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Closing the value gap:

An Empirical Analysis of Cevian Capital's Activism in Europe

Bachelor thesis, financial economics, 15 credits

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Abstract

This paper analyses the short- and long-term impact of Cevian Capitals activist investments on 16 public companies in Europe during 2010-2019. Cevian Capital is the largest activist hedge fund in Europe and is characterized as a “constructivist” hedge fund, employing a non-aggressive approach to activism. First, activists demands and key financial of companies prior to investment are presented. Then, an event study on the short-term market reaction to Cevian Capitals announced entry is examined over three event windows. Alongside this, key operational metrics of the target companies are analysed pre, and post Cevian Capitals engagement, all controlled for with an industry/size adjusted control sample. The findings show small to non-existent short term abnormal market returns to shareholders. The long-term findings show positive, statistically significant improvement in the operational metrics ROA one year post engagement, as well as an increase in the valuation ratio (price/book), with most metrics showing small and insignificant results.

Keywords: Cevian Capital, Hedge Fund Activism, Abnormal Returns, Western Europe, Operating Performance Metrics

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1. Background Discussion

The inherent agency conflicts that exist between public company managers (agents) and shareholders (principals) has spurred the emergence of Shareholder Activism. The phenomenon of shareholder activism originated in the US during the 1980's, when corporate raiders and institutional investors actively started challenging underperforming firms and advocated for improved corporate governance mechanism for shareholders (Jensen, 1986; Black 1997; Brav et al., 2008). This increased pressure and potential threats of corporate takeovers provided a disciplinary effect for managers and boards, to narrow the gap between ownership and control in the interest of shareholders (Romano, 1993)

Shareholder activism can take different forms. From individual retail shareholders voicing environmental concerns at a general meeting, to institutional investors such as, pension funds, mutual funds, or hedge funds actively advocating operational change in public companies to increase shareholder value (Brav et al., 2008). The Californian public employee's retirement system (CalPERS) was a pioneer in the governance reforms to actively monitor and influence the strategy of their portfolio companies. However, studies on CalPERS activism show meagre to non-existing impact on target companies' operations and firm value (Smith, 1996; Smythe, McNeil and English, 2013)

Instead, literature points to hedge funds as the most effective shareholder activists. Showing both positive abnormal returns to shareholders and operational improvements in targeted companies (Brav et al., 2008; Bebchuk et al., 2013; Clifford, 2007) This report defines an activist similarly to established literature: "*activist ownership* as an activist hedge fund taking an equity stake in a company with the intention to influence the control or the management of the company" (Brav, Jiang & Kim, 2015; Klein & Zur, 2010). Serekatis (2014) documents how hedge fund activism has spread to Europe since the 2000's and today represent an established governance mechanism in the European markets.

The targets of Hedge fund activists are often companies facing corporate governance issues, trading at significant discounts to firm valuation (Brav et al., 2008; Bassen et al., 2019) In becoming actively involved, activists aim to become the catalyst for change, both in fundamentally restructuring company operations and resolving corporate governance issues (Brav et al., 2008). In the pursuit to close the valuation gap and increase shareholder value, activists play an important role in both monitoring and disciplining companies in the financial

markets, with benefits accruing to all shareholders (Brav et al., 2008; Brav, Jiang and Kim, 2015; Denes et al., 2017)

The subject for this study is the largest European activist hedge fund, Stockholm based Cevian Capital. Cevian is often described as a “constructivist” hedge fund, taking on a non-aggressive and private approach to activism, similar to the UK Hermes Focus fund outlined by Becht et al. (2008). This non-aggressive approach carries less reputational risk and generates higher returns in the long run (Bessler et al., 2013). Interestingly, aggressive activist campaigns show to generate higher short term abnormal returns, but also risks severing long term relationships with key stakeholders, limiting future market opportunities. As Cevian purchases minority stakes in companies, it is incentivised to maintain good relationships with shareholders to gain support for future activist engagements (Cevian Capital, 2012).

Given this background, this report will focus on a specific type of “non-aggressive” shareholder activism performed by a single activist, Cevian Capital. The aim is to examine both the short-term market reaction, and the fundamental operational impact on European public companies targeted by Cevian over a 10-year time span.

