performance, and an even bigger incentive for activists to engage and improve companies.

7.5 Limitations

The aim of this study was to leverage the extensive activism reporting of the S&P Capital IQ database. While on one hand inclusiveness and a greater number of datapoints are good for capturing more industry effects, on the other hand there is a trade-off in depth. What is lacking in our database are definitely private engagements, which can be a significant portion of the total industry. Another limitation that we see is the aforementioned noisiness of ESG

scores. Ratings differ across providers and can lag behind real changes. This of course impacts the complexity of measuring change in ESG. We also acknowledge that some ESG policies and changes are difficult to measure numerically, especially those regarding governance and social policies.

As with all empirical methods, ours comes with assumptions and constraints. Despite using literature standard techniques like PSM and DiD certain methodological limitations remain.

PSM relies on observable variables like firm's financials or solvency metrics, it does not take into account the social and governance structure of companies. Additionally, industries vary in size, which makes matching inside some industries easier and more precise than in others.

Our DiD model may pose additional limitations. When introducing clustering by firm we saw that almost all coefficients became insignificant. This may imply that the effects and the variation is driven by a few effective activists. One explanation could also be the difficulty in capturing heterogeneous engagement effects in aggregate models. While some specific activists or a group of them with certain characteristics are highly efficient in improving ESG, they might be only a fraction of all of them. DiD assumes parallel trends between treated and control groups and misses the implications of heterogeneous effects. Some activists may be more efficient in creating ESG value than others and this model struggles with that.

An event study assumes that market reaction is solely due to engagement news, while in some cases it might have been due to broader changes happening. In addition, estimating normal returns using Fama-French factors can be imprecise.

ESG activism might also have long-term or intangible effects not captured by ESG scores, profitability metrics or short-term abnormal returns. Some activists may target reputational or strategic goals beyond what can be numerically measured or easily noticed by regulators providing ESG scores.

This study is not free from endogeneity concerns. DiD models deal with endogeneity by comparing outcomes across a treatment group and a control group. Whilst we address endogeneity concerns through our model selection there may still be a degree of endogeneity affecting our results. In particular, our estimates may suffer from omitted variable bias since activists do not randomly choose targets. There are differences in how targets are selected, some ESG focused activist investors may target companies with poor environmental performance whilst other activists may put more weight on social impact for example. These

concerns could be addressed by adding variables that reflect a targeting characteristic, this would be possible in a study that focuses on one type of activist. In a broad scope study such as this one with many different kinds of investors it becomes difficult to account for eventual targeting characteristics in the model. Furthermore, the non-random targeting by activist investors could cause issues with reverse causality where the outcome variable (ROA/ROE/ESG score) affects the treatment (Engaged) variable. If specific characteristics, such as high ROA or low ESG scores attract activist investors there could be endogeneity concerns present in the model.

Additionally, the event study analysis may suffer from endogeneity arising from information leakage and anticipation of events. The engagement launch date provided by Capital IQ corresponds to the day when information surrounding an engagement becomes public knowledge, through this we partly address endogeneity arising from information leakage. However, this does not address information leakage stemming from insider information. In addition, it is not unreasonable to assume that some investors can anticipate upcoming activist engagement. If activist investors are building up a significant ownership stake in a future target some market participants could anticipate the launch of an activism campaign by analysing order books and market activity. In this study we mitigate these concerns by using PSM to match engaged firms with non-engaged control firms with similar characteristics and by choosing an event date that corresponds to the first date of public disclosure. There is however still a risk that endogeneity could cause biased coefficient estimates in our models.

While there are limitations to our study, they are partially addressed using robustness checks, control group selection, clustering and subgroup analysis. The breadth of the study adds value to current literature that mostly focuses on a limited number of activists or campaigns. We look at a broader industry picture. Acknowledging that some investors can achieve significant results in their campaigns, we struggle to see those effects in our study.

7.6 Recommendations and Future Research

The insignificance in ESG improvement combined with visible abnormal returns on the stock market presents a need to better understand the mechanisms behind activism. There are a couple ways we see to broaden the research in this field.

One would be to perform more granular analysis like Naaraayanan et al. (2021), using lower level data like plant emissions or company's governance and social policies. These are of course difficult to track and may pose a challenge in measuring the impact.

