Hedge Fund Activism in Europe

Are Activist Hedge Funds Guardians of Shareholder Value?

Master Thesis

by

Fredrik Cedergren

- 124666 -

&

Magnus Noack

- 123161 -

Abstract

Shareholder activism is becoming an established investment strategy by hedge funds in Europe. Even though this corporate governance phenomenon is contemporaneously causing a lot of political controversies, it has not been widely researched in this part of the world yet. Existing publications have not reached a consensus on whether activist influence has a beneficial effect on the shareholder value and future development of targeted European companies or not. With an extensive hand-collected data set, comprising 494 public campaigns by 140 different hedge funds targeting 354 individual companies in 25 European countries between 2010 and 2019, we provide new and recent insights for the ongoing debate on the effects of activist hedge funds on shareholder value in Europe. We find significant positive short- and long-term stock price effects around and following activist interventions as well as indications for a favourable operational development of targeted companies given sufficiently long time.

Table of Contents

List of Tables

List of Figures

I. Introduction

Preface

"Hunting returns - Activist investors go mainstream in Europe" (Köhler & Landgraf, 2017), "The Yanks are coming, so watch out Europe!" (Dean, 2017), "Aktivisten stärken Einfluss in Europa" (Harder & Habdank, 2019), "L'Europe, 'nouvelle' terre d'activisme" (Demarle, 2019). These headlines of various European economic media outlets are public testimonies to an investment approach increasingly taking hold in European financial markets and related corporate governance landscapes: Shareholder activism by hedge funds.

Originating in the 1990s in the United States (Schrenk, 2018), this investment approach can be summarised as an active utilisation of minority shareholder rights with the aim to enhance shareholder value of companies that are perceived to be undervalued (Armour & Cheffins, 2009). The strategy usually involves hedge funds clandestinely building up sizable minority positions in publicly listed entities after which they reveal their objectives and try to enforce them by privately or publicly influencing the management, supervisory board, or corporate governance structure to increase shareholder value and liquidate their positions once they have been successful (Dean, 2017; Schüler, 2016).

This corporate governance phenomenon of brisk professional minority investors is now becoming more and more established in Europe. Not only are American hedge funds increasingly looking for targets overseas, but so are European equivalents becoming more active and established. Examples of European funds are Cevian Capital in Sweden, Active Ownership Capital in Luxembourg, The Children's Investment Fund Management (TCI) in Great Britain, or Teleios Capital Partners in Switzerland. The funds are so active and established in fact that the head of London-based TCI, Christopher Hohn, became the highest-earning hedge fund manager in 2019, earning around $1.8bn (Maloney & Pamer, 2020).

Problem Statement

In political and public debates in Europe, activist hedge funds are frequently met with a conspicuously hostile stance. Many activists are perceived as corporate raiders or even aberrations of ruthless capitalism. Especially in German-speaking Europe, the perception of hedge funds and private equity investors was lastingly influenced by the former German finance minister, Franz Müntefering, in 2005 publicly labelling them as "locusts", going from one target to the other, after retrieving short-term gains and leaving nothing but destruction behind.[1] Moreover, recently, at the end of 2019, the French government announced its intentions to implement measures to prevent companies of national interest from being targeted by activist hedge funds. First, finance minister Bruno Le Maire announced a €10bn government-led investment fund with the intended purpose of building stakes in French companies that are deemed important to back them up in case they find themselves in activists' crosshairs (Le Figaro, 2020; Reuters, 2019a). Furthermore, the government is planning to change the threshold of mandatory disclosure requirements for investors from 5% to 3% in order to increase transparency and make management teams earlier aware of potential forthcoming campaigns by activist hedge funds (Reuters, 2019b).

Among academics, the stance towards hedge fund activism is not unanimously hostile but still controversial. The heart of the debate is about the effect that activists have on long-term shareholder value and the operational development of their targets. One side claims that activist hedge funds follow myopic objectives and exploit their targets and their targets' long-term shareholders for the sake of their short-term financial ambitions. The other side sees them as welcome players in the corporate governance landscape that effectively improve ill-managed and undervalued companies for the benefit of all shareholders and the company itself (Armour & Cheffins, 2009). In the US where many economists and law scholars conducted empirical studies since the 1990s, earlier publications seem to be more in favour of detrimental and insignificant long-term effects (Karpoff, 2001), while more recent analyses seem to be more in support of long-term benefits resulting from activist interventions (Bebchuk, Brav, & Jiang, 2015; Denes, Karpoff, & McWilliams, 2017).

---

[1] See "Heuschreckendebatte", German: Locusts debate, (Reents, 2010). This metaphor is still regularly used by German commentators around controversial hedge fund and private equity engagements.

However, these American findings cannot be directly transferred to Europe because different shareholder structures, and regulatory and shareholder rights regimes apply here that might influence the effectiveness of activist campaigns (Bassen, Schiereck, & Schüler, 2019). In addition to that, hedge fund activism is still not as established, and data sets are more cumbersome to compile than in the US. As a result of this, empirical research on hedge fund activism in Europe is still rather scarce.

Research Objectives

The purpose of this paper is to counteract this scarcity of empirical research on hedge fund activism in Europe by providing new insights regarding its impact on long-term shareholder value and operational effects. To do so, we utilise an extensive hand-collected data set comprising 494 European campaigns spanning ten years from 2010-2019; to our knowledge, the largest and most up-to-date data set analysed yet. With it, we try to answer our following main research question:

Do activist campaigns by hedge funds create shareholder value in Europe?

In order to be able to approach the central question more thoroughly and to answer it more precisely and comprehensively, we have derived four sub-questions.

- First, we investigate whether activism targets hold common characteristics that provide indications of the hedge funds' intentions if they tend to target relatively healthy companies or such with room for improvements: *Do past operating performance, valuation and leverage in European companies affect the likelihood of being targeted by activist hedge funds?*

- Secondly, we examine how other market participants react to activist interventions and how they price in this information by asking: *Do activist campaigns by hedge funds create short term shareholder value in Europe?*

- Thirdly, we probe the claim that hedge funds often follow myopic financial goals and do not create long-term value and that short-term share price gains around their interventions might even be reversed in the long run: *Do activist campaigns by hedge funds create long-term shareholder value in Europe?*

- Lastly, we consider the real effects of activist hedge funds on their targets, asking: *Do activist campaigns by hedge funds have an impact on subsequent operational firm performance in Europe?*

Structure of the Thesis

This thesis is structured in a way that resembles our research process and should allow the reader to retrace it. It is ordered from the general to the specific, from qualitative to more quantitative topics. Following this *I. Introduction*, we first provide the *II. Background* of hedge fund activism in Europe, by comprehensively defining and differentiating it from other forms of activist investing, describing its US origins and its advent and rise in Europe, and explaining its regulatory playing field. Afterwards, we cover the *III. Theory* that helps to understand, interpret, and explain this corporate governance phenomenon better. The *IV. Literature Review* particularly summarises existing empirical research from the US and Europe to illustrate the research gaps and positioning of this thesis in the empirical context. In the fourth section, we map out our data gathering process and describe the resulting data set to depict and quantify the activities by activist hedge funds in Europe (*V. Data & Overview of European Hedge Fund Activism*). This review is followed by an explanation of the methodologies employed and how they are used to answer hypotheses derived from the research question (*VI. Methodology & Hypotheses*). In the *VII. Empirical Analyses* section the results are presented, interpreted, and discussed. It is structured following the four sub-questions that we utilise in order to answer the main research questions of whether activist campaigns create shareholder value in Europe. The final *VIII. Conclusion* section recaps the thesis and provides an outlook into further research and the future of shareholder activism.

II. Background

2.1. Definition of Hedge Fund Activism

The variation of shareholder activism that this paper examines is often summed up as the exercise of minority shareholder rights by hedge funds to positively affect shareholder value in public companies that are perceived to be undervalued (Armour & Cheffins, 2009). Nevertheless, as there is no unambiguous definition of hedge funds and there are several investment strategies by these and other investment vehicles that require active engagement and thus are frequently deemed as "activist", further elaborations and differentiations seem appropriate.

In order to pave the way for a more precise definition and prevent mix-ups, it is helpful to illustrate the differences between hedge fund activism and other active investment strategies. Four different characteristics are consulted, investment focus, financial instruments, stake, and timing of the decision to engage in activism, and the results are summarised in TABLE 1. The first differentiating factor, *investment focus*, describes the typically assumed target groups and situations of the investors. *Financial instruments* represent the general means of investment chosen. The *stake* describes the tendency to take minority or majority positions. The *investment horizon* covers the expectable time of engagement. Lastly, the *decision for activism* represents whether the choice to take an active investor stance is made before or after an engagement.

First, it is essential to clarify what differentiates shareholder activism by hedge funds from shareholder activism by ordinary minority shareholders of the likes of institutional investors, such as mutual or pension funds. Hedge funds explicitly target public companies with the aim of deliberately exercising their minority shareholder rights to reach their desired goals, i.e. put the active involvement at the heart of their strategy. Institutional investors generally only engage in shareholder activism if they encounter governance issues at existing portfolio companies that they assume to be able to solve by employing their rights as minority owners (Armour & Cheffins, 2009). Armour and Cheffins (2009) define these timing differences of the decision to engage in activism as "ex ante" and "ex post" activism, respectively. Furthermore, according to Seretakis (2014), mutual funds and other institutional investors rarely take the initiative as they would have to bear the entire costs of engaging in activism for their existing investments while having to share the benefits with other investors,

which would relatively worsen their performance (see *3.2. Market for Corporate Influence*). Hedge fund managers, on the other hand, have high-powered performance-based incentives to exploit return opportunities by reducing agency problems through cumbersome active engagements (Mietzner & Schweizer, 2014). In this context, Gilson and Gordon (2013) even see hedge fund activists as "governance arbitrageurs" (p. 896) because of the assumed hesitant stance of institutional fund managers towards activism.

TABLE 1. Differentiation of Shareholder Activism

	Activist Hedge Funds	Private Equity	Short Sellers	Vulture Funds	ESG Activists	Value Investors	Inst. Investors
Investment focus	**Undervalued public companies**	Private or public companies	Overvalued public companies	Distressed securities	Public companies with ESG issues	Undervalued public companies	Public companies
Financial instruments	**Long equity positions**	Long equity positions	Short equity positions	Bonds, loans, etc.	Long equity positions	Long equity positions	Long equity positions
Stake	**Minority**	Majority	Minority	Depends	Minority	Minority	Depends
Investment horizon	**Short term**	Short-mid term	Short term	Short term	Short term	Long term	Long-term
Decision for activism	**Ex ante**	Ex ante	Ex ante	Ex ante	Ex ante	Ex post	Ex post

Source: Authors' creation based on Achleitner et al. (2010), Armour and Cheffins (2009), Engert (2019), Mietzner and Schweizer (2014), and ActivistInsight and Skadden (2020).

Another investment strategy that can be compared to the hedge fund activists' is the one that value investors follow. They, too, invest in companies that they appraise to be undervalued. However, unlike hedge funds, they are more long-term oriented and assume that the market self-corrects at some point instead of engaging in activism to increase shareholder value by promoting value-increasing countermeasures (Armour & Cheffins, 2009). Notwithstanding, since both investors theoretically pick their targets in a similar fashion, some see hedge fund activists as offensive value investors (Bratton, 2010; Seretakis, 2014).

Private Equity funds, on the other hand, have a similarly activist approach towards their targets. Yet, they usually take majority stakes, also invest in private companies, and typically have longer investment horizons than activist hedge funds (Achleitner et al., 2010). Hedge funds in general use to have more frequent performance assessments and are often set up as open-end funds, which means that their investors tend to redeem their investments quickly if the returns are not as expected

(Achleitner et al., 2010). So, compared to private equity funds that are usually closed until liquidation (Achleitner et al., 2010), hedge fund activists do not want to tie up their prospects in illiquid majority stakes (Armour & Cheffins, 2009).

Probably the most recent investment approach is the one of ESG activists. These investors follow a similar procedure than activist hedge funds of taking minority stakes in public companies to employ shareholder rights to lobby for changes, but their aims and their investors' aims are not primarily focused on shareholder value but environmental and social causes (ActivistInsight & Skadden, 2020). As these funds are the most recent development in the activism sphere and seem to have a better reputation among the politicians and the public, some established hedge funds began offering ESG products as alternatives to attracted different kinds of investors (ActivistInsight & Skadden, 2020).

Lastly, short-sellers and vulture funds are also regularly mixed up with activist hedge funds. Both follow strategies that do not involve the use of shareholder rights as they hold short positions and distressed debt, respectively, so they are not counted as shareholder activists. Short sellers resemble quite the opposite of activist hedge funds as they do not want to promote governance improvements and thereby increase shareholder value but rather to publicly expose their targets' issues and, in the short term, earn from the resulting price erosions (Engert, 2019). Vulture funds invest in fixed income securities of distressed companies or governments that tend trade at a sizable discount to take an active position afterwards to push for repayment of the face value at maturity (Armour & Cheffins, 2009). Considering all the above, we arrive at the following definition:

> *Hedge Fund Activism comprises minority investments in public companies with assumed potentials for improvement by alternative investment vehicles with high-powered incentives, which are made with the explicit intention of actively exercising shareholder rights to encourage corporate governance changes to increase shareholder value.*

Typical objectives by activist hedge funds include a general urge for increasing shareholder value, the payout of excess cash via share buybacks or dividends, changes of the current strategy in place, M&A related topics such as opposition towards a tender offer, corporate governance issues such as the ousting of a reigning CEO or more commonly a seat on the board of directors (Brav, Jiang, Partnoy, & Thomas, 2008).

2.2. History of Hedge Fund Activism

To better understand the corporate governance phenomenon that is hedge fund activism, it appears to be revealing to get to know its roots, how it has evolved, and how it has found its way to Europe. It is assumed that today's hedge fund activist emerged from the so-called corporate raiders of the 1980s in the United States. These investors gained notoriety by conducting debt-financed hostile takeovers or using the threat of such takeovers to put pressure on management teams of companies that got in their crosshairs to implement changes (Armour & Cheffins, 2009). However, their investment strategy was built around the use of majority stakes and public instead of private companies as investment vehicles. So, it took until the 1990s for the first real predecessors of today's activist hedge funds emerged (Schrenk, 2018). In this decade, the hedge fund industry, comprising private investment vehicles with littler oversight, grew massively as did the variety of the investment strategies that they followed. In this connection, Armour and Cheffins (2009) point out six different hedge funds, Steel Partners, ESL Investments, Shamrock Associates, Coniston Partners, Greenway Partners, and Tiger Management, that were among the first to target companies they perceived as undervalued and to use minority stakes as platforms to lobby for shareholder value-increasing measures. From there, the shareholder activism by hedge funds rapidly developed until it took off in the early 2000s. After the dotcom crash, it became visible that many public companies had experienced only weak oversight by their shareholders during the previous boom (Armour & Cheffins, 2009). That is when the activist hedge funds' strategy of "informed shareholder monitoring" (Brav et al., 2008, p. 1729) became very appealing.

From here on, this niche investment style became widespread and more competitive in the United States. So, widespread and competitive, in fact, that the activist hedge funds started to look for targets outside the United States (Potts, 2017). What helps activist hedge funds to carry out their campaigns, are shareholder-friendly environments with dispersed ownership and a clear separation of ownership and control (Potts, 2017). So, they found their way to Europe via Great Britain that showed a compatible regulatory framework and a focus on shareholder value (Potts, 2017). One of the earliest high-profile incidents of hedge fund activism in the UK was Laxey Partner's campaign targeting British Land Plc (Becht, Franks, & Grant, 2015).

With the advent of the Euro, European economies got increasingly tied together and became more and more integrated into international capital markets (Bessler, Drobetz, & Holler, 2008). Furthermore, in many continental European countries, the governance systems began to change from often bank- or family-controlled models towards an increasingly shareholder value-oriented attitude with more dispersed and international ownership structures (Bessler et al., 2008). But generally, many continental European countries still have corporate governance systems that differ from Anglo-Saxon models (Achleitner et al., 2010). However, even though shareholder activism in general and even more so by hedge funds was rather unusual at the beginning of the century, the corporate governance phenomenon is increasingly taking a hold on the continent as well (Bessière, Kaestner, & Lafont, 2011). Some even argue that activist hedge funds are among those capable of filling gaps in European corporate governance systems that the reduction and shift away from widely prevalent bank-controlled systems left (Bessler, Drobetz, & Holler, 2015; Coffee, JR., 2001)

One of the earliest activist campaigns in continental Europe has been executed by the American hedge fund Wyser-Pratte targeting Mannesmann in the course of its merger talks with Vodafone in 1999 (Stadler, 2010). Another important campaign was TCI's active involvement at Deutsche Börse in 2004. This engagement successfully ended the merger talks with the London Stock Exchange and arguably showed other investors that successful activist campaigns are possible in continental Europe (Stadler, 2010).

As indicated before, the history and development of activist hedge fund activities in Europe as well as in general are closely linked to financial market regulations and their developments and changes over time. That is why the following chapter is dedicated to the regulatory environment that affects shareholder activism conducted by hedge funds.

2.3. Regulation of Hedge Fund Activism

This section will cover regulatory aspects in Europe and the US that are relevant in the context of hedge fund activism. Firstly, historical differences with respect to legal systems will be described. The discussion will then cover more detailed aspects as well as some recent regulatory developments in Europe and their implications for the activism landscape.

La Porta et al. (1997) attempt to highlight the legal and regulatory differences between 49 countries that explain the domestic firms' access to debt and equity capital. This access then can be seen as a proxy for the size of local capital markets. At the highest level, the differences are attributable to two different legal systems that are currently in use, common and civil law. Both originated from Europe and was spread through colonization, which is the reason as to why both The US and the UK are based on the common law system. In this system, legal practice is based on precedent court decisions. In contrast, continental Europe is based on the civil law system where the rules are codified, organized, and created by central legislative bodies (Dainow, 1967). Beck et al. (2003) conclude that countries which inherited the British Common law system tend to emphasise the importance of private property ownership. The underlying reason is that the legal system was designed to protect private property rights against expropriation by the crown. Conversely, the civil law system, originally from France, was designed to cement and retain state power (Beck et al., 2003). As colonization spurred development of new societies and institutions, the respective legal systems heavily influenced the way these institutions were designed. The result translates into findings suggesting that countries that adopted the common law system prioritise the private property rights, such as company ownership through shareholdings, to a higher degree than their civil law counterparts. (Beck et al., 2003). These overarching historical differences provides a basic conceptual understanding of how capital markets have evolved around the world (La Porta et al., 1997). However, regulation is evolving and the following paragraphs will cover in more detail, the consequences of modern regulation for hedge fund activism.

The European shareholder rights directive, first implemented in 2007 (European Parliament, 2007), and then amended in 2017 (European Parliament, 2017) is a supranational regulatory effort to promote long-termism and sustainable corporate governance in European firms. This includes both, encouraging shareholders to engage in corporate governance-related matters and pursuing ESG-related goals (Pacces, 2017). The directive introduced, among other things, added rights for shareholders to place draft resolutions on the agenda of general meetings. Increased flexibility regarding electronic participation in general meetings and voting by proxy was introduced and the chairman's casting a vote was abolished (European Parliament, 2007). The amendment in 2017 added the rights for companies to identify shareholders with an ownership stake above 0,5% (European Parliament, 2017, Art. 3a). Institutional investors and asset managers are now required to publicly

disclose their general engagement policies describing how they monitor and influence corporate governance on all relevant matters (European Parliament, 2017, Art. 3g). This is to ensure the long-term sustainability of the corporate governance landscape. Noteworthy is that the identification of shareholders is not the same as ownership disclosures, the new legislation stipulates that each member country must establish ways for companies to request information on who their shareholders with ownership stakes above 0,5% are. It does not entail mandatory filings by the investors. Furthermore, the disclosure of engagement policy and long-term corporate governance contributions by investors are on a general basis and not in the form of case-specific intention disclosures (European Parliament, 2017, Art. 3g).

Pacces (2017) criticizes the amendment for impairing the incentives of hedge fund activists through the disclosure of identity once the ownership stake reaches above 0,5%. The author argues that these requirements affect the hedge funds' ability to exercise their strategy and that the European Parliament has failed to recognise the corporate governance benefits present in the way hedge fund activists operate (Pacces, 2017). The directive is still new, and member states just began implementing it, e.g. Denmark implemented it in June of 2019 (Bang, Korpela, & Federspiel, 2019). As such, the real effects of the directive on hedge fund activism are still to be seen.

Katelouzou (2015) analyses the implications that disclosure rules have for hedge fund activism, separated into four stages of the engagement: entry, trading, disciplining, and exit stage. During the entry stage, hedge funds screen potential targets. Mandatory disclosure of financial information such as annual and quarterly reports eases the process for activists and can serve to reduce agency costs for activists associated with information asymmetry. At the trading stage, hedge funds seek to build stakes in the target companies. In the process, activists face ownership disclosure rules, which can destroy an element of surprise and deter from proactive stake-building (Katelouzou, 2015).

Disclosure requirements are not necessarily only negative for activists. It can provide a clearer picture of the ownership structure prior to the engagement which increases transparency. However, post-disclosure gains must be shared with the market, and disclosure of ownership can alert the target company of an upcoming campaign. Due to this, activists generally try to gain from building stakes anonymously (Katelouzou, 2015). Previously, it was possible to hide stakes through derivative

instruments and synthetic transactions as disclosure requirements only concerned equity holdings with voting rights. With the revision of the 2004 transparency directive in 2013, this is harder as all significant cash-settled transactions, and financial instruments whose economic value is comparable to holding shares must be disclosed (European Parliament, 2013; Katelouzou, 2015).

Further strategies to anonymously build stakes include delaying reporting to relevant authorities. The SEC regulation in the USA requires investors that have built up a beneficial ownership stake of more than 5% to report this to the SEC within ten days (United States Securities and Exchange Commission, 1968). In their US study, Bebchuk et al. (2014) find that activists tend to delay the stakes' disclosures as much as possible. In some cases the activists also fail to disclose their stakes within the ten-day window as the legal repercussions for doing so are not severe, thus buying more time to increase their stakes even further (Bebchuk et al., 2014). In the case of Europe, the transparency directive allows member states to set shorter disclosure deadlines and lower ownership thresholds. As a result, many countries have adopted very low disclosure thresholds. The UK and Italy set a 2-day disclosure deadline for stakes above 3% of voting rights. Germany and France established a 4-day deadline for stakes at 3% and 5%, respectively (Seretakis, 2014). The country that stands out the most are the Netherlands which do not have a disclosure period but where shareholders amassing a stake above 2% are required to disclose this "without delay" (Pacces, 2017). By forming so-called wolf packs or temporary alliances between multiple investors with aligned interests, the activists can circumvent the disclosure requirements. When each investor builds a stake below the ownership disclosure threshold, the combined ownership enables the wolf pack to collectively amass a more significant stake in secrecy and achieve the common governance goals (Katelouzou, 2015).

Shareholder proposals constitute an essential tool for activist hedge funds and other shareholders to voice concerns and influence decisions on management choice and corporate action. In the US, shareholder proposals are included in the proxy statement of a firm and expressed on a general meeting. For activists in the USA, it remains a frequently used tool employed against resisting target firms (Buchanan, Netter, Poulsen, & Yang, 2012). Proposals in the US are non-binding, meaning that in the case of a successful vote on a proposal, the management is still not obliged to make the requested changes. In the UK and most of continental Europe, proposals are binding, and

managements teams are required to honor proposals receiving the majority vote (Levin & Malenko, 2011). This means that managers can effectively be removed via an ordinary resolution (Cziraki, Renneboog, & Szilagyi, 2010). An exciting finding of Levin and Malenko (2011) is that, compared to binding voting, the non-binding voting generally fails to cater to the interests of the shareholders when manager and shareholder interests are unaligned. However, when an activist investor is present with authority to discipline the management, the non-binding voting is found to be more efficient (Levin & Malenko, 2011). Buchanan et al. (2012) find a similar result, claiming that the binding nature of UK proposals carries more power but are also more onerous to the investors filing them.

Controlled for the number of firms in each country, Buchanan et al. (2012) find that there is a significantly higher number of filed shareholder proposals in the USA compared to the UK, which might speak to its limited practical use for activists in the UK. The most active sponsors in the UK are found to be former management and "institutions". The authors, unfortunately, do not provide a granular definition to the term "institutions" for a comparison to hedge fund activism. They do, however, name examples, such as the CalPERS pension fund in the US and the Hermes UK Focus Fund (Buchanan et al., 2012).

From a regulatory standpoint, Europe and the US are different. This goes all the way to the core of the respective legal systems. Europe employs stricter disclosure thresholds and authors like (Pacces, 2017) argue that the novel European shareholder regulation is inefficient at improving the corporate governance abilities of hedge fund activists. Meanwhile, hedge fund activism is evidently on the rise in Europe which implies that the market is attractive, despite the presence of previously mentioned potential regulatory obstacles.