2. Problem Definition and Problem Analysis

The evidence detailing the impact of Hedge fund activism on target companies is inconclusive across existing literature (Brav et al., 2008; Klein & Zur, 2009; Gillan and Stark, 2007). This is especially the case for the European financial markets, where existing literature is sparse. Further research is needed to make conclusive statements about hedge fund activism and its impact on target companies and wider society.

The topic of hedge fund activism’s value is controversial. The debate surrounds the short, versus long term nature of activism. One perspective argues how activists lack the operational experience and inside information of managers and are therefore ill equipped to second guess the target firm’s management. And, instead of contributing, activists merely exploit companies in the pursuit of short-term gain and leave the target companies in a more vulnerable market position than when they entered (DesJardine and Durand, 2020; Greenwood and Schor, 2009). Romano (1993) further argues how the agency conflict that activist are supposed to combat, instead moves from the target firm managers to the hedge fund managers. Where the fund managers pursue their own agenda and private benefits, without regard for other shareholders. In contrast, the opposing side argues for hedge fund activists as valuable corporate monitors, that decreasing agency costs for shareholders and create value by pressuring executives and

boards to perform in accordance with maximizing shareholder value (Brav et al., 2008; Klein & Zur, 2009; Clifford, 2008)

Previous research mainly explores the short-term stock price reaction to hedge fund activist engagements, but limited research exists on the long-term impact on key operational ratios of target companies post the activist campaign. This report will try to investigate Cevian Capitals active ownership impact on both the short-term stock abnormal return, as well as the long-term fundamental performance metrics of target companies in a European context.

3. Purpose

The purpose of this study is to investigate the short- and long-term impact on publicly traded European companies targeted by Cevian Capitals activism philosophy. The approach of this analysis will partially follow that of Venkiteshwaran et al. (2010) and Bassen et al. (2019) on single activist, but in a Western European context. In contrast to large samples studies, with heterogeneous hedge fund actors with different objectives, average holding periods and specialities. This study takes a narrower approach by only focusing on one single activist with a single objective function. The ambition is thereby to find distinct evidence on a sub-part of this diverse and important topic.

Therefore, the main contribution of this thesis is the documentation of the largest European activist investor impact on both short-term stock return and key operational metrics on European public companies over a 10-year period. Further differentiation to previous research is the non-aggressive and cooperative approach of the activist, providing more evidence and nuance on this multifaceted topic. Additional insight on hedge fund activism impact is interesting for both corporate governance literature and regulatory agencies formulating new legislative proposals in European securities markets.

4. Background on Cevian Capital

Cevian Capital is a hedge fund which acquires significant minority stakes in primarily European public companies. As owners, they aim to actively engage the company and promote initiatives to fundamentally change operations and thereby realize untapped potential. Cevian Capital's investors are primarily pensions funds, endowments, foundations, and sovereign wealth funds. The fund runs a concentrated portfolio of 10-12 holdings at any one time. Cevian Capital was founded in Stockholm in 2002 by two former management consultants and private equity investors, Lars Förberg and Christer Gardell. Initially the firm operated exclusively in the Nordics but has since 2006 ventured out into Western Europe (Cevian Capital, 2012).

Prior to every investment, Cevian conducts extensive due diligence on the company fundamentals, including all relevant stakeholders, competitive industry dynamics, and ESG initiatives. The timing of the initial purchase depends on the situation, and Cevian often tracks companies for years before they invest (Cevian Capital, 2012).

To date, Cevian has engaged in board work or the nominating committee in 80% of publicly disclosed cases. The typical holding period is 3-5 years. The idea is to fundamentally transform good, but mismanaged companies into becoming industry leaders. The founders' experience from management consulting and private equity drives the proposed improvement agenda. The typical target company is a large, diversified, conglomerate-like business which is priced at a significant discount to a sum of the parts analysis. The value realization to shareholders would be to spin-off or demerge unrelated business segments and divisions to realize the discount and change the perception of the company in the market (Cevian Capital, 2012; Aktiespararna, 2018).

The model investment by Cevian would be to invest at a depressed stock price at a discount, then engage the company with a long-term value improvement agenda to close the valuation gap, and then potentially sell at an attractive stage in the market cycle (cyclical uptrend) or to a strategic/financial buyer at a premium (Cevian Capital, 2012).