Another would be to broaden the scope of analysis, include more companies and study more interaction effects like investor types, and various firm characteristics. It would also be interesting to expand the dataset and aggregate all data currently available in the literature. Some data used by other researchers are proprietary datasets provided by one investor, talking to different activists and constructing a proprietary dataset from many activists could yield interesting results.

Individual exploration of investor classes would also be beneficial. Currently, hedge funds and large institutional investors are widely covered in the literature, but there is a lack of analysis of smaller investors, individuals or religious institutions.

The study could also be expanded by running the same model using different ESG scores providers to explore the effects of heterogeneity across them. This analysis could also answer some questions regarding the responsiveness of different ESG measures on real world changes.

We find that non-confrontational campaigns seem to generate the highest market returns, a more detailed study looking into these specific engagements could shed some light on why this pattern seems to appear. A similar effect is present among successful engagements. It would be interesting to dive deeper in this subset of engagements to understand what is the reason behind high returns.

8. Conclusion

The study aimed to answer questions regarding the effects of investor activism using a broad range of data. In particular, the aim was to answer the following questions: (1) Does investor activism improve the financial performance of the target company? (2) Does investor activism lead to societal benefits and sustainable development? (3) Do investors earn abnormal returns by pursuing investor activism?

When analyzing a data set consisting of several different types of activists, campaigns, tactics and outcomes we find that there is no significant positive or negative effect on the target company's operating performance measured in ROA, but we do find indications of positive impact on ROE. The fact that we find effects on ROE but not ROA indicates that positive effects stem from short term adjustments rather than increased

operational performance. We also fail to find significant effects on target company ESG scores following engagement. Interestingly, the study reveals that companies targeted in activist campaigns tend to have higher ROE and ROA but lower ESG scores when compared to non-engaged companies. In regards to stock returns we find that engagements on average lead to positive CARs both in the short term around the engagement date and in the following year. Our event study analysis also finds that abnormal returns seem to start accumulating in the weeks leading up to the engagement. This could be explained by the activists building up a significant stock ownership position in the target company before launching the engagement. However, more in-depth research into this specific phenomenon would be required to determine this as the cause of the pre-announcement drift. The positive returns we observe on average for all engagements seem to be driven by a minority class of engagements. We observe large CARs for successful and/or non-confrontational engagements whilst unsuccessful and/or confrontational engagements that make up the majority of the data set seem to generate little to no CARs.

Whilst we fail to find any significant positive effects on ROA and ESG scores following engagements it should be noted that we also fail to find significant negative effects. So whilst there are no positive effects on the company or society on average following engagement, the function of investor activism may be more as a deterrent/signalling tool. Instead of being a tool that nudges companies towards being best in class ESG performers they can be seen as a tool to deter companies from becoming complacent and lagging behind. The fact that there is a possibility of generating abnormal returns incentivizes investor activism which is a necessary control function in a market dominated by passive ownership structures. Furthermore, the fact that successful engagements seem to earn above-average CARs provides a valuable incentive for the activists to push for their demands.

It is important to keep in mind that these findings represent investor activism through a very broad lens. The fact that we fail to find significant effects on operating performance and ESG scores in this setting does not exclude the possibility that certain engagements can have material effects on the operations of the target company or the target companies effect on society.

Whilst this study provides a broad perspective on ESG investor activism, it highlights the complex and difficult nature of trying to improve corporate performance and societal impact. These findings present an opportunity for future research to delve deeper into specific engagements and activists to evaluate outcomes that may not be captured in the broad scope of this study. Ultimately, the role of ESG investor activism may be better understood as a

mechanism for accountability and control, incentivized by abnormal returns instead of as a tool to evoke positive change.

