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An Empirical Study of Hedge Fund Activism in the TMT Sector over the Last 5 Years

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Introduction

Hedge fund activism has become one of the most powerful forces changing how businesses are governed, run, and ultimately valued in today's more competitive and dynamic corporate environment. Hedge fund activism, which questions conventional ideas of corporate oversight and shareholder engagement, has grown from being seen as a specialized tactic used by a small number of contrarian investors to becoming a widespread phenomenon. At the nexus of finance, strategy, and governance, hedge fund activists use their influence to drive strategic realignments, address governance inefficiencies, and unlock shareholder value. They frequently do this by utilizing profound operational insight and sophisticated financial strategies.

The balance of power in corporations has changed significantly as a result of the rise of hedge fund activism. Shareholders, especially activist hedge funds, have evolved from passive capital holders to active change agents who force businesses to restructure, adapt, and occasionally reevaluate their core goals. Important questions are brought up by this change: How do activists choose their targets? What are their goals? Importantly, what is the actual effect of their participation?

The activism of hedge funds as a force for change in publicly traded companies is examined in this thesis. From the early interventions of individual investors like Benjamin Graham to the violent corporate raiders of the 1980s to the sophisticated and strategic activism spearheaded by hedge funds today, it starts by charting the historical development of shareholder activism. In light of this, the study explores what makes hedge fund activism unique, looking at the goals activists usually aim to achieve, the strategies they use, and the firm-specific traits that make some businesses more vulnerable to activist campaigns.

Special attention is paid to activist interventions in the Technology, Media, and Telecommunications (TMT) sector because of its growing significance in influencing the global economy. A proprietary dataset of 111 hedge fund-led campaigns aimed at U.S.-based TMT companies from 2019 to mid-2024 is used in the thesis' empirical section. This study aims to quantify the short- and mid-term impacts of activism on target companies' capital structure choices, profitability metrics, and shareholder returns using a combination of event-study methodologies and performance-metric analyses.

This thesis seeks to add to the expanding scholarly and professional conversation on hedge fund activism by fusing an empirical analysis with a historical perspective. The study provides insights into the strategic dynamics that support effective activist interventions, especially in one of the most inventive and unstable sectors of the contemporary economy, in addition to quantifying financial results. By doing this, it seeks to offer a more thorough comprehension of how activism is still developing and how it will probably influence corporate America in the years to come.

Literature Review

I. Setting the Stage: Hedge Fund Activism and Corporate Governance

1. The definition of shareholder activism

Shareholder activism has evolved to occupy the role of a disciplinarian in modern corporate governance, often seen as a force capable of driving change within corporations. Described by The Economist (2015) as “capitalism’s unlikely heroes” and at the same time “dreaded by corporate CEOs,” shareholder activism has developed a “distinctively negative connotation” in some circles. It can be understood as a strategic intervention by dissatisfied shareholders to influence corporate management, frequently through efforts to alter a company’s strategy, acquire board seats, or remove underperforming managers.

However, shareholder activism is not always clear-cut; some view it as “a game of smoke and mirrors,” where activists merely echo management’s pre-existing plans or provide cover for unpopular decisions such as asset sales and job cuts. To establish a more precise understanding, we must define shareholder activism within a structured reference system that reflects its purpose and tactics.

A Legitimate Exercise of Ownership Rights

According to Chee Keong Low (A Road Map for Corporate Governance in East Asia, 2004), shareholder activism is “the exercise and enforcement of rights by minority shareholders with the objective of enhancing shareholder value over the long term.” This legal and financial framing focuses on shareholders leveraging their rights to influence company policy, thereby improving the return on their investment. The UK government has even considered the possibility that shareholders may owe a fiduciary duty to engage in appropriate activism within the companies they invest in.¹

A Defiance of the Passive Stance

Ryan & Schneider (2002) describe activism as a way to “evoke large-scale change in processes or outcomes across multiple firms,” underscoring its far-reaching impact beyond a single company. Building on this, Tirole (2006) defines activism as “active monitoring ... interfering with management in order to increase the value of the investors’ claims.”

An Active Driver of Shareholder Returns

The idea of actively engaging with management to drive short-term improvements is echoed by Klein and Zur (2006), who note that the goal of activism is to “increase the market return to shareholders, hopefully in the short run.” Bethel et al. (1998) reinforce this focus on performance, highlighting that blockholders can maximize dividends and capital gains by influencing corporate policy.

¹ Department of Work and Pensions, Encouraging Shareholder Activism Consultation Paper (2002)

A Strategic Positioning between Corporate Influence and Corporate Control

The aforementioned definitions, while valuable, focus primarily on the **outcomes** of activism—namely improving performance or governance—and the **actions** of shareholders who engage with management. However, they also delineate one of the core elements of corporate governance: the orchestrator of the campaign. Bethel et al. (1998) classify activist shareholders as one of three types of blockholders—activist, financial, or strategic—and position them along a continuum of possible responses to corporate performance. As outlined by Gillan and Starks (2007), this continuum spans from passive “Wall Street Walk” behavior, where shareholders sell their shares in response to dissatisfaction, to active corporate control.

Interestingly, Bethel et al. (1998) refer to activists as blockholders—a strategic choice of terminology. The U.S. Securities and Exchange Commission (SEC) defines a blockholder as any direct owner of 5% or more of a company’s outstanding shares. This definition positions activist shareholders in the middle of Gillan and Starks’ continuum: they seek to influence corporate strategy without necessarily pursuing outright control. This approach aligns with Klein and Zur’s (2006) characterization of activism as a strategy in which an investor purchases a significant stake, typically 5% or more, with the explicit intent to influence corporate policies.

Pound (1992) adds yet another layer to this definition, emphasizing that the target company must be publicly held. He notes that activists “buy stakes in publicly held corporations and bargain with management to bring about productive change,” thereby aligning their strategic interventions with the goal of realizing a profit on their investment.

An Iterative Series of Mounting Tactics

Gantchev (2013) introduces another dimension to this understanding, describing shareholder activism as “a sequence of escalating decision steps,” where activists resort to more hostile tactics only after milder, less confrontational approaches have failed. This view underscores the iterative nature of activist campaigns, where tactics evolve in response to the success or failure of previous strategies.

Thus, shareholder activism is best defined as a deliberate strategy whereby an investor purchases a substantial equity stake in a publicly traded company with the intent of actively engaging with management to increase the company’s value before eventually exiting. This process, especially in the case of hedge fund activism, reflects a calculated approach to influencing corporate governance and performance in the short and long term.

2. The definition of hedge fund activism

i. The definition of a hedge fund

Despite the absence of a formal definition of what a hedge fund is under the federal securities laws, the 1999 report by the U.S. President’s Working Group on Financial Markets, titled “Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management”, provides a useful framework. The report defines hedge funds as “any pooled investment vehicle that is privately organized, administered by professional investment managers, and not widely available to the public.”

Hedge funds operate with relative freedom from the regulatory constraints imposed by the **Securities Act of 1933**, the **Securities Exchange Act of 1934**, and, most notably, the **Investment Company Act of 1940**. As a result, hedge funds are not required to publicly disclose their investment strategies, fees, or risk profiles. To capitalize on these lenient regulations, hedge funds typically structure themselves as **limited partnerships (LPs)** or **limited liability companies (LLCs)**. According to Fung and Hsieh (1997), hedge fund managers, who often hold stakes in the funds they manage, are granted a “broad investment mandate” that allows them to “sell securities short and buy securities on leverage” in exchange for a performance-based compensation. While not exclusive to hedge funds, leverage is frequently employed aggressively by them.

Under the **Securities Act of 1933**, hedge funds are generally limited to **accredited investors**, which include high-net-worth individuals and institutional investors who meet specific income or net worth thresholds. **Because hedge funds are exempt from the investor protection regulations of the Investment Company Act of 1940**, it is assumed that these accredited investors possess the financial sophistication to assess the associated risks and absorb potential losses without the need for the regulatory safeguards provided to retail investors.

Hedge funds have been a fixture of the financial landscape for decades. The creation of the first hedge fund is conventionally traced back to 1949, when **Alfred Winslow Jones**, a sociologist, established a private investment fund that he referred to as a “hedged” fund. This terminology was intended to differentiate his fund from those that did not engage in hedging. The term “hedge fund” gained prominence following a 1966 article by **Carol Loomis** in *Fortune*, titled “The Jones Nobody Keeps Up With.” However, the term is somewhat of a misnomer, as hedge funds do not hedge all risks. As noted by Ineichen and Silberstein (2008), “if all risks were hedged, the returns would be hedged as well.” Instead, hedge funds aim to achieve **absolute returns**, which are positive returns regardless of market conditions. Ineichen (2003a) defines hedge funds as “an investment program whereby the managers or partners seek absolute returns by exploiting investment opportunities while aiming to protect principal from potential financial loss.” The “hedging” aspect in hedge fund nomenclature refers to this latter goal of protecting the principal investment from potential losses.

As pooled investment vehicles, hedge funds have been classified within the universe of **alternative investments** by academic literature in the late 1990s and early 2000s, as illustrated in the graph below:

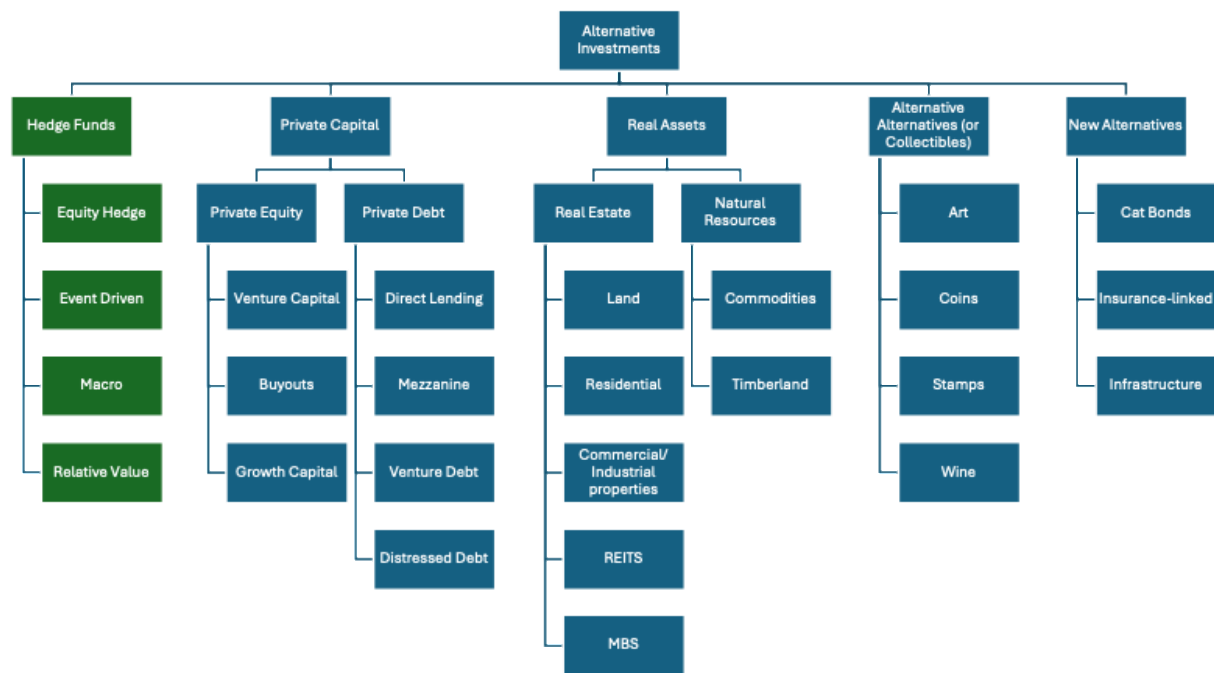


Figure 1: Panorama of alternative investments (Source: AIMA's Roadmap to Hedge Funds and various sources)

Since their inception, and over the past semi-centennial, the number of hedge funds has grown substantially. According to a 1968 survey by the Securities and Exchange Commission (SEC), there were 140 funds in existence at that time. In mid-1998, estimates indicated that between 2,500 and 3,500 hedge funds were managing between \$200 billion and \$300 billion in capital, with total assets ranging between \$800 billion and \$1 trillion. As of Q1 2024, J.P. Morgan estimates that more than 8,000 hedge funds are managing \$ 4,305 billion according to the HFR AuM data observed as of Q1 2024.

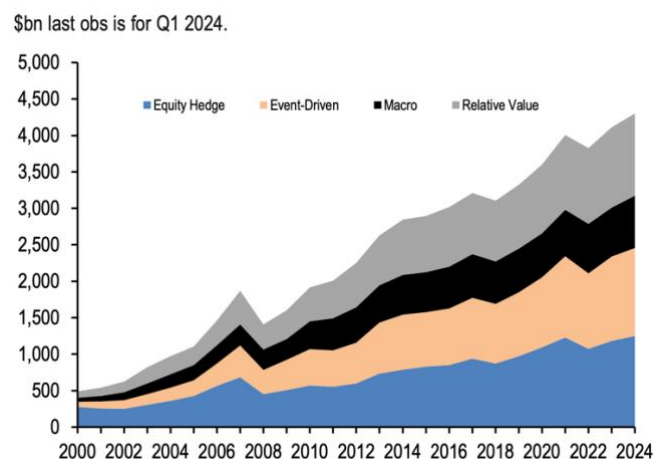


Figure 2: Hedge Fund Industry AUM (Source: J.P. Morgan (2024), Alternative Investments Outlook and Strategy, p.23)

As of Q1'24.

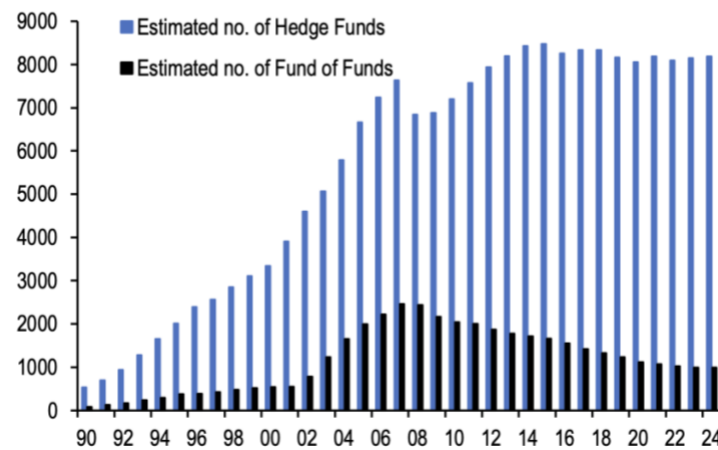


Figure 3: Estimated Number of Hedge Funds vs. Fund of Funds (Source: J.P. Morgan (2024), *Alternative Investments Outlook and Strategy*, p.25)

Despite their growth, hedge funds remain relatively small when compared to the broader U.S. financial markets. By the end of 2023, hedge funds' assets under management represented 14.2% of total alternative assets capitalization and a little over 2.1% of the capitalization of global asset classes.

ii. The definition of hedge fund activism

Hedge fund activism represents a distinctive form of **shareholder activism** where hedge funds, as orchestrators of the campaign, possess a unique set of skills and expertise that enable them to challenge the management of target firms more effectively than traditional activist shareholders (Lipton and Rosenblum, 1991). Unlike other shareholder activists, hedge funds typically take a **calculated approach**, seeking to influence corporate governance and financial performance to generate substantial returns.

Hedge fund activists often play a "**hybrid internal-external role**," which gives them the ability to address specific issues within targeted companies. Their incentive structure, driven by the need to produce absolute returns beyond risk-free benchmarks, positions them as **independent and highly motivated** monitors, unlike internal managers. As Bethel et al. (1998) argue, external monitors are often more capable of resolving performance issues since they are emotionally detached from decisions like divestitures, which incumbent management might resist due to internal biases.

Before 2000, hedge funds primarily relied on arbitrage strategies to capture **transitory trading opportunities** (Goetzmann and Ross, 2000). However, as these opportunities became harder to exploit with the expansion of the hedge fund industry, many funds shifted towards **activist strategies**. This shift reflects the growing importance of hedge fund activism as a tool to generate higher returns, especially in an environment where outperforming the traditional **buy-and-hold strategy** became increasingly challenging for hedge funds.

This change in hedge fund tactics signaled the start of a more extensive shift in shareholder activism. Although corporate history had always included activism, the rise of hedge funds as activist investors introduced new levels of sophistication, influence, and pressure. Building on

this momentum, a new era of shareholder activism—led more and more by hedge funds—rose to previously unheard-of prominence in the early 2000s.

II. The Surge of Activism: A New Era in the 2000s

Shareholder activism has a long-standing history. Since the inception of publicly traded corporations, tensions have existed between investors, boards of directors, and executives. As early as four centuries ago, shareholders of the Dutch East India Company advocated for expanded rights and accused the company's directors of self-dealing. In 19th-century America, shareholder conflicts were common, exemplified by the contentious Erie War of the late 1860s. However, the past century has witnessed the most significant period of turbulence in corporate governance and oversight.

1. Genesis of Activism: Individual Investors against Boards (1930s-1960s)

One of the earliest activism campaigns of the last century was Benjamin Graham's proxy battle against Northern Pipeline, which marked the beginning of modern shareholder activism. Graham discovered an arbitrage that persists today created by the divergence of the interests of managers and shareholders.

This divergence expanded due to two main factors: (1) Institutional shareholders, previously active participants in corporate governance, were often represented by entities such as J.P. Morgan, which influenced firm strategy from within corporate boards, and (2) the power of these institutional representatives diminished due to regulatory reforms, notably the Glass-Steagall Act.

The landscape of shareholder activism began to shift significantly in 1942 with the introduction of the predecessor to today's Rule 14a-8 by the SEC. This rule empowered shareholders by affirming that their proposals were a "proper subject for action by the security holders," thus initiating what Gillan and Starks (2007) describe as the "current wave" of U.S. shareholder activism.

This paved the way for two key developments: (i) the emergence of new types of proposals focusing not only on financial performance but also on social responsibility issues, and (ii) a shift in the identities of activist shareholders, with an increased prominence of individual shareholders.

Between 1943 and 1950, notable individual activists such as Jay Gould, Walter J. Annenberg, Louis Engel, and the Lewis brothers made significant impacts. While some activists focused on financial improvements, others, like Wilma Soss, targeted broader social issues. Soss, for example, campaigned against the United States Steel Corporation to advance women's economic rights.