III. Theory

3.1. Agency Theory & Shareholder Activism

When studying corporate governance concerning shareholder activism, agency theory offers fundamental insights into the dynamics involved. The theory originates from the work of Berle, JR. and Means (1933), who find that there might be governance issues associated with a separation of ownership and control when American firms went from privately-owned entities to publicly listed firms. Jensen and Meckling (1976) describe the firm as a nexus of contracts and introduce the terms principal and agent. Principals are the owners of a firm, and the agents are the managers of a firm. The divergence of incentives and subsequent interests between the two is known as the principal-agent problems.

The daily control of a firm is placed in the hands of the agents to act on behalf of the principals. This separation of ownership and control entails conducting the business in such a manner as to enable it to fulfill the central purpose of a company, which is to generate profits to the owners. If managers are not adequately incentivised to pursue this goal, they are likely to act opportunistically and enrich themselves with company assets at the cost of returns to shareholders (Jensen & Meckling, 1976).

Jensen (1986) presents an agency problem related to excess free cashflows. The theory stipulates that firms carrying cash above what is needed to fund all available projects creating positive net present value (NPV) should instead pay the funds out to shareholders. Jensen (1986) recognises that managers are keen on keeping an abundance of cash as it facilitates covenant-free investing in projects. When the managers cannot find any more projects generating a positive NPV, they are more likely to engage in NPV-negative projects in an irrational pursuit of firm-growth and benefits from poorly designed incentive programs. The marginal effect of these projects has a detrimental impact on the performance of the company, which leads to a lower stock price and decreases shareholder value. If the firm distributes the excess cash to shareholders, the increased special dividend or share buybacks will resonate positively with the market, increase the stock price, and lead to higher shareholder value (Jensen, 1986).

Excess cash can be a clear governance issue and should, therefore, be a focus for activist hedge funds. Boyson and Mooradian (2011) study the effects of hedge fund activism on target's short- and long-term stock and operating performance. What is found is that hedge funds are efficient at pressuring the target firms to pay out excess cash. The most dramatic performance improvements are also reserved for when the hedge funds demand reductions of excess cash holdings. Similar findings are brought forward by Faleye (2004), who recognises that an abundance of cash is an effective anti-takeover measure as it enables the target to buy back shares. The authors highlight that proxy fighting can be an efficient governance measure to mitigate the agency problem of excess free cash flow. A sample of proxy fights not accompanied by a takeover bid is examined. They conclude that targets of proxy fights generally hold more substantial amounts of excess cash than their peers. Further, the short-term stock returns following announcements of proxy fights are higher when the targets carry excess cash. Often, the result of these proxy fights is that management turnover increases, and the excess cash decreases. Various strategies are implemented to mitigate the problem. Internationally, most companies have a board of directors whose task it is to look after and represent the interests of the shareholders. In practice, the board appoints and governs the management. This also involves deciding on the compensation for the management, all while doing it in such a shareholder value-maximising manner (Denis & McConnell, 2002).

Complete separations of ownership and control are rare. Equity holders with significant stakes effectively also hold some control over the firm. It can be costly for investors to verify and control the actions of managers. Acting in the shareholders' interest, the board seeks to design contracts that will provide managers with incentives to work accordingly. These incentives are often focused on the remuneration of managers, where a part of their compensation is performance-based (Denis & McConnell, 2002). Performance-based compensation, through equity incentives, for example, is more common in the US compared to continental Europe, where the link between performance and pay is less distinct (Conyon, Fernandes, Ferreira, Matos, & Murphy, 2011).

When the board of directors fails to monitor and discipline the management in a way that satisfies the shareholders, the activist choices available to shareholders are "voice" or "exit", where voice is an act of political character and exit is a financial response (Hirschman, 1970). An exit is a solution available to all shareholders by simply selling the equity position. Voicing concerns is, however, costly

and mostly open to those shareholders with sufficient knowledge and resources to influence the board (Admati, Pfleiderer, & Zechner, 1994). The activists possess such resources, and the justification for their existence is rooted in failures by the board to mitigate principal-agent problems.

International differences in ownership structures have implications for the activist landscape. Coffee, JR. and Palia (2015) outline two rival governance systems in terms of ownership structure, dispersed versus concentrated ownership system. In a dispersed ownership system, securities markets are robust and transparent. The existence of block holders is minimal, and the market for corporate control acts as a strong disciplinary mechanism. A concentrated ownership system is characterized by a small number of block holders controlling the majority of shares in listed firms. Securities markets are weaker in comparison, and the market for corporate control plays a more ancillary role as a disciplinary measure (Coffee, JR. & Palia, 2015).

Barca and Becht (2001) outline the ownership structure of eight European countries and the USA. They find that continental European firms, i.e. excluding the United Kingdom, have a median block holding ranging from 56% of votes in Belgium to 34,9% in Sweden. This is compared to the median block holdings in the United Kingdom at 9,9% and the USA at 5,4%. The holdings are measured as the median of the largest owner in a single firm. The second-largest holders differ dramatically from the largest as they range from 8,9% in Spain to 2,5% in Austria. The corresponding figures for the UK amount to 6,6% (Barca & Becht, 2001). Faccio and Lang (2002) reach similar findings when they compare widely held firms to family-controlled firms. The result shows that widely held firms are more prevalent in the UK and Ireland whereas family control is more common in continental Europe. What is evident is that continental Europe has a far higher concentration of ownership compared to the UK and the USA (Barca & Becht, 2001).

As the ownership structures are distinctly different in continental Europe compared to the USA and the UK, so should the landscape for shareholder activism. Appel et al. (2018) analyze the implications for activism when the ownership structure is dominated by one or a few large, passive owners, such as mutual funds. They find that the use of hostile, confrontational tactics is more common among activists in the presence of a substantial shareholder. This also includes a tendency to pursue proxy fights, seek board representation, and engage in other forms of costly activism to a greater extent.

The authors theorise that the presence of a sizeable passive shareholder mitigates free-rider problems. This is due to lower coordination costs of organizing proxy fights. A campaign can also receive greater credibility if a significant shareholder expresses its support which ultimately leads to higher chances of a successful campaign (Appel et al., 2018). Katelouzou (2015) presents similar findings from a different perspective. Dispersed ownership is found to be more beneficial in the early stages of a campaign from a stake building perspective. The presence of a substantial shareholder can be problematic if the shareholder opposes the campaign (Katelouzou, 2015). These are different views but ultimately not contradictory. However, the logic presented by Appel et al. (2018) is relevant as the ownership structures analyzed are similar to those found in Europe.

3.2. Market for Corporate Influence

Among the predecessors of today's hedge fund activist were the infamous corporate raiders of the 1980s. With them, the theory of the market for corporate control became widely known. This theory, first described by Manne (1965) characterises and a new additional market next to the product, labour, and financial markets on which majority stakes in public companies are traded. With the help of these majority stakes, investors are able to change and therewith put pressure on management teams and ultimately take over control of a company. So, if outside investors think that a company is undervalued, they can threaten to take over the majority stake, change management, and implement further changes to corporate governance. From an agency theory perspective the fear of such takeovers in the course of which the board and management teams are often changed encourages current management teams to engage in shareholder value-creating activities to increase the share price to such levels that make hostile takeover attempts less likely.

However, such majority transactions often involve lengthy hostile takeover situations, endure grand transaction costs, and tie up capital in less liquid majority stakes (Armour & Cheffins, 2009; Aslan & Maraachlian, 2007). In light of these downsides, together with additional changes to regulatory and stock market developments, as well as the advent of hedge fund activists that use minority stakes as platforms to lobby for corporate governance changes, Armour and Cheffins (2009) propose the concept of the market for corporate control. The market for corporate influence is based on the transfer of control by vote using minority shareholdings rather than the transfer of control by sale using majority stakes that is common on the market for corporate control (Gilson & Schwartz, 2001).

With the help of the theoretical concept that is the market for corporate control, the business model of today's activist hedge funds can be explained. For this purpose, Armour and Cheffins (2009) developed a theoretical inequation that includes the terms under which shareholder activism becomes a rational decision to make. Furthermore, the two authors describe supply- and demand-side factors concerning the market for corporate influence. The inequation that must be satisfied for hedge fund activism to become a rational decision is defined as:

$$c_i < \alpha\, b_i$$

Thereby, c defines the expected costs that come along with activism campaigns. They typically consist of search costs, transaction costs, and financing costs (Armour & Cheffins, 2009). The alpha resembles the percentage of outstanding shares ultimately held by an activist and b the total shareholder benefits that are generated in the course of hedge fund activism campaigns. What becomes visible here are the free-rider problems that activists typically face (Armour & Cheffins, 2009). As they own only a fraction of the total shares, they have to share the returns they try to achieve using their influence as minority shareholders with the remaining stock owners of their targets. This is also why many institutional investors are not willing to engage in shareholder activism as they would incur the costs alone and would have to share the benefits with their competitors that would then exhibit relatively better performance (Drerup, 2014). If hedge fund activists are successful, their interventions can be interpreted as positive externalities for the remaining shareholders (Armour & Cheffins, 2009). According to the inequation above, a decision for shareholder activism becomes rational for hedge funds if the expected costs are smaller than the activists' percentage of total expected benefits from the campaigns.

Furthermore, Armour and Cheffins (2009) define supply and demand-side factors of the market for corporate influence. They interpret the supply side as the investment opportunities for hedge fund activists and the demand side as their willingness and assertiveness to exploit those opportunities. Supply-side factors are the targets that have influenceable shareholder value potentials, ownership structures that are in favour of activism campaigns such as widely dispersed shareholdings, as well as a jurisdiction with distinct shareholder rights to increase the chance of being able to enforce activism campaigns objectives. The demand side, on the other hand, consists of transaction costs, financing costs, as well as the regulation of investment funds (Armour & Cheffins, 2009).

IV. Literature Review

This section is meant to summarise related empirical works by other researches and to show how this thesis can contribute to this research area. First, we describe the debate in relation to empirical hedge fund activism publications in the United States, where the topic has been studied more extensively. We present the main competing hypotheses of the effects of hedge fund activism on its targets. Secondly, we summarise the empirical publications and findings from existing studies focused on the impact of hedge fund activism on targets in Europe.

4.1. Debate on the Effects of Hedge Fund Activism

Researchers in the US can rely on so-called 13D filings that investors must provide if they reach 5% of beneficial ownership in public companies and in which they must also indicate their intentions (Potts, 2017). This makes it easier to compile data sets on American hedge fund activism campaigns. Furthermore, hedge fund activism has its roots in the US and is more widespread, and prevalent is this geography. Also, the shareholder culture is more advanced and the ownership structures more dispersed. This makes research about hedge fund activism more extensive in the United States and arguably less comparable to the findings from Europe. Therefore, we limit our review of empirical literature on the occurrences of these campaigns in the US to a summary of the hypotheses and arguments used in the domestic debate on the effects on shareholder value. This approach should provide useful guidelines to interpret the empirical findings from European empirical literature on the subject in the following sub-section as well as our analyses.

From the American publications, we gather four hypotheses expressing different opinions on the role of the hedge fund activists in the financial markets and related corporate governance landscapes. The last three hypotheses are related in that they acknowledge short term stock price gains from activist interventions. However, the causes for these gains are still up for debate. The section aims to provide a brief overview of the historical discussion by introducing and discussing the hypotheses.

Corporate raider hypothesis

The first hypothesis is that of activists being "corporate raiders". Holderness and Sheehan (1985) describe that the raiders reduce the wealth of the other shareholders in which is why the short-term market response would be negative. Holderness and Sheehan (1985) recognise this opinion as being common in American media during the 1980s. In their paper, they attempt to investigate if six specific investors, among them Carl Icahn and David Murdock, are corporate raiders by the above definition or if they inherit a different market role. The examples presented include that theses investors had a history of raiding corporate treasuries, which would support the raiding hypothesis. The investors also enriched themselves by using acquired voting power to demand excessive remuneration from the targets in which they invested.

The study measures the stock price returns following the announcement of the engagement by one of the six investors and finds that shareholders of the target firms earn statistically significant positive abnormal returns. A long-term perspective does not provide any proof to say that the investors enrich themselves in a manner that reduces the wealth of other shareholders. As the study rejects the hypothesis, Holderness and Sheehan (1985) propose two new hypotheses: First, that the investors are good stock pickers with the ability to identify underpriced stocks and second, that the investors improve the management of the targets (Holderness & Sheehan, 1985).

Myopic Investor Hypothesis

A second hypothesis which is also covered by Bebchuk et al. (2015) is that hedge fund activists are myopic investors. The notion is that the activists pursue actions that are profitable in the short run but have negative implications for the long-term performance of the targets (Bebchuk et al., 2015). The myopic investor hypothesis claims that the abnormal returns gained in the short term are reversed in the long run following a "pump-and-dump" management style (Bebchuk et al., 2015). Bebchuk (2013) argues that the claim of long-term impairments in operational performance is simply not valid. The study investigates target performance relative to peers and finds that the targets closed the negative performance gaps to their peers within five years. The finding is then used as an example as to why activist hedge funds should not be viewed as myopic.

Superior Stock Picker Hypothesis

Under the superior stock picker hypothesis, it is argued that the activist hedge funds, rather than propose relevant changes benefiting the target in the long term, are naturally good at identifying the potential in underpriced stocks (Bebchuk et al., 2015). Therefore, the notion is that activist hedge funds should not be credited with a causal link between their intervention and long-term operational performance improvements. However, as Bebchuk et al. (2015) highlight, even if a causal relationship were impossible to prove, it would still not justify limiting the investment capacity of the hedge funds as they contribute to short term gains, and their interventions are not associated with impaired operational performance. Further, Bebchuk et al. (2015) find long-term operational improvements following activist interventions and concluded that activist hedge funds are likely to have some impact on long-term operational development. However, they stress that causal relationships between corporate governance and finance are hard to prove.

Corporate Governance Hypothesis

 Similar to the superior stock picker hypothesis, the corporate governance hypothesis assumes positive abnormal stock returns in the short term (Aslan & Maraachlian, 2007; Croci, 2007). However, differences are present in the post-investment behavior of the hedge funds. Under the superior stock picker hypothesis, it is assumed that the hedge funds do the work of selecting undervalued stocks before the investment. Post investment, the behavior of the hedge fund turns passive as the theory stipulates that they do not provide any further efforts to improve the performance of the target firms. Conversely, under the corporate governance hypothesis, the hedge funds exhibit active post-investment behavior where efforts to monitor and influence through the newly acquired stakes starts. The myopic investor hypothesis also assumes active post-investment behavior. However, the apparent difference is that the myopic hypothesis assumes that the activity will be detrimental to the long-term performance of the target firm. This is not the case under the corporate governance hypothesis under which the actions improve the performance of the target firm which ultimately leads to increased wealth for all shareholders (Croci, 2007).

4.2. Empirical Studies of European Targets of Hedge Fund Activism

The following section will cover, summarize, and compare empirical findings from Europe surrounding shareholder activism by hedge funds. The body of empirical studies covering European hedge fund activism is rather scarce. The studies presented examine either the continent as a whole or focus on Germany, France, or the United Kingdom. Hedge fund activism is a new phenomenon for European managers to handle. This also becomes visible in the scarcity of literature covering Europe specifically. Activist hedge funds were generally perceived as having hostile intentions and "raiding" their targets. The initial attitude towards the originally American concept is illustrated well in Croci (2007) who uses the word "corporate raider" to describe a hedge fund activist. The following literature comprises the core of European research over the past two decades. The conceptual novelty spurs divergence among findings leading to different conclusions related to the American hypotheses of the market role for activist hedge funds. TABLE 2 summarises the concrete findings of each study, and the following paragraphs take a more detailed approach to describing the literature.

What all studies have in common is the prevalence of short-term positive abnormal stock price returns following the announcements of engagements by activist hedge funds (TABLE 2). Long term results are more dispersed where Stadler (2010), Kühne (2011), Drerup (2014), and Mietzner and Schweizer (2014) find negative long term BHAR; however, only Drerup (2014) finds significant results. Bessler et al. (2008), Becht et al. (2010), Bessler et al. (2015), Becht et al. (2017), and Becht et al. (2019) finds positive long-term abnormal returns.

A few studies analyse the tactics used and the objectives pursued by activist hedge funds. Bessler et al. (2015) differentiate between aggressive and non-aggressive campaigns. Aggressive campaigns are loosely defined as those where hostile measures towards managers are openly employed. What is shown is that aggressive funds are superior at producing short term gains. However, the returns from aggressive campaigns revert in the long term and non-aggressive outperform the aggressive hedge funds. The study claims that the aggressive strategy expropriates the target firms by capitalising on temporary short-term gains without any interest in improving the corporate governance of the targets. The study thus supports the myopic investor hypothesis for aggressive campaigns, while not drawing any conclusions on the corporate governance contributions of the non-aggressive interventions Bessler et al. (2015).

TABLE 2. Summary of Empirical Results on Hedge Fund Activism in Europe

	Region	Period	n	Event Study	Long-Term Returns	Target Characteristics	Operational Development
Croci (2007)	Europe	1990-2001	136	9.30%*** (-30,30)	Calendar time portfolio - Mixed results		
Bessler et al. (2008)	Germany	2000-2007	324	2.59%*** (-5,+5) 3.50%*** (-15,+15) 7.97%*** (-45,+45)	BHAR 8.98%*** (-40,+240) 28.48%*** (-40,+480) 61.97%*** (-40,+720)	Small market cap, illiquid stocks	
Becht et al. (2010)	Europe	2000-2008	183	5.61%*** (-10,+10) 6.90%*** (-20,+20)	BHAR 8.90%* (0, exit) 14.00%*** (-30d,exit)		
Stadler (2010)	Germany	2000-2008	136	2.55%*** (-10,+10) 3.47%*** (-20,+20)	BHAR -0.94% (-1,+6 months)		
Achleitner et al. (2010)	Germany	1998-2007	96			High free cash flow & net debt, low dividend yield	
Kühne (2011)	Germany & Switzerland	1998-2009	185	4.9%*** (-10,+10) 5.2%*** (-20,+20) 5.5%*** (-30,+30)	Calendar time portfolio - Negative alphas for periods of 1 and 2 years		
Drerup (2014)	Germany	1999-2010	142	3.47%*** (-10,+20)	BHAR -18.06%** (-1,+360 days)	Larger firms, free float, significant cash holdings	No significant changes of fundamental characteristics
Mietzner and Schweizer (2014)	Germany	2001-2007	67	4.65%** (-10,+10) 6.24%** (-20,+20) 3.38% (-30,+30)	BHAR -0.20% (+150) 3.50% (+200) -1.02% (+250)	Lower market-to-book ratio, low interest expenses, dispersed ownership	
Becht et al. (2015)	Europe	1997-2008	195	1.70%*** (-10.+10)	6,90% (0, exit)		
Bessler et al. (2015)	Germany	2000-2006	231	2.72%*** (-5,+5) 4.43%*** (-15,+15) 9.38%*** (-45,+45)	BHAR 9.43%*** (-40,+120) 11.17%*** (-40,+240) 14.79%*** (-40,+480) 18.09%** (-40,+720)	higher market-to-book value, lower market cap. low adj. payout ratio (financing problems), larger cash holdings, higher capex-to-sales-significant	
Bassen et al. (2019)	Europe (Continent)	2001-2011	14	9.37%** (-1,+1) 11.48%* (-10,+10) 13.30%* (-10,+30)	BHAR 6.24% (-1,+18 months)	Logit Model Relatively under-performing - insignificant	Increased profitability - insignificant
Becht et al. (2017) / Becht et al. (2019)	Global (23 countries)	2000-2010	1740	Europe 3.93%*** (-10,+10) 4.75%*** (-20,+20)	Calendar time portfolio - Positive alpha 5.64% (Europe)	Probit Model - lower market-to-book, higher payout ratios, lower investment, and higher cash balances - significant	

Source: Authors' creation based on Schüler (2016).

Becht et al. (2010) also find hostile or aggressive campaigns to generate higher abnormal returns in the short run compared to cooperative campaigns. The study analyzes both private and public campaigns. Public campaigns are more likely to be of hostile rather than cooperative character where M&A restructurings is a specific objective driving positive abnormal returns in the short term. The evidence is supported by Becht et al. (2019), who also find that restructurings and takeover announcements produce positive abnormal returns in the short term. The same study includes board matters and cash payouts; these are corporate governance-related but do not exhibit any significant results upon announcement.

Becht et al. (2015) highlight the importance of private hedge fund activism in Europe. In their sample, 44% of all European campaigns are private. The authors suggest that public hedge fund activism in Europe are just the tip of the iceberg and that the total number of campaigns are more numerous than existing statics suggest. Private activism can be beneficial for reaching corporate governance-related outcomes not possible through public activism. This is especially true when the target has a controlling shareholder. It is not concluded whether private activism is better than public activism (Becht et al., 2015). However, private activism inherently lacks announcement gains and is, therefore, more in line with the corporate governance hypothesis. This study does not investigate private campaigns due to the limited information availability. However, we recognize its presence and importance for a comprehensive view of the hedge fund activism landscape.

With a dataset covering 2000-2007, Croci (2007) finds that the activist hedge funds or "corporate raiders" as the author refers to them only manage to increase the stock price of their targets in the short term. The author uses ROA as the operating measure of choice but finds no significant changes in the performance of the target firms one year after the event year. One year might be considered a short time horizon in light of the findings of Bebchuk (2013) where changes in the operational performance of target firms are visible over five years. Croci (2007) nevertheless, settles on the conclusion that hedge fund activists are not corporate governance champions but merely superior stock pickers. These findings are somewhat supported by Drerup (2014), claiming that the initially positive market reactions following the announcement of German campaigns are reversed in the following year. The author thereby concludes that the overall campaign effect is effectively zero. There are no visible effects on firm characteristics such as operational performance, capital structure

or dividend policy within the year following the engagement. The study does note increased management turnover (Drerup, 2014). No claims of long-run detrimental effects are made in the study, nor does the author refer to the American hypotheses. We carefully interpret the stance as leaning towards the superior stock picker hypothesis given the observed short-term returns.

Achleitner et al. (2010) analyze differences between private equity funds and hedge funds concerning the incentives for improvements in corporate governance. The authors find that while hedge funds have incentives for addressing free cashflow problems through dividend payments, it is only from a short-term perspective. Further, it is argued that the short-term demands by hedge funds can have detrimental effects on shareholder value creation in the long run (Achleitner et al., 2010). While the study supports the possibility of value creation through corporate governance, the concluding arguments are still more in line with the myopic investor hypothesis. The notion that extra dividend payments can create problems in the long term is somewhat supported by Jensen (1986). Jensen (1986) argues that free cashflow distributions through promises of permanently increased dividends can cause stock prices to fall if the promises are not met. The argument of long-term detrimental effects is contested by Kühne (2011). The author studies block holdings by hedge funds and argues that shareholder value can be created through monitoring and actively mitigating principal-agent problems. The creation of long-term shareholder value is, however, contingent on the success of the campaign (Kühne, 2011). While the study by Kühne (2011) covers funds with characteristics that are outside the scope of this study, we still believe that the findings are relevant from the principal-agent standpoint. A similar study compared with Achleitner et al. (2010) is conducted by Mietzner and Schweizer (2014) on the German market specifically. They argue that private equity funds are superior to hedge funds at creating shareholder value in the long-term. This is explained by generally longer holding periods of private equity funds and a higher ability to adapt to the corporate governance landscape.

Bassen et al. (2019) present the only study which actively supports the hypothesis that activist hedge funds contribute to added shareholder value through improvements in corporate governance. The study examines the activity of the US activist investor Guy Wyser-Pratte in Europe. The authors find evidence of both short and long-term shareholder value creation. Uniquely, the long-term value creation is found to be driven by indications of improved operational profitability of the target

companies (Bassen et al., 2019). While the study provides interesting insights regarding the corporate governance hypothesis, we recognize that its generalizability can be questioned concerning the limited sample size and the fact the only one fund is examined.

For the characteristics of the target companies compared to peers, the findings are seemingly uniform. Becht et al. (2017), Mietzner and Schweizer (2014), and Becht et al. (2019) find that targets generally have lower Tobin's Q ratios relative to their peers in the year before the event year, implying an element of undervaluation. This finding is only contested by Bessler et al. (2015), claiming to find higher market-to-book ratios in the target firms. Further, the targets have more substantial cash holdings than their peers which speaks to the agency cost of free cashflow. (Achleitner et al., 2010; Becht et al., 2017; Becht et al., 2019; Drerup, 2014). Bassen et al. (2019) find indications of underperformance by target companies relative to peers; the result is however, insignificant. Kühne (2011) finds that target firms generally have a higher level of net debt. This stands somewhat in contrast to the findings of Mietzner and Schweizer (2014) claiming that the target firms have lower interest expenses than their peers.