9. References

Adams, A. Barton, R. Callahan, K. Lyman, M. Patney, H. Accenture. (2024). *Steering Through Activist Investor Demands*. https://www.accenture.com/content/dam/accenture/final/accenture-com/document-3/Accenture-Steering-Through-Activist-Investor-Demands.pdf

Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, *23*(4), 589–609. https://doi.org/10.2307/2978933

Barko, T., Cremers, M., & Renneboog, L. (2022). Activism on corporate social responsibility. *Journal of Business Ethics,* 180. 777–812. https://doi.org/10.2139/ssrn.2977219

Bebchuk, L., Brav, A., & Jiang, W. (2015). *The Long-Term Effects of Hedge Fund Activism*. NBER Working Paper 21227, Harvard Law School, Duke University, Columbia University. https://doi.org/10.3386/w21227

Bebchuk, L. A., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance? *Review of Financial Studies*, 22(2), 783-827. https://doi.org/10.2139/ssrn.593423

Brav, A., Jiang, W., Kim, H., (2015) The Real Effects of Hedge Fund Activism: Productivity, Asset Allocation, and Labor Outcomes, *The Review of Financial Studies*, Volume 28, Issue 10, October 2015, Pages 2723–2769, https://doi.org/10.1093/rfs/hhv037

Brav, A., Jiang, W., Ma, S., & Tian, X. (2018), How does hedge fund activism reshape corporate innovation?, *Journal of Financial Economics*, 130, (2), 237-264 https://econpapers.repec.org/article/eeejfinec/v_3a130_3ay_3a2018_3ai_3a2_3ap_3a237-264.htm

Brav, A., Jiang, W., Thomas, R. S., & Partnoy, F. (2018). Hedge fund activism, corporate governance, and firm performance. *Journal of Finance*, 63,1729-1775. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=948907

Cyriac, J. De Backer, R. Sanders, J. McKinsey & Company. (2014). *Preparing for bigger, bolder shareholder activists*. https://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/corporate%20finance/mof/issue%2050/mof50_preparing_for_shareholder_activists.ashx

Denes, M. R., Karpoff, J. M., & McWilliams, V. B. (2016). Thirty years of shareholder activism: A survey of empirical research. *Journal of Corporate Finance*, 44, 405–424. https://doi.org/10.1016/j.jcorpfin.2016.03.005

Dimson, E., Karakaş, O., & Li, X. (2016). Active ownership. *Review of Financial Studies,* 28(12). 3225-3268, https://doi.org/10.2139/ssrn.2154724

Dimson, E., Karakaş, O., & Li, X. (2025). *Coordinated engagements.* European Corporate Governance Institute – Finance Working Paper No. 721/2021. https://doi.org/10.2139/ssrn.3209072

Drempetic, S., Klein, C., & Zwergel, B. (2019). The influence of firm size on the ESG Score: Corporate Sustainability Ratings under review. *Journal of Business Ethics*, *167*(2), 333–360. https://doi.org/10.1007/s10551-019-04164-1

Gollier, C., & Pouget, S. (2022). Investment Strategies and Corporate Behaviour with Socially Responsible Investors: A Theory of Active Ownership. *Economica*, *89*(356), 997–1023. https://doi.org/10.1111/ecca.12436

Goranova, M., & Ryan, L. V. (2014). Shareholder activism. *Journal of Management*, *40*(5), 1230–1268. https://doi.org/10.1177/0149206313515519

Heath, D., Macciocchi, D., Michaely, R., & Ringgenberg, M. C. (2021). Do index funds monitor? *Review of Financial Studies*, *35*(1), 91–131. https://doi.org/10.1093/rfs/hhab023

iShares. (n.d.). *iShares MSCI ACWI ETF.* https://www.ishares.com/us/products/239600/ishares-msci-acwi-etf

Klein, A., & Zur, E. (2009). Entrepreneurial shareholder activism: hedge funds and other private investors. *The Journal of Finance*, *64*(1), 187–229. https://doi.org/10.1111/j.1540-6261.2008.01432.x

MSCI. (2025). *MSCI ACWI Index (GBP) Index Factsheet.* http://msci.com/documents/10199/f6cb2161-ea79-7299-c874-a2f091607f91

MSCI. (n.d.) *The Global Industry Classification Standard (GICS®).* https://www.msci.com/our-solutions/indexes/gics

MSCI ESG Research. (2024a). *ESG Ratings Methodology.* https://www.msci.com/documents/1296102/34424357/MSCI+ESG+Ratings+Methodology.pdf

MSCI ESG Research. (2024b). *ESG Ratings Process.* https://www.msci.com/documents/1296102/34424357/MSCI+ESG+Ratings+Methodology+-+Process.pdf/820e4152-4804-fe33-0a67-8ee4c6a8fd7d?t=1666300410683#:~:text=Companies'%20ESG%20Ratings%20are%20reviewed,and%20incorporate%20relevant%20data%20updates.