Individual activists continued to play a dominant role in shareholder activism until the mid-1980s. The dynamics of boardrooms had evolved into strategic battlegrounds, paving the way for the rise of the proxyteers.

Barron's famously dubbed 1954 "the year of battle by proxy," as proxyteering emerged as a shrewd investment strategy to capitalize on the bull market of the 1950s.

Proxyteers, like Louis Wolfson and Robert Young, became well-known for their aggressive tactics, contesting board control in major public companies.

By the late 1970s, proxy battles had become a common feature, and proxyteers'² influence set the stage for future generations of corporate raiders and hedge funds activists.

2. Corporate Raiders and Hostile Takeovers (1970s-1980s)

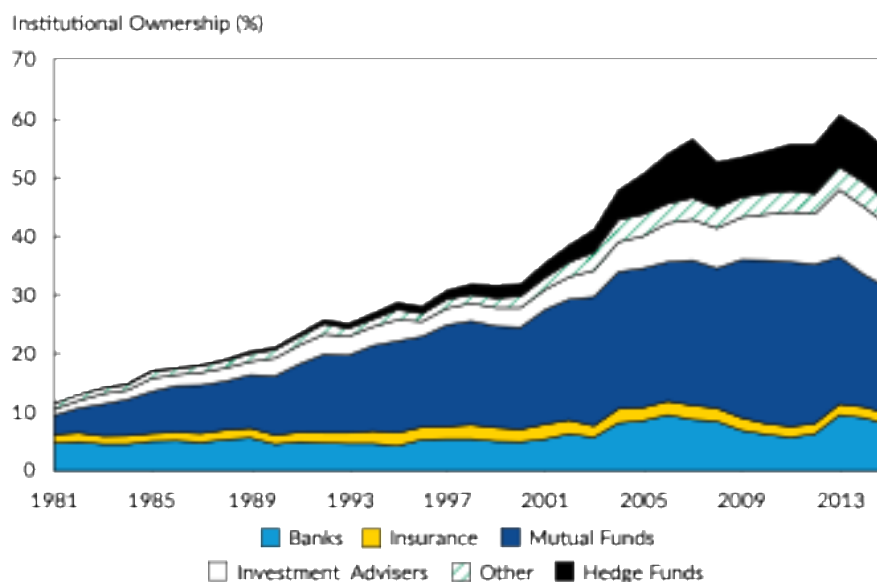
The bull market that resulted from post-World War II economic expansion led corporations to engage in a wave of diversification in the 1960s and 1970s, which led to increased ubiquitousness of self-sustainable business models which degraded firm performance. Arguably, diversification has become a way to protect management (Gramm, 2016; Bethel et al., 1998; Bhagat et al., 1990; Comment and Jarrell, 1995; Lang and Stulz, 1994).

In the 1980s, institutional investors, particularly pension funds, became increasingly active in corporate governance. The beginning of their activism can be linked to the formation of the Council of Institutional Investors, led by Jesse Unruh, who was responsible for the performance of two large institutional investment funds, the California Public Employees Retirement System (CalPERS) and the California State Teachers Retirement System (CalSTRS). Pension funds not only submitted proposals but also applied behind-the-scenes pressure on management to implement corporate reforms. Their growing involvement was driven by a significant increase in their size and influence. As shown in Figure [1], institutional ownership of U.S. equities surged, with institutional investors' percentage ownership rising from 10% in 1953 to nearly 50% by the end of 1980. While their involvement brought benefits, institutional investors have not proven to be a silver bullet for resolving all corporate governance challenges.

² By the middle of the 2000s, hedge funds were having more and more trouble maintaining high returns. The industry had entered a period of single-digit performance, as Burton Malkiel observed (Arvedlund, 2006). Due to increased competition for cheap opportunities, the proliferation of hedge funds made it more difficult to make quick profits (Pulliam & Peers, 2005). As a result, a lot of funds started to position themselves as active catalysts for corporate change rather than passive investment strategies (Sender, 2005). Hedge fund managers increasingly resorted to activism as a way to make money in a more competitive and efficient market as traditional arbitrage became less profitable (Economist, 2006).



Figure 4: Percentage Ownership of Institutional Investors in U.S. Stock Markets (Source: Gillan and Starks 2007 - *The Evolution of Shareholder Activism in the United States*)



Evolution of Stock Ownership by Institutional Investors, 1981–2015

These developments have provided a valid incentive for a new type of activist to intervene to improve corporate performance. This has led to the rise of “raiders” who used aggressive and innovative tactics to impose discipline on management and engineer daring takeover bids. Nelson Peltz, who went on to form Trian Partners, took over Triangle Industries, a struggling firm who didn’t have a brand name in its industry, through a leveraged buyout.

What differentiated the ‘80s raiders from the ‘50s proxyteers was the ready cash that they had access to. They used “blind pools” to finance their daring takeovers. Michael Milken was one of the major facilitators of these means of financing, leveraging a network of high yield bond buyers.

Companies didn't stand still and implemented various measures against takeovers, many of which were upheld by courts. This decreased control-driven shareholder activists.

3. Emergence of Hedge Fund Activism (1990s)

Since their inception, hedge funds have benefited from their cutting-edge capacity to detect and capture temporary arbitrage opportunities due to market inefficiencies and temporary imbalances in supply and demand (Goetzmann and Ross, 2000). However, with the development of the hedge funds industry, these opportunities have become scarce.³ With their heavy war chests⁴ and pressing expectations of market-beating absolute returns⁵, hedge funds had to switch gears to an alternative strategy: Activism.⁶ [Method of intro inspired from Klein and Zur, 2008].

The increase in hedge funds activism over the last three decades, notably, in the beginning of the 2000s, can be attributed to the termination of the SEC proxy censorship⁷, the adoption in 1999 of the Rule 14a-12 dubbed the “free-communication” rule⁸ (Briggs, 2007), the decline of staggered boards⁹, and the increased support of proxy advisors, to whom many institutional investors delegated the voting decision. (Coffee and Palia, 2014).

Hedge funds, who came to be called “the new sheriffs of the boardroom”¹⁰ stepped up their efforts as the decade proceeded, as 1,115 campaigns were counted between 2010 and 2014¹¹. Gillan and Starks (2007) compare hedge funds that take large and relatively long-term positions in underperforming companies to the modern-day equivalent of active investors who disciplined U.S. managers at the turn of the last century.

4. The Rise of Institutional Investors and ESG Activism (Late 2000s-Present)

In the late 2000s, institutional investors returned to the spotlight of the activism arena, leveraging their large stakes to support shareholder proposals focused on improving diversity,

³ Erin E. Arvedlund, *Easing the Sting*, BARRON'S, Jan, 30, 2006

⁴ Hedge funds' access to capital was greatly increased by the deregulation of interest rates in the 1980s and the rise of financial products like structured products and derivatives.

⁵ Hedge fund returns had significantly decreased by 2005 and 2006, with many funds falling short of the major market indices (Growing Pains, 2005; Zuckerman, 2007). The industry's "less than stellar" performance was emphasised by analysts, and detractors such as John Bogle questioned the rationale behind exorbitant fees in the face of such muted outcomes (Anderson, 2006). Furthermore, since returns are frequently self-reported and might not always accurately reflect actual results, questions have been raised concerning the accuracy of hedge fund performance data (Norris, 2006).

⁶ Gregory Zuckerman, Big Shareholders Are Shouting Ever Louder, WALL. ST. J., Nov. 23, 2005, at C1.

⁷ The goal of the 1992 SEC reforms, which were enshrined in 17 C.F.R. § 240.14a-3(a), was to encourage quicker and more transparent communication between shareholders. In order to ensure a more fair and knowledgeable discussion, the SEC underlined that parties to proxy contests should be able to swiftly and affordably respond to opposing statements by distributing more solicitation materials.

⁸ See also Regulation of Takeovers and Security Holder Communications, Securities Act Release No. 7607, 67 Fed. Reg. 67,331,67,340-43 (Dec. 4, 1998) (proposing release); and 17 C.F.R. § 240.14a-12 (2006); Securities Act Release No. 7760, *supra* note 35 (adopting release).

⁹ By the end of 2013, only 60 companies of the S&P 500 had staggered board compared to 300 in 2000

¹⁰ Allan Murray, *Hedge Funds Are the New Sheriffs of the Boardroom*, WALL ST. J., Dec. 14, 2005, at A2

¹¹ Liz Hoffman and David Benoit, “Activist Funds Dust Off Greenmail Playbook,” The Wall Street Journal Europe, June 13, 2014 at 22.

corporate governance practices, and climate-related disclosures. Examples include efforts to reduce carbon emissions, improve diversity on corporate boards, implement fair labor practices, and enhance transparency around corporate governance.

In 2021, BlackRock supported Engine No. 1, which held only a 0.02% stake, in the Exxon Mobil Proxy Fight to elect at least two of the four activist board nominees.

Alongside the asset manager, CalPERS, a pension fund, supported Engine No. 1's board nominees in the same Exxon Mobil proxy battle, which reinforced the idea that institutional investors are increasingly aligning with ESG-driven activist campaigns.

III. The Architects of Change: Activists Archetypes and Activism Regulatory Context in the United States

The defining elements of shareholder activism, along with its evolution over the last century, have given rise to various archetypes of activists, each with distinct characteristics. We can identify three main actors in the activism arena: "defensive" activists, "offensive" activists, and non-activists. (Armour & Cheffins, 2009).

1. "Defensive" activists

This archetype of activist reflects the engagement of "traditional" long-only investors in corporate governance. These investors typically hold a pre-existing, but not controlling, stake in the company—insufficient for a board seat or to influence firm policy directly. With a medium to long-term investment horizon, their activism is generally "incidental and ex-post", occurring only in response to specific corporate events or issues, leveraging shareholder proposals under the Rule 14a-8. (Kahan and Rock, 2007). One of the main types of activists under this umbrella is institutional investors, including long-only pension funds and mutual funds.

○ *Institutional investors*

As outlined in the previous section, the influence of this type of activist has only recently begun to grow. Thanks to their large size, they benefit from economies of scale, as they hold a high number of shares of an individual company and they own shares in a large number of companies, which expands the reach of their power to influence corporate governance.

However, the 'Wall Street Walk' was the default form of activism for institutional investors (Admati and Pfleiderer, 2005). Instead of engaging in direct activism, dissatisfied investors chose to sell their shares and exit their positions when displeased with management or corporate strategy. Despite its passive nature, theoretical studies suggest that even the act of exiting can discipline companies, potentially leading to governance reforms (Hirschman, 1970; Parrino, Sias, and Starks, 2003).

Several constraints have historically limited the development of institutional shareholder activism:

- **Conflicts of interest**, particularly among mutual funds, which may hesitate to engage in activism to avoid jeopardizing future business relationships with potential clients (Black,

1990). Pension funds also face conflicts of interest when selling products to companies in which they hold shares, to which they also have fiduciary responsibilities. Davis and Kim (2005) found a positive correlation between mutual funds voting with management and the volume of pension business they receive. Kahan and Rock (2006) further discuss the political conflicts of interest faced by politicians who oversee public pension funds, such as seeking contributions for re-election.

- **Regulatory constraints** linked to diversification requirements and insider trading regulations (Black, 1990). Mutual funds, for example, are legally required to maintain diversified portfolios and sell securities quickly to satisfy investor redemptions, limiting their flexibility to engage in activism (Kahan and Rock, 2007).

- **Political constraints** faced by pension fund managers, who are often restricted by local and state political considerations from engaging in activist campaigns (Romano, 1993; Kahan and Rock, 2007).

- **Weak incentives** for fund managers to intervene, as noted by Rock (1992). The **Investment Company Act of 1940** limits performance-based fees, reducing institutional managers' motivation since they only capture a small percentage of any excess returns.

- **Collective action problems**, which lead to free-riding on the efforts of others. This issue has been noted by Black (1990) and further explored by Kahan and Rock (2006).

2. "Offensive" activists

Armour and Cheffins (2009) define this form of activism as "offensive," characterizing activists who approach their targets with a strategic, proactive stance. Unlike "defensive" activists, whose actions are typically reactive, offensive activists employ an 'ex ante' approach by identifying underperforming companies and seeking to enhance shareholder value. Their hands-on method involves pressuring management to implement reforms, often through persistent engagement. Given this approach, offensive activists generally have a mid-term investment horizon, with the goal of exiting once their campaign objectives are achieved.

Despite the term 'offensive' suggesting an aggressive stance towards incumbent management, collaboration is not uncommon. For example, Elliott Management worked collaboratively with AT&T's management in its 2019 campaign, outlining a strategy to unlock value within the company. Through this partnership, AT&T incorporated several of Elliott's proposals, demonstrating that offensive activism can sometimes result in constructive dialogue and cooperation.

Over the past three decades, the rise and evolution of shareholder activism have introduced various forms of 'offensive' activists, ranging from innovators like Benjamin Graham and Dan Loeb, to figures driven by personal influence such as Warren Buffett and Henry Ross Perot. This spectrum also includes the proxyteers of the 1950s, the hostile raiders of the 1980s, and more recently, hedge funds. In the following sections, we will explore why hedge funds, in particular, are uniquely positioned to engage in activism and examine the factors that enable them to exert substantial influence over corporate governance."

- *Hedge funds*

Hedge funds are particularly advantageously placed to engage in shareholder activism due to a combination of factors related to their compensation structure, regulatory environment, and operational flexibility.

- **Performance based compensation:** Hedge fund managers are not subject to the pay-for-performance restrictions that govern mutual fund managers under the Investment Advisers Act of 1940. Instead, they typically receive performance-based compensation, often structured as a percentage of profits—commonly following the '2 and 20' model (2% management fee and 20% of profits). This compensation structure creates a strong incentive for managers to pursue strategies, including activism, that can generate significant absolute returns for their funds (Kahan and Rock, 2007).

- **Absence of Diversification Requirements:** Unlike mutual funds and pension funds, hedge funds are not required by law to hold diversified portfolios¹². This allows them to build significant stakes in target companies and focus on individual firms for activist campaigns. Hedge funds are thus able to take larger relative positions, giving them greater influence over corporate decisions.

- **Lock-Up Periods and the absence of liquidity constraints:** Hedge funds can require their investors to agree to lock-up periods (e.g., 2 years or longer), which limits withdrawals and provides stability during prolonged activist campaigns. This allows hedge funds to engage in long-term efforts without facing liquidity constraints and to invest in fairly illiquid assets. Contrary to mutual funds and pension funds who are required to maintain sufficient liquidity in their portfolio to allow for daily withdrawal requests from fund shareholders, which comes at a cost (Aragon, 2007; Coffee, 1991; Bhidé, 1993).

- **Regulatory Flexibility:** Hedge funds operate with fewer regulatory constraints compared to mutual and pension funds because they do not fall under the Investment Company Act regulation. They are exempt from diversification and liquidity requirements that bind other institutional investors. Furthermore, hedge funds can use strategies like margin trading and derivatives, which are often restricted for other institutions, giving them additional leverage in their activism efforts.

- **Fewer Conflicts of Interest:** Hedge funds are not subject to the same fiduciary responsibilities as pension and mutual funds (e.g., those embodied in the ERISA), which often have obligations to large, diversified client bases. This allows hedge fund managers to avoid conflicts of interest that might arise from selling financial products to companies they hold stakes in. Additionally, hedge funds are not influenced by political or state pressures, as pension funds often are.

- **Greater Flexibility in Ownership and Voting Rights:** Hedge funds can acquire significant voting power without owning a corresponding equity stake through derivatives (Hu and Black, 2007) and stock lending (Christoffersen et al., 2006), allowing them to exert influence without necessarily holding a large percentage of shares.

- **Ability to Acquire Target Companies:** In some cases, hedge funds have the option to acquire the target company outright if management fails to cooperate with their demands. This ability

¹² Hedge funds are exempt from the diversification requirements in subchapter M of the Internal Revenue Code and the 1940 Investment Company that mutual funds are subject to (Kahan and Rock, 2006)

to escalate activism provides a credible threat, increasing their negotiating power and the likelihood of achieving their objectives (Clifford, 2008).

- **Limited Investors base with the ability to absorb large losses:** Hedge funds operate as unregistered investment companies, meaning they cannot be offered or marketed to the general public. Instead, they are restricted to accredited investors (those with an annual income over \$200,000 or a net worth exceeding \$1 million) and qualified investors (those with at least \$5 million in investments). This investor base consists of individuals with substantial financial resources, capable of absorbing large financial losses.

- **Flexibility in Earnings Retention for Activist Campaigns:** The corporate structure of hedge funds, typically organized as LLCs or LPs, allows them to halt distributions and reinvest earnings into activist campaigns. Due to tax rules, hedge funds are taxed on all earnings (capital gains and dividends) annually, but they are not required to distribute these earnings to shareholders. This enables hedge funds to use their after-tax resources to fund activist efforts targeting companies.

3. Free Riders

Free riders are investors who capitalize on the activism of others without actively engaging themselves. They typically invest in a company after it becomes the target of an activist campaign, hoping to benefit from the anticipated revaluation of the company's stock without committing additional resources. Research shows that the announcement of an activist campaign by a hedge fund leads to an average stock price increase of around 7% within 20 days of the announcement (Brav, Jiang, Partnoy & Thomas, 2008). The free rider problem arises because many shareholders share the benefits of the activist's efforts, while only the activist bears the costs of initiating and maintaining the campaign (Klein and Zur, 2006). Institutions like labor union pension funds have historically contributed to shareholder activism by innovating in shareholder proposals, but they, too, face the challenge of free riders benefiting from their efforts.

4. Non-Activists

Non-activists are characterized by their lack of involvement in corporate governance or management demands. They do not use tools to challenge governance or engage in activism. The key question surrounding non-activists is whether their passive stance results from a lack of opportunities to be active or if it stems from a deliberate, "philosophical" choice to avoid engagement in corporate matters. These investors might prefer a hands-off approach, choosing not to disrupt management's operations or corporate strategies.

Theoretical Underpinnings

IV. Aligning Interests: Shareholder Activism as a Remedy for Agency Conflict

Shareholder activism typically arises when shareholders become dissatisfied with management decisions, revealing a misalignment between shareholder and managerial objectives that can harm shareholder value. As Clifford (2008) highlights, activism is not only a consequence of the agency conflict—rooted in the separation of ownership and control (Berle and Means, 1932; Jensen and Meckling, 1976; Bertrand and Mullainathan, 2003; Gormley and Matsa, 2016)—but also a mechanism to mitigate agency costs through active monitoring of management (Faleye, 2004).