With the significant findings presented, the reader should note that many of the studies use overlapping periods. Furthermore, among all papers shown, the most recent dataset is from between 2001-2011, a time during which the collapse of the US housing market depressed financial markets worldwide. Not only is the dataset utilized in this study free from significant market anomalies, but it is also covering campaigns from a period that previously has not been addressed in this field of research. Despite the overlap in periods and assumed campaign data in the presented studies, no clear uniform answer has been provided to whether shareholder activism by hedge funds adds shareholder value. Through the unique dataset of this study, we attempt to contribute to the research by answering this question.

V. Data & Overview of European Hedge Fund Activism

As there is a lack of recent data on hedge fund activism in Europe, the gathering of an extensive data set lies at the heart of this thesis. In the following, we describe the gathering process, discuss the data sources at hand, elaborate on related issues and potential biases, and ultimately engage in the description and descriptive statistics of the data set.

5.1. Data Collection Process

Compiling data on hedge fund activism targets is more cumbersome in Europe than in the US. Not only are multiple jurisdictions with separate financial authorities involved, but also there are no filings of purpose included in the mandatory ownership disclosures. In the US, the Schedule 13D filings require investors to announce their intentions when they reach a threshold of 5%. This makes it easier for researches to spot cases of activism using the SEC EDGAR database as a reliable and centralised data source. In Europe on the other hand, studies in this area that focus on the continent as a whole often rely on surrounding news reports to spot the cases of interest. Research reports on individual countries commonly start with the local regulatory filings, which are then enriched with news reports. While the former collection method is somewhat arbitrary, the latter is very cumbersome to extend to the whole of Europe, e.g. even just considering language difficulties. Furthermore, only relying on mandatory ownership disclosure filings might lead to missed cases of activism that are conducted by hedge funds with stakes below the respective jurisdictions' hurdle rates. This might lead to a bias towards smaller firms as more substantial amounts of capital needs to be mobilised to acquire such stakes in large-cap firms (Brav et al., 2008).

To make our data gathering process less arbitrary, we rely on professional financial data providers and thereby not only on one but on three: Bloomberg, Thomson Reuters Eikon, and Capital IQ. The Bloomberg terminal, as well as Thomson Reuters Eikon, both call corporate governance sections their own that include data on public shareholder activism campaigns. Furthermore, Standard & Poor's Capital IQ transaction screening allows to search for minority transactions involving shareholder activism. All three data providers collect their input from relating news coverage as well as local regulatory filings. Relying on those three sources might be beneficial as professional investors

are typical customers that are likely to base their investment decisions on the data provided. We collect the maximum available data points from all three sources.

Having collected data on all kinds of shareholder activism, we put our focus on that of hedge funds and comparable investment vehicles. As a starting point, we use a list of known hedge fund activists created by Carried Interest (2020). As a second step, we investigate the remaining shareholder activists by following our definition and excluding ESG activists, long term value investors as well as passive asset managers. For the remaining unclear campaigns, we follow Drerup (2014) and investigate the activists' websites and surrounding news coverage to see how they are described by themselves and others and whether they ultimately fit our ex-ante activist definition (see *2.1. Definition of Hedge Fund Activism*). For instances in which hedge fund managers are listed as shareholder activists, the respective hedge fund is credited with the campaign if surrounding news coverage suggests so.

With the resulting list of hedge fund activists, we feed the financial news database Dow Jones Factiva to find further campaigns in the same period from 2010 to 2019 and manually add the necessary information of the missing campaigns that we identify this way. As a final step, we use the MergerMarket news search category for shareholder activism to spot further initiatives that might have been missed by using the other four sources. As the next step, we create unique transaction identifiers for every source as well as identifiers for every target activist combination. Afterwards, we merge the campaigns of all five sources. With the help of these unique identifiers, we can identify and filter out duplicate transactions. When a hedge fund campaign is covered by multiple sources, we merge the data points to make sure to keep all unique information. In cases of divergently reported campaign starting dates, we keep the earliest date as the event date.

Among the most important information are the details on the hedge funds' campaign objectives that they are actively following. These are the reasons for their investments and are often linked to the shareholder value creation potentials they identified for the targets. The three primary sources of ours, Bloomberg, Eikon, and Capital IQ, report a multitude of different objectives. However, the demands can be aggregated into five unique groups. To some extent, based on Brav et al. (2008), we aggregate the objectives into the categories *Capital Structure*, *Corporate Governance*, *Engage Management*, *Mergers & Acquisitions*, and *Strategy*. Broadly summarised *Capital Structure* comprises claims to payout excess capital to shareholders be it via share buybacks or dividends, *Corporate Governance* includes all

topics surrounding board and management issues, *Engage Management* contains the global demand to take value increasing measures, the objective category *Mergers & Acquisitions* deals with all matters surrounding corporate transactions, and the *Strategy* category covers activists requests for changes in corporate strategy. For details of how the objectives used in the sources are allocated into the five aggregated groups of objectives see *Appendix I*.

To get access to additional information on the shareholder activism targets, the use of stock market tickers that serve as the primary reference in financial data applications is crucial. The three primary sources of this thesis, Bloomberg, Thomson Reuters Eikon, and Capital IQ, all use slightly different ticker symbol conventions that cannot be used interchangeably. To overcome this issue, we make use of the Refinitiv (2020) Permanent Identifiers (PermID); originally designed for machine learning applications, they allow us to uniquely identify companies and securities from unstructured lists of company names and different tickers. The resulting file of company PermIDs can then be used in Thomson Reuters Eikon to retrieve the international securities identification numbers (ISIN). With the help of the ISIN, we use Eikon to collect the daily stock quotes for each company for a period from January 2008 until the end of February 2020. Furthermore, we use the ISINs to retrieve the Thomson Reuters Business Classification (TRBC) of the respective business sectors, industry groups, and industries.

Operational Data Collection

The finished list of campaigns constitutes the base for the operational data collection. We use Eikon Datastream as the primary source of operating data due to its wide selection of variables available. We retrieve data for all firms from the fiscal years 2008-2019. The data availability turned out to be quite limited on many of the variables we originally planned on including, please see *Data Collection Issues* section for a more detailed outline. Once the data is retrieved for all years, the dataset is matched with the list of campaign dates. The firms are sorted according to when the campaign took place, and the financial data from two years prior until two years post-event year is placed in a new list. At this point, what remains is a list of campaigns, their respective campaign dates and financial data labelled t-2; t-1; t; t+1; t+2.

Peer Firm Data Collection

The peer firm operating data is obtained using Osiris. The goal is to match the firms based on market capitalization and sector. We retrieve a complete list of all European firms that currently are or used to be listed on a stock exchange. The initial list consists of approximately 7.000 firms. We initially retrieved the TRBC codes, which are a more granular industry classification. However, the number of different industries in the target dataset is high. To achieve a proportional match, the peer groups would become tiny.

Further, the availability of operational data is limited for many of the peer companies. Thus, by opting for the broader GICS sector classifications, we could exclude more peer companies lacking information while retaining more adequate sample sizes than would have been possible if the TRBC industry classifications were to be used. With the list of peer company names, ISIN-numbers and GICS-codes, the operational data is retrieved from Osiris. We retrieve operational data (see *6.1. Target Characteristics*) for all companies from the period between 2008 and 2019, including the respective closing-value market capitalizations for the individual years. The dataset is then cleaned from error messages resulting from unavailable data.

For the size-split, the target dataset is split into four percentile groups according to market capitalization in the t-1 year relative to the activism start date. The peer firms are split according to the absolute value constraints calculated for the target groups, where each firm is assigned a percentile for each year. The motivation for doing so is to be able to use one peer firm in multiple years if this firm increased or decreased its market capitalization sufficiently as to be classified in a different percentile. With the size classifications conducted, the proportion of each sector present in the target dataset is calculated. These proportions are multiplied by four as the goal is to include four peers per target firm in the dataset. As targets from all years are included in each analysis, so are the peer companies. The same approach is used where the proportion of campaigns from each year is matched with a proportional amount of operational peer data from the same years. The finished peer data set consists of firms matched according to size, with the respective values for the operational measures from the year in which they are compared to the target group.

Data Collection Issues

In the following, we want to elaborate on some of the issues we encountered during the data collection process. First, we need to address that our sample only includes public campaigns by hedge fund activists. This way, we can investigate the market's reaction in the short- and long-run and are able to collect an extensive data set based on openly available information. However, there are also initiatives by hedge fund activists that are solely conducted behind closed doors and with investment stakes that are below the disclosure thresholds, so they never become public (Becht et al., 2015). These private campaigns are part of the corporate governance phenomenon of brisk minority shareholders, indeed. Notwithstanding, due to the confidential nature of this information and resulting feasibility issues, we are only investigating the public side of hedge fund activism, as did most of the existing studies. This way, we also ensure the comparability of results.

Furthermore, the numbers of campaigns might be biased towards some countries with lower block holder disclosure thresholds as it is likely that more initiatives are becoming publicly known here. Also, it is thinkable that the news-focused data collection might lead to campaigns being missed that would have been found by analysing all national investment disclosure filings of the period at hand. However, after employing a multitude of sources, we follow the argumentation of Brav et al. (2008) that the remaining campaigns that are missed because they might not have gotten to the attention of several media outlets at once are presumably not very economically meaningful. To investigate the market's reaction, we care about such campaigns that explicitly got to public attention.

Moreover, we would have liked to report on additional information in the context of hedge fund activism campaigns. Firstly, it was not possible to collect a complete data set on the board seats demanded and won by activists in the course of their campaigns because among our three principal sources, only Bloomberg reports board related details. In addition to that, we were only able to collect incomplete data from Eikon and news searches via Factiva. Frequently, hedge funds nominate outside candidates to serve as board members in their name. It appeared complicated to reliably and time-efficiently find the association of new board nominees that are not immediate employees to a hedge fund.

Additionally, we were unable to assemble a meaningful set of the targets' historical ownership structures. An initially created sample using Thomson Reuters Eikon turned out to be unreliable, and a second attempt using Eikon and Bloomberg was thwarted by the closing of the university library's local data access facilities due to the global pandemic during which this thesis is conducted. We intended to investigate whether changes in the targets' ownership structure might have been linked to the development and outcomes and hedge fund activism in Europe. And lastly, in the context of our sample of hedge fund activism campaigns, our available sources mostly stated the objectives of the targeting hedge fund, but they did not provide any indications for the tactics used. So, the incorporation of tactics into the analyses of the effectiveness and outcomes of campaigns had to be omitted.

The data availability of operational measures also posed problems. With the finished list of campaigns, we resorted to Eikon Datastream to retrieve the operational data. We initially set out to collect variables related to the profitability, liquidity, and balance sheet structure of the target companies to gain a more complete understanding of the firms. Eikon Datastream works with both ISIN-numbers and ticker symbols. The ISIN-numbers yielded the best result, but the availability of the measures for the relevant years was still minimal. We supplemented the dataset with search requests using the ticker symbols, which yielded some additional data. To further increase the dataset, we tried using I/B/E/S analyst forecasts of the operational measures for the years in which we still lacked data, which increased the dataset somewhat. However, upon validation through comparisons of estimates to the companies with available information, we realized that the projections often displayed insufficient resemblance to the actual values. In order not to contaminate the dataset with unreliable data, we decided to exclude the I/B/E/S data and opt for a slightly smaller dataset.

As the study outlines the hedge fund activism during the most recent years, campaigns from 2018 and 2019 are present in the data set. Data availability from 2019 and parts of 2018 proved problematic. As companies often disclose their annual reports up to six months after the end of the respective accounting period, the availability of information from 2019 is limited. Datastream displays yearly information regardless of when in the year, the accounting period end date is. In theory, this means that some operational values from 2019 are recorded before the calendar end year. In turn, this means that the effect of activism would be more pronounced for some firms than others,

depending on when the fiscal year ends in relation to the calendar year. In an attempt to mitigate this problem, we attempted to retrieve quarterly data for all firms. It was quickly discovered that this method worked well for firms with regular quarterly reporting. However, for the firms without quarterly reporting, Datastream displayed the fiscal year-end value for all four quarters instead of returning an error message. Using these values would have inflated the values for some firms by four times on average. We debated dividing the year-end values by four to achieve a quarterly split still; however, we ultimately decided that this method would be non-robust and severely counteract the purpose of the study. With the above motivation, we decided to use the yearly values provided by Datastream.

5.2. Descriptive Statistics on Hedge Fund Activism in Europe

The final data set of this thesis comprises of 494 public hedge fund activism campaigns. In total, 354 European companies have been targeted by 140 different hedge funds. As can be seen in FIGURE 1, the number of events per year almost grew monotonically from 24 in 2010 to 86 in 2019 at a compound annual growth rate (CAGR) of 15.2% with exceptions in 2014 and 2015. Taking the MSCI Europe index as a proxy for the European stock market, stock prices in the same period grew by an average of 4.7% per annum, while the yearly total return averaged out at 8.4% (MSCI, 2020). Previous studies found growing activism activities in times of prosperous stock markets while they noticed reduced activities during recessions (Becht et al., 2010). Engert (2019) argues that this relationship might be linked to the open-end structure of hedge funds, such that investors are able to pull out their funds at short notice. In growth periods, investors are likely more willing to allocate funds to risky and typically expensive hedge funds while they tend to divest from them in times of crisis. This consequently reduces the hedge funds' means to carry out campaigns (Engert, 2019).

Associated with the 494 campaigns between 2010 and 2019, we record 765 objectives from the five categories, *Capital Structure*, *Corporate Governance*, *Engage Management*, *M&A*, and *Strategy*, voiced by the hedge fund activists - an average of 1.5 objectives per campaign. We find 322 interventions with single as well as 172 with multiple demands. In the following, we provide two tables with descriptive statistics on the stated objectives. TABLE 3 gives an overview of the 765 individual claims as well as the outcome status of the related campaigns; in relation to Brav et al. (2008), we report relative values stating how often the objectives occurred among the total events which therefore sum up to more

than 100%, as there are multiple objectives per campaign possible. TABLE 4 summarises the campaigns by objectives making it easier to accredit the success to individual demands more distinctly. This paper summarises the hedge funds' objectives in five major categories: *Capital Structure*, *Corporate Governance*, *Engage Management*, *M&A*, and *Strategy*. The allocation is described in more detail in *5.1. Data Collection Process* and *Appendix I*. A campaign is marked as successful if the activist claim is fully met in the course of the respective engagement and marked as partially successful if target and activist find a compromise that partially fulfills the original demand.

FIGURE 1. Activist Hedge Fund Campaigns in Europe 2010-2019
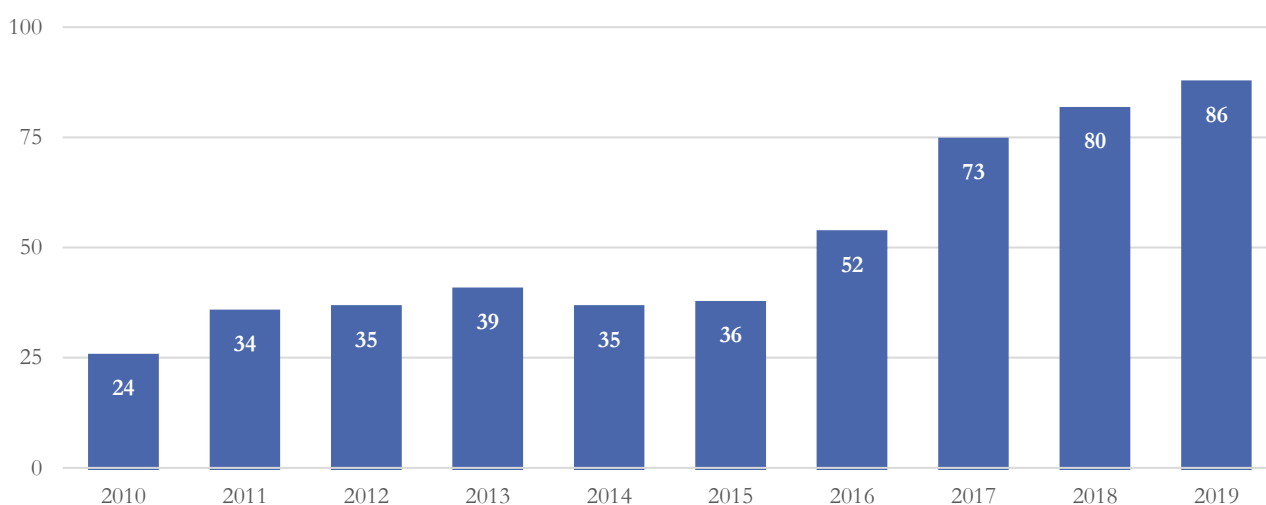
As TABLE 3 shows, corporate governance-related issues are the most often addressed objective by hedge fund activists who are brought forward in 41% of the cases followed by topics concerning mergers and acquisitions in 37% of campaigns. Also, events including corporate governance matters, have the highest likelihood of ending successfully, with 41% being successful and 17% at least partially so. Interventions concerning Capital structure, M&A, and Strategy have a similar probability of being a success for the activists with success rates around 30%. The objective category of Engage Management, mostly including public declarations of undervaluation and the demands on management to engage in shareholder value maximising activities, are the least likely to be marked as successful, and 53% of campaigns including this objective is still marked as pending. These many outstanding results might occur due to technical reasons. Because the status classification is conducted before the share price analysis or stated by the financial data providers, Bloomberg, Eikon, and Capital IQ, it is more difficult to determine the outcomes of campaigns claiming a general undervaluation objectively. It is less ambiguous to acknowledge a demanded board seat that has been

successfully overtaken than to determine whether the respective hedge fund has been able to solve a self-proclaimed undervaluation problem.

TABLE 3. Summary of Hedge Fund Activism Objectives

	# of Objectives	% of Total Campaigns	% Success	% Partial Success	% With-drawn	% Un-successful	% Pending
Capital Structure	131	26.5%	29.8%	15.3%	4.6%	17.6%	32.8%
Corporate Governance	204	41.3%	41.2%	17.2%	5.4%	19.6%	16.7%
Engage Management	141	28.5%	19.9%	13.5%	2.8%	11.3%	52.5%
M&A	184	37.2%	32.6%	15.8%	4.3%	25.0%	22.3%
Strategy	105	21.3%	32.4%	17.1%	1.9%	19.0%	29.5%
Total	765						

TABLE 4, on the other hand, summarises the outcomes of the campaigns such that the results can be accredited with a stated objective more efficiently by separating those with unique demands from others with multiple claims through the introduction of a sixth category containing the multi-objective campaigns. The data shows that campaigns with numerous requests are far from being uncommon. Often hedge funds publish public letters and analyses to underline multiple areas of improvements at once. Also, demanding a board representation likely serves hedge funds to get access to legitimate means of corporate influence to attempt to enforce other objectives. However, the corporate governance category not just includes demands of board seats but also e.g. changes to management remuneration or bylaws (see *Appendix I*), and so corporate governance matters are also the most common single-objective campaign, amounting to 20% of the sample.

TABLE 4. Summary of Hedge Fund Activism Campaigns by Objective

	# of Campaigns	% of Total Campaigns	% Success	% Partial Success	% With-drawn	% Un-successful	% Pending
Capital Structure	60	12.1%	25.0%	6.7%	3.3%	16.7%	48.3%
Corporate Governance	99	20.0%	47.5%	10.1%	8.1%	19.2%	15.2%
Engage Management	82	16.6%	15.9%	9.8%	2.4%	7.3%	64.6%
M&A	69	14.0%	31.9%	5.8%	5.8%	31.9%	24.6%
Strategy	12	2.4%	16.7%	0.0%	0.0%	16.7%	66.7%
Multiple Objectives	172	34.8%	33.1%	19.8%	4.1%	20.3%	22.7%
Total	494		31.6%	12.1%	4.7%	19.0%	32.6%
Objectives per campaign							
One	322	65.2%	30.7%	8.1%	5.0%	18.3%	37.9%
Two	103	20.9%	35.9%	15.5%	5.8%	21.4%	21.4%
Three	46	9.3%	26.1%	23.9%	2.2%	21.7%	26.1%
Four	16	3.2%	25.0%	31.3%	0.0%	18.8%	25.0%
Five	7	1.4%	57.1%	28.6%	0.0%	0.0%	14.3%

Overall, almost half of the European campaigns between 2010 and 2019 investigated in this thesis have been somewhat successful, with 32% being immediate successes and 12% being at least partial ones. Furthermore, mostly because of relatively recent and often still ongoing campaigns in our sample, around 33% of demands are still marked as pending. Interpreting these success rates in the light that hedge fund activists operate from positions of minority shareholders that often depend on other investors to join in on their claims, indicates that hedge fund activist seems to bring forward convincing objectives and arguments in many cases. However, the campaign outcomes of single-objective campaigns vary significantly between the different groups of claims. While corporate governance objectives show a relatively high rate of success among the single-objective events, 48% success and 10% partial success, Capital Structure, Engage Management, and Strategy objectives, only one in four cases or even less are successful. However, these single-objective events out of these three demand groups are, to no small extent, still pending. Around two-thirds of the Engage Management and Strategy campaigns are still open while this is also the case for almost half of Capital Structure. As stated previously, following up on the outcomes of campaigns filing under these objectives is highly ambiguous which might have led to the high rates of around two-thirds of pending cases.

Furthermore, it is noteworthy that multi-objective campaigns have higher success rates on average compared to those with single objectives. While the 322 interventions that follow one demand are successful in 30.7% and partially successful in 8.1% of these cases, the 172 multi-objective campaigns show rates of 33.1% and 19.8%, respectively. One can argue that the higher partial success rate of multi-objective events might be just due to the technicalities of data collection, as it is less ambiguous to record a partial success for these kinds of campaigns than to follow up on the negotiation process to register a partial success for single objectives. But it is also thinkable that a higher number of demands stated in a single campaign might indicate that the target faces more governance problems and has more room for shareholder value enhancements. Thus, other shareholders might be more willing to support the campaign to pressure the management to implement value-enhancing countermeasures to the issues that have been uncovered by the hedge fund activist.

FIGURE 2. Hedge Fund Activism Campaigns by Country 2010-2019
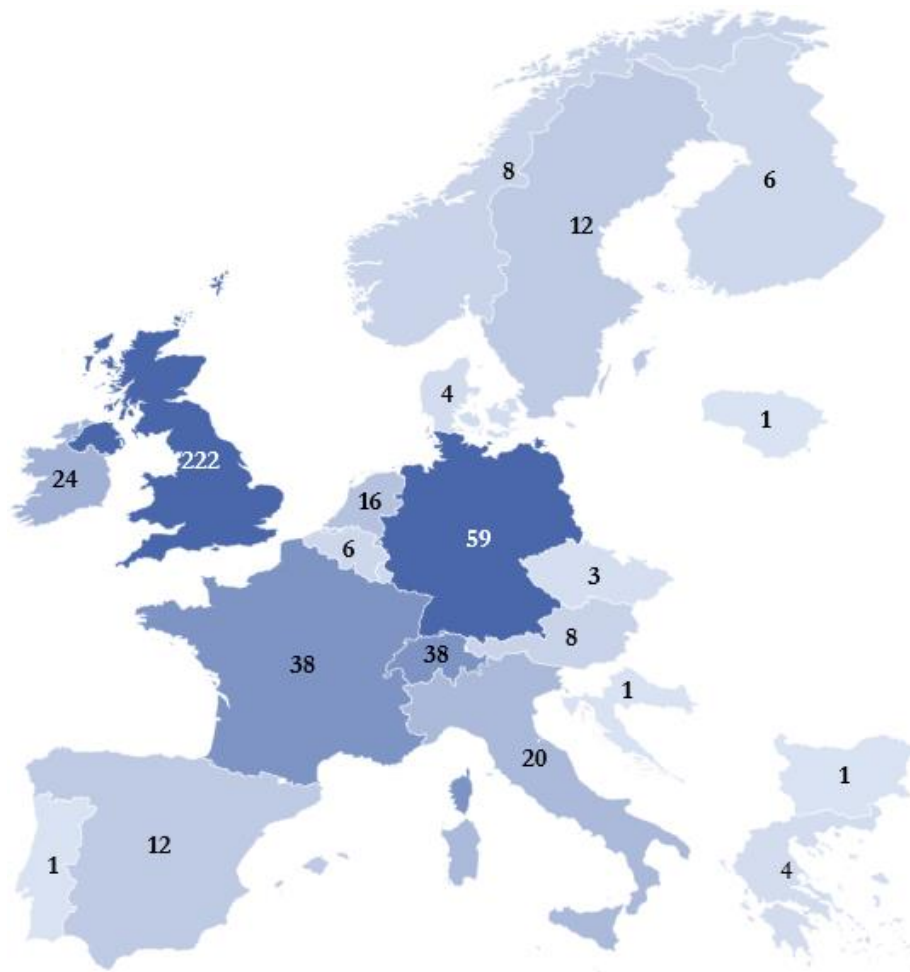
As this thesis aims to analyse hedge fund activist engagements for a whole continent, it is helpful to provide a breakdown of the campaigns by country. Over the years, 354 targets in 25 different European countries have been targeted. FIGURE 2 shows the aggregated events per country between 2010 and 2019. It shows that hedge fund activists primarily focused on companies from the United Kingdom, Germany, France, and Switzerland; Followed by Ireland, Italy, and the Netherlands. Translated into relative terms, it means that 44.9% of European targets of hedge fund activism in the ten years analysed are incorporated in the United Kingdom, followed by Germany with 11.9%, and France and Switzerland with 7.7% each. *Appendix II* provides a more detailed country split by year. While there were only 24 campaigns in 7 different countries in 2010, 86 campaigns in 16 different countries have been recorded for 2019. This development shows that hedge fund activism is spreading in Europe not only quantitatively but also geographically.