Naaraayanan, S. L., Sachdeva, K., & Sharma, V. (2021). *The real effects of environmental activist investing.* European Corporate Governance Institute – Finance Working Paper No. 743/2021. https://doi.org/10.2139/ssrn.3483692

Patrick, L. RBC Capital Markets. (2022). *ESG and Shareholder Activism.* https://www.rbccm.com/en/insights/story.page?dcr=templatedata/article/insights/data/2022/04/esg_and_shareholder_activism

Pollman, E. (2022). *The making and meaning of ESG*. U of Penn, Inst for Law & Econ Research Paper No. 22-23 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4219857

S&P Global. (2021). *Sources Used to Collect Investor Activism Data.* https://spglobal.my.site.com/s/article/12483

S&P Global Market Intelligence. (2022). *Investor Activism Infographic-H12022.* https://pages.marketintelligence.spglobal.com/Investor-Activism-Infographic-H122.html

Shimokawa, K S&P Global Market Intelligence. *Investor activism campaigns hit record mark in H1 2022*. (2022). https://www.spglobal.com/market-intelligence/en/news-insights/research/investor-activism-campaigns-hit-record-mark-in-h1-2022?cq_cmp=16346431840

Smith, M. P. (1996). Shareholder Activism by Institutional Investors: Evidence from CalPERS. *The Journal of Finance*, *51*(1), 227–252. https://doi.org/10.1111/j.1540-6261.1996.tb05208.x

Swedish House of Finance. (n.d.). *MSCI Sustainability dataset.* Retrieved from: https://data.houseoffinance.se/hhs/msci

Tian, H., Wang, J., & Wu, S. (2024). Beyond the target: The spillover effect of shareholder activism on corporate tax avoidance. *Journal of International Financial Markets Institutions and Money*, *96*, 102054. https://doi.org/10.1016/j.intfin.2024.102054

U.S. Securities and Exchange Commission. (n.d.). *Schedules 13D and 13G*. https://www.investor.gov/introduction-investing/investing-basics/glossary/schedules-13d-and-13g

10. Appendix

Table A1. Engagement tactics

The table contains the different activism tactics identified by S&P in the Capital IQ investor activism screener. The first column contains the tactic assigned by Capital IQ, the second column contains our classification of the nature of said tactic, i.e. if it is confrontational or non-confrontational. Engagements that have started as confrontational but escalated to confrontational tactics are classified as confrontational.

S&P identified tactic	Nature of tactic
Confrontational communication and engagement	Confrontational
Legal proceeding	Confrontational
Non-confrontational communication and engagement	Non-Confrontational
Non-confrontational request for board representation	Non-Confrontational
Proxy fight or contest	Confrontational
Shareholder proposals	Confrontational

Takeover bid	Confrontational
Threat to launch lawsuit	Confrontational
Threat to launch proxy fight;	Confrontational
Vote no or withhold votes (just vote no)	Confrontational

Table A2. Distribution of engagements

The table contains the summary statistics about the engagements featured in the dataset. The first column presents information about engagements, the second column shows the count of engagements under said category, and the number within parentheses shows the number of companies that were engaged in that category.

Type of engagement	**Count**
Total Engagements (companies)	3049 (622)
Engagement topic: Environment (companies)	360 (124)
Engagement topic: Social (companies)	757 (175)
Engagement topic: Governance (companies)	1993 (569)
Confrontational engagements (companies)	2944 (543)
Non-Confrontational engagements	166 (141)

Table A3. Results of engagements

The table contains the aggregated results of the engagements featured in the dataset, divided according to the outcome of the engagement.

Result of engagement	**Count**
Unsuccessful	2393
Successful	381
Settled	169
Withdrawn	158
Announced	9

Table A4. Industry distribution of engaged companies

The table contains the aggregated results of engagements featured in the dataset, divided according to the outcome of the engagement.