Alchian and Demsetz (1972) were among the first to address the agency problem by framing it as a shirking issue. They coined this term to describe inefficiencies in corporate profit-sharing structures, arguing that direct shareholder intervention in the corporate decision process, among other “modifications”¹³ of corporate inputs, is “required to cope with the shirking problem that [arises] from profit sharing among large numbers of corporate stockholders.”

In addition to the explanatory factors for the rise of shareholder activism stated in the previous section, the concentration of voting power in the hands of institutional owners has shown that undemocratic activism is often linked to improved corporate performance and value (Butz, 1994; Morck, Shleifer, and Vishny, 1989). Monks and Minow (1991) argue that institutional investors, constrained by diversification risks, tend to either engage directly in activism or support hedge fund campaigns (Appel et al., 2019).

Furthermore, legal reforms stemming from the rise of corporate raiders in the 1980s led to the growth of a market for corporate influence over control (Pound, 1992; Black, 1992). This shift enabled hedge funds to intervene in corporate governance, balancing between influence and control. Hedge funds, uninterested in full control, leverage significant stakes (median maximum stake of 9.1% in campaigns between 2001 and 2006, Brav et al., 2008). They either build their positions individually or collaborate by coordinating to co-file Schedule 13Ds or filing in tandem without declaring a formal block, pursuing various tactics to achieve their objectives.

V. Hedge Fund Activist Objectives

Hedge fund activists pursue a wide array of objectives, often shaped by the target company's situation and the campaign's context. These objectives can be broadly classified into five categories: Corporate Governance, Strategic Alternatives, Corporate Structure, Opposition to a Proposed Transaction, and General Undervaluation.

¹³ The modifications proposed by Alchian and Demsetz have influenced several key areas of corporate governance research, including studies on corporate boards, executive compensation, security design, the impact of liquidity, the market for corporate control, proxy contests, and shareholder activism

In the Corporate Governance category, hedge fund activists make efforts to improve governance practices, such as reshaping board composition by removing ineffective directors—often due to aging or lack of expertise in the firm's operational areas—, or by claiming board representation, and/or adding independent directors. They may also request for changes in executive compensation, particularly when it is misaligned with industry standards or fails to properly incentivize management through performance-linked bonuses. Additionally, hedge fund activists may advocate for enhanced shareholder rights, pushing for increased transparency in governance and a greater voice in key decisions

The second category, Strategic Alternatives, includes proposals targeting operational efficiency, cost-cutting measures, and tax optimization. Activist hedge funds might push for selling non-core assets to focus on more profitable areas or play the “catalyst” role in pending mergers or acquisitions by negotiating better terms for shareholders.

The third category, Corporate Structure, involves changes to capital structure, payout policy or internal corporate structure. Activist hedge funds might demand changes to the debt or equity structure by requesting, for instance, a reduction in excess cash, an increase in the target’s leverage, improved shareholder payouts through dividends or stock repurchases, and adjustments to equity—either by issuing new shares or by halting seasonal equity offerings. Moreover, the activist hedge fund may demand changes in the internal structure of the target, by proposing to spin-off subsidiaries in cases where the target demonstrates excessive diversification.

In the fourth category, Opposition to a Proposed Transaction, hedge fund activists actively oppose transactions proposed by management. Their goal is to block or modify the terms of the deal if they believe it is not in the best interest of shareholders. For instance, they might oppose a proposed merger or acquisition that undervalues the target, advocate against a management-backed transaction, or propose better alternatives that more effectively serve shareholders’ interests.

Finally, General Undervaluation objectives entail instances where the hedge fund seeks to help the management maximize or unlock shareholder value by addressing perceived underperformance or mismanagement.

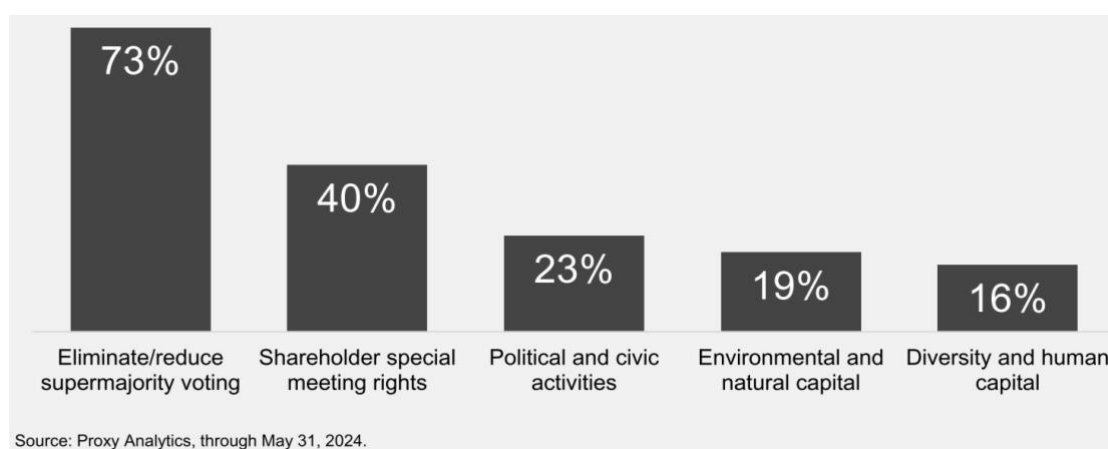


Figure 5: Average support for select shareholder proposals in 2024 (Source: PwC's Governance Insights Center (2024) - The director's guide to shareholder activism)

VI. The Activist's Playbook: Tactics and Strategies of Hedge fund activists

Hedge fund activists employ various tactics in their approach to activism. Gantchev's (2013) definition of shareholder activism as a process involves a series of tactics typically used by hedge fund activists. This framework allows us to chronologically organize their occurrence and view activist campaigns as decision-making processes that are influenced by the activists' objectives and the management's responses to each tactic. Akin to the continuum of activism suggested by PwC's Governance Insights Center¹⁴, the hedge fund activist chooses more aggressive tactics only after the less confrontational approaches have failed.

5. Schedule 13D

The continuum of hedge fund tactics typically begins with the filing of a Schedule 13D, which investors are required to submit to the Securities and Exchange Commission (SEC) within 5 days—shortened from the previous 10 days—after acquiring more than five percent of voting stock in a public company with the intent to influence its management or operations. Unlike Schedule 13G filers, who must disclose holdings exceeding the 5% threshold but do not intend to influence management, hedge funds signal their activist intentions through the 13D filing. Although many 13D filers do not immediately announce specific demands, hedge funds often file for legal reasons or in anticipation of future activist engagement (Gantchev, 2013).

6. Shareholder engagement

Hedge fund activists typically start their campaigns by approaching the management through a phone call, a letter, or email, or by requesting a formal meeting with the management and/or board to discuss their concerns and push for proposals aimed at increasing shareholder value.¹⁵ However, this tactic often proves unsuccessful, despite the significant time and effort invested (Gantchev, 2013). After encountering resistance, the activist faces two options: either terminate the campaign or request board representation.

7. Board Representation

Through this tactic, the hedge fund activist aims to present demands directly to incumbent management, increasing both campaign costs and the likelihood of success. If granted board access, the activist can initiate 'vote no' campaigns on matters they oppose, signaling a shift in shareholder priorities. This can threaten management's position if support for directors wanes, drawing media scrutiny and damaging reputations, as low backing on one board may have a ripple effect on others. If the request for board representation is denied, the activist may escalate by waging a proxy fight.

8. Proxy Fights

At this stage, the hedge fund activist intensifies pressure on management by filing preliminary proxy statements and targeting board members for replacement. In order to pass their

¹⁴ The director's guide to shareholder activism, PwC's Governance Insights Center 7-9 (June 2024)

¹⁵ The Conference Board, Hedge Fund Activism: Findings and Recommendations for Corporations and Investors 43-44 (2008).

proposals efficiently, the hedge fund activist advocates for their own slate of candidates and seeks to persuade shareholders to support them. In this case, hedge funds are known to issue detailed white papers outlining their case for change or publish open letters to the board, which may attract media attention and amplify pressure. Elliott's 2023 'Restoring the Castle' campaign following its 2020 'Reclaiming the Crown' against Crown Castle is a notable example. Despite its high success rate, this tactic is costly, which is why few 13D filers initiate proxy contests.

Proxy fights are lengthy, costly, and exhausting for both activists and target companies, which is why few 13D filers initiate them. Klein and Zur (2006) concluded that proxy solicitation is a major weapon for hedge fund activists. Whether the proxy fight is real, threatened, or merely implied, it increases the campaign's success rate. As a result, activists and their targets often reach settlements to avoid a full-scale proxy contest. In such agreements, the activist may gain board representation or secure management's commitment to implementing certain changes.

This trend is expected to continue with the introduction of the universal proxy card, a rule enacted by the Securities and Exchange Commission (SEC) in August 2022, marking a new era for proxy contests. Under this rule, parties in a proxy contest must issue a single universal proxy card listing all candidates, allowing investors to select their preferred combination. The uncertainty surrounding this rule has led activists and companies to favor settlement agreements over pursuing full campaigns in the year following its implementation.

It's important to note that not all activist hedge funds follow the same sequence of tactics; some may choose to begin their campaigns with the most aggressive approaches.

If earlier tactics fail to produce results, hedge funds may resort to more confrontational strategies such as litigation or takeover threats (Gillan and Starks, 2007; Kahan and Rock, 2006; Pearson and Altman, 2006; Zenner, Shivdasani, and Darius, 2005). However, these more aggressive tactics are less common (Brav et al., 2008).

The strategies used by hedge fund activists are not chosen at random; rather, they are influenced by the unique traits of their targets. Before choosing how to get involved and how far to escalate their campaigns, activists carefully consider a company's shareholder structure, governance procedures, and financial standing. Therefore, to completely understand the strategic rationale behind these interventions, it is essential to comprehend the typical characteristics that make a company appealing to activist hedge funds.

VII. Targeting the Ideal: Characteristics of Hedge Fund Activist Targets

The efficiency of hedge fund activism depends essentially on the underlying financial health, governance structure, and shareholder composition of the target.

Activists do not select firms randomly; rather, they focus their efforts on companies where their intervention is most likely to be maximize returns. It is these strategic choices that ultimately translate into focused agendas driven by issues such as poor financial performance, undervaluation of stock, governance flaws, and distinct ownership structures. Appreciating how these factors interplay will set a frame of reference not just to the phenomenon of hedge fund activism but also its actual potential to cause change.

In hedge fund activism, the objectives and tactics employed are closely tied to the characteristics of the target companies. Activists aim to influence corporate governance and improve company performance, often through a series of escalating actions—from securing board representation to waging proxy fights. The success of these tactics, however, depends significantly on the underlying financial health, governance structure, and shareholder composition of the target. Activists are not indiscriminate in their selection; rather, they focus on companies where their interventions are most likely to yield positive financial returns. This strategic selection is driven by specific factors such as financial underperformance, undervalued stock, governance weaknesses, and particular shareholding structures. Understanding the interplay between these elements is crucial in evaluating the impact of hedge fund activism and its ability to drive meaningful change.

1. Key Financial Indicators for Activist Targets

○ *Poor Financial Performance*

Hedge fund activists typically target companies suffering from poor financial performance. Research by Bethel et al. (1998), Becht et al. (2006), and Faleye (2004) demonstrates that companies with low financial performance, often linked to inefficient business models or unnecessary diversification, are prime candidates for activism. According to Baghat et al. (1990) and Comment and Jarrel (1995), the market for corporate influence has helped reverse such inefficiencies. Hedge fund targets are also characterized by low sales growth compared to peers, as noted by Gantchev (2013). However, Brav et al. (2008) argue that these companies, while showing slow growth, are still profitable based on their Return on Assets (ROA) and cash flows. Klein and Zur (2006) support this view, suggesting that hedge funds in the U.S. tend to target financially healthy companies.

In terms of discretionary spending like capital expenditures and R&D, research shows no significant difference between target and non-target companies (Klein and Zur, 2006). Additionally, hedge fund activists often seek out cash-rich firms with significant cash reserves, which can be used to maximize shareholder value (Klein and Zur, 2006). However, Clifford (2008) counters that the payout ratios of target firms are often indistinguishable from their peers, suggesting that hedge funds are not simply aiming for short-term gains.

○ *“Value” Firms with Undervalued Stock*

Hedge funds frequently act as value investors, targeting firms with undervalued stock (Bethel et al., 1998; Brav et al., 2008; Clifford, 2008). These firms tend to lag behind the market and are characterized by a low market-to-book value ratio, offering hedge funds a cheap entry point and reducing the costs of launching an activist campaign (Gantchev, 2013). The potential for improvement in these undervalued firms aligns with the activist’s objective of creating long-term value by unlocking unrealized potential.

○ *Monetizable Assets*

Hedge fund activists often target companies with monetizable assets that can be sold or restructured to improve shareholder returns. Firms with strong balance sheets, particularly

those with large amounts of cash and equivalents, attract activists looking to unlock value through strategic financial restructuring.

2. Governance and Structural Vulnerabilities

○ *Governance Weaknesses*

Activists are drawn to companies with governance weaknesses, particularly those with staggered boards, "zombie directors" who retain their positions despite failing to receive majority support, and excessive CEO compensation. Research by Brav et al. (2008) highlights that hedge fund targets often exhibit higher CEO pay compared to their peers. Ignoring shareholder concerns is another common trait of hedge fund activist targets, further motivating activists to intervene and demand reforms.

○ *Defensive Mechanisms*

Contradictorily, target companies often have higher levels of takeover defenses in place, such as poison pills or staggered boards, to fend off activist attempts (Brav et al., 2008).

○ *Specific Shareholding Structure Characteristics*

Hedge fund activists often focus on companies with high institutional ownership, as these shareholders can provide critical support during confrontational stages of activism (Gantchev, 2013; Brav et al., 2008). Additionally, high analyst coverage is a key factor, as it ensures that activist campaigns gain visibility among investors and the media, further amplifying pressure on management. Companies with high trading liquidity are also preferred, as this allows hedge funds to build significant stake efficiently and exit their positions smoothly after the campaign (Brav et al., 2008).

Activists tend to steer clear of companies with significant insider holdings in addition to favouring those with high institutional ownership. Companies with significant insider stakes are less susceptible to activist interventions, according to research by Carleton, Nelson, and Weisbach (1998), Huson (1997), John and Klein (1995), Karpoff, Malatesta, and Walkling (1996), and Smith (1996). This is because seasoned insiders can successfully protect businesses from outside influence. Thus, a key element that increases the viability and potential success of activist campaigns is low insider ownership.

3. Target Size and Industry Considerations

○ *Size Preference*

Historically, hedge funds have targeted small-cap firms due to the lower costs associated with accumulating a large stake in such companies, as noted by Demsetz and Lehn (1985), Bethel et al. (1998), and Brav et al. (2008). However, this trend has shifted in recent years, with activists increasingly targeting large-cap firms (Coffee and Palia, 2014). This shift reflects changes in both market conditions and hedge fund strategies, particularly as the S&P 500 has seen growing activist involvement.

- *Industry Preference*

Hedge funds generally prefer to target companies in well-understood industries with generalizable issues that the market can easily recognize and react to (Kahn and Winton, 1998). By focusing on such industries, hedge funds lower their marginal costs and maximize the likelihood of a positive market response to their interventions (Brav et al., 2008; Black, 1990). However, there is no clear evidence of industry concentration among hedge funds, except for those that specialize in certain sectors.

Understanding the traits that make companies desirable targets aids in the explanation of hedge fund activists' strategic actions. But it's important to assess whether activism actually produces the desired changes in addition to identifying targets. The empirical data on hedge fund interventions' results is examined in the following section, which also emphasises how difficult it is to gauge their true impact.

VIII. Evaluating Outcomes: The Impact of Hedge Fund Activism on Targets

Identifying and quantifying the impact of hedge fund activism is no easy task. One main constraint to precisely measuring its effect is the difficulty of identifying cases of activism. Usually, negotiations with management start before the announcement of the block purchase by the hedge fund activist or the 13D schedule filing. The paragraphs below showcase the empirical evidence of the identified ways to measure the impact of hedge fund activism.

1. Share Price Appreciation

This criterion measures the change in the investors' expectations relating to the firm's value because the market reflects investors' belief that activism will lead to real economic changes.

In the short term, the disclosure of hedge fund activism results in abnormal share price appreciation, which can be small either statistically significant (Wahal, 1996; English et al., 2004; Nelson, 2005; Bebchuk et al., 2020) or statistically insignificant (Becht et al., 2010) or significant at 15.7% in an event window of 35 days of the stock purchase by the activist, which was benchmarked with the impact of strategic or passivists block purchases (Bethel et al., 1998).

In the long term, several research papers assessed the impact of hedge fund activism on their targets. DeHaan et al. (2019) observe that the equal-weighted long-term returns of hedge fund activism tend to be positive, driven mainly by the smaller firms in the sample. However, for the larger 80% of firms, the positive short-term returns tend to turn negative in the long run, suggesting that hedge fund interventions do generate long-term sustainable returns for large companies. On a value-weighted basis, long-term returns are very small and vary insignificantly from zero. Bebchuk et al. (2020) suggest that hedge fund activism results in short-term gains at the expense of long-term value, as management is compelled to implement strategies that might appease activists but might not be sustainable. Hence, hedge fund activism might potentially encourage managerial short-termism.

On the other hand, Cao et al. (2018) focus on the role that hedge funds play in correcting stock price inefficiencies, notably through their capacity to identify and target undervalued stocks. Their paper finds that hedge fund intervention leads to a positive long-term effect on stock prices.

Becht et al. (2017) link the long-term impact of hedge fund activism to the ability of the activist to achieve multiple outcomes. The highest returns occur in the case of combined governance changes and takeovers.

However, Gillan and Starks (2007) argue that the significance of the observations relating to share price appreciation is highly sensitive to the determination with precision of the date of the event, that is the date of the effective start of the hedge fund activism campaign. This date can be the date of the first letter to the firm, the proxy mailing, the shareholders' annual meeting, a press release, or the 13D filing date.