A similar picture emerges when looking at the TRBC sectors of the hedge fund activism targets in Europe. Throughout the ten years considered in this analysis, 26 different sectors have been targeted, as can be seen in TABLE 5. While companies from only 11 different sectors were targeted in 2011, the number had risen to 23 in 2019. This development is borne testimony to the increasing spread of this phenomenon not only quantitatively and geographically but also over various economic sectors. The targeted business areas are very diverse, but we record the highest numbers within the banking & investment services sector, accounting for 11.3% of the campaigns as well as cyclical consumer services (10.7%) and industrial goods (8.5%). The frequency of campaigns at financial service providers corresponds with the findings of earlier works, see e.g. Armour and Cheffins (2009). Furthermore, it is noticeable that companies in the telecommunication services sector are increasingly shifting into the focus of activists. While there have been no activities in 2010, this sector was the second most targeted in 2019.

TABLE 5. Summary of Hedge Fund Activism Campaigns by Target Sector

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total	%
Banking & Investment Services	4	7	2	6	2		2	7	15	11	56	11.3%
Cyclical Consumer Services	3	1	5	4	6	5	8	5	8	8	53	10.7%
Industrial Goods	2	1	7	2	2	5	9	6	3	5	42	8.5%
Transportation	1	4	2	2	3	5	3	3	7	5	35	7.1%
Pharma. & Medical Research		1	2	2	1	1	6	6	7	2	28	5.7%
Real Estate	2	4	2	1	2	3	5	4	3	2	28	5.7%
Energy - Fossil Fuels			1	5	4	1	3	6	2	4	26	5.3%
Ind. & Commercial Services		7	1	1	1		3	2	2	8	25	5.1%
Telecommunications Services		1			2	1	1	2	5	10	22	4.5%
Software & IT Services	2		1	4		1		2	6	5	21	4.3%
Technology Equipment	3	1		1	1	4	2	5	2	2	21	4.3%
Collective Investments	2	1	5	1	3	3	1	2		2	20	4.0%
Retailers	1	2		1		1	3	5	2	4	19	3.8%
Food & Beverages		1	2	3		1	1	5	3		16	3.2%
Mineral Resources			1	2	1	2		4	4	2	16	3.2%
Food & Drug Retailing		1			4	1	1		3	2	12	2.4%
Automobiles & Auto Parts		1				1	1	1	6	2	12	2.4%
Cyclical Consumer Products	3		1	1	1		1			2	9	1.8%
Utilities							1	3		4	8	1.6%
Household Prod. & Serv.		1		1		1	1			1	5	1.0%
Chemicals				1	2			2			5	1.0%
Insurance	1			1			1		1	1	5	1.0%
Applied Resources			2							2	4	0.8%
Healthcare Serv. & Equipment			1					1	1	1	4	0.8%
Renewable Energy								1			1	0.2%
Investment Holdings										1	1	0.2%
Total	24	34	35	39	35	36	52	73	80	86	494	

Moreover, we recorded the targets' market capitalisation. To avoid interferences with the market reaction to the respective news of hedge fund activism activities, we exhibit the value of the outstanding shares one month before the recorded event dates. The average market capitalisation amounts to €7.53bn while the median is €1.57bn. In TABLE 6, we have summarised the number of campaigns by five groups of commonly used market capitalisation brackets, from a Large Cap group with valuations above €10bn to Nano Caps with market capitalisations below €50m. Thereby, the mean lies within the Mid Cap group and the median within Small Caps. These two groups correspondingly account for 58.5% of the campaigns recorded between 2010 and 2019. The previous hypothesis that mandatory disclosure requirements might lead to a bias towards companies with relatively low market capitalisations as more significant stakes are naturally less expensive to acquire and, therefore more frequent and more often exposed (see e.g. Brav et al. (2008)) does not seem to be fulfilled. We find nearly as many large cap targets as there are micro and nano cap targets combined.

TABLE 6. Summary of Hedge Fund Activism Campaigns by Target Market Cap

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total	%
Large Cap (> €10bn)	1	1	7	8	6	8	8	17	19	15	90	18.2%
Mid Cap (€2bn - €10bn)	6	12	4	8	7	7	10	25	21	31	131	26.5%
Small Cap (€0.25bn - €2bn)	8	6	11	9	14	13	20	22	28	27	158	32.0%
Micro Cap (€50m - €250m)	2	7	6	5	4	6	10	5	10	9	64	13.0%
Nano Cap (< €50m)	7	8	7	9	4	2	4	4	2	4	51	10.3%
Total	24	34	35	39	35	36	52	73	80	86	494	

Aside from the focus on the targets of activism, we have also investigated the hedge funds involved. Overall, we find 141 individual investment vehicles that intervened at European companies between 2010 and 2019. More than 80% of the activists operate from the United States or the United Kingdom, namely 77 and 36. The third most common country of incorporation is Switzerland, with eight active hedge funds. Among the rest are Sweden, France, Hong Kong, and many prominent tax havens. TABLE 7 also provides a list of the top 20 activist hedge funds by total number of campaigns. The most dynamic investor in Europe during the investigated period by far has been Elliott Management. The New York hedge fund run by Paul Elliott Singer mainly focused on the United Kingdom (26 campaigns) and Germany (17 campaigns). On a noteworthy second place is Cevian Capital, as one of the few contenders not based in Anglo-Saxon countries.

TABLE 7. Top 20 Activist Hedge Funds in Europe 2010-2019

	Headquarter	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Elliott Management	United States		4	1	1	4	5	6	11	16	15	63
Cevian Capital	Sweden	5	3	3	4	2	2	3	3	4	5	34
Crystal Amber	United Kingdom	3	2		3	6	2	4	1	3	2	26
Amber Capital	United States		1			4		2	9	3	3	22
Petrus Advisers	United Kingdom			1		1	2	3	6	3	3	19
Laxey Partners	United Kingdom	4	6	4		1						15
TCI	United Kingdom			2	3		1	3	3		2	14
Harwood Capital	United Kingdom			4	5		1		2			12
Knight Vinke	United States	1	2	2	3			1	1		1	11
Sherborne Investors	United States	1		1	1	2	2			2	1	10
Damille Investments	United Kingdom	2	2	3	2							9
Toscafund	United Kingdom	1	1	1		3		2			1	9
CIAM	France							1	1	2	4	8
Wyser-Pratte	United States	1	1		2			2	2			8
Muddy Waters	United States						2	2	1		2	7
ValueAct Capital	United States	1		1	1		1			2	1	7
GO Investment Partners	United Kingdom	1	1	2			2					6
Gatemore Capital	United Kingdom							2	1	1	2	6
Active Ownership Capital	Luxembourg							1	3	1	1	6
Veraison Capital	Switzerland							2		1	3	6

For 340 of the 494 campaigns, we were able to obtain the stakes of the hedge fund activist at the campaign launch. At average, hedge funds held 8.7% (median 5.4%) of their targets outstanding shares when they engaged in activism. Information provided by activist hedge funds on their course of action is scarce but in an interview given by Petrus Advisers' managing director, Klaus Umek, he proclaimed to typically take positions of three to seven percent of outstanding capital (Pallas Capital, 2018). With a median in the middle of this range, we find our sample's credibility supported. Furthermore, for 324 campaigns we were also able to follow up on the campaign end dates where the shareholdings first have been significantly reduced. Taking the period between the day when an activist hedge fund's engagement first becomes known to the public and the day when the investors start to significantly reduce its holdings as a proxy for the holding period, we find average engagement periods of 9.2 months (median 4.2 months). Both are in line with the definition of hedge fund activists stated earlier in this thesis that such investors utilise minority stakes in their target companies and are rather short-term oriented.

Lastly, we analyse frequently words used surrounding the news coverage of activism campaigns. We list all source texts from Bloomberg, Capital IQ, and Eikon as well as articles from Factiva and MergerMarket in connection with our sample of hedge fund activism campaigns. With

the help of a word cloud of the 150 most used words, we make visible that the news coverage especially makes use of corporate governance-related vocabulary around board and management related matters. However, as many of the sources are somewhat standardised news agency reports that rely on similar wording, the results might not be too reliable. That is why the word cloud is found in *Appendix III*.

5.3. Campaign Examples

To better understand the actions of activist investors and to illustrate their campaigns, we have prepared two such engagements below.

Petrus Advisers engagement at Immofinanz

On March 14, 2017, the UK-based activist hedge fund Petrus Advisers sent an open letter to the board of the Austrian commercial real-estate company Immofinanz. The letter stated that the fund had become significant shareholders in both Immofinanz and CA-Immobilien ("CAI"), an Austrian real-estate company with which a merger was planned (Petrus Advisers, 2017a).

While Petrus Advisers saw potentials for synergies between the two firms, they opposed the merger. The fund claimed that the shares of both firms were trading at a significant discount relative to the net asset values of the respective companies. The problems identified by the fund related to underperformance in a Russian real-estate portfolio belonging to Immofinanz. The pending merger was therefore contingent on the immediate divesture of the non-performing parts of the portfolio and other non-core assets. The fund also demanded that instead of a merger, a takeover offer would be extended to the shareholders of CAI at EUR 23,5. The shares of CAI were currently trading at EUR 18,78. If these demands were met, Petrus Advisers predicted that the entity had potential to more than double the current share price of Immofinanz (Petrus Advisers, 2017a).

The fund put further pressure on CAI in November of 2017, just as the sale of the non-performing portfolio was being finalized. Petrus Advisors claimed that the portfolio of CAI was undervalued. Furthermore, the fund was not satisfied with the Russia deal and demanded all merger talks with Immofinanz be terminated unless supported by 75% of the shareholders. If the merger talks continued, the fund threatened to sue for damages to shareholder value (Petrus Advisers, 2017b). In

February of 2018, Petrus Advisors sent another open letter to Immofinanz accompanied together with the release of a report titled "Chronology of value destruction" (Petrus Advisers, 2018a). In the letter, Petrus Advisors heavily criticized the structure of the Russia deal, claiming that the portfolio was sold at a large discount relative to its book value in 2016 when the divesture intention was first announced. Immofinanz had been paying fees to advisors which from the perspective of Petrus Advisors, was considered mockery of the shareholders. The fund also blamed the impaired shareholder value on the management team and demanded the replacement of two executives (Petrus Advisers, 2018b).

Shortly following the last letter from Petrus Advisors, Immofinanz made public that it had effectively abandoned the merger-plans with CAI and was now focusing on creating value for shareholders. At this time, shares in CAI traded at 24,46 EUR, having gained 30% in value since Petrus Advisors sent the first letter in 2017. Shares of Immofinanz traded at 1,94 EUR, having gained 13% since 2017 (Knolle, Schwarz-Goerlich, & Murphy, 2018; Petrus Advisers, 2017a).

Elliott Advisors's Engagement at Scout24

On August 5, 2019, the New York-based hedge fund Elliott Management published an open letter addressed to the CEO of Scout24 AG, a German operator of online market places, informing him and the board of directors that it had amassed a stake in the companies in excess of 7% (Elliott Advisors, 2019a). The letter was published on a website specifically set up for that purpose with the name "Scouting for Value" in reference to the name of the targeted company (Elliott Advisors, 2019b). In it, the hedge fund described its motives for the engagement, the unused shareholder value potentials of Scout24 it had identified, as well as the necessary steps that could be taken to unlock the value potential (Elliott Advisors, 2019a). Elliott stated its admiration of the business model and successful growth history of the company but also its discontent with management decisions of the recent past, and the firm performance compared its peers (Elliott Advisors, 2019a).

At the start of the campaign, the company's business was split into two subsidiaries, ImmoScout24, an online real estate marketplace, and AutoScout24, an online marketplace for cars. Elliott claimed that even though being attractive business alone, both subsidiaries had little synergies, performed worse than their respective peers and traded at lower valuations than what was possible. At the time

of the campaign the share traded at 50.45 EUR, but Elliott saw a share price potential in excess of 65 EUR if only the right measures were taken. Furthermore, the hedge fund criticised that the management had previously recommended its shareholder to accept a tender offer that was below the company's intrinsic value. This and other incidents were testimonies of lousy communication between management and shareholders. What Elliott demanded to unlock shareholder value was three-part (Elliott Advisors, 2019a). First, it requested a spinoff of the smaller AutoScout24 subsidiary to put the focus on value creation at the core of the business. Second, the hedge fund suggested a debt-financed share buyback program. Lastly, investor relations were to be improved.

Reacting restrainedly at first, Scout24's CEO soon announced its intent to look out for potential buyers of its AutoScout24 subsidiary. Then, on December 17, 2019, it became public that AutoScout24 were to be sold to the American private equity firm Hellman & Friedman for 2.9bn EUR, 0.4bn EUR more than expected by commentators (Manager Magazin, 2019). The campaign ended when Elliott began to significantly reduce its position on December 27, 2019 when the share price had reached a record high of 59.70 EUR (WirtschaftsWoche, 2019).

VI. Methodology & Hypotheses

To find an answer to our overall research question of whether activist campaigns by hedge funds create shareholder value in Europe, we broke it down into four sub-questions (see *Research Objectives*). Each of these sub-questions is meant to help examine different aspects of the implications of hedge fund activism more thoroughly and provide an overall differentiated result. Because of this breakdown, proper hypotheses testing requires different methodologies to be used. For this reason and to increase the transparency and interpretability of the thesis' findings, in the following, we describe our hypotheses, the related methods as well as the required empirical tests. But first, we begin by elaborating on our research design.

Research design

When gathering data in business research, three approaches can be used: quantitative analyses, qualitative analyses, or a mix between both. A quantitative analysis aims to explain data using statistical models. A qualitative approach uses a theoretical perspective to explain the collected data (Bryman & Bell, 2011). In addition to that, a study can be conducted with either a deductive or an inductive approach. The deductive approach employs previous research within the field of focus to guide the formation of testable hypotheses, while the inductive approach uses collected data to guide the development of new theories (Bryman & Bell, 2011).

The hypotheses presented in the *Research Objectives* section were formulated using a deductive approach through the use of existing studies in the area of hedge fund activism. The goal of the hypotheses is to answer the question of whether hedge fund activism contributes to added shareholder value. In the following sections, the models employed for testing the hypotheses will be presented. To enable the hypotheses testing, quantitative data was gathered from secondary sources according to the previously described data collection process (see *5.1. Data Collection Process*). Thus, a combination of the quantitative research method and the deductive hypothesis approach is employed. This combination is the preferred choice when conducting studies in this area, e.g. similar to Bryman and Bell (2011).

Two distinct data types exist, time-series data, and cross-sectional data. The first refers to the collection of data at successive points in time (Newbold, Carlson, & Thorne, 2013). The cross-sectional data is data collected at one point in time (Newbold et al., 2013). Panel data is a mixture between the two, where data across multiple cross-sections is collected across time (Brooks, 2002). This study collects time-series data, which is differenced once to daily return data when analysing the stock price returns of target companies. Panel data for the whole sample on several performance indicators are used when to analyse the operational performance of the target companies.

6.1. Target Characteristics

The study is focused on whether hedge fund activism contributes to added shareholder value post-activism. However, it is interesting to investigate whether the target firms commonly display any characteristics which might influence the likelihood of being targeted. Following the example of Brav et al. (2006), a probit model is used to answer sub-question 1: If past operating performance, valuation, and leverage in European companies affect the likelihood of being targeted by activist hedge funds. The model is a regression in which the dependent variable is binary, meaning it can only assume two values, e.g. "yes" or "no", 1 or 0. The independent predictor variables can be both continuous and binary. The regression is used to model the effect a set of variables have on the probability of an observation having one of two defined outcomes. In this study, it is used to model the link that past operating performance and firm characteristics might share with the likelihood of being targeted by an activist hedge fund. The model subsequently estimates the probability of a firm falling into the category of "targeted" or "not targeted" based on a set of predictor variables.

The probit model takes the link function to be the inverse of the standard normal cumulative distribution function (CDF), where the latter is denoted φ^{-1}. This inverse of the standard normal CDF gives an area under the curve or probability, given a known z-value. The model for the binary (dependent) variable π_i at observation i is:

$$\varphi^{-1}(\pi_i) = \sum_{j=1}^{p} \beta_j x_{ij}$$

The marginal effects of the covariates at mean are calculated, they measure the instantaneous rate of change in the probability of the binary variable π_i moving towards the value of 1 when the predictor

j changes as $\delta\pi_i/\delta x_{ij}$ (Agresti, 2015, p. 183). It is to be interpreted as the effect each regressor has on the probability of being targeted by an activist hedge fund. Alongside the probit results, Tardiff (1976) suggests reporting the R²-values as a test of goodness-of-fit. We also specify the Pearson X^2 values which test the null hypothesis that the model accurately fits the data (Andrews, 1988). Principally, we require the Pearson X^2 to display a significance of at least 10% to accept the null hypothesis.

Following the method used by Brav et al. (2006), the firms included in the model are matched according to size and sector. The size matching is executed by separating the group of target firms in four percentile groups according to their respective market capitalisation, defined as total shares outstanding x share price. The peer groups of comparable firms are formed according to the equal market capitalisations. On average, the peer groups consist of four peers per target firm. Within each size-matched group, sector matching is done by including the same proportion of firms from each sector in the peer group, as is present in the target group. The matching approach is consistent with the one used by Brav et al. (2006) except for the inclusion of a proportionate number of sector-matched peer firms as opposed to controlling for sectors and industries in a separate analysis. Brav et al. (2006) do not find that the results significantly differ when conducting analyses strictly using industry- and size-matched samples. To retain adequate sample sizes and subsequent testing power, we chose the proportionate method of sector matching. The target sample contains campaigns from 2010-2019. The same matching principle is employed for the years, where a proportionate number of peers from each year is included, as is present in the target group from the same year.

Variable Descriptions of the Probit Model

First, a binary variable to indicate whether a firm has been targeted by an activist hedge fund is created. The variable is set to take a value of 1 if the firm belongs to the group of targeted companies and 0 if the firm is a comparable peer group firm. The model uses four continuous variables as regressors, all are of operational characteristic and recorded in the year before the activism start date, as is consistent with Brav et al. (2006) and Bassen et al. (2019).

Following the literature on commonly used measures of operating performance, the first measure is ROA, the return on assets defined as net income divided by total assets. It is used to measure how efficiently assets can be deployed to create earnings (Berk, DeMarzo, & Harford, 2012). Brav et al. (2006) use ROA as it is less affected by leverage compared to a return measure focused solely on equity; this study follows the same logic. EBITDA-margin (EBITDAm) is earnings before interest, tax, depreciation, and amortization divided by total revenue. The EBITDA-margin is commonly used to measure the profitability of a firm's core business as it is more seldomly subject to earnings management. Further, the measure acts as a mitigant to differences in regulation regarding the earnings impact of interest expenses and amortization between countries (Previts, 2002). Therefore, it is a good measure of operating performance in a study containing data from multiple countries. D/V is the book value debt-to-capital ratio; this is used to measure the degree of leverage in the balance sheet structure (Berk et al., 2012). Conflicting findings regarding leverage in targets of hedge fund activism motivates, including this leverage measure, see e.g. Bassen et al. (2019) or Brav et al. (2006). Tobin's Q is also known as the market-to-book ratio and is calculated by dividing the market value of outstanding shares by total book value of capital. The measure is used to provide an indication of whether a stock is over- or undervalued. A Q ratio < 1 means that the shares of a company are priced lower than its book value which could indicate that the stock is underpriced and vice versa for Q ratios >1. The measure only provides a very rough estimate of the accuracy of the current market value as the pricing of stocks also is highly contingent on other factors, such as future earnings estimates (Chen & Lee, 1995). Tobin's Q is the one measure that many prior researchers within the field of hedge fund activism have in common for analyzing the characteristics of targets, see e.g. Brav et al. (2006), Becht et al. (2019), and Boyson and Mooradian (2011). Given its popularity and ease of interpretation, it is also chosen for this study.

6.2. Short-Term Stock Price Reaction

To investigate the influence that activist hedge fund interventions might have on their targets' stock prices and be able to test hypotheses to the question of whether these interventions might create short-term shareholder value, this paper relies upon a short-term event study. The event dates, in this case, are the dates on which interventions of hedge funds are becoming known to other market participants. What is of interest is how the market participants react to these kinds of news and how the targets' share prices change correspondingly. The short-term price reactions, interpreted in the

light of the semi-strong form of the efficient market hypothesis that expected effects of an event are immediately incorporated into the share price (MacKinley, 1997), can be seen as the market participants expectations of the activist hedge funds influence on the shareholder value. For this type of event study, it is crucial to diligently define the events, assemble the event dates, and find a meaningful way of estimating and analysing abnormal returns (MacKinley, 1997). The data collection process has been addressed in the previous section (see *5.1. Data Collection Process*), so the following focuses on the estimation and analysis of abnormal returns around the event dates.

Abnormal Returns

To measure the short-term stock price effect, this paper relies upon the concept of Cumulative Abnormal Returns (CAR). CARs are the aggregated abnormal stock returns of target firms surrounding the events. As event studies generally rely upon abnormal returns, it is vital to ensure that potentially captured stock price movements are statistically out of the ordinary and not just related expectable daily price movements. Abnormal returns are the difference between observed returns and expected, i.e. "normal", returns. There are several approaches to estimating expected returns, such as the Market Model, the Capital Assets Pricing Model (CAPM), or more advanced multi-factor models (MacKinley, 1997). Khotari and Warner (2007) and MacKinley (1997) both state that differences between these methods are only minor as additional factors only have small impacts in the short run. So, considering the small benefits of multi-factor models and added complexity and more cumbersome calculations that come attached, this paper relies upon the simpler market model with a more beneficial cost-benefit relation. The market model assumes a constant relationship between an individual security's stock price and the market. As a proxy for the market, this paper employs the MSCI Europe Index to have a consistent representation for the analysis of European shareholder activism by hedge funds. The relevant parameters of the market model, $\hat{\alpha}$ and $\hat{\beta}$, are estimated by regressing the individual stock returns on those of the market using Ordinary Least Squares (OLS) (MacKinley, 1997).

The daily abnormal returns at time t of a company i are then defined as:

$$AR_{i,t} = \underbrace{R_{i,t}}_{Observed} - \underbrace{\hat{\alpha}_i - \hat{\beta}_i R_{M,t}}_{Expected}$$

This paper analyses the daily abnormal returns in a time frame around the events of +|- 10 days (event window) while the relevant parameters of the market model are estimated in the 100 days prior (estimation window) so that they are not influenced by price effects caused by the event at hand. This hierarchy is visualised in the timeline of *Figure 3*.

FIGURE 3. Event Study Timeline

Source: Authors' creation based on (MacKinley, 1997).

The abnormal returns of an individual target company are then summed up over the event window, T1-T2, to end up with one aggregated price reaction indicator regarding a hedge fund campaign becoming public. The CAR for each intervention is calculated as follows:

$$CAR_i(T1, T2) = \sum_{t=T1}^{T2} AR_{i,t}$$

Furthermore, both the daily abnormal returns as well as the CARs during the event window are analysed over the whole sample. This aggregated analysis is achieved by taking the arithmetic mean over every campaign's abnormal returns in the event window as well as the CAR, creating the measures Average Abnormal Returns (AAR), and Cumulative Average Abnormal Returns (CAAR) respectively.

Hypothesis Testing

The CAARs are assumed to be normally distributed, which would allow to exclusively rely on a cross-section t-test to investigate whether the average short-term price effects are significantly different from zero as it is often exercised (MacKinley, 1997). However, there might be issues that arise in event studies that lead to a lack of power of the t-test, such as how the returns are distributed in the event window and how the event impacts the variance, the so-called event-induced variance. Therefore, this paper also employs two additional standardised tests: The standardised residuals test by Patell (1976) (Patell test) that reduces the impact of the return distribution and partly that of the event-induced-volatility, as well as the standardised cross-sectional t-test by Boehmer et al. (1991) (BMP test) that adequately addresses potential event-induced volatility (Drerup, 2014). Besides, it is considered useful to use further a non-parametric test free of strong assumptions (MacKinley, 1997).