Industry Group	Percentage of full sample (%)
Capital Goods	8.99
Materials	7.40
Banks	6.67
Consumer Discretionary Distribution & Retail	6.18
Utilities	6.11
Health Care Equipment & Services	5.98
Consumer Staples Distribution & Retail	5.88
Energy	5.16
Transportation	5.15
Insurance	4.72
Financial Services	4.24
Software & Services	4.10
Consumer Services	3.48
Pharmaceuticals, Biotechnology & Life Sciences	3.41
Technology Hardware & Equipment	3.34
Media & Entertainment	2.58
Consumer Durables & Apparel	2.54
Automobiles & Components	2.11
Commercial & Professional Services	2.07

Real Estate Management & Development	2.01
Equity Real Estate Investment Trusts (REITs)	1.94
Semiconductors & Semiconductor Equipment	1.91
Food, Beverage & Tobacco	1.73
Telecommunication Services	1.27
Household & Personal Products	1.07

Table A5. Geographical distribution of engaged companies

The table contains the geographical distribution of engaged companies. The first column shows the country in which a target company has its domicile and the second column shows the percentage of the full sample that is domiciled in said country. The row "Other" contains the following countries: Austria, Belgium, Brazil, Canada, Chile, Colombia, Finland, France, Germany, Hong Kong, India, Ireland, Italy, Japan, Netherlands, New Zealand, Singapore, South Africa, South Korea, Sweden, Switzerland, Taiwan, United Arab Emirates.

Company domicile	**Percentage of full sample (%)**
United States	74.41
Australia	3.15
United Kingdom	2.62
China	2.53
Other	8.66

Table A6. Capital IQ Screening criteria

The table contains the screening criteria used in the S&P Capital IQ screener to obtain our engagement set. The screener was run three separate times, once for each ESG pillar in the Campaign Objective criteria. Apart from this each criteria was kept identical for all three screens. This was done to categorize the engagements as environmental, social or governance focused since Capital IQ does not provide this as a separate column in the screener.

Screening criteria	**Chosen values**
Launched Date (mm/dd/yyyy)	Between 01/01/2007 - 12/31/2022
Campaign Objective	[All] In Environment Social Corporate Governance
And Campaign Tactic	[All] In Confrontational communication and engagement Legal proceeding Non-confrontational communication and engagement Non-confrontational request for board representation Proxy fight or contest; Shareholder proposals Takeover bid Threat to launch lawsuit Threat to launch proxy fight Vote no or withhold votes (just vote no)
Target Company Type	In Public Company

11. AI Disclosure

What AI tools have been used and how?

We have used ChatGPT and Copilot for the purpose of coding assistance. We have also used Grammarly for the purpose of spell checking.

ChatGPT/Copilot helped with coding by providing assistance when we encountered any errors in the code. It was particularly helpful in finding which part of the script caused problems and why. Then, it also suggested solutions that we used in solving issues. Secondly, after writing the final draft we checked any spelling mistakes using Grammarly.

In what ways have these tools contributed to increasing the quality of the thesis?

Coding assistance provided by ChatGPT and Copilot have helped us maintain the momentum during the empirical testing part. We could get back to writing the code and improving it much quicker thanks to AI tools and their ability to find mistakes and propose solutions. Thanks to Grammarly our thesis is more readable and is free from spelling mistakes thus improving clarity.

What potential risks were found using AI and what measures were taken to reduce these risks?

When using AI as a coding assistant, we identify one potential risk. It could propose a solution that works but not in a way we intended. To reduce this risk we limited our use of functions and libraries to those that we understand and feel comfortable with. Thus, we could easily understand if the AI-proposed solution is what we were looking for. We have also ensured that we understand every line of code to ensure that AI suggested solutions have not yielded any erroneous code.

What are the insights gained from using AI tools in the thesis writing process?

Using AI can improve the experience of thesis writing by helping in solving coding issues quicker. Proofreading is also quicker and less prone to missing spelling mistakes thanks to AI tools such as Grammarly. Leveraging AI tools can make writing the thesis more accessible and smooth, but one has to remain cautious when using it. It is important to understand an output of Generative AI before using it in any process.