Additionally, not all activist hedge fund reaches the 5% threshold that necessitates the public 13D filing when they start their campaign. This leads to information leakages that might impact the target's share price before the effective start date.

It is to be noted that hedge fund proposals have an advisory nature, which means that even if the proposal passes with a 100% vote, the management is not required to implement shareholders' directives. This explains why negotiated settlements with the management are viewed positively by the market on average for all types of activism (Strickland, Wiles, and Zenner, 1996).

Furthermore, firms that were previously targeted by activists might not reflect a clear market sentiment via their share price evolution in the short term.

2. Shareholder value improvements

There are two main mutually exclusive ways in which hedge funds can improve shareholder value.

1) Financial Health Improvements

Hedge fund activists might influence strategic policies aimed at increasing profitability, which may be reflected in improvements in return on equity (ROE), return on assets (ROA), earnings per share (EPS), and adjustments to discretionary expenses such research and development expenses (R&D) and/or capital expenditures (CapEx).

Some studies have found limited evidence of operational performance improvements (Karpoff et al., 1996; Smith, 1996; Strickland et al., 1996; Wahal, 1996; Del Guercio and Hawkins, 1999; Klein and Zur, in press). Klein and Zur (in press) observed no significant operational improvements in firms targeted by aggressive hedge fund activists, noting declines in ROA, ROE, and EPS, along with unchanged levels of cash flows after 1 year of the 13D filing (Klein and Zur, 2006). Additionally, targets showed no evidence supporting the hypothesis that hedge fund activists turn them around. Discretionary spending levels of research and development and capital expenditures remained unchanged.

In contrast, Bethel et al. (1998) and Clifford (2008) found that firms targeted by hedge fund for active objectives tend to show improvements in ROA (+1.22% in the year after the entry of the hedge fund activist in the target's capital), compared to a control group of firms targeted by hedge funds for passive objectives. However, this improvement was attributed primarily to asset sell-offs rather than operational cash flow increases. While some researchers argue that these divestitures would have occurred regardless of the involvement of hedge funds due to prior financial underperformance (Karpoff, 2001), Clifford (2008) refuted this hypothesis, asserting the importance of activist-driven asset sales.

On one hand, studies do not agree on the certainty of the occurrence of asset sell-offs. Case in point, Klein and Zur (2006) found no changes in asset levels, while Bethel et al. (1998) reported increased asset divestitures following activist interventions but argue that the improved ROA wouldn't have been linked to asset divestitures, due to the small proportion of divested assets by the firms that were targeted by activist block holders. On the other hand, it wasn't proven whether asset sell off was necessary or was it a reflection of the management response to hedge funds pressure (Butz, 1994).

Following the activist intervention, target firms experience a reduction in discretionary spendings, particularly capital expenditures, and a decline in merger and acquisition activities (Bethel et al., 1998). The question of whether this reduction in spending is necessary or merely a short-term remedy at the expense of long-term value creation is to be answered.

While some researchers found no evidence to long term value creation by activist hedge funds by assessing share price performance, Huson et al. (1996) argue that the changes in corporate governance and strategic policies such as divestitures, increase joint ventures and reduced acquisition activity contribute to the long-term impact of the activist intervention.

Finally, and contrary to the popular belief, hedge fund activism is not associated empirically to employee layoffs (Bethel et al., 1998).

2) Reduction of agency costs

Hedge fund activists frequently aim to reduce excess cash and short-term investments by increasing dividends per share, boosting leverage, and reducing the number of shares outstanding and cash levels to impose discipline on managers.

Target firms typically experience decreased levels of cash (Klein and Zur, 2006; Clifford, 2008) and higher leverage (Clifford, 2008) following activist engagement.

These firms tend to increase dividend payouts (Klein and Zur, 2006; Clifford, 2008), although Clifford (2008) argues that this dividend increase is not directly related to activism, a conclusion that differs from Klein and Zur's (2006) findings.

Furthermore, hedge fund activism is associated with increased CEO turnover rates (Bethel et al., 1998; Holderness & Sheehan, 1985; Barclay & Holderness, 1991). Brav et al. (2008) observed an increase of 10% in some cases of CEO turnover rates.

Besides, Clifford (2008) link hedge fund activism to a significant positive wealth effect for shareholders. This can be associated to a potential wealth redistribution from management to shareholders. In firms with governance weaknesses, hedge fund activism leads to decreased CEO compensation. Brav et al. (2008) estimates an average 1 million decrease in CEO pay.

Additionally, while there is no evidence of significant share repurchases (Klein & Zur, 2006), Bethel et al. (1998) found contrasting results in certain cases.

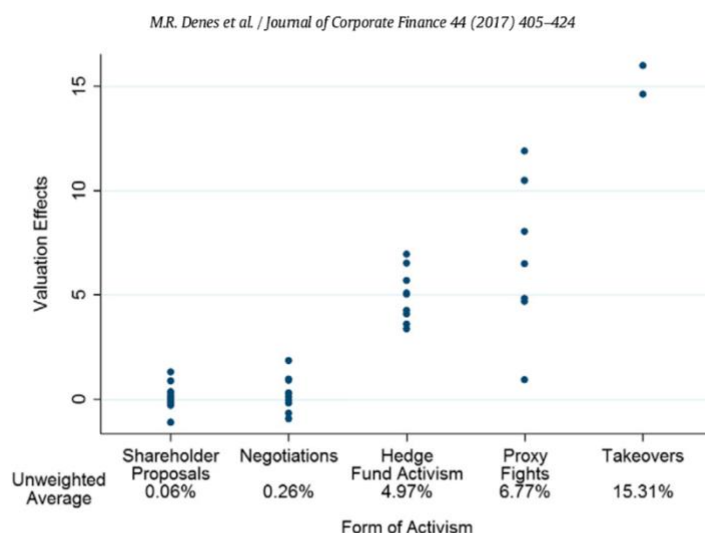


Fig. 1. Valuation effects of different types of shareholder activism. This figure presents the findings from 35 studies that examine the short-window share price reaction at firms targeted by four types of shareholder activism, plus the results from two surveys of research on corporate takeovers by Andrade et al. (2001) and Betton et al. (2008). The types of activism are shareholder proposals, direct negotiations with managers, hedge fund activism, and proxy fights. For a given type of shareholder activism, each point in the figure corresponds to the main point estimate of the impact on share values, in percent, from each of the 35 studies that are summarized in Table 1. The types of activism are ordered by the activists' average shareholdings in the target company. For shareholder proposals and negotiations, such shareholdings typically are not reported by the researcher and appear to be close to zero, on average. Hedge fund activists' shareholdings in their target companies average 8.8% (Boyson and Mooradian, 2011), and activists who initiate proxy fights hold 9.9% (Buchanan et al., 2012) of their target companies' shares, on average.

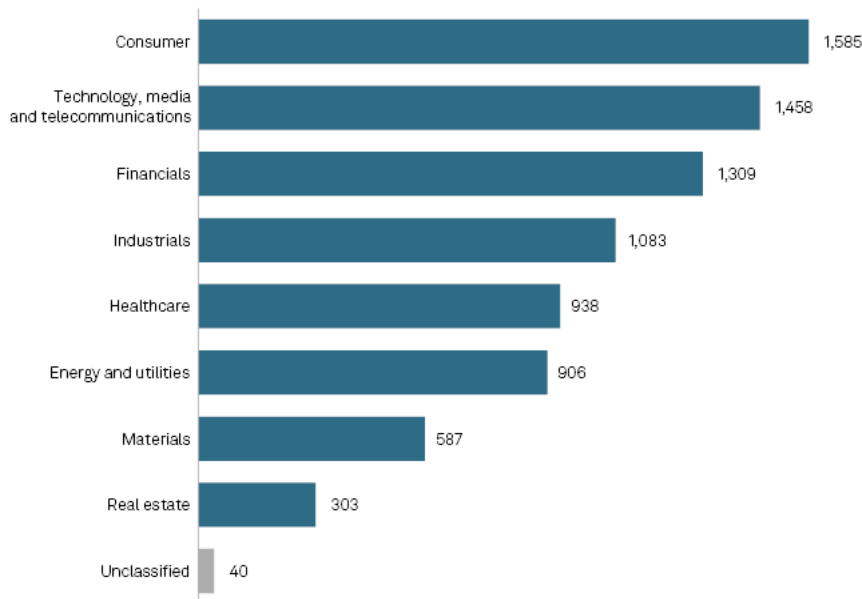
IX. Tech, Media, and Telecom: A Strategic Battlefield for Hedge Funds

The **Technology, Media, and Telecommunications (TMT)** sector has become a focal point for activist hedge funds during the past dozen years. According to an EY analysis, activism overall has increased by more than 5 times in this sector from 2008 and 2019, which represents a 40% increase in TMT target companies compared to an increase of 20% increase in non-TMT targets over an 11-year observation period.

Based on data extracted from S&P Global, the TMT sector represents the second most targeted sector by activist investors over the past 10 years, hoarding 1,458 campaigns behind only the consumer sector.

Activist investors have largely targeted consumer, tech companies over past 10 years

Number of campaigns



Data accessed Feb. 28, 2024.
Source: S&P Global Market Intelligence.
© 2024 S&P Global.

Figure 6: Number of activist campaigns in the last 10 years per sector

With a couple of converging factors rendering the TMT sector ripe for intervention, hedge funds are attracted a sector that is grappling with market shifts, notorious for its dynamic nature, rising commoditization, and rapid technological advancements, as well as frequent governance inefficiencies. In this atmosphere, hedge fund activists see opportunities to shuffle corporate governance, capitalize on strategic inefficiencies and improve value creation for shareholders.

Spiraling Total Shareholder Returns for the Telecom sector

The telecom sector, notably, has experienced declining Total Shareholder Returns (TSR) as commodization is on the rise. Commodization can be represented by the ratio of the spread between the highest and the lowest ARPU (Average Revenue per User) to the spread between the largest and the smallest market share in the sector.

For instance, ARPU spread between telecom companies in North America fell by c. 25% between 2008 and 2018, while market share spread remained relatively constant at 37%.

This was mainly due to the widespread of unlimited and all-inclusive pricing plans among mobile carriers, which resulted to a “**de-escalation**” in price wars leading to a general price equilibrium.

Moreover, American telecom players shifted their focus from acquiring new customers to retaining existing ones, as saturation is beginning to take hold of the market.

Additionally, market shares among the main players, such as AT&T and Verizon, remained stable at a spread of around 37%, which has prevented further market fragmentation.

Furthermore, telecom companies have struggled to keep pace with the broader market indices, with their three-year Total Shareholder Returns (TSR) lagging behind by 9% from 2016 to 2018.

These figures reveal a sector where price appreciation has stagnated. Case in point, the average Net Total Return percentage daily appreciation of the S&P 500 Communication Services from 2016 to 2018 was 0.01%, with a CAGR of 1.4% during the same period. This makes dividends the primary contributor to investor returns.

Recognizing this staggering underperformance, hedge fund activists spotted a strategic entry point to suggest the necessary changes.

Convergence of telecom services

Another driver of hedge fund interest is the convergence of telecom services between the main four telecom services (fixed voice, fixed broadband, mobile, and television) which results in the combination of mobile and broadband services for customers. The companies that successfully achieve convergence first, will likely gain a temporary market share and pricing power. Nevertheless, this advantage is expected to be short-lived as competitors will follow suit, leading to further commoditization. The more players achieve convergence, the more they will compete aggressively to gain market share leveraging their pricing power.

In this context, hedge funds are set to target firms that are lagging the convergence trend or are mismanaging the process. Hedge funds will advocate for faster strategic pivots so that the target companies remain competitive. Additionally, they might push for the monetization of non-core assets or cost-cutting measures to fund investments in infrastructure.

Additionally, the trend of convergence has been developing differently in the U.S. market, due to the country's vast geography. The convergence between fixed and mobile services has been uneven. On one hand, companies like Verizon and AT&T have reduced their footprint in the fixed market to focus on their mobile services. On the other hand, cable operators, such as Comcast and Charter, have started entering the mobile space. However, full convergence in the U.S. remains unlikely in the short term due to the regional monopolies in fixed broadband and the challenging task of rolling out fiber across a large country like the United States. Although, according to industry experts, the divergence trend will reach its end as soon as the fixed asset redistribution settles and mobile subscriber growth reaches the saturation point. The market is predisposed to convergence due to one key factor: The implementation of a 5G network that would allow access to both mobile and fixed networks.

The 5G promise

The 5G promise is nowadays mandatory and no easy task. It is both a serious opportunity and a daunting challenge for telecom companies. 5G rollout requires substantial capital expenditures, and operators must simultaneously, manage carefully their costs and maintain competitive pricing.

In this context, hedge fund may advocate for either one two growth strategies:

- 1) top-line growth through diversification into adjacent industries such as financial services. To choose the diversification road begs to answer a couple of questions, as to whether the telecom companies have the capabilities to compete in the industry of their choosing, whether the latter is ripe enough for disruption, whether they have the sales & marketing gunpowder to not only attract users but also, amass valuable insights to launch new products and services, and whether the time-to-market of the

latter can be optimized. For instance, the financial services market is experiencing a fundamental change in terms of companies and users' preference to use digital services. Telecom leaders can be winners on this front. However, the Media and Entertainment sector has a lower potential for disruption and low available capacities to do so,

- 2) or bottom-line growth by doubling down infrastructure investment while minimizing costs. For all that, infrastructure investment is a double-edged sword. On one hand, it provides a high potential for stable long-term dividends, on another hand, it exposes companies to high capital spendings and to a substantial commitment on the long term to maintain and improve their position, as well as competition from new entrants or core telecommunication infrastructure players. Deploying public Wi-Fi spots doesn't represent a high barrier to entry compared to deploying Fiber-to-the-home or subsea cables. This strategy requires a skillful management of customers, partners and the regulatory party.

Case in point: a project that entails investing in 5G infrastructure can secure long-term market dominance, but the required CapEx and the time to monetize this project are significant. For this reason, hedge fund activists might require companies to divest non-core assets or reduce unnecessary expenditures to fund 5G infrastructure investments.

Additionally, hedge funds might push companies to adopt a network-as-a-service model, by offering networking solutions to different customer segments, such as mobile virtual network operators (MVNOs) or over-the-top (OTT) content providers.

This strategy allows companies to not only leverage their infrastructure but also create new more predictable revenue streams.

Industry transformation and disruption

The TMT sector is facing daunting challenges to maintain high growth levels due to changing consumer expectations, and rising competition, coupled with high capital costs. According to a PwC report, one third of CEOs of telecom companies say that the mean competition will be out of business in the span of three years, if it doesn't adapt its business model. It can be concluded that the current business environment poses a serious risk to businesses viability, which is alarming to investors' returns. The reinvention strategy has been launched by 75% players, aiming to get closer to customers by tailoring their products and services to their needs. Hence, the main priority for decision makers in companies in the TMT sector has become increasing investment to enhance their offerings, their performance and their efficiency, over cost cuttings. Consequently, innovation comes to the center stage of activist hedge funds objectives, who challenge their targets' capacities to capitalize on innovation opportunities. Thus, activist hedge funds may push for strategic partnerships or acquisitions in high-potential areas while advocating for divestitures in less promising areas.

Media & Entertainment Industry Under Pressure

The M&E sector has undergone a massive technological disruption in the past years, which was caused by the rise of streaming services that has shifted customers preference from traditional media such as cable TV and print to on-demand streaming and digital content.

Hence, sluggish companies to adapt to this trend were often the main targets of activist hedge funds, aiming to implement restructuring objectives or pushing to divest outdated assets to invest in digital innovation. Case in point, Paramount Global (ex-ViacomCBS) was targeted by Welling Management in 2020, urging the company to improve its capital allocation, by potentially engaging in asset sales and restructuring to focus on its digital and streaming strategy to compete with giants like Netflix and Disney+.

Furthermore, the sector is offering valuation discrepancies that allow hedge funds a cheap entry point. Large media companies, for instance, have been slow to adapt to digital changes, a fact that was reflected in their price performance.

Additionally, the M&E sector was frequently engaged in M&A activities allowing activist hedge funds to intervene to either influence the terms of the deal or push for better valuations. This involves mainstream deals like the acquisition of AT&T of Time Warner or Disney's acquisition of 21st Century Fox.

Furthermore, despite the voracious competing landscape, the M&E sector promises to grow to \$3.8 trillion by 2028, according to a PwC report. This creates a massive revenue pool, with digital advertising expected to account for 77.1% of total ad spending. Hedge funds in this context, seek to position their targets to benefit from these opportunities.

Tech Sector: A Magnet for Activist Hedge Funds

The technology sector was a playing field for hedge funds activists over the past decade for various reasons.

First, the sector offers high growth opportunities, especially due to the reliance on technology in various industries and the presence of constant technological disruptions. Under this scope, activist hedge funds targeted underperforming companies with a high potential to achieve a scalable business model leveraging growth trends, such as cloud computing, artificial intelligence, and blockchain.

Second, many mid-cap companies are undervalued relative to their peers, usually due to poor governance, mismanagement, or underdeveloped business models. Hedge funds use this context to unlock shareholder value by pushing for strategic changes. The main lever used are non-core divisions spin-offs and streamlining operations. Case in point, Elliott Management has pushed eBay in a 2019 campaign to sell StubHub, one of its non-core businesses. The objective was to reduce complacency and operational efficiency, especially for companies, like eBay, who hold a dominant market position. Hedge funds activist thus shakes companies at the top to unlock hidden value and reintroduce dynamism to their modus operandi. However, they can elevate some companies to market leadership position through pushing for innovation-driven strategies, by influencing R&D investments, or pivoting to new products and services to catch a market share in rapidly growing areas. For example, Third Point pushed Intel in 2020 to implement strategic changes to regain its leadership in the semiconductor market.

Third, tech companies that are led by founder-CEOs often present governance vulnerabilities, like a lack of independent board oversight, entrenched leadership and misaligned compensation. Hedge funds target such companies in order to reshape their boards and implement effective compensation structures for executives.

Fourth, a couple of large technology players have exhibited inefficient balance sheets due to cash reserves accumulation. This create a golden opportunity for hedge fund activists to intervene to return capital to shareholders through dividends or stock repurchases, if growth

opportunities where the excess cash can be reinvested are nonexistent. For instance, Carl Icahn's campaigns on Apple from 2013 to 2016 have focused on pushing for stock buybacks and capital returns.