For this purpose, the Wilcoxon (1945) Signed-Rank Test is employed that allows us to statistically investigate the returns' signs and magnitudes without assuming normality. It is constructed by ranking the absolute abnormal returns, that consists of the differene between the observed and index returns, and summing up the average ranks of the positive abnormal returns.

$$W_t = \sum_{i=1}^{N} rank\left(\left|CAR_{i,t}\right|\right)^+$$

The Wilcoxon Signed-Rank Test can then be conducted as follows:

$$z_{Wilcoxon,t} = \frac{W_t - \frac{N(N-1)}{4}}{\sqrt{\frac{N(N-1)(2N+1)}{12}}}$$

We use all four previously described tests to investigate whether the activist hedge fund campaigns becoming public are having a significant influence on the targets' abnormal stock returns at average:

$$H_0: CAAR = 0$$

$$H_1: CAAR \neq 0$$

For the interpretation of the results, we follow Brav et al. (2008) in a more refined way and recognise a short-term price response as significant if at least three of four tests show a two-sided significance of 10% and in addition to that, one of at least 5%.

6.3. Long-Term Stock Price Development

To investigate whether activist hedge funds can be associated with long-term shareholder value at their targeted firms in Europe and to examine if potential short-term gains might even be reversed in the long run, this paper analyses the long-term abnormal returns of European activism targets. Suitable for this research setup are two competing methods that are widely accepted and commonly used, the Buy-and-Hold Abnormal Returns (BHAR) and the Calendar Time Portfolio method, also known as Jensen's Alpha (Barber & Lyon, 1996).

The Calendar Time Portfolio approach estimates abnormal returns using a multifactor model for a benchmark group of comparable companies that is recalibrated for every calendar month of the long-term period of interest (Khotari & Warner, 2007). The BHAR concept, followed in this paper, on

the other hand, assumes that the only difference between an investment in a fixed benchmark portfolio that is taken as a reference for expected returns and investigated stocks are the events (Khotari & Warner, 2007). The abnormal returns can, therefore, be estimated as the difference of the product of daily returns of stock i and the product of the equivalent returns of a benchmark. The benchmark is again chosen to be the MSCI Europe stock index to ensure consistency between this paper's short- and long-term abnormal returns analyses.

$$BHAR_{i,t} = \prod_{t=1}^{T}\left(1 + R_{i,t}\right) - \prod_{t=1}^{T}\left(1 + R_{M,t}\right)$$

While the Calendar Time Portfolio approach incorporates more risk factors in the estimation of abnormal returns, BHARs on the other hand, resemble the actual returns of a long-term investor better than a portfolio method that requires monthly rebalancing, relies on fewer assumptions, and is more efficient to construct (Khotari & Warner, 2007). A downside of BHARs is that they typically suffer from autocorrelation and average BHARs are therefore usually skewed (Barber & Lyon, 1996). To account for the skewness issue, a skewness-adjusted t-test suggested by Lyon et al. (1999) is applied in this paper to investigate the significance resulting in long-term abnormal returns:

$$t_{sa} = \sqrt{n}\left(\frac{\overline{BHAR}}{\sigma_{BHAR}} + \frac{1}{3}\hat{\gamma}\left(\frac{\overline{BHAR}}{\sigma_{BHAR}}\right)^{2} + \frac{1}{6n}\hat{\gamma}\right) \text{ where } \hat{\gamma} = \text{estimated skewness}$$

This method is in line with Bessler et al. (2008) and Bessler et al. (2015). We use it to test whether the average BHARs over different periods following activist interventions in European companies are significantly different from zero.

6.4. Long-Term Operational Development

The analysis of the target firms' long-term operational development serves the assessment of whether or not firms that became subject to activist hedge fund interventions experience operational performance above their peers for individual operational improvements in the years following the activism. Bassen et al. (2019) and Brav et al. (2006) both use a t-test to compare mean values in operational performance between the target group and the peer group. Both studies complement the t-test with a median test. Brav et al. (2006) use a Wilcoxon Signed-Rank test for the comparison of median values between two dependent samples. However, as we are testing the median difference between two independent samples, we follow the method of Bassen et al. (2019), who uses the more

sophisticated Mann-Whitney U test. This non-parametric median test does not assume a normal distribution and is less influenced by the effect of outliers than the t-test (Mann & Whitney, 1947). As such it acts as an excellent complement to the t-test.

As described by Mann and Whitney (1947), the eponymous U test is used to test the null hypothesis that two independent samples are drawn from the same population with equal distribution. The test can be used to statistically examine whether the median values from the independent samples differ significantly. Two independent random variables X_1, which are the observations from the target group, and X_2. The observations from the peer group are used. These have sample sizes of n_1 and n_2 respectively. The observations from the target group and the peer group are combined into one sample. Each observation is assigned a rank from smallest to largest regardless of what sample they belong to. The value of the summarized ranks of each variable then determines if it is likely that the samples have differing distributions and subsequently differing median values. The Wilcoxon test statistic (T-statistic) summarizes the ranks of the observations belonging to sample 1:

$$T = \sum_{i=n}^{n_1} R_{1i}$$

The U-statistic is then calculated:

$$U = T - \frac{n_1(n_1 + 1)}{2}$$

A larger U-statistic indicates a more considerable difference between the groups. The tests are sorted in the same way as is done in the probit analysis, according to four size groups and with a proportionate number of peer firms from each sector and year as is present in the target group. We report the U statistic with the respective significance levels. Due to some controversies surrounding the use of the Mann-Whitney U to test medians, we chose to go beyond the method of Bassen et al. (2019) and complement the Mann-Whitney U with a regular independent samples median test, in which we report the X^2 values.

The tests are employed to investigate the hypothesis that:

$$H_0: Operating\ performance\ in\ excess\ of\ peers = 0$$

$$H_1: Operating\ performance\ in\ excess\ of\ peers \neq 0$$

For the purpose of hypothesis construction, we group the variables EBITDA-margin and ROA together to constitute "operating performance". Given that the study does not contain as many variables as prior research (see *Data Collection Issues*), we require both measurements to display significant and non-conflicting findings to reject the null hypothesis.

The main hypothesis concerning the operational development is how the target firms perform relative to the matched sample of peer firms. However, we choose also to include matched pairs t-tests for EBITDA-margin and ROA, the main indicators of operational performance. The tests compare values from (t-1) and (t) with values from (t+1) and (t+2). The peer firms are excluded to analyze the absolute rather than the relative effect of hedge fund activism on target firms. The hypothesis tested with the matched pairs t-test is as follows:

$$H_0: Operating\ performance\ ex\ post\ in\ excess\ of\ ex\ ante\ performance = 0$$

$$H_1: Operating\ performance\ ex\ post\ in\ excess\ of\ ex\ ante\ performance\ \neq 0$$

Although the specific tests differ, we follow the logic of Brav et al. (2006) where both the mean and median tests are required to display a significance level of at least 10% for us to reject the null hypothesis of similar means for the t-test and similar medians for the Mann-Whitney U test and independent samples median test. The matched pairs t-test investigates a separate hypothesis and is therefore independent of the other tests and their significance requirements.

VII. Empirical Analyses

This paper aims to analyse the effect that activist hedge funds have on their European targets. For investigation purposes, we decide to split the answer in four better digestible sub-question to be able to examine the topic more comprehensively and to be able to find a more nuanced answer or at least hints for the data set at hand. First, we provide the empirical results for the analysis of the hedge fund activism targets' characteristics compared to those of suitable peer groups previous to the campaigns. As a next step, the findings of the short-term price reactions of the targets' stocks surrounding the dates on which activist engagements become publicly known. This provides insights into how activist hedge funds are perceived and how their emergences as minority shareholders are priced in by other market participants. Thirdly, we present the results of the analyses of long-term stock price developments in the aftermath of the events to follow up on potential shareholder value creation in the long-run and to examine whether they are in line with the initial perceptions of the market. This is done twofold: One analysis sets the starting date shortly before the event day to capture all long-term effects of the activist involvements, and another starts one month after the event to be able to control the long-term development for the initial short-term reaction. Ultimately, we bring all findings from the four together to jointly discuss their implications on the thesis' central research question.

7.1. Target Characteristics

The following section will present probit analyses for each of the size groups. It aims to illustrate the effect of each variable on the probability of a firm being targeted by an activist hedge fund. The direction of the coefficients indicates whether a lower (-) or higher (+) value increases the likelihood of targeting expressed as (P(Y=1)). The marginal effects are factors measuring the instantaneous rate of change in P(Y=1) as each variable increases. The factors can be multiplied with a delta of each variable to give how much the probability of targeting changes when the variable changes.

An introductory note on the goodness-of-fit testing is that the groups display a varying degree of fit to the model. The sensitivity of the largest group is at 37% and the pseudo R² value is at 33%, however, the Pearson X^2 test rejects the null hypothesis of fitting data, where for the median group and the 75th percentile, it accepts the null hypothesis with lower R² values and a higher rate of type

II errors. The smallest group does not appear to display that the data fits the model accurately. The varying degree of goodness-of-fit means that the results presented in the following section are interpreted cautiously.

TABLE 8. Target Characteristics

Q25	Coefficient	Sdr. Err	Marginal Effect	z	Pseudo R2	Pearson Chi2	Prob > Chi	Sensitivity	Specificity
D/V	0.0169899***	.0035707	0,0040	4.76	10,25	522,00	0,00	4%	99,7%
EBITDAm	-0.3995304	.3078364	-0,0937	-1.30					
ROA	0.0207391**	.006288	0,0049	3.30					
Tobin's Q	-0.0267153	.0732879	-0,0062	-0.36					

Q50	Coefficient	Sdr. Err	Marginal Effect	z	Pseudo R2	Pearson Chi2	Prob > Chi	Sensitivity	Specificity
D/V	0.0154903***	0.0040266	0,003	3.85	0,06	463,00	0,15	6%	99%
EBITDAm	-0.6283016**	0.3055977	-0,158	-2.06					
ROA	0.0234513**	0.0117805	0,006	1.99					
Tobin's Q	-0.1261458***	0.1177944	-0,032	-1.07					

Q75	Coefficient	Sdr. Err	Marginal Effect	z	Pseudo R2	Pearson Chi2	Prob > Chi	Sensitivity	Specificity
D/V	0.0240254***	0.0040397	0,006	5.95	0,13	519,17	0,11	19%	97%
EBITDAm	-0.8904618**	0.3869003	-0,213	-2.30					
ROA	-0.001644	0.0088309	-0,004	-0.19					
Tobin's Q	-0.1183876*	0.071814	-0,028	-1.65					

Q100	Coefficient	Sdr. Err	Marginal Effect	z	Pseudo R2	Pearson Chi2	Prob > Chi	Sensitivity	Specificity
D/V	4.797537***	0.5318582	0,6725	9.02	0,33	630,00	0,03	37%	98%
EBITDAm	-2.298877***	0.5056855	-0,3222	-4.55					
ROA	-0.0225129**	0.0097298	-0,0031	-2.31					
Tobin's Q	-0.2011091*	0.1185164	-0,0281	-1.70					

*The table reports probit coefficients, standard errors, marginal effects, z-values, and the applicable goodness-of-fit tests for each model. *, ** and *** indicates significance at the 10%, 5% and 1% level respectively.*

Tobin's Q displays negative coefficients for all size groups, meaning that the target companies have lower market-to-book ratios than their peer firms. The results are significant at the 10% level for the two largest groups with marginal effect factors with means of -0,028 and -0,0281 in P(Y=1) as Tobin's Q increases. The results are consistent with Brav et al. (2006), Becht et al. (2019), and Boyson and Mooradian (2011) who also find a significantly lower market-to-book ratio. Bassen et al. (2019) find similar results when comparing the median market-to-book ratio of firms targeted by Wyser-Pratte compared to a control group.

The firms in the target sample all display a positive coefficient on D/V, where the results are significant at the 1% level for all size groups. The marginal unit change of P(Y=1) with increased leverage is at 0,003 for the median percentile and 0,006 for the 75th percentile, the effect is the greatest for the largest percentile at 0,6725 marginal change in probability of targeting. This is in line with Bassen et al. (2019) who also find the combination of higher leverage and lower valuation in the

target sample. Brav et al. (2006) do not see any significant differences between the target group and the peer sample in terms of leverage. However, the coefficient obtained in that study is negative which would indicate that there is some degree of diversion between the results.

The EBITDA-margin does display negative coefficients across all size groups. Together with the ROA, it acts as an indicator of operating performance. A negative coefficient means that the target firms generally display worse operating performance in the year before the activism start date, relative to the peer group. The marginal effect on P(Y=1) is –0,1577 for the median percentile with a significance level of 5%, -0,213 for the 75th percentile with a significance level of 5% and –0,322 for the 100th percentile with a significance level of 1%.

ROA displays more inconsistent patterns compared to the other variables. For the group containing the largest companies, the coefficient is negative, with a marginal effect factor at mean of -0,0031 in P(Y=1) as ROA increases. The result is significant at the 5% level. The median group of targets displays a significantly positive coefficient with a marginal effect of 0,0058. Empirical findings regarding ROA is presented by Boyson and Mooradian (2011) who find a considerably higher ROA in target firms before activism, Brav et al. (2006) find this to be true.

7.2. Short-Term Stock Price Reaction

The core of this thesis is to investigate the shareholder creation abilities that might go out from hedge fund activist interventions at their targets. Therefore, analysing the short-term price reactions that surround the event days on which activist campaigns become public should provide constructive indications of how other market participants assess the shareholder value creation potential that might go out from activist hedge funds. Following the rationale of the efficient market hypothesis in its semi-strong form, all publicly available information is immediately incorporated into the prices of the securities concerned (Fama, 1970). Consequently, a positive short term security price reaction implies that the market perceives such engagements to have a favourable impact; or to put it in line with Rappaport's (1986) shareholder value concept, other market participants expect these engagements to yield higher future cash flows to which the owners of the companies concerned are entitled. Alternatively, an adverse reaction would be associated with detrimental effects that are

expected to arise from activist engagements, e.g. if other shareholders suspect to get expropriated by the acting hedge funds for the sake of private benefits; what Holderness and Sheehan (1985) phrase as the "raiding hypothesis" in association with the infamous corporate raiders of the 1980s (p. 3).

FIGURE 4. Cumulative Average Abnormal Returns Around Hedge Fund Activism Campaigns
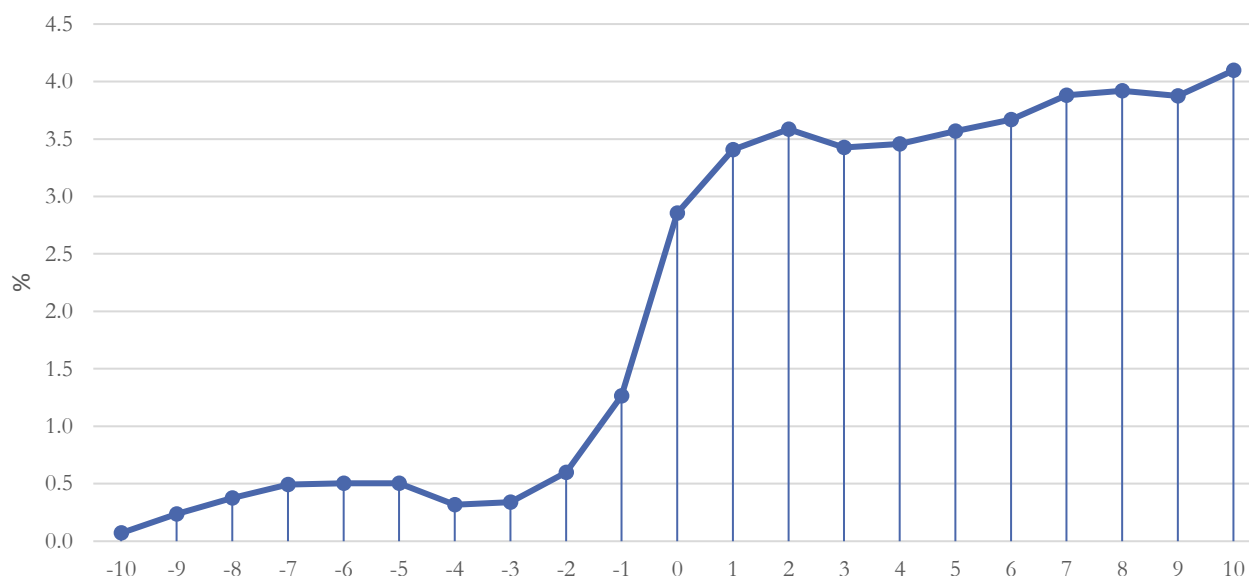
To ensure that the potentially observed short-term effects really occur concerning the activist hedge fund engagements and are not just caused by ordinary daily price movements, we rely on abnormal returns that try to remove the expected daily effects. The method used to calculate the expected returns is explained in section *6.2. Short-Term Stock Price Reaction*. Furthermore, we investigate the abnormal returns in a window of 20 days (-10, +10) surrounding the days on which the hedge fund interventions become public to make allowances for potential time deviations. Investigating abnormal effects just at the determined event dates might be insufficient due to multiple reasons: First, American studies have found that some activists decide to make their investments public before their filings for crossing a disclosure threshold becomes public (Brav et al., 2008). As some of the sample's event dates originate from equivalent filings in Europe, we decide to include a run-up period to the event. Secondly, newspaper articles that are used as sources might not have been from the first media outlet that reported on the hedge fund engagement. Thirdly, it is common that around meaningful events, such as takeovers, there is some degree of information leakage sometimes in relation to laxly enforced disclosure regimes (Bessler et al., 2015). Lastly, to incorporate a certain adoption time of the market as well as potential lags of news reports, the ten days following the event days are also included. The abnormal returns are then summarised and averaged over the whole sample to investigate the short-term effects that arise from the hedge funds' interventions.

FIGURE 4 presents the development of the cumulative average abnormal returns during the 21-day event window. What becomes visible is a very pronounced abnormal share price reaction in a narrow period around the event date leading up to a cumulative average abnormal return for the whole sample of 494 between 2010 and 2019 of 4.1% (median 2.63%). TABLE 9 provides the significance tests and descriptive statistics for the CAARs of the event window. All four significance tests chosen, the cross-section t-test, the Patell test, the BMP, as well as the non-parametric Wilcoxon signed-rank show results well above the 1% level. Therefore, the null hypothesis of CAAR being equal to zero can be rejected. The magnitude of the average short-term reaction lies within the range of findings on hedge fund activism in Europe in previous periods and smaller samples (see *4.2. Empirical Studies of European Targets of Hedge Fund Activism*). Hence, a positive perception by the market of the influences of activist hedge fund engagements on shareholder value can be assumed.

TABLE 9. Statistics on Cumulative Average Abnormal Returns

	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
CAAR	0.07	0.24	0.37	0.49	0.50	0.50	0.32	0.34	0.60	1.26	2.86	3.41	3.58	3.43	3.46	3.57	3.67	3.88	3.92	3.87	4.10
CSect T	0.64	1.57	1.79	2.07	1.70	1.53	0.72	0.83	1.44	2.70	5.19	5.84	5.95	5.57	5.50	5.45	5.57	5.59	5.43	5.37	5.56
Patell Z	0.04	0.43	0.61	0.99	1.59	1.47	1.33	1.23	1.90	3.53	7.64	8.68	8.73	8.68	8.65	8.60	8.92	8.89	9.08	9.20	9.66
BMP Z	0.16	1.36	1.47	2.01	2.64	2.19	1.84	1.59	2.27	3.43	6.20	6.83	6.85	6.64	6.44	6.36	6.59	6.46	6.38	6.40	6.62
Wilcoxon Z	-2.00	-1.85	-1.90	-0.86	0.17	0.40	0.83	0.64	0.41	1.72	3.17	4.80	3.88	2.83	3.79	2.61	2.55	3.38	2.99	3.39	4.00
Stdv	2.46	3.36	4.66	5.29	6.61	7.30	9.81	9.01	9.27	10.40	12.22	12.97	13.39	13.66	13.97	14.56	14.63	15.42	16.04	16.04	16.37
Skewness	0.24	0.77	1.96	1.46	-2.63	-1.84	-6.90	-2.63	-1.32	0.55	0.13	1.33	1.19	0.67	0.86	1.26	1.39	1.78	1.99	1.88	1.59
Kurtosis	19.58	6.55	14.32	8.78	39.91	23.48	107.57	31.35	17.64	9.99	8.62	9.86	7.58	7.28	9.35	10.33	10.86	12.06	16.24	18.47	17.35
1st Percentile	-6.72	-10.32	-13.13	-13.87	-14.67	-17.01	-21.29	-25.78	-23.66	-32.84	-34.86	-31.77	-31.24	-32.80	-30.28	-32.16	-33.30	-31.95	-32.51	-38.33	-36.97
5th Percentile	-2.88	-4.52	-5.42	-6.79	-8.11	-9.29	-10.56	-11.66	-11.50	-12.06	-12.59	-12.94	-13.77	-13.63	-13.61	-13.71	-14.51	-15.48	-15.58	-15.60	-17.28
25th Percentile	-0.78	-1.13	-1.45	-1.76	-1.76	-2.14	-2.58	-2.85	-2.88	-2.65	-2.12	-2.36	-2.44	-2.72	-2.67	-2.78	-2.81	-3.02	-3.35	-3.42	-3.18
Median	-0.04	-0.05	-0.01	0.01	0.21	0.28	0.15	0.23	0.25	0.72	1.88	2.30	2.42	2.33	2.26	2.13	2.34	2.24	2.34	2.24	2.63
75th Percentile	0.69	1.26	1.81	2.30	2.73	2.80	3.22	3.27	3.88	4.43	7.00	7.42	7.81	8.00	8.48	9.08	8.67	8.52	9.10	8.72	9.72
95th Percentile	3.58	5.86	6.78	9.81	11.02	12.79	13.22	14.15	15.01	18.71	23.53	27.71	28.48	28.55	29.00	26.64	27.46	29.33	30.12	30.89	31.75
99th Percentile	9.06	13.93	17.54	18.79	19.77	21.36	25.13	25.92	28.45	33.33	45.55	50.76	57.09	49.93	52.35	56.56	56.28	61.13	57.10	57.18	57.36

The table reports the daily Cumulative Average Abnormal Returns of the event window, descriptive statistics, and the applicable significance tests.

Inspecting the CAAR more closely, we find just small and insignificant abnormal effects in the run-up period of the events. The run-up cumulative average abnormal return in the eight days before the determined event dates (-10, -2 days) amounts to just 0.6% (median 0.23%). In empirical studies of hedge fund activism in the United States there is often a lot of diffusion in the run-up period presumably due to the ten days within which an investor has to file the 13D document of reaching a 5% share ownership hurdle rate (Bebchuk et al., 2015; Brav et al., 2008). Also, existing studies on European hedge fund activism show slightly more gradual increases of CAAR in the run-up period of the interventions (Becht et al., 2010; Bessler et al., 2008; Drerup, 2014). For our sample, significant abnormal share price reactions begin just around two days before the events on average. To make

the daily returns easier to interpret without cumulation, we also provide a chart and descriptive statistics on the average abnormal returns (AAR) in the 21-day event window in *Appendix IV*. The very pronounced effect around the event date (-2, +2 days), therefore, underlines the thoroughness and diligence of our data collection process and choice of sources.

TABLE 10. Short-Term Returns by Objective

	n	CAAR	CSect T	Patell Z	BMP Z	Wilcoxon Z
Capital Structure	60	**4.27**	2.24**	3.18***	2.08**	0.10
Corporate Governance	99	**2.25**	1.34	2.97***	2.48***	2.96***
Engage Management	82	**4.21**	2.65***	3.60***	2.56***	2.27**
M&A	69	**3.37**	1.93*	4.10***	2.82***	0.79
Strategy	12	**3.17**	0.58	0.78	0.54	0.47
Multiple Objectives	172	**5.40**	3.90***	6.92***	4.35***	2.33***

The table reports the Cumaulative Average Abnormal Returns, sample sizes, and the applicable significance tests. *, ** and *** indicate significance at the 10%, 5% and 1% level respectively.