5. Theoretical Framework and Hypothesis Development

5.1 Agency Theory

Agency theory stems from the separation of ownership and control between the shareholders and professional managers, when firms went from private to public corporations with disperse ownership holdings (Berle and Means, 1933; Jensen and Meckling, 1976). Managers with operational insight and an informational advantage over owners, are incentivised to maximize their own utility. This often stands in conflict with the owner's goal to maximize shareholder return. To remedy this situation the principal will have to employ monitoring measures to ensure the agent is acting in the best interest of the principal. This type of monitoring is considered an agency cost. If managers are not incentivised and monitored adequately, they are less likely to maximize the value of the firm, and are instead incentivised to act to enrich themselves, at the expense of shareholders (Jensen and Meckling, 1976; Berle and Means, 1933).

A persistent form of conflict between agents and principals is managerial slack, which is an excessive hoarding of assets and suboptimal capital allocation decisions by management to protect the manager's position. Jensen (1986) describes the problem of excess free cash flow in relation to over investment and negative net present value projects. Instead of paying out excess cash to shareholder, managers are likely to engage in value destructive, empire building projects, for example building complex and suboptimal conglomerate structures of unrelated businesses that reduce firm value (Hope and Thomas, 2008; Jensen, 1986). Jensen (1986) further explains the detrimental effect on operating performance and significant reduction in firm value and shareholder return.

5.2 Hedge Fund Activism

Hedge fund activism originated in the US during the 1970's and 80's as successors to the early corporate raiders. Increasingly favourable regulation, propelled hedge fund managers to have significant influence over managerial decisions with minority stakes in public companies. The objective function of activist hedge funds is to maximize shareholder return and unlock potential value creation at public companies (Marler and Faugère, 2010). In practice, management teams are disincentivized to make difficult but optimal decisions for shareholders, both when choosing projects to invest in, but also when deciding on divesting lagging or unprofitable ventures. According to Denis et al. (1997) managers do not willingly reduce the firms suboptimal diversified holdings, except when pressured by external actors.

Hedge funds, as opposed to pension funds and other institutional investors, have a less regulated structure, with possibility of performance-based compensation and the use of leverage (Brav et al., 2008). This introduces significant financial incentives for hedge fund managers to monitor the company and its operations to maximize shareholder return (Goetzmann, et al., 2003). This is supported by Clifford 2007, who illustrated how hedge funds target firms earn a larger excess return, and experience increased improvements in operating performance (ROA) compared to firms that are targeted by the same hedge funds but for passive purposes.

Demands and agendas promoted by activists can take different form, depending on the activist speciality and the situation of the target firm. Frequent demands relate to corporate governance issues, cash holding and pay-out policy decisions, investment levels, restructurings, and M&A situations (Brav et al, 2008). In the European context, activist suggestions are primarily communicated privately with the management/board of the company, in contrast with the American activists, where a more aggressive approach involving the media can be more effective (Becht et al., 2008; Bessler et al., 2013). The threat to underperforming management teams by hedge funds is greater than of other institutional investors, and real influence for change is therefore possible (Smith, 1996). Brav et al. (2008) describes the private communication with management to encourage value enhancing alternatives as the most common form of activism performed by hedge funds. Activist hedge funds perform an important role in the functioning of financial markets, in monitoring the board of directors and management teams to focus on maximizing shareholder return.

5.3 Efficient Markets

The efficient market hypothesis states that all publicly available market moving information is immediately incorporated into current security prices. Fama (1970) categorized three levels of market efficiency based on empirical studies conducted on market efficiency. The three levels of efficiency were categorized as, “weak form”, “semi-strong-form” and “strong form”. Weak form efficiency suggests stock prices reflect all the historical market information. Semi strong form suggests all publicly available information is already incorporated in the market prices, and strong-form efficiency suggests all relevant information (including insider) information is already efficiently reflected in current stock prices. This study primarily focuses on the strong and semi-strong-form efficiency and investigates whether the private and publicly available information is incorporated in market prices immediately. Or, if there exist an opportunity for investors to free ride on the days following an activist engagement announcement and earn

above normal returns. The semi strong form denies this possibility, as all information should immediately be reflected in security prices.