Additionally, hedge fund activist might leverage regulatory uncertainty to push for strategic changes. They might push to break-up monopolistic tech firms or optimize tax strategies through international revenues.

X. Empirical Insights: Data Collection and Methodology

3. Data Collection

Collecting the campaigns' sample

The objective of the empirical analysis is to assess the impact of hedge fund activism over the last 5 years, notably targeting U.S. companies in the TMT sector.

First, activism campaigns were identified mainly through Schedule 13D filings filed to the SEC (accessible via the EDGAR system), public regulatory filings, Bloomberg, news, and press releases.

The dataset includes only campaigns of (i) activists that are publicly seeking to make changes at a company without company cooperation, (ii) known activists that get board seat or takes large stake at a company without disclosing public activist intentions, (iii) credible news reports of the aforementioned situations, (iv) hedge fund or investor with history of activism files 13D after purchasing shares on the open market, and (v) unsolicited bids by shareholders who are financial non-strategic acquirers unaffiliated with management.

Conversely, the data set excludes: (i) proposals by small or ESG-focused shareholders, (ii) stakes disclosed in 13F or 13G filing without accompanying activist intentions outlined under Item 4 ("Purpose of Transaction") of Schedule 13D, (iii) campaigns where investor held debt, not equity, and (iv) short-selling campaigns.

Second, to distinguish campaigns conducted by hedge funds from the rest of the sample, it was necessary to identify hedge funds using a multi-step methodology. This involved using data from Preqin, SEC ADV Forms, Pitchbook, and activist websites (when available), complemented by news searches using Europress.

Third, sample was filtered based on specific criteria, retaining only U.S. publicly traded firms and excluding events where the filer's primary objective was bankruptcy reorganization or merger and acquisition-related risk arbitrage, since the motives and consequences of such objectives differ from typical shareholder activism. Campaigns where the filer's objective were limited to discussions or minor corporate governance changes (e.g., requesting the inspection of books or records) were also excluded.

Additionally, extensive news research in Europress was conducted, using hedge fund and target company names as key words, to gather supplemental information, such as the activist's motives, target responses, and developments throughout the campaign.

Fourth, multiple sources were used to establish the "exit date" when a hedge fund significantly reduced its investment in a target company. Primarily, the most recent Schedule 13D/A filing of the hedge fund was analyzed to identify when its ownership fell below the 5% disclosure threshold. This was further supplemented by news searches in order to capture other forms of exits (e.g., company liquidations).

However, since the sample period covers events from 2019 to mid-2024, many recent campaigns remained unresolved at the time of data collection cutoff in September 2024. These cases were excluded from the dataset.

Building the data set

Selecting campaigns attributes

The identified attributes of the collected activist campaigns included in the database encompass elements related to the target, the activists, and the campaign itself.

Target identification data consists of target's ticker and PERMNO (Permanent Number assigned by the Center for Research in Security Prices (CRSP) to each security for tracking and data analysis purposes), the target's name, sector, industry, and market capitalization. Additionally, the data set includes activist characteristics, like the names of activists involved in each campaign, the name of the primary activist, activist type (e.g., hedge fund, individual investor, asset manager, etc.), and its activist tier (Core Activist, Occasional Activist, or Secondary Focus).

The data set further details key campaigns characteristics, including its start date, the date of the activist's SEC 13F filings (where applicable), the latest end date, the percentage stake acquired by the activist at the start date of the campaign as well as the highest stake held during the campaign duration. Moreover, each campaign's activist objectives, tactics and the company's corresponding actions were documented. Finally, the outcome of each campaign (Successful, Partially Successful, Unsuccessful, Pending) has been added, along with information on settlements and the use of proxy fights.

Shortlisting campaigns per objective

Activist demands were categorized using Gantchev's (2013) framework, which classifies demands into five key areas: corporate governance, strategic alternatives, corporate structure, opposition to proposed transactions, and general undervaluation which was qualified as passive activism.

Activist demands related to ESG topics were excluded from the scope of the study.

Campaign's Data collection outcome

The process of building the data set of campaigns yielded 399 detected activist campaigns targeting U.S. companies in the TMT sector over the past five years, including the first half of 2024. Of these, 253 campaign ended up either successful, partially successful, or unsuccessful.

After shortlisting campaigns per relevant objectives, the data set encompasses 219 campaigns, of which 111 were conducted by a hedge fund, accounting for 51% of the sample.

The figure below presents the yearly evolution of campaigns targeting U.S. companies in the TMT sector over the past five years. The number of campaigns conducted by all activists in 2021 and 2023 was below the five-year average. Meanwhile, 2022 was a standout year, with the highest number of campaigns over the observation period.

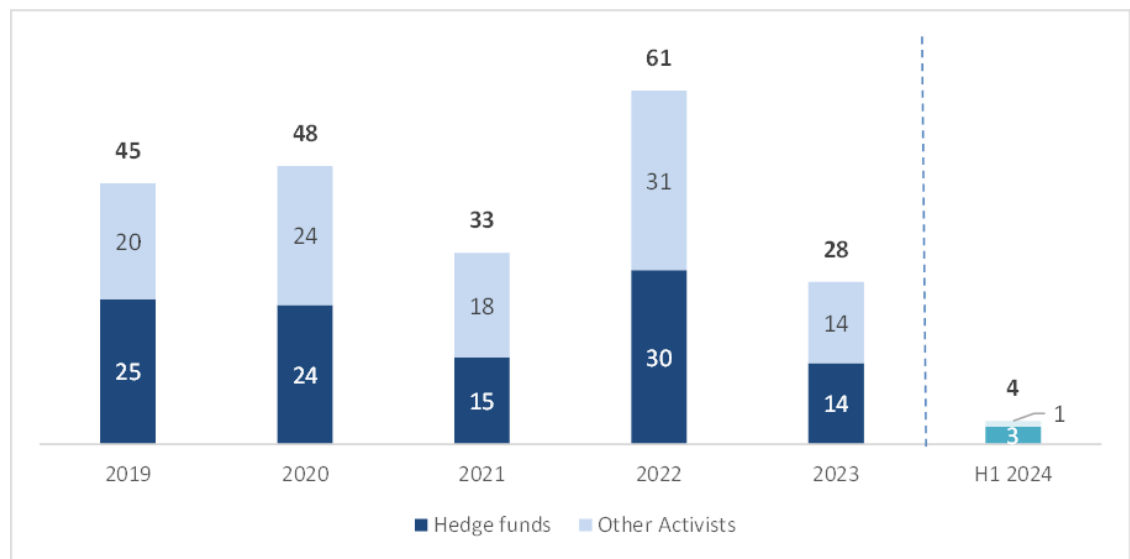


Figure 7: Number of hedge fund activists' campaigns targeting U.S. companies in the TMT sector over the past 5 years

The following figure presents the distribution of campaigns per quarter, which doesn't exhibit any consistent pattern in terms of the timing preferences of activists when launching their campaigns.

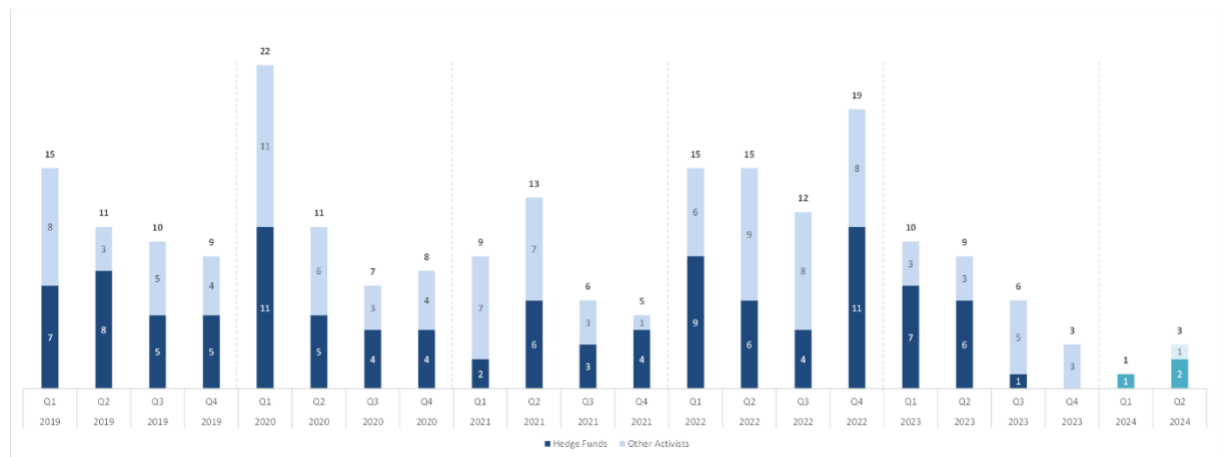


Figure 8: Number of hedge fund activists' campaigns targeting U.S. companies in the TMT sector over the past five years - Quarterly data

With respect to sectors, the figure below exhibits the distribution of activist campaigns across the two main sub-sectors of the TMT sector over the observation period. Notably, technology-driven campaigns represent more than half of the campaigns, comprising an average of 57% of the total campaigns on a yearly basis.

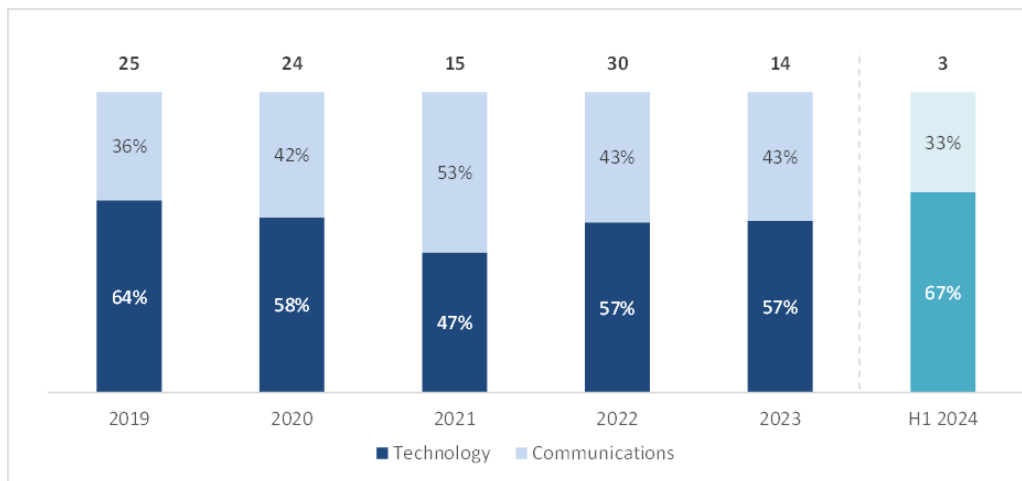


Figure 9: Number of hedge fund activist campaigns targeting U.S. companies in the TMT sector per sector over the past five years

Examining each subsector in greater detail, the technology sector is categorized into four major industries: Software, Technology Hardware, IT Services, and Semiconductors. Software accounted for the highest number of campaigns over the past five years, followed by Technology hardware. In contrast, IT services and Semiconductors each witnessed one activist campaign during the observation period, in 2019 and 2020, respectively.

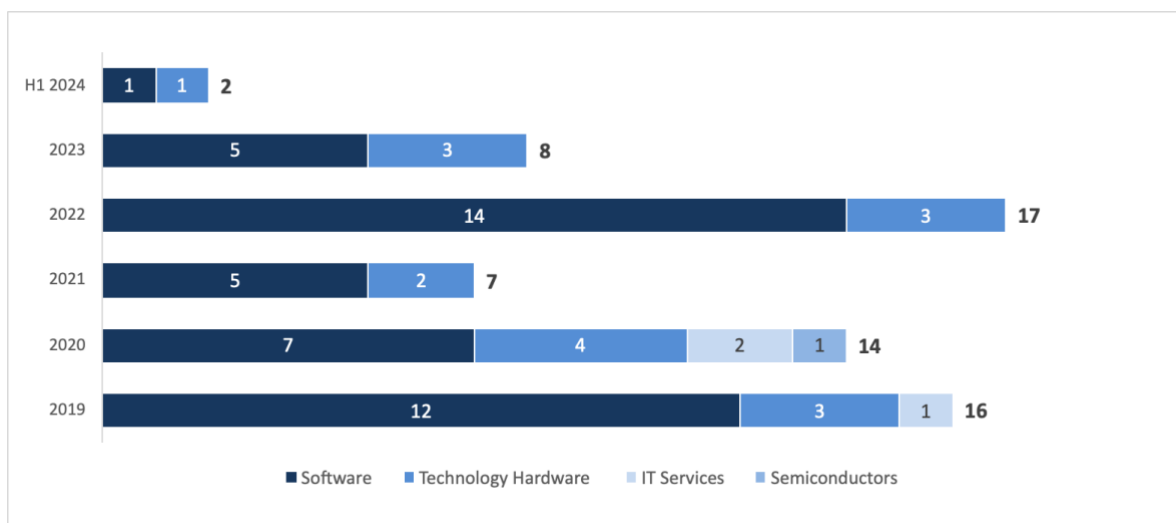


Figure 10: Number of hedge fund activist campaigns targeting U.S. companies in the Technology sub-sector per industry over the past five years

The Communications sub-sector was further divided into 6 industries: Publishing & Broadcasting, Internet Media & Services, Telecommunications, Entertainment Content, Advertising & Marketing, and Cable & Satellite.

Over the past five years, Publishing & Broadcasting accounted for the highest number of campaigns in the Communications sub-sector, with 14 campaigns in total, followed by Internet Media & Services, then Telecommunications, Entertainment Content, and Advertising & Marketing.

Notably, no campaigns were recorded in the Cable & Satellite industry during this period.

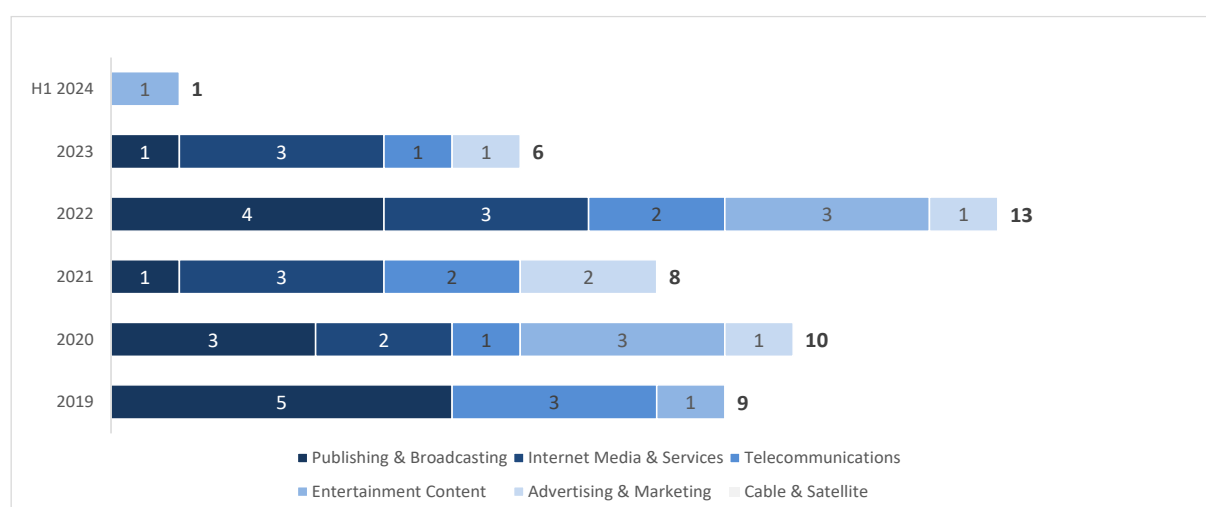


Figure 11: Number of hedge fund activist campaigns targeting U.S. companies in the Communications sub-sector per industry over the past five years

In terms of the market capitalization of their targets, hedge fund activists predominantly targeted Small Cap companies, with market capitalisation ranging from \$100 million to \$500 million, recording 30 campaigns over the past 5 years. Mid-Cap companies, with market capitalisation ranging from \$500 million to \$2 billion, were the second most targeted, accounting for 28 campaigns. Finally, Upper Mid-Cap companies, whose market capitalisation ranges from \$2 billion to \$10 billion, represented 25 campaigns.

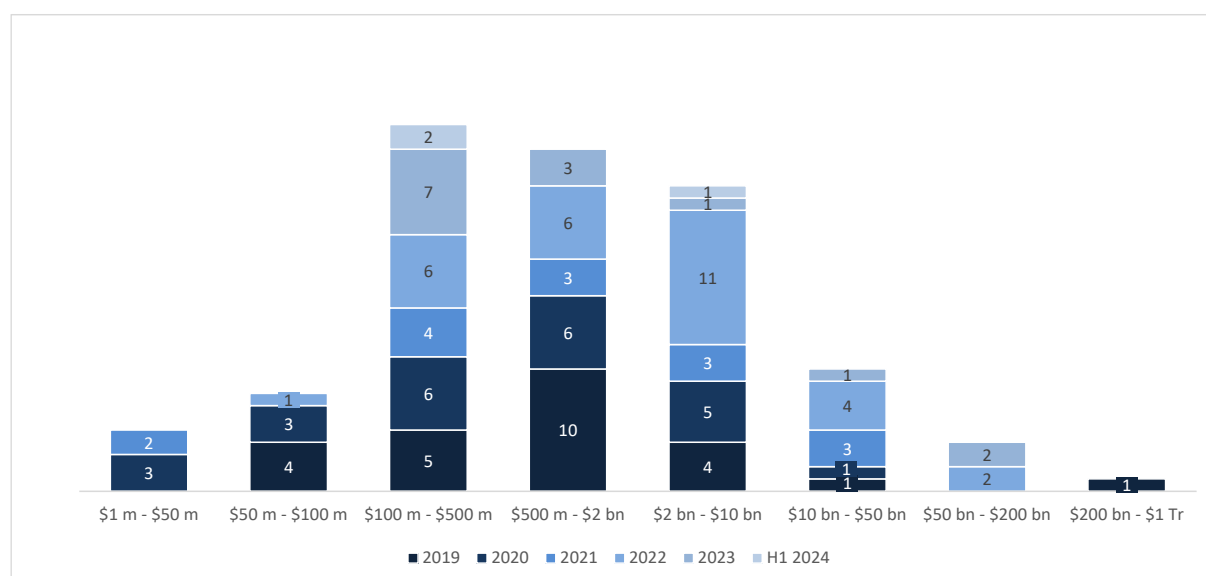


Figure 12: Number of hedge fund activist campaigns targeting U.S. companies in the TMT sector per market capitalization over the past five years

Of the 111 observed campaigns, 55 were successful over the past 5 years, with 2019 contributing the highest number of successful campaigns. This represents a success rate of

49.5%; however, when partially successful campaigns are included, success rate reaches 63.1%. Unsuccessful campaigns accounted for 36.9% of the total, with 2022 witnessing the highest number of unsuccessful campaigns during the observation period.