To investigate whether the different objectives claimed by hedge fund activists in the course of their campaigns, we provide a split of CAARs by the categories of stated demands that are described in more detail in section *5.1. Data Collection Process*. To ensure that the short-term effects can be related to a single category of claims and are not diluted, we separate single objective campaigns from those with multiple objectives. The CAARs of the six range between 2.25% and 5.40%, as can be seen in TABLE 10. We set out to follow the idea of Brav et al. (2008) and consider the results as significant if at least three of four tests show a two-sided significance of 10% and at least one of 5%. Following this, we find significant results for all groups of objectives except for those that are related to strategy, but this is not surprising considering its small sample size. Among the campaigns with single objectives, Capital Structure objectives, such as demands for share buybacks and extra dividends, show the highest abnormal short-term effect. These events that are addressing free cash flow agency costs (Jensen, 1986) and aiming for payout of excess cash presumably have the most immediate and tangible effects on shareholder value and, therefore, are the easiest to price in by other market participants. The Corporate Governance objectives of which most comprise demands for board representations, stand-alone seem to be less rewarded. However, they still show significant short-term abnormal returns surrounding the days on which such claims become known to the public. But the largest CAARs arise in the context of multiple objectives. The abnormal event effect amounts to 5.4% and is very significant. It is thinkable that certain multiple objective combinations might be explicitly promising for other shareholders or that tend to be very successful. For our data set, however, the sample sizes would become too small to conduct meaningful analyses of different

combinations of objectives. Also, multiple objectives might indicate that the targeted companies exhibit more areas for value enhancements.

TABLE 11. Short-Term Returns by Market Capitalisation

	n	CAAR	CSect T	Patell Z	BMP Z	Wilcoxon Z
Large Cap (> €10bn)	90	3.79	4.55***	5.80***	4.80***	2.94***
Mid Cap (€2bn - €10bn)	131	3.27	2.87***	4.35***	3.31***	2.12**
Small Cap (€0.25bn - €2bn)	158	2.22	1.84*	3.63***	2.26**	1.89*
Micro Cap (€50m - €250m)	64	4.30	2.14**	2.84***	2.02**	-0.49
Nano Cap (< €50m)	51	12.31	2.84***	5.75***	3.37***	2.33***

*The table reports the Cumaulative Average Abnormal Returns, sample sizes, and the applicable significance tests. *, ** and *** indicate significance at the 10%, 5% and 1% level respectively.*

Moreover, we provide a split of the CAARs in terms of the targets' market capitalisation. The resulting statistics are found in TABLE 11. All of the CAARs are positive and significant and, with one exception, display values in a range between 2.22% and 4.30%. The exception is the group of nano cap companies with valuations of their total outstanding shares below €50m that have a CAAR of 12.31%. In the short-run, the abnormal returns do not significantly differ depending on the chosen calculation method of expected returns (Khotari & Warner, 2007). So, a missing factor for generally higher expected returns of smaller companies should not be sufficient to explain the deviation. Maybe the market perceives that hedge funds are able to exert more considerable influence on smaller targets. However, this would mean that the short-term abnormal returns would be negatively correlated with market size, which we do not find in this sample where the CAAR of small caps is the lowest. Another possible explanation might be that nano cap stocks are less noticed and less frequently traded than the rest of the size groups. If a known hedge fund activist are publicly unveiled to be a new minority shareholder, other investors might begin to notice the stock and drive up demand and therewith the price; a phenomenon that Barber and Odean (2008) phrase as attention-based buying.

TABLE 12. Short-Term Returns by Country

	n	CAAR	CSect T	Patell Z	BMP Z	Wilcoxon Z
United Kingdom	222	5.88	4.36***	9.12***	5.43***	3.35***
Continental Europe	272	2.64	3.52***	4.86***	3.88***	2.46***
Germany	59	3.34	2.02**	3.00***	2.49***	2.46***
France	38	2.77	1.72*	3.03***	2.56***	1.81*
Switzerland	38	0.78	0.55	0.89	0.93	0.47
Italy	20	0.72	0.41	0.63	0.56	0.90
Netherlands	16	2.96	1.13	1.52	1.12	-0.83
Other	101	2.55	2.15**	2.22***	1.64*	1.13

*The table reports the Cumaulative Average Abnormal Returns, sample sizes, and the applicable significance tests. *, ** and *** indicate significance at the 10%, 5% and 1% level respectively.*

Furthermore, we have analysed the short-term abnormal returns by country. In TABLE 12, the CAARs for the countries with most campaigns during the ten years as well as for continental Europe in its entirety are presented. Companies in the United Kingdom that got in the crosshairs of activist hedge funds, thereby, showed the largest short-term responses amounting to abnormal returns of 5.88% over the 21-day event window at average and all four related tests are significant at 1% level. Targets in continental Europe, on the other hand, show less than half of the short-term effect with a CAAR of 2.64%, among which targets incorporate in Germany show slightly higher abnormal returns amounting to 3.34%. In their empirical paper on hedge fund activism in Europe between 1997 and 2008, Becht et al. (2010) find similar country results except for France, where their sample shows significantly higher short-term price effects. Generally, activist interventions are perceived as positive by other market participants whereby the United Kingdom that has by far the most of such campaigns per country shows the highest CAAR in our sample. So, the results from the event study of this sample indicate that the initial market reaction to activist hedge funds campaigns is a testimony to the perception that these investors provide benefits to their targets.

7.3. Long-Term Stock Price Development

In the following analysis, we investigate the long-term abnormal returns following activist hedge fund interventions in European companies. This helps to give indications of how well the initial perceptions of the market turned out to be. After finding significant short-term price reactions, we follow up on the frequent claim that activist hedge funds had myopic financial goals in mind or even engaged in pump-and-dump tactics meaning, artificially driving up the share price to profit from short term reactions; all of which would be to the disadvantage of the remaining long-term shareholders of their targets (Bebchuk et al., 2015). To have detrimental effects on shareholder value, long-term returns would, first, have to be negative. Second, they would have to be so negative, in fact, that the initial positive abnormal stock price effect would have to be more than reversed in the long run (Bebchuk et al., 2015). Lastly, such findings would point towards fundamental market inefficiencies such that the news of activist hedge funds targeting companies would not be incorporated in the share prices appropriately (Drerup, 2014).

The long-term abnormal returns must be interpreted with great care. While short term abnormal returns can be linked to hedge fund activism events with greater certainty, abnormal returns, in the

long run, are influenced by a variety of factors that are independent of activist hedge fund engagements. So, it is not possible to say that the buy-and-hold abnormal returns in this study are directly caused by activist hedge funds. However, even though the long-term effects might be victims of measurement impacts and that the influence of activist intervention might become diluted, they offer sufficient support to substantiate the findings of the analysis of short-term share price effects (Kühne, 2011). Furthermore, they provide useful indications of how the targets developed in the long run compared to a market average. While at the same time, it allows us to compare the long-term development of different objectives countries and campaign outcomes. It must also be noted that due to the timeliness of our sample campaigns, the number of target companies analysed is decreasing, the longer the examination periods become.

In TABLE 13 we present the Buy-and-Hold Abnormal Returns (BHAR) of our sample's hedge fund activism targets for periods 3-, 6-, 12-, and 24-months; while the corresponding descriptive statistics can be found in *Appendix V*. Examining the long-term abnormal returns, a rough pattern of increasing returns with time emerges, at average amounting to 3.79% after three months, 3.31% after six months, 5.00% after 12 months, and 9.41% after 24 months. Thereby, the skewness-adjusted t-test is significant at a 1% level for the average BHAR of 6 months. Even though being insignificant for the most extended periods of 12- and 24- months, the long-term BHARs do not give any indication for negative influence of activist hedge fund engagements in the long run just as little for a reverse of the initial short-term market reactions. This consequently means that our findings suggest hedge funds activist to be good stock pickers at least, if not "informed shareholder monitor[s]" (Brav et al., 2008, p. 1729) that point towards corporate governance issues and lobby for related countermeasures that bring about shareholder value increases.

When consulting the different groups of objectives, we find significant 12- and 24-month BHARs indeed. Notably, the campaigns relating to Capital Structure, M&A, and multiple objectives show significant long-term abnormal returns. Overall, the average BHARs vary widely across the different groups of objectives and are distinctly positive for Capital Structure (18.17%), Engage Management (16.91%), and M&A (14.83%) objectives over two years. The significant positive long-term stock effects associated with capital structure objectives give an indication that activist hedge funds might help with the reduction of free cash flow agency problems by lobbying for the payout of excess cash

positions, which would be in line with the findings of Boyson and Mooradian (2011). For the M&A-related long-term abnormal returns, however, it is unclear whether they are necessarily associated with the hedge fund campaigns or the takeover situations themselves. Also, as it is common to aggregate the intention of activist demands in both directions in the objective "M&A", e.g. see Brav et al. (2008). So, it remains unclear whether the increases are just associated with activist demands of higher tender offers or are coming from acquisitions that activist demand their targets to carry out.

TABLE 13. Average Long-Term Stock Price Effects

	n	BHAR -10, +90	t	n	BHAR -10, +180	t	n	BHAR -10, +360	t	n	BHAR -10, +720	t
Total	485	3.79	1.41	461	3.31***	2.32	416	5.00	0.80	332	9.41	1.43
Objectives												
Capital Structure	59	8.63***	2.91	56	8.91***	2.53	50	10.69*	1.88	44	18.17***	2.41
Corporate Governance	98	0.14	0.07	97	1.34	0.51	87	1.54	0.39	70	4.61	0.64
Engage Management	81	1.44	0.56	72	-4.16	-1.09	59	5.00	0.79	49	16.91	1.31
M&A	68	8.34***	4.48	61	9.02***	2.92	58	13.05***	2.83	53	14.83***	2.36
Strategy	11	5.07*	0.89	10	8.34	0.86	10	13.44	1.10	7	1.08	0.12
Multiple Objectives	169	3.47**	2.19	166	3.42	1.56	153	1.50	0.49	110	3.55*	0.65
Countries												
United Kingdom	218	5.00***	3.07	211	5.30***	2.44	191	6.81**	2.13	154	12.34***	2.33
Continental Europe	268	2.84***	2.52	251	1.64	1.00	226	3.46	1.47	179	6.89*	1.67
Germany	58	5.90***	2.76	53	5.93**	2.15	47	3.95	0.79	39	12.99*	1.65
France	38	6.69***	2.87	35	3.54	1.09	30	5.62	1.21	24	8.74	0.82
Switzerland	36	2.95	1.21	33	6.62	1.56	29	6.55	0.93	22	-4.76	-0.43
Italy	20	-0.04	-0.04	20	-4.60*	-1.91	15	-1.91	-0.44	15	1.40	0.20
Netherlands	16	5.25*	1.78	15	5.11	1.02	15	12.70**	2.08	12	5.60	0.64
Other	100	0.59	-0.15	95	-0.08	-0.81	87	2.60	0.29	67	4.82	0.97
Market Capitalisation												
Large Cap	90	3.9***	3.37	84	4.67***	2.70	78	2.67	0.84	57	13.27*	1.92
Mid Cap	130	6.14***	4.56	120	7.33***	3.38	103	14.96***	4.13	83	15.62***	2.95
Small Cap	154	2.41	1.56	147	1.07	0.51	133	4.54	1.52	103	8.23	1.47
Micro Cap	61	1.75	0.55	60	-5.07	-1.15	55	-7.95	-1.31	46	-5.19	-0.53
Nano Cap	51	4.36	0.80	51	7.94	1.19	48	3.48	0.46	44	10.73	0.95
Campaign Outcome												
Success	155	5.76***	3.93	153	5.66***	2.65	148	7.29***	2.38	125	14.67***	2.89
Partial Success	60	4.17*	1.64	60	7.91**	2.29	56	7.77	1.58	47	2.13	0.28
Withdrawn	23	2.76	0.72	23	5.07	0.79	23	7.93	1.11	20	-3.97	-0.48

*The table reports the Buy-and-Hold Abnormal Returns, sample sizes, and the applicable significance tests. *, ** and *** indicate significance at the 10%, 5% and 1% level respectively.*

Conducting a split by countries of the targeted companies, we find some of the highest significant BHARs in the United Kingdom, which increase with time and amount to 12.34% after 24 months while the average long-term abnormal returns in continental Europe appear to be lower. On the continent, Germany provides an exception with long-term stock price effects following hedge fund activist interventions compared to those in the United Kingdom. Looking at the long-term abnormal returns separated by the five groups of market capitalisations, we do not find substantial differences except for targets in the micro cap size group that, however insignificant, display negative long-term abnormal returns. Generally, we would have expected more substantial returns for smaller companies as the chosen BHAR calculation method does not incorporate expected return differences in the context of which smaller ones are generally assumed to yield higher returns in the long run. Therefore, these findings should be interpreted with caution. Most revealing, however, are the long-term abnormal returns split by campaign outcomes. Here, we find evidence that the success of the activist hedge funds' campaigns is associated with favourable long-term abnormal returns. Over the periods of 3, 6, 12, and 24 months we find BHARs of 5.76%, 5.66%, 7.29%, and 14.67%. The related skewness-adjusted t-tests are significant at the 1% level. Also, we find some significant results for partially successful campaigns.

Coming back to the question of whether hedge funds activists are just good stock pickers or capable active shareholder monitors, we derive indications for the latter from the analyses of long-term abnormal returns. If the activist hedge funds were just proficient at picking undervalued stocks and would not provide any additional benefits with their analyses and campaigns, the different outcomes of the objectives were expected not to show much of difference as the demands concerning spotted governance issues by activists would not play much of role. But we find the opposite to be true: In our sample successful campaigns and Capital Structure and M&A related objectives are associated with highest BHARs.

TABLE 14 shows the average long-term abnormal returns of the European hedge fund activism targets for periods starting one month after the event dates. To no surprise, ignoring the initial short-term reaction seems to make the long-term abnormal effects more insignificant. Furthermore, the results seem to be more mixed and seem to fluctuate for different time intervals in some categories. Most importantly, however, are the positive abnormal returns associated with successful campaigns.

The 24-month stock price development of hedge fund activism targets starting one month after the event date yielded abnormal returns of 9.43% on average; with the related skewness-adjusted t-test shows a significance level of 5%. So, there are generally no indications for the widespread reversal of the initial stock price reactions and detrimental effects.

TABLE 14. Average Long-Term Follower Returns

	n	BHAR +30, +120	z	n	BHAR +30, +210	z	n	BHAR +30, +390	z	n	BHAR +30, +750	z
Total	479	-0.22	-0.90	458	-0.64	0.02	412	1.79	0.86	330	5.03	0.81
Objectives												
Capital Structure	58	3.15	1.15	56	3.59	1.02	50	4.73	0.90	44	13.62**	1.99
Corporate Governance	98	1.36	0.67	96	-0.51	-0.19	86	2.20	0.53	70	2.73	0.40
Engage Management	79	-3.99***	-2.33	71	-6.00**	-1.99	59	4.74	0.66	49	10.65	0.93
M&A	67	1.80	1.07	61	3.38	1.27	58	8.44**	1.99	51	9.97*	1.74
Strategy	11	2.53	0.68	10	7.49	1.06	10	14.68	1.24	7	-3.85	-0.20
Multiple Objectives	167	-1.53	-1.27	165	-1.82	-1.10	150	-4.02	-1.49	110	-1.15	-0.19
Countries												
United Kingdom	215	-1.22	-0.89	210	-0.99	-0.54	190	1.53	0.54	152	5.63	1.10
Continental Europe	265	0.59	0.60	249	-0.34	-0.22	223	2.00	0.76	179	6.42	1.17
Germany	57	0.80	0.48	53	2.15	0.90	57	-1.07	-0.22	39	9.71	1.42
France	37	2.64	1.04	35	0.19	0.07	30	1.00	0.35	24	7.53	0.70
Switzerland	36	3.27	1.15	33	7.06	1.56	29	7.36	0.88	22	-4.85	-0.39
Italy	20	-3.64	-1.63	20	-5.91**	-2.19	20	-2.45	-0.43	15	1.57	0.22
Netherlands	16	4.42	1.22	15	4.33	0.98	13	7.61	1.06	12	3.40	0.37
Other	99	-0.27	-0.61	94	-2.92	-1.55	85	2.94	0.44	67	4.24	0.59
Market Capitalisation												
Large Cap	88	-0.48	-0.39	84	-1.04	-0.55	76	-0.94	-0.25	56	7.23	1.18
Mid Cap	128	2.58**	2.15	119	2.88	1.53	102	9.34***	2.80	82	9.60**	2.00
Small Cap	154	0.44	0.34	146	-0.22	-0.11	133	3.03	1.03	103	7.47	1.38
Micro Cap	60	-5.90**	-2.23	60	-8.89**	-2.24	55	-7.91	-0.79	46	-8.99	-0.91
Nano Cap	50	-2.14	-0.47	50	0.11	0.05	47	-2.39	-0.32	44	2.70	0.27
Campaign Outcome												
Success	155	0.77	0.52	153	0.73	0.36	148	2.87	0.98	125	9.43**	2.04
Partial Success	60	-2.85	-1.43	59	-1.97	-0.73	56	-0.16	-0.05	47	-2.89	-0.35
Withdrawn	23	3.93	1.09	23	4.14	0.71	23	12.74	1.48	19	-7.49	-0.99

*The table reports the Buy-and-Hold Abnormal Returns, sample sizes, and the applicable significance tests. *, ** and *** indicate significance at the 10%, 5% and 1% level respectively.*

7.4. Long-Term Operational Development

The following section reports results from the peer-compared t-tests, median tests, and the Mann-Whitney U tests. The analyses are conducted on the size splits between the percentiles. For EBITDA-margin and ROA we also present paired t-tests between years to measure absolute performance changes, irrespective of the benchmark comparison to matched peer firms. The literature covering the operational performance of European firms targeted by activist hedge funds is not particularly comprehensive. Stock price returns have been studied to a significantly higher degree. The following section aims at adding to the body of research with insights from the most recent data set available. Each paragraph outlines one measure starting with the debt-to-capital ratio (D/V), followed by Tobin's Q, and finally, the two performance measurements EBITDA-margin (EBITDAm) and return on assets (ROA).

D/V

TABLE 15. D/V Target and Peer Comparisons

Q25 D/V	t-2	t-1	t	t+1	t+2
Target mean	32,815	30,6488	27,59	36,718	21,28235
Peer mean	19,917	19,4299	19,905	27,352	11,239
mean diff.	12,898	11,2189	7,685	9,366	10,04335
t	-19,917	4,117***	2,278*	2,3751**	2,5406**
Target median	40,89	34,1	42,01	39,08	39,86
Peer median	25,5	25,5	23	23	22
median diff	15,39	8,6	19,01	16,08	17,86
Chi2	18,95***	15,362***	3,1420*	7,73***	7,73***
U	14507***	15293,5***	11715,5	2584**	4419***

Q50 D/V	t-2	t-1	t	t+1	t+2
Target mean	31,684	37,13	31,393	31,627	23,8988
Peer mean	21,6653	25,746	21,8806	20,978	24,711
mean diff.	10,0187	11,384	9,5124	10,649	-0,8122
t	3,7165***	4,077***	3,4685***	3,2705**	-0,221
Target median	23,55	23,47	24,45	26,02	26,51
Peer median	23	23	23	22	22
median diff	0,55	0,47	1,45	4,02	4,51
Chi2	4,905**	11,62***	8,35***	8,0357***	0,2246
U	18322***	12664***	11949***	6098***	3350

Q75 D/V	t-2	t-1	t	t+1	t+2
Target mean	36,23	38,01	35,49	34,39	33,55
Peer mean	24,37	26,40	23,38	23,99	23,40
mean diff.	11,86	11,61	12,11	10,39	10,14
t	5,2768***	5,179***	4,8565***	3,7848***	2,7843***
Target median	48,72	46,55	44,46	44,13	44,17
Peer median	24,5	24	23	24	24
median diff	24,22	22,55	21,46	20,13	20,17
Chi2	27,717**	21,182***	13,794***	14,184***	4,968**
U	15696,5***	14273***	12148***	7241***	4136***

Q100 D/V	t-2	t-1	t	t+1	t+2
Target mean	46,56	45,6	47,13	47,48	45,26
Peer mean	24,26	24,39	24,7	24,95	24,86
mean diff.	22,3	21,21	22,43	22,53	20,4
t	10,8575***	10,167***	10,004***	8,8725***	7,0262***
Target median	39,7	40,8	39,26	41,21	41,13
Peer median	23	23	23	24	25
median diff	16,7	17,8	16,26	17,21	16,13
Chi2	75,075***	78,19***	66,026***	53,9027***	27,9954***
U	14093,5***	14808***	11544***	8153,5***	5331,5***

*The table reports mean and median D/V percentages alongside the t-statistic, median test Chi2 and the Mann-Whitney U statistic where *, ** and *** indicates significance at the 10%, 5%, and 1% level respectively.*

The D/V ratio displays consistent results across all groups. The target firms are significantly more levered than their peers across most years. This relationship is evident, both when examining the mean and median differences between the groups. The most significant differences are found in the 75th percentile and the group containing the largest companies. In these groups, all three tests display a significance level of at least 5%. Moreover, the results show that the mean and median differences

between the years are static. This indicates that the target firms do not change the capital structure relative to peers within two years of the engagement.

The findings before engagement are consistent with the results from the probit analysis and the findings of Kühne (2011) stating that the leverage in target companies is generally higher. While the analysis does not consider interest expenses, we assume that our findings stand in contrast to those of Mietzner and Schweizer (2014) claiming that interest expenses are lower in target firms compared to peers.

Tobin's Q

TABLE 16. Tobin's Q Target and Peer Comparisons

Q25 Tobin's Q	t-2	t-1	t	t+1	t+2
Target mean	0,8349	0,6899	0,6965	1,9712	0,6521
Peer mean	1,6387	2,22194	1,1774	1,2466	1,0521
mean diff.	-0,8038	-1,53204	-0,4809	0,7246	-0,4
t	-1,7957*	-2,3569**	-3,5093***	0,4975	-2,867***
Target median	0,349	0,41	0,42	0,365	0,364
Peer median	0,446	0,432	0,43	0,4859	0,502
median diff	-0,097	-0,022	-0,01	-0,1209	-0,138
Chi2	7,335***	5,681**	7,24978***	2,5443	3,23649*
U	18613	18696	13598	6859	3311

Q50 Tobin's Q	t-2	t-1	t	t+1	t+2
Target mean	0,848	0,8614	0,7349	0,865	0,7709
Peer mean	1,451	1,491	1,344	1,3253	1,2285
mean diff.	-0,603	-0,6296	-0,6091	-0,4603	-0,4576
t	-2,2129**	-2,3678**	-4,2466***	-1,9151**	-2,9547***
Target median	0,257	0,274	0,554	0,525	0,560
Peer median	0,587	0,658	0,696	0,703	0,820
median diff	-0,3304	-0,3841	-0,142	-0,1781	-0,26
Chi2	4,045**	9,456***	16,653***	17,024***	3,835**
U	17011***	19184***	14906***	6883***	4171***

Q75 Tobin's Q	t-2	t-1	t	t+1	t+2
Target mean	1,09	1,10	1,17	1,13	1,14
Peer mean	1,34	1,41	1,32	1,14	1,14
mean diff.	-0,25	-0,30	-0,15	-0,01	0,00
t	-2,0717**	-2,2732**	-1,0368	-0,0718	-0,0292
Target median	0,54	0,472	0,6466	0,697	0,757
Peer median	0,681	0,698	0,712	0,711	0,71
median diff	-0,141	-0,226	-0,0654	-0,014	0,047
Chi2	2,794*	1,053	0,287	1,3175	1,776
U	23076	24854	22638	12067	6843

Q100 Tobin's Q	t-2	t-1	t	t+1	t+2
Target mean	0,6621	0,643	0,6076	0,6239	0,8207
Peer mean	1,3427	1,452	1,4172	1,342	1,359
mean diff.	-0,6806	-0,809	-0,8096	-0,7181	-0,5383
t	-7,8025***	-7,958***	-8,626***	-8,1595***	-2,722***
Target median	0,526	0,5396	0,5396	0,4766	0,453
Peer median	0,8863	0,9775	0,9105	0,9035	0,871
median diff	-0,3603	-0,4379	-0,3709	-0,4269	-0,418
Chi2	20,37***	24,16***	26,236***	14,484***	8,659***
U	18931***	18633***	18206***	13094***	8272***

*The table reports mean and median Tobin's Q ratios alongside the t-statistic, median test Chi2 and the Mann-Whitney U statistic where *, ** and *** indicates significance at the 10%, 5%, and 1% level respectively.*

When examining the results from the size splits, the median size group displays the most significant results. Common for all years within this group is that the target companies have lower Q-ratios compared to their peers across all years. The 100th percentile displays significant results across all years, for all three tests at the 1% level. The 50th percentile displays significance in all three tests across all years of at least 5%. The 75th percentile shows the smallest differences between the target firms and their peers. Negative mean differences are statistically significant at the 5% level during the years prior to activism. The results during the event year and the two years post event does not show any significant findings, the mean and median differences gradually reduce following the event year. This results from a gradual increase in the Tobin's Q valuation of the target firms, the results can only be interpreted as indications. The 25th percentile provides inconclusive results but withhold that the Tobin's Q valuation is lower in the target firms compared to their peers.

EBITDA-margin

TABLE 17. EBITDA-Margin Target and Peer Comparisons

Q25 EBITDAm	t-2	t-1	t	t+1	t+2
Target mean	8,13	11,86	7,39	12,84	17,66
Peer mean	8,21	7,93	8,88	10,5	10,6
mean diff.	-0,08	3,93	-1,49	2,34	7,06
t	-0,0269	1,2704	-0,4011	0,8173	1,1642
Target median	8,9	9,3	12,16	17,16	27,5
Peer median	7,17	7,5	7,36	8,36	9,22
median diff	1,73	1,8	4,8	8,8	18,28
Chi2	2,235	0,0183	0,015	2,432	0,618
U	17434	18135	12090	7617	2777

Q50 EBITDAm	t-2	t-1	t	t+1	t+2
Target mean	16,6	15,06	13,86	12,6	16,01
Peer mean	19,6	19,79	20,09	20,45	16,83
mean diff.	-3	-4,73	-6,23	-7,85	-0,82
t	-1,3523*	-1,564	-2,627**	-2,5245***	-0,023
Target median	11,86	11,91	9	16,18	16,39
Peer median	12,34	13,98	11,24	11,78	11,6
median diff	-0,48	-2,07	-2,24	4,4	4,79
Chi2	0,048	0,435	1,957	0,586	1,149
U	22491	21543	14885*	9854	3930

Q75 EBITDAm	t-2	t-1	t	t+1	t+2
Target mean	19,90	20,07	22,27	22,78	20,67
Peer mean	23,10	22,26	23,56	22,02	21,72
mean diff.	-3,2	-2,19	-1,29	0,76	-1,05
t	-1,4873*	-1,0897	-0,6729	0,2678	-0,3941
Target median	15,32	15,35	14,99	14,86	18,13
Peer median	15,099	15,37	16,46	14,57	14,86
median diff	0,221	-0,02	-1,47	0,29	3,27
Chi2	4,789**	0,724	0,96	0,345	0,7935
U	23533	23195	19875	14866	7033

Q100 EBITDAm	t-2	t-1	t	t+1	t+2
Target mean	16,32	16,72	16,55	17,09	18,04
Peer mean	23,01	22,68	22,1	22,32	22,19
mean diff.	-6,69	-5,96	-5,55	-5,23	-4,15
t	-4,658***	-3,6986***	-2,940***	-2,6227***	-1,599**
Target median	10,6	8,79	11,69	10,25	13,7
Peer median	18,33	18,2	18,54	18,1	18,28
median diff	-7,73	-9,41	-6,85	-7,85	-4,58
Chi2	7,997***	16,5278***	12,378***	9,7516***	9,55***
U	26254***	24402***	21912***	15208***	8825***

*The table reports mean and median EBITDA-margin percentages alongside the t-statistic, median test Chi2 and the Mann-Whitney U statistic where *, ** and *** indicates significance at the 10%, 5%, and 1% level respectively.*

We examine the relationship between the means and medians of targets and peers for the size splits. There are indications that the EBITDA-margin is better in the target firms relative to their peers. The 25th percentile displays a pattern where the EBITDA-margin is lower for the target firms in the year of activism, the relationship changes in the years post activism where the target mean is higher with a difference in means of 2,34 percentage points in t+1 and 7,06 in t+2. The findings are not significant and thus only an indication of an existing relationship. The median target EBITDA-margin is consistently higher than the peer margin. The 50th percentile shows that the target firms underperform relative to peers in the event year and year t+1. The t-tests are significant at the 5% and 1% level. In year t+2, the difference in means decreases to -0,82 percentage points, and the difference is no longer meaningful. The 75th percentile displays fewer indications where the mean and median margins are quite close in the year following activism; the targets perform slightly better in the first year following the activism. This is the case for both median and mean values. The 100th percentile displays statistically significant findings at the 1% level in for the two median tests; the evidence shows that targets underperform their peers in all years of the observation window. All three tests are significant at the 1% level.

TABLE 18. EBITDA-Margin Target Mean Comparisons between Years

Q25 EBITDAm	Mean pre	Mean post	Mean diff	t
(t-1) - (t+1)	6,2	-3,8	-10	-0,7879
(t-1) - (t+2)	-1,9	12,7	14,6	1,9558**
(t) - (t+1)	13,4	-8,9	-22,3	-1,67*
(t) - (t+2)	-	-	-	-

Q50 EBITDAm	Mean pre	Mean post	Mean diff	t
(t-1) - (t+1)	6,5	12,6	6,1	1,423*
(t-1) - (t+2)	9,6	17,5	7,9	0,8918
(t) - (t+1)	-1,07	12,2	13,27	1,0825
(t) - (t+2)	-12,7	16,47	29,17	1,1203

Q75 EBITDAm	Mean pre	Mean post	Mean diff	t
(t-1) - (t+1)	18,3	21,6	3,3	0,8208
(t-1) - (t+2)	17,3	27,3	10	1,46*
(t) - (t+1)	23,2	22,6	-0,6	-0,3406
(t) - (t+2)	21,5	26,6	5,1	1,844**

Q100 EBITDAm	Mean pre	Mean post	Mean diff	t
(t-1) - (t+1)	9,45	10,8	1,35	0,235
(t-1) - (t+2)	12,7	18,04	5,34	1,309
(t) - (t+1)	16,4	11,8	-4,6	-1,058
(t) - (t+2)	13,66	16,4	2,74	1,459*

The table reports target mean EBITDA-margin percentages alongside the t-statistic where *, **, and *** indicates significance at the 10%, 5%, and 1% level respectively.

The paired t-tests offer some additional insights. There are indications, however not significant, that the performance of the target firms improves in the years following the activism. This relationship is most evident in the median and 75th percentiles, where the comparison between EBITDA-margin pre and post activism shows improvements in mean margins. The 100th percentile also shows improvements for all comparisons except when comparing the event year to t+1. The 25th percentile does not display many indications of improvements. A comparison between year t-1 and t+2 does show a statistically significant improvement with an increase in mean margin of 14,6 percentage points. Although statistically significant at the 5% level, we refrain from drawing the conclusion that the performance improves for this percentile in particular. The reason is that a comparison between year t and t+1 indicates the opposite with a significance level of 10%.

ROA

TABLE 19. Return on Assets Target and Peer Comparisons

Q25 ROA	t-2	t-1	t	t+1	t+2
Target mean	4,3265	3,8425	3,5876	3,393	1,086
Peer mean	-4,1932	-4,6321	-3,2378	-5,11912	-1,8465
mean diff.	8,5197	8,4746	6,8254	8,51212	1,0866
t	5,1706***	4,8095***	3,8705***	3,8065***	0,9392
Target median	7,42	6,77	5,44	4,9	6,39
Peer median	0,465	0,36	1,255	1,52	1,76
median diff	6,955	6,41	4,185	3,38	4,63
Chi2	9,352***	10,038***	9,104***	7,145***	6,797***
U	13305,5***	13523,5***	10956***	6537,5***	4546***

Q50 ROA	t-2	t-1	t	t+1	t+2
Target mean	2,898	3,571	3,762	3,237	4,052
Peer mean	3,859	4,532	4,215	4,183	3,7641
mean diff.	-0,961	-0,961	-0,453	-0,946	0,2879
t	-0,7622	-0,8751	-0,3107	0,6946	0,2067
Target median	2,570	1,395	3,130	3,020	3,550
Peer median	3,780	4,070	4,180	4,370	3,830
median diff	-1,21	-2,675	-1,05	-1,35	-0,28
Chi2	4,5977**	1,765	2,576	7,2581***	2,320
U	18520,000	19618,500	16406,500	10419,5*	6095,500

Q75 ROA	t-2	t-1	t	t+1	t+2
Target mean	3,14	3,75	3,36	2,81	1,79
Peer mean	6,02	5,88	6,06	4,97	5,42
mean diff.	-2,88	-2,14	-2,70	-2,16	-3,63
t	-2,8414***	-1,8044*	-1,5436	-1,462	-1,9156*
Target median	3,905	4,66	4,71	4,17	2,13
Peer median	4,175	4,32	4,92	4,02	4,68
median diff	-0,27	0,34	-0,21	0,15	-2,55
Chi2	9,767***	3,1049*	2,3858	5,086***	4,695**
U	16556,5***	18492,5***	15509,5**	9084**	5979**

Q100 ROA	t-2	t-1	t	t+1	t+2
Target mean	3,6363	2,514	1,5257	3,137	3,4501
Peer mean	6,7277	6,5802	6,6544	6,153	5,723
mean diff.	-3,0914	-4,0662	-5,1287	-3,016	-2,2729
t	-2,9368***	-3,4689***	-2,6881***	-2,968***	-2,0944**
Target median	3,86	3,83	4,53	5,5	3,43
Peer median	5,76	5,6	5,48	3,97	4,86
median diff	-1,9	-1,77	-0,95	1,53	-1,43
Chi2	5,939**	28,071***	11,372***	4,826**	7,236***
U	21943***	18200***	17381,5***	14892,5***	9647,5***

The table reports target and peer mean and median ROA percentages alongside the t-statistic, median test Chi2 and the Mann-Whitney U statistic where *, ** and *** indicates significance at the 10%, 5%, and 1% level respectively.

The ROA displays interesting differences across the groups. Prior to activism campaigns, the 25th percentile shows that the target firms perform better than their peers. The peer mean is negative for all years; this might be due to a few peer firms having exceptionally poor ROA. However, when examining the median values, the same patterns emerge, target firms consistently outperforms the peer groups. The targets continue to outperform their peers in the year following the activism. The results are significant at the 1% level for all tests from year t-2 until year t+1 and significant for the median tests in year t+2. In the 50th percentile, the targets are outperformed by the peers in the year of activism. Unlike the 25th, the targets do not show any consistent patterns of changing the relationship post activism, neither significant nor non-significant. The 75th percentile indicates that the targets underperform relative to peers in the event year, the result is only significant at the 5% level for the Mann-Whitney U median test. The relative performance of the targets increases in t+1 where the difference in median ROA is 0,15 percentage points; both median tests are significant at the 5% level. In t+2, all three tests show statistically significant results saying that the targets underperform relative to peers two years post activism. The result has a mean difference of 3,6 percentage points with a significance level of 10%. Both median tests display significance levels of 1% where the difference in median ROA is 2,55 percentage points.

TABLE 20. Return on Assets Target Mean Comparisons between Years

Q25 ROA	Mean pre	Mean post	Mean diff	t		Q75 ROA	Mean pre	Mean post	Mean diff	t
(t-1) - (t+1)	3,698	3,4265	-0,2715	-0,1288		(t-1) - (t+1)	4,04	2,81	-1,23	-0,799
(t-1) - (t+2)	4,53	1,06	-3,47	-1,23		(t-1) - (t+2)	3,18	3,28	0,1	0,043
(t) - (t+1)	3,5261	3,4265	-0,0996	-0,0612		(t) - (t+1)	5,34	3,28	-2,06	-1,6035*
(t) - (t+2)	4,459	1,06	-3,399	-1,271		(t) - (t+2)	5,58	2,7	-2,88	-1,9581**

Q50 ROA	Mean pre	Mean post	Mean diff	t		Q100 ROA	Mean pre	Mean post	Mean diff	t
(t-1) - (t+1)	3,732	4,09	0,358	0,3165		(t-1) - (t+1)	2,99	2,996	0,006	0,0037
(t-1) - (t+2)	5,745	4,28	-1,465	-1,4067		(t-1) - (t+2)	4,093	3,33	-0,763	-0,5345
(t) - (t+1)	4,227	3,66	-0,567	-0,3668		(t) - (t+1)	3,273	3,06	-0,213	-0,212
(t) - (t+2)	3,88	4,14	0,26	0,1451		(t) - (t+2)	3,5	3,33	-0,17	-0,118

*The table reports target mean ROA percentages alongside the t-statistic where *, ** and *** indicates significance at the 10%, 5%, and 1% level respectively.*

We examine the paired t-test where the target ROA is compared across years irrespective of the peer benchmark sample. As with the EBITDA-mm, no results are displaying sufficient significance as to draw any definite conclusions. The indications for improvements are not as evident as for the EBITDA-margin. For the 25th percentile, the mean differences between pre and post activism are negative, meaning that they indicate that the targets experience impaired ROA in both years following the event year compared to the event year and t-1. Other percentiles display similar results where

only the median and 75th percentile display any comparisons indicating absolute improvement. Bassen et al. (2019) use the same (t) - (t+2) observation window for targets as is employed in this study. For ROA, the study finds indications for improvement but no significant results. Further, the study in question does not consider the peer benchmark.

Operational results summary

We can conclude that the target firms are significantly more levered than their peer companies throughout all size classes and years relative to the event year. Further, the targets in the 25th and 100th percentiles also have lower Tobin's Q valuations than their peers across the majority of size groups and years relative to the event year. The 75th percentile shows that the target firms closes the valuation gap relative to their peers gradually following the campaign. The results go from displaying significant differences in year t-1 to having virtually no difference in mean valuations in t-2. Regarding ROA, the most consistent findings are from the 25th and 100th percentiles. Targets in the 25th percentile display consistently better ROA performance relative to their peers but fail to show indications of absolute improvements following the activist campaign. The opposite is true for the 100th percentile where targets perform significantly worse than their peers. An explanation can be that the smallest group contain peer firms with exceptionally poor ROA, the activist hedge funds are as such good at picking the well performing small firms that also display undervaluation.

The target firms do not appear to have a better EBITDA-margin than their peers; we do however see signs of improvements in the targets themselves. The findings do not allow us to reject the null hypothesis that the target firms do not perform better than their peers within two years following the activism. Neither can we reject the null hypothesis that the target firms improve their performance within two years following the event year. What we do see is that there is an indication that the operating performance could be improved. This is most visible through the non-significant findings in EBITDA-margin development.

A possible explanation for the lack of significant results could be that the observation window is too short. As presented by Smith (1996), it sometimes takes longer for target firms to implement governance changes demanded by an activist. Bebchuk (2013) used a 5-year post-event time window. What the American study found was that the major operational performance improvements relative

to peers started to take place three years post-event. However, using this event window would ultimately compromise the possibility to utilize our unique data set efficiently, as reliable data could then only be obtained from 2014 and backwards. From an operational standpoint, we settle with the indications for EBITDA-margin improvements. We turn attention towards the discussion section. The insights from the above paragraphs will be analyzed together with the short- and long-term stock price results and the theoretical findings presented in the section *III. Theory.*

7.5. Discussion

In the following, we merge and discuss the findings of the four individual analyses to try to answer our main research questions of whether activist hedge funds create shareholder value in Europe. The probit analyses provide evidence that the target firms belonging to all size classes are undervalued relative to their peers. The results are most significant for the 50th percentile and significant for the 75th and 100th percentile. Further, we see that the targets underperform relative to peers in terms of EBITDA-margin. According to the superior stock picking hypothesis, the activist hedge funds should seek undervalued companies. The results presented in the probit analysis also imply that the sought-after undervaluation is accompanied by underperformance in the year before the campaign year. We assume that hedge funds are informed sufficiently to identify this kind of underperformance and identify potentials for improvement. Not targeting companies that are best performing among their peers but instead those with potentials for improvements gives credibility to positive motives of the activist. They do not seem to try to exploit healthy companies but rather turn out to be capable stock pickers.

This interpretation of the findings from the target characteristics analysis can be compared and aggrandised with the short-term abnormal price reactions of hedge fund activism campaigns becoming public. The short-term response can be seen as the perception that other market participants have of the target choices as well as the benefits and shareholder value creation abilities that activist hedge funds might bring along. Our analysis of the cumulative abnormal returns surrounding public hedge fund activism campaigns results in a value of 4.1% on average for the whole sample and, thus, reveals that the market receives these campaigns well. There are three possible explanations for these positive perceptions. First, the news that hedge fund activists started a campaign might reveal the investment potential of these undervalued stocks to other market

participants as well. This would indicate that activists are skilled stock pickers and other investors quickly followed suit. Second, it is also thinkable that other investors are not attracted to the targets that are revealed in the course of the campaigns but simply follow the news that a hedge fund has taken a position in a company. This is what Barber and Odean (2008) phrase as intention-based buying and would reveal systemic market inefficiencies as the market price and might even be associated with pump-and-dump tactics of the activist. Third, the positive short-term stock price reactions could also indicate that other shareholders agree with the corporate governance issues that activists address in their campaigns and perceive the hedge funds to be the right monitors to induce shareholder value-increasing changes. But considering the efficient market hypothesis in its semi-strong form, a positive short term abnormal stock price reaction points towards shareholder value creation that hedge fund activists bring about with their interventions (Fama, 1970).

With the help of the analysis of long-term abnormal stock returns of European targets of hedge fund activism, we can follow on these three possibilities and investigate the initial market reactions turned out to be. With this, we try to find clues of whether activists follow myopic interests that are incorporated correctly into the targets' stock prices, whether activists are just good stock pickers and only add value by pointing towards undervalued companies, or whether they engage in "informed shareholder monitoring" (Brav et al., 2008, p. 1729) and are able to enforce value-enhancing corporate governance changes. After finding positive stock price reactions that represent the creation of shareholder value, for a hedge fund activism to still be detrimental in the long run, Bebchuk et al. (2015) point towards three conditions that need to be fulfilled. First, the long-term abnormal returns would have to be negative. Second, the long-term abnormal returns would have to be so negative, in fact, that the initial positive stock price reactions would be more than reversed. And third, the market would consequently have to be affected by systemic inefficiencies as it would turn out be incapable of incorporating the news of hedge fund activism campaigns into stock prices correctly (Bebchuk et al., 2015).

Our long-term abnormal returns analysis gives no reason to believe that these conditions could be fulfilled. We find indications of long-term shareholder value creation for our whole sample. Based on this finding, we do not find evidence for myopic interests of activist hedge funds in Europe. These professional investors seem to be capable of finding undervalued companies with potential corporate

governance problems that do not see a reverse of the initial short-term stock price reactions. Further, we find that successful campaigns by activist hedge funds correlate with statistically significant and high abnormal returns in the long-run. This seems to explicitly encourage the hypothesis that activists are capable of proposing shareholder value-increasing solutions to uncovered corporate governance problems. Being able to successfully uncover underlying issues of undervalued and underperforming companies as well as being able to recommend solutions that, when implemented, create significant shareholder value seems to support the hypothesis that activist hedge funds are capable corporate governance players.

The evidence of long term abnormal returns for successful campaigns indicates that real changes support the market effect. Examining the analyses on the operational data reveals that the asset-relative valuation of Tobin's Q still displays undervaluation in the target companies relative to peers in all percentiles except the 75th where differences diminish as a result of increased valuation in the target firms. An examination of the paired t-tests where target performance is compared across years reveals indications of improved profitability following the activist campaigns. This further underlines the argument that signs of improvements can be seen, but two years is not a sufficiently long period for implementing operational changes that improve performance enough to outperform the peer companies. This notion is supported by Bebchuk (2013), who finds significantly positive peer-compared results after three years. Instead, we believe that the signs of improvement shown by the matched pairs t-tests indicate significant future enhancements.

We have reasons to believe that hedge fund activists are capable of publicly pointing towards undervalued and underperforming companies and reliable indications that they are able to suggest and enforce shareholder-value countermeasures for potentially underlying corporate governance issues. Unlike value investors, hedge fund activists make their voices heard in the course of their campaigns and bring about demands to unlock preciously disregarded shareholder value potentials. Therefore, we see activist hedge funds as enrichments to European corporate governance with their engagements in informed shareholder monitoring.

VIII. Conclusion

This thesis set out to investigate the effect of public activist hedge fund campaigns on shareholder value in Europe. Increasingly taking hold in European financial markets, the implications of this corporate governance phenomenon are still open to debate among researchers. Using an extensive and recent hand-collected data set, comprising 494 public campaigns by 140 different hedge funds targeting 354 individual companies in 25 European between 2010 and 2019, we examine the related target characteristics, short-term stock price reactions, long-term stock price developments, as well as the long-term operational progressions.

Following the research question of whether these brisk minority shareholders create shareholder value, we find distinct indications that activist hedge funds target underperforming and undervalued companies compared to their peers. Furthermore, we find statistically significant and positive abnormal price reactions of 4.1% around the dates on which hedge fund activist engagements become known to the public. These positive price reactions can be interpreted as a positive perception of other market participants of the presence of activists in the European corporate governance landscape. To investigate whether these perceptions also hold in the long run, we analyse the long-term abnormal stock returns following activists interventions. Thereby, we find indications of positive long-term effects as well as significant positive abnormal returns amounting to 14.67% over two years for successful campaigns of activist hedge funds in Europe.

Furthermore, we find indications of long-term operational improvements following activist interventions. Thus, we are able to conclude that hedge fund activists do not seem to pursue myopic interest but, on the contrary, help to improve corporate governance and shareholder value as informed shareholder monitors in Europe in the long run. Consequently, we expect that activist hedge funds will find a permanent and vital position within European corporate governance landscapes.

However, due to the recency of our data set, it would be interesting to follow up on the long-term stock and operating performances of the targets. The two years that we investigate into the future might not be enough to capture all of the implications that go along with activist hedge fund

interventions. Moreover, we would expect the activities of activist hedge funds to increase in the future. Notwithstanding, we find ourselves at the brink of an imminent financial crisis caused by a global pandemic. In the course of the last financial crisis of 2009, activist hedge funds activities dropped significantly as many investors withdrew their investments in activist hedge funds before it took off again in the bull market that followed (Armour & Cheffins, 2009; Katelouzou, 2015). Therefore, it will be interesting to see what the future might hold for hedge fund activism in Europe.

References

Achleitner, A.-K., Betzer, A., & Gider, J. (2010). Do Corporate Governance Motives Drive Hedge Fund and Private Equity Fund Activities? *European Financial Management, 16*(5), 805–828.

ActivistInsight & Skadden (2020). *Activist Investing in Europe 2019,* from https://www.activistinsight.com/research/ActivistInvestingInEurope_2019.pdf.

Admati, A. R., Pfleiderer, P., & Zechner, J. (1994). Large Shareholder Activism, Risk Sharing, and Financial Market Equilibrium. *Journal of Political Economy, 102*(6), 1097–1130.

Agresti, A. (2015). *Foundations of linear and generalized linear models. Wiley series in probability and statistics.* Hoboken, New Jersey: Wiley.

Andrews, D. W. K. (1988). Chi-Square Diagnostic Tests for Econometric Models: Theory. *Econometrica, 56*(6), 1419–1453.

Appel, I. R., Gormley, T. A., & Keim, D. B. (2018). Standing on the Shoulders of Giants: The Effect of Passive Investors on Activism. *SSRN Electronic Journal,* from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2693145.

Armour, J., & Cheffins, B. (2009). The Rise and Fall (?) of Shareholder Activism by Hedge Funds. *European Corporate Governance Institute - Law Working Paper No. 136/2009.*

Aslan, H., & Maraachlian, H. (2007). Wealth Effects of Hedge Fund Activism. *SSRN Electronic Journal,* from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=993170.

Bang, N., Korpela, L. C., & Federspiel, G. (2019). *Shareholder activism in Denmark,* from https://uk.practicallaw.thomsonreuters.com/w-012-8699?transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1.

Barber, B. M., & Lyon, J. D. (1996). Detecting abnormal operating performance: The empirical power and specification of test statistics. *Journal of Financial Economics.* (41), 359–399.

Barber, B. M., & Odean, T. (2008). All That Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors. *Review of Financial Studies, 21*(2), 785–818.

Barca, F., & Becht, M. (2001). *The Control of Corporate Europe:* Oxford University Press.

Bassen, A., Schiereck, D., & Schüler, P. (2019). The success of the activist investor Guy Wyser-Pratte in Continental Europe. *International Journal of Entrepreneurial Venturing, 11*(1), 24–46.

Bebchuk, L. A. (2013, August 06). The Myth of Hedge Funds as 'Myopic Activists'. *Wallstreet Journal,* from

https://www.wsj.com/articles/SB10001424127887323309404578614004210782388.

Bebchuk, L. A., Brav, A., Jackson, R. J., & Jiang, W. (2014). Pre-Disclosure Accumulations by Activist Investors: Evidence and Policy. *Journal of Corporation Law, 39*(1), 2–34.

Bebchuk, L. A., Brav, A., & Jiang, W. (2015). The Long-Term Effects of Hedge Fund Activism. *NBER Working Paper Series No. 21227.*

Becht, M., Franks, J. R., & Grant, J. (2010). Hedge Fund Activism in Europe. *European Corporate Governance Institute - Finance Working Paper No. 283/2010.*

Becht, M., Franks, J. R., & Grant, J. (2015). Hedge fund activism in Europe: does privacy matter? In R. S. Thomas & J. G. Hill (Eds.), *Research handbooks in corporate law and governance. Research Handbook on Shareholder Power* (pp. 116–128). Cheltenham: Edward Elgar.