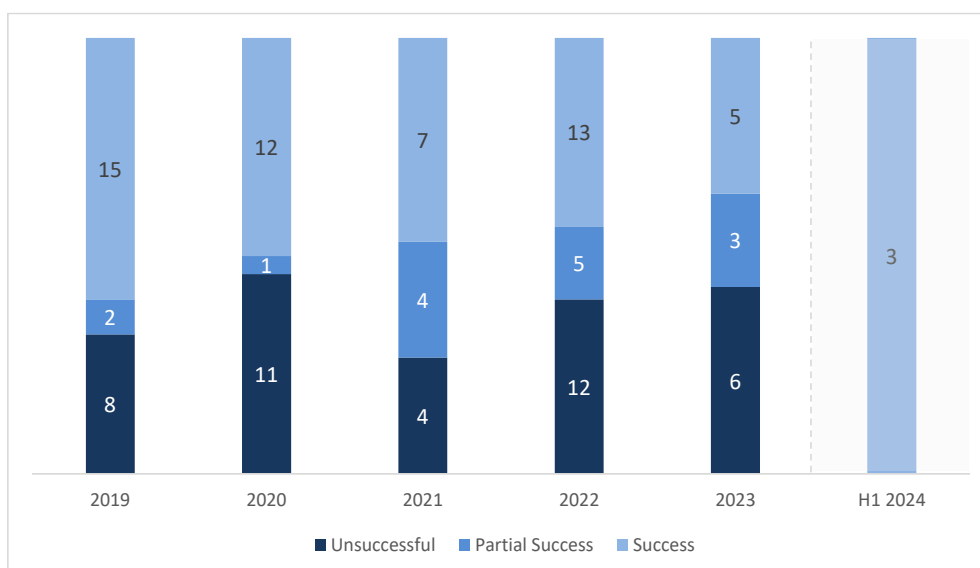


Figure 13: Success rate of hedge fund campaigns targeting U.S. companies in the TMT sector over the past five years

With regards to the holding period, the observed campaigns show a shift in hedge fund activist holding period preferences over the past five years. Campaigns starting in 2019 showcased more spread-out durations, with no concentration in a specific time horizon. However, by 2023, the holding periods decrease, with a high concentration of campaigns lasting less than a year.

Table 1: Number of hedge fund campaign targeting U.S. companies in the TMT sector per holding period over the past five years

	Number of hedge fund campaigns						Total
	2019	2020	2021	2022	2023	2024	
0	0	0	1	4	3	0	8
1	3	0	0	3	0	0	6
2	1	1	3	4	1	0	10
3	1	1	0	1	1	0	4
4	1	1	0	2	1	3	8
5	1	0	0	2	0	0	3
6	3	0	0	1	1	0	5
7	0	1	0	1	0	0	2
8	0	1	2	0	1	0	4
9	1	1	0	1	0	0	3
10	2	0	0	0	0	0	2
11	1	2	0	2	0	0	5
12	2	6	3	4	4	0	19
13	1	0	0	0	0	0	1
14	1	0	0	0	1	0	2
16	1	0	0	0	0	0	1
17	1	1	1	1	1	0	5
18	0	0	2	3	0	0	5
19	1	0	1	1	0	0	3
20	1	0	0	0	0	0	1
24	0	2	0	0	0	0	2
25	0	2	0	0	0	0	2
26	1	1	0	0	0	0	2
27	0	1	0	0	0	0	1
28	0	0	1	0	0	0	1
29	1	1	0	0	0	0	2
32	0	1	0	0	0	0	1
35	1	0	0	0	0	0	1
36	0	1	0	0	0	0	1
40	0	0	1	0	0	0	1
Total	25	24	15	30	14	3	111

Collecting data about returns and financials

We have collected the metrics used for this study from the Center for Research in Security Prices (CRSP) and accounting data from Compustat.

We have grouped them into four types of metrics: Financial ratios, valuation metrics, discretionary spending metrics, and capital structure metrics.

We have aimed through these four groups to detect short-to-midterm changes in the target's profitability, by analyzing the changes in the ROA, ROE, ROIC, and ROC. Then, we aimed to analyze how the market values the target differently after the campaign, by analyzing the changes in the book-to-market ratio of the value of the targets assets, P/E ratio, and the enterprise value.

Then, in order to analyze the changes in the discretionary spending of the target, we extracted the dividend payout ratio and the R&D spending. Finally, we aimed to examine the impact of campaigns on the capital structure of the targets, by evaluating the changes in total debt/EBITDA and Short-term debt/Total debt.

To address gaps in the CRSP and Compustat datasets, we supplemented data from Bloomberg.

Building the control group

For each activist target company, we manually selected comparable peers based on a combination of industry classification, the size of the company, and financial profile.

Notably, we focused on identifying firms operating within the same sector (using SIC codes as a general reference) and with market capitalization closer to the average of the group of companies under each sector/sub sector. Financial characteristics were considered into this exercise. We aimed to collect companies with similar financial profiles as the average of the group at the time of the campaign.

Since there was no fully automated approach to collect suitable matches, we carefully adopted a case-by-case approach to ensure the control group is relevant.

The control group covers these categories: Communications, Advertising & Marketing, Entertainment Content, Internet Media & Services, Publishing & Broadcasting, Telecommunications, Technology, IT Services, Semiconductors, Software, and Technology Hardware.

After selecting peers, we collected key financial and market data for each control company. The collected data mirrors the one used for the main group and was sourced from Compstat, CRSP and supplementing data was collected from Bloomberg.

This hybrid approach allowed us to create a representative control group that is similar to the operating environment and financial standing of the targets of activism, ensuring that biases from the systematic differences are minimized.

4. Methodology

Delineating the Event and Estimation Periods

Three key parameters needed to be clearly defined for this event study.

First, it was necessary to select the event study methodology. According to MacKinlay (1997), an event study measures "the impact of a specific event on the value of a firm." Consequently, the selection of the event window's length is closely aligned with the objective of this analysis, which is to evaluate the effect of hedge fund activism on the share price performance of target firms.

This research is underpinned by the efficient market hypothesis, which posits that the price reaction to the event will be both immediate and accurate. To accommodate different sensitivities to time, multiple event windows were utilized:

- *For the short-term horizon, event windows of [-2D, 2D], [-5D, 5D], [-7D, 7D], and [-10D, 10D] were selected.*
- *For the mid-term horizon, the windows used were [-1M, 1M], [-2M, 2M], [-3M, 3M], and [-6M, 6M].*

- For the long-term horizon, the event windows chosen were $[-1Y, 1Y]$ and $[-2Y, 2Y]$.

Second, the estimation period was established. The estimation period serves as the “pre-event period” and is used to estimate the parameters of the regression model. For studies that utilize daily returns, a minimum estimation period of 100 days is considered appropriate (Armitage, 1995). For studies using monthly returns, a 60-month estimation period is typical (El Ghoul et al., 2022). However, it is crucial to avoid overly lengthy estimation windows, as this may lead to inaccuracies in the parameter estimates.

Third, it was essential to ensure that the estimation window was sufficiently separated from the event itself to prevent contamination. The inclusion of a buffer between the estimation period and the event period is necessary to avoid overlap. Although MacKinlay (1997) and Brown & Warner (1985) do not specify a precise gap window in their event study methodologies, the literature supports the use of such a buffer to enhance the robustness of the results.

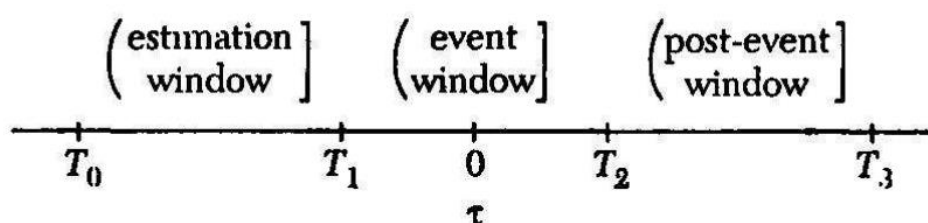


Figure 1: Event time line (Mackinlay, 1997)

Given that this study focuses on hedge fund activism, where market participants may anticipate the event, a gap of **30 trading days** was implemented between the estimation period and the event period to avoid contamination.

Model Selection

For the short-term time horizon, the **CAPM or market model** was employed to estimate stock returns during the event period. These models were chosen for their simplicity and ease of implementation, as they require less data and are well-suited for capturing short-term market reactions.

For the mid- and long-term time horizons, the **Fama-French 4-Factor Model** was utilized. This model incorporates factors beyond market risk, specifically size, value, profitability, and investment, which provide a more nuanced understanding of stock returns. Hedge fund activists have historically shown a preference for targeting smaller, undervalued companies, making factors such as size and value particularly relevant. Additionally, the Fama-French model offers better risk adjustment, as hedge fund campaigns often lead to significant changes in the risk profile of the targeted firms.

5. Findings

Event Study: Analysis of CARs and BHARs and Differences in Differences analysis

The event study conducted on the full sample of campaigns reveals significant positive abnormal returns around the activism announcement.

Over the [-2D, 2D] window, the mean CAR is 5.06%, statistically significant at the 1% level (t-statistic = 4.313). Expanding the window to [-5D, 5D], the mean CAR rises to 7.80%, with strong statistical significance (t-statistic = 4.586). The positive trend continues over [-7D, 7D], with a mean CAR of 9.43% and a t-statistic of 4.762.

Even over the broader [-10D, 10D] window, the mean CAR remains high at 9.36%, with a t-statistic of 4.208. These results suggest that hedge fund activism generates substantial and statistically significant short-term value for shareholders.

Event Window	Model	Number of Observations	Mean CAR (%) (At the end of Event Window)	[t-statistic]
Short-Term Time Horizon				
[-2D, 2D]	Market Model	99	5.06%	4.313***
[-5D, 5D]	Market Model	99	7.80%	4.586***
[-7D, 7D]	Market Model	99	9.43%	4.762***
[-10D, 10D]	Market Model	99	9.36%	4.208***

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 14: Event Study - CAR Analysis on all of campaigns

The BHAR analysis across the mid-term and long-term windows gives a clearer picture. Across the [0, 1M] window, the mean BHAR is 7.71%, significant at the 1% level (t-statistic = 2.868). The positive trend persists across [0, 2M], where the mean BHAR rises to 9.12%, significant at the 5% level. Across [0, 3M], the mean BHAR falls slightly to 8.31%, but is still significant at the 10% level. But by the [0, 6M] window, although the mean BHAR is still positive at 7.21%, it is no longer statistically significant (t-statistic = 0.943).

At longer horizons, performance deteriorates. Over [0, 1Y], mean BHAR is marginally positive at 4.55% but statistically insignificant. Surprisingly, over [0, 2Y], mean BHAR is extremely negative at -52.26%, although the result is again statistically insignificant. Taken together, these results suggest that while hedge fund activism is apparently generating positive returns over short- to mid-term horizons, there is no evidence of long-term outperformance.

Event Window	Model	Number of Observations	Mean BHAR (%) (At the End of Event Window)	[t-statistic]
Mid-Term Time Horizon				
[0, 1M]	Fama-French 4-Factor Model	99	7.71%	2.868***
[0, 2M]	Fama-French 4-Factor Model	98	9.12%	2.316**
[0, 3M]	Fama-French 4-Factor Model	97	8.31%	1.961*
[0, 6M]	Fama-French 4-Factor Model	93	7.21%	0.943
Long-Term Time Horizon				
[0, 1Y]	Fama-French 4-Factor Model	75	4.55%	0.23
[0, 2Y]	Fama-French 4-Factor Model	48	-52.26%	-0.866

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 15: Event Study - BHAR Analysis on all of campaigns

The next sections split the results by industry to better comprehend the underlying trends within the overall sample. We will examine the results of the event study on in the Communications and Technology sectors.

Communications sector

Target companies within the Communications sector also realized very large positive abnormal returns around the announcement of activist hedge fund actions. For short-window event windows, the (mean) CAR is 6.20% for the period of [-2D, 2D], going up to 8.43% for [-5D, 5D], and then up to 9.26% for [-10D, 10D], all significant at the 1% level.

Mid-term BHARs also follow a decreasing but positive trend. For [0, 1M], the mean BHAR is 8.77%, which is significant at a confidence level of 10% (t-statistic = 1.879). For [after 1M], however, the returns remain positive for [0, 2M], and [0, 3M], but are insignificant. For [0, 6M], returns are marginally negative.

Performance deteriorates significantly in the long term. Mean BHAR for [0, 1Y] is -12.36%, and it falls to -86.51% for [0, 2Y], but neither result is significant. Overall, Communications sector targets perform significantly better for the short-term following activism campaigns, without any evidence of gains persistence to the long term.

Event Window	Model	Number of Observations	Mean CAR (%) (At the end of Event Window)	[t-statistic]
Short-Term Time Horizon				
[-2D, 2D]	Market Model	38	6.20%	2.764***
[-5D, 5D]	Market Model	38	8.43%	2.93***
[-7D, 7D]	Market Model	38	8.52%	3.237***
[-10D, 10D]	Market Model	38	9.26%	2.95***

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 16: Event Study - CAR Analysis on campaigns in the Communications sector

Event Window	Model	Number of Observations	Mean BHAR (%) (At the End of Event Window)	[t-statistic]
Mid-Term Time Horizon				
[0, 1M]	Fama-French 4-Factor Model	38	8.77%	1.879*
[0, 2M]	Fama-French 4-Factor Model	38	9.46%	1.543
[0, 3M]	Fama-French 4-Factor Model	37	8.14%	1.406
[0, 6M]	Fama-French 4-Factor Model	35	-0.80%	-0.084
Long-Term Time Horizon				
[0, 1Y]	Fama-French 4-Factor Model	30	-12.36%	-0.569
[0, 2Y]	Fama-French 4-Factor Model	17	-86.51%	-1.125

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 17: Event Study - BHAR Analysis on campaigns in the Communications sector

Control sample event study outcomes are not indicative of any representative significant abnormal returns for the event windows. For the short window intervals, (mean) CAR is close to zero at -0.05% for [-2D, 2D], and goes down to -1.48% for [-5D, 5D], -1.41% for [-7D, 7D], and -1.83% for [-10D, 10D]. All these for [-5D, 5D], [-7D, 7D], and [-10D, 10D] declines are significant at the statistical level and show a uniform adverse response for the control firms for these intervals.

Average BHARs also decline precipitously at mid-term. The 2-period and 3-period averages stand at -2.86% and -3.97%, respectively, and are both 1%-significant. The decline continues to a -7.86% 3-period average and to a worsening -29.03% for 6-period horizon [0, 6M], both 1%-significant.

Performance is also substantially poorer in the longer term. For 0 to 1Y, the BHAR averages -294.51%, and for 0 to 2Y, -2154.98%, both significant at 5%. For the control sample as a whole, there is an evident trend of falling abnormal returns for all time horizons.

Event Window	Model	Number of Observations	Mean CAR (%) (At the end of Event Window)	[t-statistic]
Short-Term Time Horizon				
[-2D, 2D]	Market Model	555	-0.05%	-0.154
[-5D, 5D]	Market Model	555	-1.48%	-2.704***
[-7D, 7D]	Market Model	554	-1.41%	-2.175**
[-10D, 10D]	Market Model	554	-1.83%	-2.379**

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 18: Event Study - CAR Analysis on the control group of the Communications sector

Event Window	Model	Number of Observations	Mean BHAR (%) (At the End of Event Window)	[t-statistic]
Mid-Term Time Horizon				
[0, 1M]	Fama-French 4-Factor Model	552	-2.86%	-3.233***
[0, 2M]	Fama-French 4-Factor Model	552	-3.97%	-2.749***
[0, 3M]	Fama-French 4-Factor Model	526	-7.86%	-3.649***
[0, 6M]	Fama-French 4-Factor Model	500	-29.03%	-3.826***
Long-Term Time Horizon				
[0, 1Y]	Fama-French 4-Factor Model	400	-294.51%	-2.116**
[0, 2Y]	Fama-French 4-Factor Model	172	-2154.98%	-2.182**

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 19: Event Study - BHAR Analysis on the control group of the Communications sector

DiD analysis highlight the comparative performance of target companies versus the control sample for all horizons. For the short term, the Δ mean CAR is significant and positive for all windows, varying from 6.25% for window [-2D, 2D] to 11.09% for the longer window [-10D, 10D].

Over the horizon of the medium term, the Δ mean BHARs are always positive and grow larger over time. The target-control firm performance differential rises from 11.63% for the [0, 1M] to 28.22% for the [0, 6M], and thus the target firms enjoy an advantage several months after the event of activism.

Differences for longer time horizons are stark. For [0, 1Y], the Δ mean BHAR is 282.15%, and for [0, 2Y] extends to an astonishing 2068.46%. These enormous differences, based on fewer observations, are consistent with a staggering divergence of activist target performance for longer time horizons.

In combination, the DiD tests confirm that the value created by activist hedge fund interventions benefits target firms more than peer firms, both short term and, for some instances, for the longer term too.