Becht, M., Franks, J. R., Grant, J., & Wagner, H. F. (2017). Returns to Hedge Fund Activism: An International Study. *Review of Financial Studies, 30*(9), 2933–2971.

Becht, M., Franks, J. R., Grant, J., & Wagner, H. F. (2019). The Early Returns to International Hedge Fund Activism: 2000-2010. *Journal of Applied Corporate Finance, 31*(1), 62–80.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2003). Law, endowments, and finance. *Journal of Financial Economics, 70*(2), 137–181.

Berk, J. B., DeMarzo, P. M., & Harford, J. V. T. (2012). *Fundamentals of corporate finance* (2nd ed.). Boston: Prentice Hall.

Berle, A. A., JR., & Means, G. C. (1933). *The Modern Coporation and Private Property.* New York: Macmillan.

Bessière, V., Kaestner, M., & Lafont, A.-L. (2011). Hedge fund activism: Insights from a French clinical study. *Applied Financial Economics, 21*(16), 1225–1234.

Bessler, W., Drobetz, W., & Holler, J. (2008). Capital markets and corporate control: Empirical evidence from hedge fund activism in Germany, from

https://www.researchgate.net/publication/228733370_Capital_markets_and_corporate_control_Empirical_evidence_from_hedge_fund_activism_in_Germany.

Bessler, W., Drobetz, W., & Holler, J. (2015). The Returns to Hedge Fund Activism in Germany. *European Financial Management, 21*(1), 106–147.

Boehmer, E., Musumeci, J., & Poulsen, A. B. (1991). Event-study methodology under conditions of event-induced variance. *Journal of Financial Economics, 30*(2), 253–272.

Boyson, N. M., & Mooradian, R. M. (2011). Corporate governance and hedge fund activism. *Review of Derivatives Research, 14*(2), 169–204.

Bratton, W. W. (2010). Hedge Funds and Governance Targets. *Georgetown Law Journal, 95*, 1375–1433.

Brav, A., Jiang, W., Partnoy, F., & Thomas, R. S. (2008). Hedge Fund Activism, Corporate Governance, and Firm Performance. *Journal of Finance, 63*(4), 1729–1775.

Brav, A., Partnoy, F., & Thomas, R. S. (2006). Hedge Fund Activism, Corporate Governance, and Firm Performance. *Journal of Finance, 58*(4), 1729–1775.

Brooks, C. (2002). *Introductory econometrics for finance.* Cambridge: Cambridge University Press.

Bryman, A., & Bell, E. (2011). *Business research methods* (3rd ed.). Cambridge, New York NY: Oxford University Press.

Buchanan, B. G., Netter, J. M., Poulsen, A. B., & Yang, T. (2012). Shareholder Proposal Rules and Practice: Evidence from a Comparison of the United States and United Kingdom. *American Business Law Journal, 49*(4), 739–803.

Carried Interest (2020). *Top Activist Investors List,* from https://www.carriedin.com/activist-investors/.

Chen, K. C.W., & Lee, C. W. J. (1995). Accounting Measures of Business Performance and Tobin's q Theory. *Journal of Accounting, Auditing & Finance, 10*(3), 587–609.

Coffee, J. C., JR., & Palia, D. (2015). The Wolf at the Door: The Impact of Hedge Fund Activism on Corporate Governance. *Columbia Law School Working Paper Series No. 521.*

Conyon, M. J., Fernandes, N., Ferreira, M. A., Matos, P., & Murphy, K. J. (2011). The Executive Compensation Controversy: A Transatlantic Analysis. *Cornell University, ILR School, Institute for Compensation Studies,* from https://digitalcommons.ilr.cornell.edu/ics/5/.

Croci, E. (2007). Corporate Raiders, Performance and Governance in Europe. *European Financial Management, 13*(5), 949–978.

Cziraki, P., Renneboog, L., & Szilagyi, P. G. (2010). Shareholder Activism through Proxy Proposals: The European Perspective. *European Financial Management, 16*(5), 738–777.

Dainow, J. (1967). The Civil Law and the Common Law: Some Points of Comparison. *American Journal of Comparative Law, 15*(3), 419–435.

Dean, J. (2017, July 03). The Yanks are coming, so watch out Europe. *The Times,* Online, from https://global-factiva-com.esc-web.lib.cbs.dk:8443/redir/default.aspx?P=sa&an=T000000020170703ed7300081&cat=a&ep=ASE.

Demarle, X. (2019, October 21). L'Europe, « nouvelle » terre d'activisme: Selon une étude de Lazard, ces investisseurs ont lancé un record de campagnes dans la région, au troisième trimestre. L'Europe continentale prend désormais le pas sur le Royaume-Uni. *Les Echo Capital Finance,* Online, from https://global-factiva-com.esc-web.lib.cbs.dk:8443/redir/default.aspx?P=sa&an=CAPFIN0020191021efal0000t&cat=a&ep=ASE.

Denes, M. R., Karpoff, J. M., & McWilliams, V. B. (2017). Thirty years of shareholder activism: A survey of empirical research. *Journal of Corporate Finance, 44*, 405–424.

Denis, D. K., & McConnell, J. J. (2002). International Corporate Governance. *Purdue CIBER Working Papers.*

Drerup, T. H. (2014). Long-Term Effects of Hedge Fund Activism in Germany. *SSRN Electronic Journal,* from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1718365.

Elliott Advisors (2019a). *Elliott Shares Its Perspectives on Scout24.* Retrieved February 26, 2020, from www.ScoutingForValue.com.

Elliott Advisors (2019b). *Scouting for Value: Website Screenshot.* Retrieved February 26, 2020, from www.ScoutingForValue.com.

Engert, A. (2019). Shareholder Activism in Germany. *European Corporate Governance Institute - Law Working Paper No. 470/2019.*

European Parliament (2007). Directive 2007/36/EC of the European Parliament and of the Council of 11 July 2007 on the exercise of certain rights of shareholders in listed companies: 2007/36/EC.

European Parliament (2013). Directive 2013/50/EU of the European Parliament and of the Council of 22 October 2013 amending Directive 2004/109/EC of the European Parliament and

of the Council on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market: 2013/50/EU.

European Parliament (2017). Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement: 2017/828/EC.

Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics*. (65), 365–395.

Faleye, O. (2004). Cash and Corporate Control: Cash and Corporate Control. *Journal of Finance, 59*(5), 2041–2060.

Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance, 25*(2), 383.

Le Figaro (2020, February 26). Le fonds Lac d'argent, géré par Bpifrance, sera «totalement privé», Online, from https://www.lefigaro.fr/flash-eco/le-fonds-lac-d-argent-gere-par-bpifrance-sera-totalement-prive-20200226.

Gilson, R. J., & Gordon, J. N. (2013). The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights. *Columbia Law Review, 113*, 863–928.

Gilson, R. J., & Schwartz, A. (2001). Sales and Elections as Methods for Transferring Corporate Control. *Theoretical Inquiries in Law, 2*, 783–814.

Harder, O., & Habdank, P. (2019, May 11). Aktivisten stärken Einfluss in Europa. *FINANCE Magazin,* Online, from https://www.finance-magazin.de/finanzabteilung/investor-relations/aktivisten-staerken-einfluss-in-europa-2036101/.

Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states.* Cambridge (Mass.): Harvard University Press; London : Distributed by Oxford University Press.

Holderness, C. G., & Sheehan, D. P. (1985). Raiders or saviors? The evidence on six controversial investors. *Journal of Financial Economics, 14*(4), 555.

Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review, 76*(2), 323–329.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics*. (3), 305–360.

Karpoff, J. M. (2001). The Impact of Shareholder Activism on Target Companies: A Survey of Empirical Findings. *SSRN Electronic Journal,* from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=885365.

Katelouzou, D. (2015). Worldwide Hedge Fund Activism: Dimensions and Legal Determinants. *University of Pennsylvania Journal of Business Law, Forthcoming*.

Khotari, S. P., & Warner, J. B. (2007). Econometrics of Event Studies. In B. E. Eckbo (Ed.), *Handbooks in finance. Handbook of Corporate Finance. Empirical Corporate Finance.* Amsterdam, London: North-Holland.

Knolle, K., Schwarz-Goerlich, A., & Murphy, F. (2018). *Austria's Immofinanz ditches planned merger with rival CA Immo,* from https://www.reuters.com/article/us-ca-immo-m-a-immofinanz-idUSKCN1GC2BC.

Köhler, P., & Landgraf, R. (2017, November 27). Hunting returns: Activist investors go mainstream in Europe. *Handelsblatt,* Online, from https://www.handelsblatt.com/today/finance/hunting-returns-activist-investors-go-mainstream-in-europe/.

Kühne, I. (2011). *Activist vs. Passivist Hedge Funds: An Empirical Analysis and Implications.* Dissertation, University of St. Gallen.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal Determinants of External Finance. *Journal of Finance, 52*(3), 1131–1150.

Levin, D., & Malenko, N. (2011). Nonbinding Voting for Shareholder Proposals. *Journal of Finance, 66*(5), 1579–1614.

Lyon, J. D., Barber, B. M., & Tsai, C.-L. (1999). Improved Methods for Tests of Long-Run Abnormal Stock Returns. *Journal of Finance, 54*(2), 165–201.

MacKinley, A. C. (1997). Event Studies in Economics and Finance. *Journal of Economic Literature, 35*(1), 13–39.

Maloney, T., & Pamer, H. (2020, February 11). Five Hedge Fund Heads Made More Than $1 Billion Each Last Year. *Bloomberg,* Online, from https://www.bloomberg.com/news/articles/2020-02-11/five-hedge-fund-heads-earned-more-than-1-billion-each-last-year.

Manager Magazin (2019). *Scout24 wird aufgespalten, Autoscout24 wird verkauft,* from https://www.manager-magazin.de/unternehmen/artikel/scout24-aufgespalten-autoportal-autoscout24-verkauf-an-hellman-friedman-a-1301789.html.

Mann, H. B., & Whitney, D. R. (1947). On a test of whether one of two random variables is stochastically larger than the other. *Annals of Mathematical Statistics, 18*(1), 50–60.

Manne, H. G. (1965). Mergers and the Market for Corporate Control. *Journal of Political Economy, 73*(2), 110–120.

Mietzner, M., & Schweizer, D. (2014). Hedge funds versus private equity funds as shareholder activists in Germany — differences in value creation. *Journal of Economics and Finance, 38*(2), 181–208.

MSCI (2020). *End of day index data search,* from https://www.msci.com/end-of-day-data-search.

Newbold, P., Carlson, W. L., & Thorne, B. (2013). *Statistics for business and economics* (Eight edition, global edition). Boston, Massachusetts, London: Pearson.

Pacces, A. M. (2017). Hedge Fund Activism and the Revision of the Shareholder Rights Directive. *European Corporate Governance Institute - Law Working Paper No. 353/2017.*

Pallas Capital (2018). *Aktives Investieren: Hedgefonds Manager Klaus Umek & Florian Koschat,* from https://www.youtube.com/watch?v=GVJUM82_4QQ.

Patell, J. M. (1976). Corporate Forecasts of Earnings Per Share and Stock Price Behavior: Empirical Test. *Journal of Accounting Research, 14*(2), 246–276.

Petrus Advisers (2017a). *Letter to Immofinanz,* from https://petrusadvisers.com/media/201703_01_letter_to_immofinanz-14_03_2017_1.pdf.

Petrus Advisers (2017b). *Letter to CA Immo,* from https://petrusadvisers.com/media/en_2017_11_27_letter_to_cai.pdf.

Petrus Advisers (2018a). *Chronology of value destruction: 3 more years of suffering at Immofinanz,* from https://petrusadvisers.com/media/en_2018_02_27_immofinanz-chronology_of_value_destruction.pdf.

Petrus Advisers (2018b). *Letter to Immofinanz,* from https://petrusadvisers.com/media/en_2018_02_27_letter_to_immofinanz.pdf.

Potts, J. (2017). The Activist Shareholders' Migration to Europe: How the United States Can Retain Its Wandering Investors. *DePaul Law Review, 66*(2), 605–646.

Previts, G. J. (2002). *Research in accounting regulation: A research annual* (1. Aufl.). *Research in accounting regulation: Vol. 15.* Greenwich, Conn.: JAI Press.

Rappaport, A. (1986). *Creating shareholder value: The new standard for business performance.* New York: Free Press; London : Collier Macmillan.

Reents, H. (2010, May 27). Von Wölfen und Heuschrecken. *Die Zeit,* Online, from https://www.zeit.de/2010/22/GS-Hedgefons-Mythen.

Refinitiv (2020). *PermID Overview,* from https://permid.org/.

Reuters (2019a, April 05). France preparing to fight activist funds: finance minister, from https://www.reuters.com/article/us-france-economy/france-preparing-to-fight-activist-funds-finance-minister-idUSKCN1RH1IA.

Reuters (2019b, October 02). French lawmakers urge tougher disclosure on activist investors, from https://www.reuters.com/article/france-shareholders/french-lawmakers-urge-tougher-disclosure-on-activist-investors-idUSL5N26N55L.

Schrenk, L. P. (2018). Hedge Fund Activism. In R. W. Kolb (Ed.), *The SAGE Encyclopedia of Business Ethics and Society.* Thousand Oaks, California: SAGE Publications, Inc.

Schüler, P. (2016). *Shareholder Activism in Continental Europe.* Dissertation, Technische Universität, Darmstadt.

Seretakis, A. (2014). Hedge Fund Activism Coming to Europe: Lessons from the American Experience. *Brooklyn Journal of Corporate, Financial & Commercial Law, 8*(2).

Smith, M. P. (1996). Shareholder Activism by Institutional Investors: Evidence from CalPERS. *Journal of Finance, 51*(1), 227–252.

Stadler, M. (2010). *Shareholder-Aktivismus durch Hedge Fonds: Empirische Untersuchung für Deutschland.* Dissertation, Technische Universität Berlin.

Tardiff, T. J. (1976). A Note on Goodness-of-Fit Statistics for Probit and Logit Models. *Transportation.* (5), 377–388.

United States Securities and Exchange Commission (1968). Amendment to the Securities Exchange Act of 1934, 1968, Section 13(D) (1).

Wilcoxon, F. (1945). Individual Comparisons by Ranking Methods. *Biometrics Bulletin, 1*(6), 80–83.

WirtschaftsWoche (2019). *Nach AutoScout24-Verkauf: Elliott steigt teilweise bei Scout24 aus,* from https://www.wiwo.de/unternehmen/dienstleister/us-investor-nach-autoscout24-verkauf-elliott-steigt-teilweise-bei-scout24-aus/25371096.html.

Appendix

Appendix I. Categorisation of Campaign Objectives

	Bloomberg	Capital IQ	Thomson Reuters Eikon
Capital Structure	Cost Cutting Return Capital/Buybacks	Financial Matters (Distribute Special Dividend) Financial Matters (Implement Share Buyback Program) Financial Matters (Misaligned Cost Structure) Financial Matters (Reinstate Dividends) Legal Matters (Breach of Fiduciary/Other Related Duties) Legal Matters (Demand Right to Inspect Books and Records)	Shareholder Rights
Corporate Governance	Board Control Board Representation Compensation Changes Management Changes Remove Director/Withhold Votes Remove Poison Pill	Corp. Gov. - Board Matters (Change Board Composition) Corp. Gov. - Board Matters (Change Board Size) Corp. Gov. - Board Matters (Declassify Board of Directors/Repeal Classified Board) Corp. Gov. - Board Matters (Replace/Nominate Some/All Directors) Corp. Gov. - Board Matters (Restrict Director Compensation) Corp. Gov. - Board Matters (Separate Chairman and Chief Executive Officer Roles) Corp. Gov. - Board Matters (Withhold Votes for Election/Reelection of Company's Board of Directors) Corp. Gov. - Executive Compensation Matters (Say On Pay/Executive Compensation) Corp. Gov. - Other Matters (CEO Succession Planning) Corp. Gov. - Other Matters (Compliance with Enhanced Disclosure Rules) Corp. Gov. - Other Matters (Introduce Forms of Accountability) Corp. Gov. - Other Matters (Question Potential Fraud or Unethical Behavior) Corp. Gov. - Takeover Defense Matters (Repeal Shareholder Rights Plan/Poison Pill) Corp. Gov. - Takeover Defense Matters (Rescind/Remove Other Anti-Takeover Measures/Provisions) Meeting Matters (Conduct Special/Extraordinary Meeting)	Amend Bylaws Board Control Board Representation Change To Board Of Directors Say On Pay
Engage management	Discussions only Other Realize NAV Stake Only - No Public Activism Support 3rd Party Activist Support Management	Engage Management (Intends to Engage or Discuss Issues Generally) Engage Management (Undervalued Stock - Maximize Shareholder Value)	Seek Alternatives
M&A	Acquire Company Break Up Liquidation Oppose Acquisition Oppose Merger (Target) Real Estate Separation Sale of Company	M&A Matters (Launch a Hostile Takeover Bid) M&A Matters (Made an Acquisition Proposal/Bid to Acquire the Company) M&A Matters (Make a Tender Offer) M&A Matters (Oppose/Vote Against - Business Combination/Merger with Another Company) M&A Matters (Oppose/Vote Against - Tender Offer Accepted by the Company) M&A Matters (Oppose/Vote Against - Tender Offer on Another Company) M&A Matters (Oppose/Vote Against Asset Sale/Divestiture of the Company) M&A Matters (Pressure Target to Sell the Company) M&A Matters (Pressure Target towards a Tender Offer/Acquisition Bid Proposed by a Third Party) M&A Matters (Pressure Target towards Breaking Up the Company) M&A Matters (Pressure Target towards Spin-Off) M&A Matters (Withhold Votes to the Tender Offer on another Company)	Force Sale Hostile Acquisition Oppose Sale Spinoff
Strategy	Strategic Review	Strategic Matters (Change Business Strategy/Revise Business Plan) Strategic Matters (Financial/Overall Performance of the Issuer) Strategic Matters (Initiate, Facilitate, or Revise Terms of a Corporate Transaction/Proposal) Strategic Matters (Recapitalization/Restructuring) Strategic Matters (Seek Change in Top Management) Strategic Matters (Solutions to Improve Operational or Fiscal Efficiency/Propose Cost-Saving Measures) Strategic Matters (Vote Against/Oppose Corporate Proposal)	Strategic Direction

Appendix II. Summary of Hedge Fund Activism Campaigns by Target Country

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total	%
United Kingdom	15	18	21	21	19	12	19	24	38	35	222	44.9%
Germany	2	5	1	5	4	2	8	12	8	12	59	11.9%
France	2	1	3	3	1	4	5	5	6	8	38	7.7%
Switzerland	1	3	1	2		3	6	6	6	10	38	7.7%
Ireland	2		2		4	4	3	3	4	2	24	4.9%
Italy			2	1	3		2	7	3	2	20	4.0%
Netherlands		2	1		1		2	6	1	3	16	3.2%
Spain		1	1			1	4	2	1	2	12	2.4%
Sweden			1	2	1	3	1	1	2	1	12	2.4%
Norway				1	1	2			2	2	8	1.6%
Austria			1		1	1		3	1		8	1.6%
Belgium				1					2	3	6	1.2%
Finland	1			2					1	2	6	1.2%
Luxembourg		1				2	1		1		5	1.0%
Denmark		3		1							4	0.8%
Greece								2	1	1	4	0.8%
Czech Republic								1	2		3	0.6%
Cyprus								1	1		2	0.4%
Bulgaria	1										1	0.2%
Russia						1					1	0.2%
Lithuania									1		1	0.2%
Monaco						1					1	0.2%
Portugal										1	1	0.2%
Croatia										1	1	0.2%
Malta			1								1	0.2%
Total	24	34	35	39	35	36	52	73	80	86	494	

Appendix III. Word Cloud of Reports Around Hedge Fund Activism Campaign

Appendix IV. Total Average Abnormal Returns around Event Dates

AAR

	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
AAR	0.07	0.17	0.14	0.12	0.01	0.00	-0.19	0.02	0.26	0.67	1.59	0.55	0.18	-0.16	0.03	0.11	0.10	0.21	0.04	-0.05	0.22
CSect T	0.64	1.48	1.13	1.10	0.07	-0.01	-0.95	0.13	2.07	2.67	5.51	2.65	1.13	-1.17	0.19	0.55	0.80	0.92	0.30	-0.32	2.06
Patell Z	0.20	1.79	0.87	1.78	2.79	-0.56	-0.64	-0.47	3.12	7.64	19.31	4.86	0.24	-0.21	-0.15	-0.22	1.47	-0.12	0.86	0.57	2.14
BMP Z	0.16	1.59	0.78	1.33	1.88	-0.40	-0.54	-0.32	2.05	3.06	6.55	2.93	0.20	-0.18	-0.10	-0.22	1.34	-0.11	0.74	0.59	1.82
Wilcoxon Z	-2.00	-3.49	-0.80	0.29	-1.19	-0.04	-0.25	-0.99	-0.28	-0.06	2.61	0.40	-0.71	-1.96	-1.63	-2.53	-1.97	-2.83	-1.41	-1.96	-0.39
Stdv	2.46	2.51	2.71	2.37	4.02	3.03	4.38	3.53	2.79	5.54	6.42	4.63	3.50	3.03	3.52	4.55	2.84	5.14	2.75	3.13	2.40
Skewness	0.24	0.93	3.46	1.48	-12.50	-2.43	-11.43	5.91	2.55	5.38	1.77	8.76	6.28	-4.32	2.46	15.02	-1.13	14.63	0.69	-7.49	0.32
Kurtosis	19.58	10.45	34.26	15.27	232.96	44.53	195.04	88.94	17.73	64.92	25.61	123.81	93.35	41.27	35.45	289.68	34.89	277.89	33.54	112.03	12.62
1st Percentile	-6.72	-7.34	-7.08	-7.29	-7.41	-11.09	-13.01	-9.14	-7.45	-7.42	-15.38	-8.32	-8.07	-11.10	-12.05	-6.78	-7.32	-6.42	-7.97	-8.34	-6.79
5th Percentile	-2.88	-2.78	-3.26	-3.36	-3.21	-3.33	-3.64	-3.59	-3.09	-3.48	-3.42	-3.31	-3.72	-3.37	-3.42	-3.24	-3.21	-2.95	-3.07	-2.96	-2.42
25th Percentile	-0.78	-0.70	-0.72	-0.73	-0.78	-0.70	-0.70	-0.76	-0.65	-0.81	-0.48	-0.71	-0.86	-0.87	-0.72	-0.86	-0.68	-0.80	-0.81	-0.62	-0.64
Median	-0.04	-0.04	0.00	0.04	0.01	0.02	0.01	0.00	0.04	0.06	0.52	0.05	0.00	-0.03	-0.02	-0.07	-0.01	-0.09	-0.01	-0.02	0.04
75th Percentile	0.69	0.82	0.83	0.87	1.08	0.77	0.93	0.77	0.79	1.18	2.61	1.09	0.99	0.74	0.67	0.63	0.79	0.62	0.79	0.69	0.84
95th Percentile	3.58	4.14	3.84	3.91	3.62	3.45	3.75	2.90	3.85	7.16	9.12	4.97	4.23	3.74	3.43	3.39	4.06	4.03	3.54	3.05	3.61
99th Percentile	9.06	11.08	8.93	7.40	8.15	8.20	8.75	6.26	12.74	25.62	29.82	17.05	10.07	7.00	15.41	6.85	7.96	13.15	7.94	6.84	10.34

Appendix V. Descriptive Statistics of Long-Term Stock Returns

	BHAR -10, +90	BHAR -10, +180	BHAR -10, +360	BHAR -10, +720	BHAR +30, +120	BHAR +30, +210	BHAR +30, +390	BHAR +30, +750
n	478	430	340	172	466	424	332	168
1st Percentile	-47.43	-72.65	-77.77	-95.72	-46.55	-60.02	-77.84	-96.71
5th Percentile	-24.66	-40.92	-48.91	-73.31	-28.50	-40.57	-54.28	-74.05
25th Percentile	-7.76	-11.05	-17.68	-20.82	-8.34	-13.51	-19.31	-24.23
Median	2.44	2.41	2.17	5.90	-0.59	-1.02	0.22	2.08
75th Percentile	12.58	16.42	22.53	39.77	7.39	12.64	17.97	31.06
95th Percentile	41.22	50.75	70.38	96.87	28.88	40.23	57.08	76.56
99th Percentile	73.97	80.81	115.71	161.72	57.66	69.54	145.45	191.29
Mean	3.80	3.31	5.00	9.41	-0.22	-0.64	1.79	5.03
Stdv	21.42	28.98	38.80	53.67	17.63	23.72	38.10	51.43
Kurtosis	5.76	7.59	6.98	6.03	5.93	5.44	8.44	4.27
Skewness	0.43	0.90	1.33	1.28	0.60	0.73	1.63	1.10