Event Window	Model	Δ Mean CAR (%) (At the end of Event Window)
Short-Term Time Horizon		
[-2D, 2D]	Market Model	6.25%
[-5D, 5D]	Market Model	9.91%
[-7D, 7D]	Market Model	9.93%
[-10D, 10D]	Market Model	11.09%

Figure 20: DiD analysis on CAR results on campaigns in the Communications sector

Event Window	Model	Δ Mean BHAR (%) (At the End of Event Window)
Mid-Term Time Horizon		
[0, 1M]	Fama-French 4-Factor Model	11.63%
[0, 2M]	Fama-French 4-Factor Model	13.43%
[0, 3M]	Fama-French 4-Factor Model	16.00%
[0, 6M]	Fama-French 4-Factor Model	28.22%
Long-Term Time Horizon		
[0, 1Y]	Fama-French 4-Factor Model	282.15%
[0, 2Y]	Fama-French 4-Factor Model	2068.46%

NVI: Not Valid Information

Figure 21: DiD analysis on BHAR results on campaigns in the Communications sector

Technology sector

Target firms' event study for the Technology industry demonstrates large, short-run performance following announcements of hedge fund activism. For the [-2D, 2D], the (mean) CAR is 4.36%, which is significant at 1%. Event windows longer than this are associated with larger magnitudes for abnormal returns, 7.41% for the [-5D, 5D], 10.00% for the [-7D, 7D], and 9.42% for the [-10D, 10D], all significant at 1%.

Mid-term BHARs are also positive. The (mean) BHAR is 7.07% for [0, 1M] (significant at 5%) and rises to 8.90% for [0, 2M] (significant at 10%). For [0, 3M] and [0, 6M], returns remain positive, though statistical significance falls.

Target firms act heterogeneously across the long window. While their (mean) BHAR stands at 17.84% for [0, 1Y], which is insignificant, it goes down to -28.72% for [0, 2Y], which is also not significant. Overall, Technology sector targets receive high positive abnormal returns soon after activism, but the duration of their impact weakens.

Event Window	Model	Number of Observations	Mean CAR (%) (At the end of Event Window)	[t-statistic]
Short-Term Time Horizon				
[-2D, 2D]	Market Model	61	4.36%	3.342***
[-5D, 5D]	Market Model	61	7.41%	3.499***
[-7D, 7D]	Market Model	61	10.00%	3.598***
[-10D, 10D]	Market Model	61	9.42%	3.085***

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 22: Event Study - CAR Analysis on campaigns in the Technology sector

Event Window	Model	Number of Observations	Mean BHAR (%) (At the End of Event Window)	[t-statistic]
Mid-Term Time Horizon				
[0, 1M]	Fama-French 4-Factor Model	61	7.07%	2.148**
[0, 2M]	Fama-French 4-Factor Model	60	8.90%	1.721*
[0, 3M]	Fama-French 4-Factor Model	60	8.43%	1.42
[0, 6M]	Fama-French 4-Factor Model	58	12.38%	1.126
Long-Term Time Horizon				
[0, 1Y]	Fama-French 4-Factor Model	45	17.84%	0.574
[0, 2Y]	Fama-French 4-Factor Model	31	-28.72%	-0.324

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 23: Event Study - BHAR Analysis on campaigns in the Technology sector

Compared to that, the control portfolio for the Technology sector shows no evidence of noteworthy positive abnormal returns around event dates. (Mean) CARs are all around zero for any short windows: -0.05% for [-2D, 2D], -0.09% for [-5D, 5D], 0.09% for [-7D, 7D], and 0.01% for [-10D, 10D], all of which are not significant.

Mid-term BHARs indicate considerable underperformance. The (mean) BHAR is -1.16% for [0, 1M] (significant at the 10% level), decreasing to -2.92% for [0, 2M], -5.02% for [0, 3M], and -18.78% for [0, 6M], all significant at the 1% level.

Long-term performance continues to decline substantially. The (mean) BHAR is -82.11% for [0, 1Y], and -1143.08% for [0, 2Y], both highly significant. Overall, Technology industry control firms experience ongoing and substantial value erosion over time.

Event Window	Model	Number of Observations	Mean CAR (%) (At the end of Event Window)	[t-statistic]
Short-Term Time Horizon				
[-2D, 2D]	Market Model	645	-0.05%	-0.211
[-5D, 5D]	Market Model	644	-0.09%	-0.224
[-7D, 7D]	Market Model	644	0.09%	0.188
[-10D, 10D]	Market Model	644	0.01%	0.016

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 24: Event Study - CAR Analysis on the control group of the Technology sector

Event Window	Model	Number of Observations	Mean BHAR (%) (At the End of Event Window)	[t-statistic]
Mid-Term Time Horizon				
[0, 1M]	Fama-French 4-Factor Model	641	-1.16%	-1.696*
[0, 2M]	Fama-French 4-Factor Model	641	-2.92%	-2.864***
[0, 3M]	Fama-French 4-Factor Model	641	-5.02%	-3.573***
[0, 6M]	Fama-French 4-Factor Model	614	-18.78%	-5.859***
Long-Term Time Horizon				
[0, 1Y]	Fama-French 4-Factor Model	445	-82.11%	-5.062***
[0, 2Y]	Fama-French 4-Factor Model	274	-1143.08%	-2.114**

* p < 0.1 ** p < 0.05 *** p < 0.01

Figure 25: Event Study - BHAR Analysis on the control group of the Technology sector

The differences-in-differences test confirms that the Technology sector activist targets outperformed their controls across all horizons. Δ mean CAR for short windows is from 4.41% for [-2D, 2D] to 9.91% for [-7D, 7D], dropping to 9.41% from [-10D, 10D].

Mid-term BHAR differences are also very favorable. The 8.24% Δ mean BHAR for [0, 1M] goes up consistently to 31.16% for [0, 6M]. On the longer horizon, the spread is even more significant, and the Δ mean BHARs are 99.95% between [0, 1Y] and an astonishing 1114.36% between [0, 2Y]. The evidence suggests that target Technology companies experience large

shareholder value created by hedge fund activism relative to the control sample both shortly after the intervention and on very long horizons.

Event Window	Model	Δ Mean CAR (%) (At the end of Event Window)
Short-Term Time Horizon		
[-2D, 2D]	Market Model	4.41%
[-5D, 5D]	Market Model	7.50%
[-7D, 7D]	Market Model	9.91%
[-10D, 10D]	Market Model	9.41%

Figure 26: DiD analysis on CAR results on campaigns in the Technology sector

Event Window	Model	Δ Mean BHAR (%) (At the End of Event Window)
Mid-Term Time Horizon		
[0, 1M]	Fama-French 4-Factor Model	8.24%
[0, 2M]	Fama-French 4-Factor Model	11.82%
[0, 3M]	Fama-French 4-Factor Model	13.45%
[0, 6M]	Fama-French 4-Factor Model	31.16%
Long-Term Time Horizon		
[0, 1Y]	Fama-French 4-Factor Model	99.95%
[0, 2Y]	Fama-French 4-Factor Model	1114.36%

NVI: Not Valid Information

Figure 27: DiD analysis on BHAR results on campaigns in the Technology sector

Analysis of Performance Metrics

Key financial and market performance metrics are compared before and after hedge fund activism campaigns in this section. Profitability ratios (ROA, ROE, ROIC, and ROCE), valuation metrics (P/E, B/M, and EV), indicators of discretionary spending (DPR, R&D/Sales), and debt metrics (Total Debt/EBITDA and Short-term Debt/Total Debt) are the main topics of discussion. A differences-in-differences approach is used to compare the results to a matched control group after they have been analysed across the entire sample, sectors, and industries.

Total Sample

Performance metrics reveal a range of dynamics across all campaigns. Prior to the campaign, ROA, ROE, and ROIC all show modest improvement; however, following the campaign, ROA and ROE decline by 28% and 54%, respectively, over the period [-3Q, +3Q]. All profitability metrics show the same decline. On the other hand, valuation indicators indicate improvement: after the campaign, the EV increases modestly by 7% and the Book-to-Market ratio increases by 28%. Longer-term declines in the P/E ratio reverse an initial improvement.

Indicators of discretionary spending show an intriguing trend: R&D spending as a percentage of sales stays comparatively constant over the [-3Q, +3Q] period, but the dividend payout ratio (DPR) rises significantly by 79%. Following the campaigns, debt levels increased somewhat in

terms of both Total Debt/EBITDA and Short-term Debt/Total Debt, indicating a decline in the balance sheet after the intervention.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	2%	3%	8%	-1%	-23%	-28%	-28%	-17%	-12%
Δ ROE (%)	14%	14%	10%	-1%	-22%	-28%	-54%	-41%	-20%
Δ ROIC (%)	0%	13%	6%	-1%	-22%	-30%	-60%	-34%	-34%
Δ ROCE (%)	1%	14%	6%	-3%	-25%	-34%	-22%	-17%	-12%
Δ R/M (%)	5%	4%	-6%	0%	2%	0%	-28%	17%	17%
Δ P/E (%)	27%	20%	7%	4%	-3%	-25%	-18%	-18%	-3%
Δ EV (%)	4%	7%	-2%	4%	6%	11%	-3%	8%	7%
Δ DPR (%)	-34%	-14%	0%	14%	39%	58%	79%	8%	29%
Δ R&D/Sales (%)	-3%	-4%	-3%	1%	4%	-1%	4%	6%	4%
Δ Total Debt/EBITDA (%)	-1%	-1%	0%	5%	5%	9%	1%	5%	1%
Δ ST Debt/Total Debt (%)	1%	-1%	-1%	7%	8%	8%	-6%	15%	6%

Figure 28: Performance metrics analysis on the overall sample

By Sector

Communications Sector

Following hedge fund activism campaigns, target firms in the communications sector saw a noticeable decline in operating performance. During the [-3Q, +3Q] window, ROE fell by 55%, while ROA fell by 28%. Likewise, a 30% decline in ROIC indicated lower returns on capital invested. Additionally, ROCE dropped by 22%, indicating a drop in operational effectiveness.

The Book-to-Market ratio increased by 22% in terms of market valuation, indicating that after the campaign, market participants thought there was more potential for value creation. However, the P/E ratio had mixed results, declining by 11% over the [-3Q, +3Q] window after improving slightly in the short term, suggesting that the market may be reevaluating the prospects for earnings growth. After the event, EV rose by 12%, suggesting a modest increase in market capitalisation.

Spending habits that were discretionary changed dramatically. Following activism, the DPR increased by 79%, indicating that shareholders would receive larger returns on their investment. Over the same time period, R&D/Sales ratios increased by 18%, suggesting a greater effort to reinvest in innovation. After the campaign, debt metrics stayed largely unchanged, with the short-term debt to total debt ratio rising by 18% and the total debt to EBITDA ratio increasing by 5%.

While R&D investment and shareholder payout policies rose, valuation metrics showed mixed to modest improvements, and overall profitability and operational efficiency significantly declined after activism.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	-1%	4%	1%	-7%	-31%	-35%	-28%	-37%	-21%
Δ ROE (%)	17%	14%	6%	-6%	-26%	-44%	-50%	-43%	-26%
Δ ROIC (%)	6%	12%	5%	-5%	-23%	-26%	-50%	-36%	-25%
Δ ROCE (%)	1%	-1%	0%	1%	-2%	-1%	-22%	-24%	-15%
Δ R/M (%)	-5%	-5%	-8%	-3%	5%	-3%	-25%	15%	13%
Δ P/E (%)	28%	28%	10%	8%	9%	10%	-11%	-16%	4%
Δ EV (%)	4%	-5%	1%	2%	6%	7%	-6%	12%	12%
Δ DPR (%)	-13%	-14%	10%	27%	53%	92%	79%	77%	29%
Δ R&D/Sales (%)	-3%	-4%	-3%	2%	6%	-1%	18%	16%	7%
Δ Total Debt/EBITDA (%)	2%	-3%	-1%	5%	7%	8%	0%	5%	5%
Δ ST Debt/Total Debt (%)	14%	-6%	0%	5%	7%	1%	-9%	18%	2%

Figure 29: Performance metrics analysis on the sample of the Communications sector

Technology Sector

Hedge fund activism campaigns had a more complex effect on target companies in the technology sector. Prior to the campaigns, profitability metrics show a slight improvement, but they drastically decline after that. Over the [-3Q, +3Q] window, ROA decreased by 19.6% and ROE decreased by 41.4%, indicating a decline in earnings generation in relation to assets and equity. After the campaign, ROIC showed an even more pronounced decline of 73.2%,

indicating a decline in capital utilisation efficiency. During the event window, ROCE dropped by 22.8%, which further reflected operational difficulties.

Indicators of valuation changed over time. Over the [-3Q, +3Q] window, the Book-to-Market ratio increased by 38.4%, indicating a significant improvement and a market re-evaluation. However, following an initial upward trend, the P/E ratio declined by 31%, suggesting a decline in confidence in future earnings growth. After the campaign, EV increased by 2.6%, indicating a moderate increase in market capitalisation.

DPR trends were erratic with respect to discretionary spending, which was indicative of some irregularities in dividend distribution practices. R&D/sales ratios increased by 2.5 percent, indicating somewhat more robust reinvestments in upcoming expansion projects.

After the campaigns, debt metrics deteriorated. While the Short-term Debt/Total Debt ratio increased by 14.3%, suggesting a greater reliance on short-term debt structures, the Total Debt/EBITDA ratio increased by 26.4%, suggesting higher leverage.

Overall, there was a material decline in profitability metrics, a slight improvement in discretionary spending, a weakening of balance sheets following activism, and a mixed sentiment among investors reflected in market valuation multiples.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	4.42%	0.74%	5.00%	-2.47%	-16.41%	-14.38%	-25.42%	-24.68%	-6.99%
Δ ROE (%)	11.60%	13.70%	11.70%	-1.00%	-16.59%	-22.27%	-41.42%	-34.47%	-17.96%
Δ ROC (%)	-9.92%	-1.45%	-1.29%	0.59%	-4.39%	-36.99%	-78.23%	-13.38%	-29.51%
Δ ROCE (%)	6.87%	14.70%	7.80%	-7.47%	-12.41%	-14.08%	-22.80%	-24.31%	-16.56%
Δ B/M (%)	-9.95%	-7.04%	-5.16%	1.54%	-0.71%	6.09%	38.64%	18.39%	7.64%
Δ P/E (%)	26.39%	12.21%	4.94%	2.78%	-5.52%	-7.30%	-30.99%	-19.62%	-6.78%
Δ EV (%)	8.02%	-4.14%	-7.93%	7.10%	9.06%	16.22%	2.58%	7.63%	6.03%
Δ DPR (%)	45.72%	-25.34%	0.24%	0.00%	-23.17%	-26.35%	483.73%	5.68%	42.76%
Δ R&D/Sales (%)	-2.27%	-2.64%	-1.78%	0.79%	2.89%	-1.62%	2.49%	-2.30%	2.97%
Δ Total Debt/EBITDA (%)	-9.08%	1.96%	-0.30%	6.74%	6.52%	9.51%	26.42%	3.00%	5.43%
Δ ST Debt/Total Debt (%)	0.25%	1.32%	-1.00%	12.13%	9.04%	9.59%	0.25%	14.27%	14.30%

Figure 30: Performance metrics analysis on the sample of the Technology sector

By Industry

Marketing & Promotion

Campaigns for hedge fund activism in the advertising and marketing sector were accompanied by precipitous declines in profitability. Over the [-1Q, +1Q] period, ROE fell 27% and ROA fell 20%.

Over the same time period, ROCE also declined, falling by 24%. Regarding valuation, the P/E ratio stayed largely unchanged, but the Book-to-Market ratio increased by 17%, indicating a slightly higher perceived value after the campaign. A 40% increase in enterprise value (EV) was indicative of a favourable market re-evaluation.

Short-term Debt/Total Debt improved marginally, while Total Debt/EBITDA increased 47%. Despite financial decline, R&D/Sales ratios rose by 4%, indicating modest reinvestment efforts. Although reinvestment signals and valuation multiples provided slight offsets, overall operating profitability fell after the campaign.

	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	88.85%	-66.55%	-13.19%	-38.38%	-152.46%	-15.72%	20.05%	-152.46%	-16.04%
Δ ROE (%)	109.72%	63.34%	9.69%	-15.79%	11.71%	-41.72%	-589.15%	-101.82%	-15.30%
Δ ROC (%)									
Δ ROCE (%)	49.53%	37.63%	15.09%	8.42%	-32.58%	-22.31%	-185.46%	-103.74%	-22.03%
Δ B/M (%)	-20.32%	-26.23%	-19.99%	6.91%	5.05%	-12.89%	4.46%	63.17%	22.22%
Δ P/E (%)	53.96%	28.38%	-6.11%	42.14%	49.52%	29.36%	-10.56%	-10.42%	11.30%
Δ EV (%)	-79.58%	2.03%	-2.08%	36.80%	-6.78%	-41.94%	25.84%	3.95%	36.73%
Δ DPR (%)									
Δ R&D/Sales (%)	-1.30%	-3.09%	0.16%	-1.59%	17.64%	-8.10%	1.47%	8.37%	0.58%
Δ Total Debt/EBITDA (%)	-18.38%	2.77%	2.95%	53.00%	-42.76%	-80.32%	-45.19%	-48.03%	42.79%
Δ ST Debt/Total Debt (%)	-26.27%	17.28%	-0.76%	7.51%	67.62%	244.22%	147.07%	38.47%	-4.38%

Figure 31: Differences in Differences of the Advertising & Marketing sample

Entertainment Content

Following hedge fund activism campaigns, target firms in the entertainment content sector saw a discernible decline in operating performance. Over the [-1Q, +1Q] period, ROE fell by 30% and ROA fell by 22%. Over the same time period, ROCE also declined, falling by 27%.

On the market side, the P/E ratio rose by 26%, indicating some investor optimism, and the book-to-market ratio displayed significant volatility before eventually improving by 1%. In spite of operational setbacks, EV increased by 50%, suggesting strong short-term market support. R&D/Sales ratios improved by 7%, indicating greater reinvestment efforts, while dividend payout ratios rose significantly.

Leverage measures, such as Total Debt/EBITDA and Short-term Debt/Total Debt, showed significant volatility, though, with no discernible upward trend. In general, even though profitability is declining,

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	-6.59%	7.25%	4.40%	-13.42%	-2.96%	9.38%	-18.56%	6.86%	-10.72%
Δ ROE (%)	5.19%	9.44%	16.69%	-8.82%	-5.22%	-1.69%	-7.30%	0.74%	-11.87%
Δ ROCE (%)	7.02%	8.93%	5.43%	3.57%	3.36%	7.31%	-18.47%	-14.06%	-19.47%
Δ B/M (%)	39.50%	17.89%	14.50%	-8.02%	20.57%	-13.90%	-27.15%	-4.22%	-24.62%
Δ P/E (%)	-28.65%	-20.56%	6.93%	5.62%	8.32%	11.62%	22.41%	5.45%	4.30%
Δ EV (%)	-19.86%	-13.46%	-4.40%	2.97%	10.47%	10.70%	8.40%	27.13%	46.09%
Δ DPR (%)	35.78%	27.03%	7.53%	16.58%	40.81%	76.00%	83.26%	31.67%	48.81%
Δ R&D/Sales (%)	-5.82%	-6.05%	-1.45%	3.69%	5.86%	3.29%	18.20%	15.14%	4.80%
Δ Total Debt/EBITDA (%)	7.24%	-6.27%	-3.78%	-10.97%	-0.98%	4.33%	8.27%	10.05%	-13.87%
Δ ST Debt/Total Debt (%)	-37.72%	-61.87%	-14.83%	43.58%	33.56%	31.37%	30.03%	285.78%	128.81%

Figure 32: Differences in Differences of the Entertainment Content sample

Internet Media & Services

Following hedge fund activism, target companies in the Internet Media & Services sector saw a notable decline in operating performance. Over the [-1Q, +1Q] period, ROE fell precipitously by 48% and ROA fell by 9%, indicating a serious decline in profitability. During the same time frame, ROCE also decreased by 31%.

Regarding valuation, the P/E ratio declined by 7%, indicating lower earnings expectations, while the book-to-market ratio improved marginally by 11%. EV increased by 15%, indicating that market value is somewhat resilient even in the face of deteriorating fundamentals. Indicators of debt were mixed: the short-term debt to total debt ratio stayed mostly unchanged, but the total debt to EBITDA ratio rose by 11%. Spending on R&D and sales increased by about 7%.

After the campaign, the industry generally showed significant profitability issues, with only modest but encouraging changes in market valuation and reinvestment activity.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	35.81%	0.11%	3.64%	-2.80%	33.14%	13.38%	3.33%	-19.78%	-1.57%
Δ ROE (%)	-14.01%	-21.26%	-11.05%	-12.69%	-64.83%	-73.69%	-156.06%	-85.35%	-30.05%
Δ ROCE (%)	-29.75%	14.34%	4.56%	-7.62%	-28.03%	-25.54%	-70.80%	-41.79%	-26.45%
Δ B/M (%)	4.89%	18.17%	6.53%	1.42%	-34.95%	-21.95%	-35.03%	-66.39%	7.13%
Δ P/E (%)	-34.38%	-25.75%	13.41%	6.94%	23.30%	48.41%	72.13%	41.51%	8.65%
Δ EV (%)	13.23%	3.30%	18.33%	-11.03%	9.30%	-9.91%	-36.28%	16.37%	12.55%
Δ DPR (%)									
Δ R&D/Sales (%)	7.10%	-0.59%	-1.79%	1.23%	-2.64%	-2.87%	8.14%	7.18%	5.53%
Δ Total Debt/EBITDA (%)	10.54%	-0.69%	-2.80%	-0.35%	4.64%	1.24%	-17.91%	16.58%	10.71%
Δ ST Debt/Total Debt (%)	19.90%	0.50%	3.21%	0.09%	-2.32%	-1.75%	-11.21%	-10.44%	1.29%

Figure 33: Differences in Differences of the Internet Media & Services sample

Publishing & Broadcasting

Following hedge fund activism, operating performance in the publishing and broadcasting sector sharply declined. During the [-1Q, +1Q] window, ROCE fell by 5%, ROA fell by 63%, and ROE fell by 2%, all of which indicated lower operational efficiency.

Valuation metrics demonstrated resilience in the face of these difficulties: the P/E ratio increased by 29% and the book-to-market ratio improved by 12%. EV also saw a modest 3% increase. Despite significant volatility, dividend payout ratios increased.

With increases in the ratios of short-term debt to total debt and total debt to EBITDA, debt metrics deteriorated somewhat. Overall, market valuation indicators indicated somewhat positive investor sentiment following the campaign, despite a sharp decline in profitability.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	38.80%	-2.40%	-0.34%	-17.18%	-68.88%	-49.20%	-113.31%	-61.82%	-66.37%
Δ ROE (%)	-61.28%	3.83%	-23.61%	-13.19%	-86.54%	-82.97%	-50.32%	-83.48%	14.49%
Δ ROCE (%)									
Δ ROCE (%)	-16.53%	11.30%	-4.14%	-0.06%	-3.70%	-22.92%	-53.13%	-33.07%	-1.78%
Δ B/M (%)	-5.94%	-27.80%	-3.04%	-13.22%	4.97%	-9.01%	23.65%	8.22%	0.73%
Δ P/E (%)	51.70%	60.04%	5.52%	18.68%	7.44%	28.57%	-4.98%	-12.23%	28.63%
Δ EV (%)	14.66%	-3.03%	9.06%	12.10%	7.50%	23.46%	-23.63%	21.07%	6.70%
Δ DPR (%)									
Δ R&D/Sales (%)									
Δ Total Debt/EBITDA (%)	11.49%	-1.14%	-0.55%	3.95%	6.64%	15.37%	-16.18%	-0.66%	-1.59%
Δ ST Debt/Total Debt (%)	22.92%	116.58%	7.57%	-25.29%	-2.10%	-29.08%	24.18%	2.08%	-60.28%

Figure 34: Differences in Differences of the Publishing & Broadcasting sample

Telecommunications

Telecommunications Hedge fund activism had a mixed effect on the telecom sector. Moderate profitability pressure was indicated by the 13% decline in ROA and the 6% decline in ROE over the [-1Q, +1Q] window. Nonetheless, ROCE increased by 11%, indicating improvements in operational effectiveness. Indicators of market valuation showed modest improvements, with the P/E ratio rising by 6% and the book-to-market ratio rising by 39%, both of which indicated improved investor sentiment.

EV saw a minor 4% decline. Increased reinvestment efforts were indicated by the 12% increase in discretionary spending on R&D/Sales. While short-term debt to total debt stayed constant, total debt to EBITDA increased by 2%.

Although telecommunications targets saw modest drops in profitability after the campaign, they generally demonstrated resilience in operational efficiency and reinvestment.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	18.73%	-10.90%	8.28%	-1.24%	-4.30%	-30.75%	-40.86%	-30.75%	-11.73%
Δ ROE (%)	12.21%	-17.93%	4.79%	13.27%	1.10%	2.28%	-27.62%	41.49%	6.68%
Δ ROCE (%)									
Δ ROCE (%)	2.63%	-2.87%	-3.14%	3.76%	13.19%	16.68%	20.35%	21.75%	11.80%
Δ B/M (%)	-8.65%	-3.12%	-10.18%	1.97%	-5.55%	-17.85%	-5.11%	-7.73%	33.33%
Δ P/E (%)	2.21%	38.01%	12.53%	20.05%	33.77%	30.90%	25.39%	24.74%	6.00%
Δ EV (%)	-0.91%	-3.09%	1.36%	-4.48%	-7.97%	-3.28%	-7.23%	-7.77%	-3.93%
Δ DPR (%)									
Δ R&D/Sales (%)	-54.58%	-77.31%	-12.18%	5.22%	49.75%	21.08%	45.00%	78.21%	18.23%
Δ Total Debt/EBITDA (%)	0.17%	-0.42%	0.96%	-0.27%	-11.65%	-2.69%	-13.02%	-36.15%	-1.82%
Δ ST Debt/Total Debt (%)	32.10%	-2.73%	12.80%	3.53%	0.87%	-15.54%	-46.87%	0.01%	-4.54%

Figure 35: Differences in Differences of the Telecommunications sample

IT Services

Hedge fund activism produced a range of results in the IT services sector. Stronger profitability is suggested by the 18% improvement in ROA and the 27% increase in ROE over the [-1Q, +1Q] window.

Nevertheless, a 13% drop in ROCE indicated operational inefficiencies. Market indicators were erratic: the P/E ratio declined by 30%, indicating lower earnings expectations, while the book-to-market ratio increased dramatically by 66%. A 31% decline in EV indicated slower growth in enterprise value.

Following the campaign, debt metrics significantly deteriorated, with both Total Debt/EBITDA and Short-term Debt/Total Debt rising. R&D/Sales ratios decreased by 10%, indicating less money was spent on innovation. Profitability increased overall, but operational leverage and market sentiment significantly declined.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	11.96%	-14.33%	-12.97%	-0.49%	6.40%	11.72%	-1.66%	2.48%	26.57%
Δ ROE (%)	-4.33%	1.26%	-2.22%	19.20%	20.50%	26.03%	-0.50%	30.91%	26.43%
Δ ROIC (%)									
Δ ROCE (%)	-10.72%	-12.43%	-7.33%	-39.07%	-27.56%	-20.05%	-21.23%	-20.25%	-8.12%
Δ B/M (%)	-10.28%	2.79%	22.52%	47.18%	40.47%	13.91%	76.96%	138.47%	47.15%
Δ P/E (%)	-43.39%	-10.35%	-12.30%	-21.95%	-20.18%	-14.71%	2.23%	-13.80%	-39.36%
Δ EV (%)	63.83%	117.02%	53.17%	1.14%	-6.76%	-16.10%	-21.05%	-36.05%	-34.00%
Δ DPR (%)	-107.01%	125.91%	-0.93%	-101.51%	-28.05%	-32.32%	-26.42%	-13.83%	0.45%
Δ R&D/Sales (%)	-9.38%	-4.81%	-9.38%	-28.34%	-41.22%	-53.13%	-30.45%	-20.09%	-18.07%
Δ Total Debt/EBITDA (%)	24.46%	35.60%	26.61%	37.75%	15.75%	22.44%	-38.50%	-56.58%	-37.95%
Δ ST Debt/Total Debt (%)	-2.09%	16.40%	23.40%	0.39%	1.37%	8.23%	19.22%	9.22%	3.99%

Figure 36: Figure 34: Differences in Differences of the IT Services sample

Semiconductors

Hedge fund activism and a sharp increase in profitability in the semiconductor sector occurred at the same time. Due to an exceptionally robust post-campaign financial recovery, ROE increased by 1242% and ROA improved by 1345% during the [-1Q, +1Q] window. ROIC increased significantly as well. Indicators of market valuation, however, gave conflicting signals: the P/E ratio increased by 57%, indicating a reevaluation of earnings potential, while the book-to-market ratio fell by 36%. EV experienced a modest 22% increase. Total Debt/EBITDA fell 39%, indicating that debt levels remained unstable. Despite changes in capital structure metrics, the semiconductor industry showed a robust post-activism profitability recovery overall, along with modest valuation improvements.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	-14.07%	-55.49%	-108.17%	13.18%	52.14%	128.11%	86.78%	268.06%	1356.27%
Δ ROE (%)	14.15%	-48.14%	-106.24%	-1.00%	89.12%	92.85%	89.82%	252.54%	1223.07%
Δ ROIC (%)									
Δ ROCE (%)									
Δ B/M (%)	-84.89%	75.47%	-25.05%	-30.07%	-18.67%	-17.68%	18.55%	-45.89%	-0.09%
Δ P/E (%)	34.77%	-8.52%	1.88%	19.07%	65.63%	46.24%	-4.01%	158.73%	16.30%
Δ EV (%)	18.22%	-34.11%	16.73%	28.74%	49.84%	7.85%	-33.21%	106.89%	13.19%
Δ DPR (%)									
Δ R&D/Sales (%)									
Δ Total Debt/EBITDA (%)	6.78%	27.69%	40.29%	-21.35%	-29.78%	-36.02%	-48.91%	-53.29%	-43.83%
Δ ST Debt/Total Debt (%)									

Figure 37: Differences in Differences of the Semiconductors sample

Software

The software industry saw a discernible decline in profitability after hedge fund activism campaigns. Over the [-1Q, +1Q] period, ROE fell by 23% and ROA fell by 9%. ROIC also saw a sharp decline, dropping 56%. Regarding valuation, the P/E ratio showed a slight 1% improvement, while the Book-to-Market ratio improved by 16%, indicating a slight increase in perceived value.

A modest increase in enterprise value was indicated by the 18% increase in EV. R&D/Sales ratios improved by 4%, indicating somewhat stronger reinvestment efforts, while dividend payout ratios varied. Both Total Debt/EBITDA and Short-term Debt/Total Debt increased after the campaign, indicating a moderate increase in debt metrics. Profitability declined overall, but investment and valuation indicators were somewhat resilient.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	8.44%	-0.63%	4.14%	8.97%	-22.23%	13.59%	-16.60%	-18.40%	-9.08%
Δ ROE (%)	18.88%	10.08%	8.82%	-7.82%	-18.30%	-18.53%	-91.60%	-51.75%	-18.76%
Δ ROIC (%)									
Δ ROCE (%)	-9.43%	11.41%	3.46%	0.80%	-8.91%	5.66%	17.19%	-14.44%	-15.83%
Δ B/M (%)	-0.44%	-0.89%	-3.55%	5.44%	-8.69%	-0.69%	18.07%	12.55%	8.81%
Δ P/E (%)	20.47%	5.45%	6.14%	-0.89%	-1.40%	-4.18%	-22.23%	-15.29%	2.01%
Δ EV (%)	-4.60%	-14.19%	-14.42%	7.83%	6.04%	17.23%	-5.30%	0.00%	14.28%
Δ DPR (%)	-9.36%	-2.40%	19.25%	-11.94%	7.29%	-101.71%	-102.33%	7.65%	-2.46%
Δ R&D/Sales (%)	-3.79%	-3.61%	-1.71%	0.43%	1.23%	-3.23%	1.06%	4.31%	3.37%
Δ Total Debt/EBITDA (%)	-7.36%	4.52%	0.58%	5.09%	2.79%	8.21%	25.84%	-2.42%	-3.01%
Δ ST Debt/Total Debt (%)	0.63%	-1.12%	-1.84%	15.17%	15.29%	30.85%	53.30%	21.97%	21.58%

Figure 38: Differences in Differences of the Software sample

Technology Hardware

In the Technology Hardware industry, hedge fund activism campaigns led to a mixed financial impact. ROA declined by 12% over the [-1Q, +1Q] window, and ROE fell by 18%, indicating weakened profitability. ROCE also dropped by 25%, reflecting operational inefficiencies. Market valuation indicators deteriorated, with the Book-to-Market ratio decreasing by 3% and the P/E ratio falling by 1%. In contrast, EV increased slightly by 3%, signalling a modest rise in enterprise value.

Dividend payout ratios rose significantly, while R&D/Sales ratios improved modestly by 4%. Debt metrics worsened, with Total Debt/EBITDA rising by 14%, although Short-term Debt/Total Debt remained relatively stable. Overall, Technology Hardware firms saw declining profitability but limited improvements in market value and reinvestment indicators.

Period	[-3Q,0]	[-2Q,0]	[-1Q,0]	[0,+1Q]	[0,+2Q]	[0,+3Q]	[-3Q,+3Q]	[-2Q,+2Q]	[-1Q,+1Q]
Δ ROA (%)	-11.30%	21.05%	7.23%	0.22%	14.55%	108.87%	-25.39%	155.50%	8.71%
Δ ROE (%)	-5.25%	3.88%	8.13%	-0.16%	-11.01%	67.16%	-18.25%	-51.82%	-17.70%
Δ ROIC (%)									
Δ ROCE (%)	45.57%	26.99%	23.04%	-11.49%	-24.55%	-47.80%	-102.96%	-58.71%	-25.77%
Δ B/M (%)	10.35%	0.23%	-5.92%	-12.35%	-3.59%	-10.93%	-40.75%	-5.16%	-9.91%
Δ P/E (%)	15.77%	9.91%	1.66%	3.62%	-18.80%	-33.61%	-26.83%	-17.49%	2.82%
Δ EV (%)	12.25%	-1.17%	-4.54%	4.90%	6.73%	23.09%	-0.09%	-8.56%	2.83%
Δ DPR (%)	-25.03%	-14.59%	-18.66%	125.99%	-46.97%	345.16%	984.64%	13.09%	136.56%
Δ R&D/Sales (%)	9.60%	4.18%	-1.16%	0.60%	4.75%	5.45%	-0.58%	-2.66%	1.72%
Δ Total Debt/EBITDA (%)	-0.64%	3.22%	-6.58%	11.09%	14.49%	36.45%	50.83%	15.44%	12.10%
Δ ST Debt/Total Debt (%)	9.93%	8.56%	-1.21%	4.04%	1.71%	-3.84%	-46.00%	-10.56%	-4.85%

Figure 39: Differences in Differences of the Technology Hardware sample

Conclusion

Over the past 20 years, hedge fund activism has drastically changed the corporate governance landscape. Activism, which was once thought to be a specialised activity reserved for a small group of aggressive investors, has evolved into a common tactic used to promote corporate change, unlock value, and increase shareholder returns. Hedge fund activists have established themselves as potent influencers in contemporary capital markets by combining financial savvy, strategic pressure, and tactical involvement.

By concentrating on campaigns against American technology, media, and telecommunications (TMT) firms, this thesis aimed to gain a deeper understanding of the phenomenon of hedge fund activism. Following an analysis of the development of activism over time and the emergence of hedge funds as major participants in this field, the study looked at the goals and tactics of activists, the typical traits of their targets, and the strategies employed during campaigns. The empirical analysis evaluated short- and mid-term performance after activist interventions using a proprietary dataset of 111 campaigns, with an emphasis on changes in capital allocation policies, stock returns, and financial performance metrics.

The results show that, generally speaking, hedge fund activism in the TMT industry is linked to favourable short-term abnormal returns and, to a lesser degree, improvements in specific financial metrics over the medium term. The effect varies, though, depending on the target or industry, and sometimes increases in share price performance are not accompanied by increases in operational effectiveness or long-term value generation. Furthermore, the particular goals sought, the target company's resistance or receptiveness, and general market conditions all have a significant impact on the dynamics of each campaign.

Even though these observations are insightful, it's critical to recognise the limitations of researching hedge fund activism. The difficulty of identifying every instance is one of the main obstacles to assessing the efficacy of shareholder activism, as Gillan and Starks (2007) point out. Empirical research cannot see many activist interventions, particularly those that are negotiated in private and not made public. Therefore, this thesis, like many others, may overlook a significant amount of activism that takes place behind the scenes by focussing primarily on campaigns that end in public filings, proxy contests, or other visible actions. In addition to providing the required prudence for the findings, acknowledging this limitation creates opportunities for further research that will better reveal the entire range of activist influence on corporate behaviour.

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