6. Literature Review and Hypotheses

Most of existing research on hedge fund activism is concentrated in the American market where the phenomenon originated. The regulatory environment in the American market makes the study of activism more accessible due to the extensive 13D disclosure requirements¹. In contrast, the number of studies on European hedge fund activism is limited, and the research detailing single activists even more so. The consensus among established large sample hedge fund activist research suggests positive short- and long-term abnormal stock market returns including improved operational performance of the target companies (Brav et al., 2008; Clifford, 2008; Bebchuk et al., 2013). However, new evidence presents disagreement with the long-term nature of these returns. In a recent study by DesJardine and Durand (2020) on financial and social long-term performance, using a sample of 1324 target companies, showed immediate short term abnormal returns to activism, but negative long-term stock performance trends. Also, all key financial performance metrics (firm value, profitability, and cash flow from operations) decreased over the long run post activist engagement. These studies contradict the positive findings of Bebchuk et al. (2013) who found no negative abnormal long-term effects following activist engagements. Bebchuk et al. (2013) also showed how the initial short term abnormal increase correctly reflects the positive long-term consequences of activist engagement in pushing companies towards creating substantial shareholder value. Further, Bebchuk et al. (2013) found no evidence of pump and dump patterns where activist exits are followed by abnormal negative returns.

A critique presented by Bassen et al. (2019) of the large sample studies on the inherent nature of heterogeneous sample sets of activists, across different countries, and activists with varying strategies and objective functions. These variations in samples can impact the results, and limit comparability. Studies detailing single activists reduce this inconsistency and potential bias in sample selection and thus give the possibility of clear findings.

An important study on a single activist was conducted by Venkiteshwaran et al. (2010) outlining the activism of Carl Icahn, the famous American corporate raider later turned shareholder

¹ The 13D filing is a SEC required filing for investors acquiring more than 5% of a publicly traded company with an active intent. The filing must be filed latest 10 days after the initial purchase. The 13D filing is often a good proxy for the announcement date of purchase. It also documents the activist's engagement agenda for the company.

activist. This study showed Carl Icahn's activism to be industry agnostic, with activist engagements across 22 different SIC industries. In contrast to critics, the companies targeted by Icahn showed characteristics of being overleveraged rather than underleveraged, also a majority had industry normal pay-out ratios and cash levels. The short-term market reaction to Icahn's engagements in a sample of 33 of activist engagements between 1995-2007, showed significant positive abnormal returns of 7% for the 3-event window and up to 16,5% for the 41-day event window. Further, the study documents improvements in key operating metrics such as ROA, cash balances and a decrease in leverage, but due to the limited sample the improvements were not statistically significant. However, when studying the long-term impact on the target firm, the study showed significant differences between the firms being acquired or taken private, and the firms that remained independent. The largest sample, consisting of survived firms suffered an average negative 60% returns within 18 months of Carl Icahn's engagement. This study partially supports the findings of Greenwood and Schor (2009) who suggests activist hedge funds engage in a form of "pump and dump" strategy, where firms that are not acquired, are quickly abandoned, and suffer subpar returns in the long term. However, Venkiteswaran et al. (2010) make an argument that the resistance to Carl Icahn's change agenda is a more plausible explanation to the negative subsequent performance return. This conclusion would be supported by Bassen et al. (2019) who outlined how activists sometimes target underperforming companies on a negative development trajectory, with or without the activists involvement.

A replication of Venkiteswaran et al. (2010) study was performed by Bassen et al. (2019) on another single activists, Wyser Pratte, and his activist campaign across continental Europe during 2001-2011. With a sample of 14 campaigns, Bassen et al. (2019) show Wyser Pratte targeting companies underperforming industry matched peers, and primarily advocates for change in business strategy and corporate governance, along with pointing to undervaluation in the companies. The short-term market reaction to Wyser Prattes engagement announcement showed positive abnormal return of 9,37% in the 3-day event window and up to 13,3% in the 41-day event window. The highest abnormal return was recorded for one delisted company and the lowest return for one acquired target firms. Alongside the positive abnormal return, positive impact on key operating profitability were observed. Key operating metrics ROA, ROE and EBITDA/Assets showed a positive but statistically insignificant result. Furthermore, in the long term post event study, Wyser Prattes targets showed long term buy-and-hold abnormal return

of 15,51% , however also with insignificant results. This was probably due to the limited sample size.

In another single activist study by Becht et al. (2008) on the Hermes UK Focus Fund, showed similar abnormal returns as previous studies on single activists. The Hermes fund operated primarily in the UK, with a non-aggressive private communications approach to activism. The event study results of Hermes UK fund showed statistically significant mean abnormal returns of 3,9% over a 7-day event window. The main findings of this study showed how restructuring activities and changes to senior executives and board composition initiated by the Hermes fund were the primary drivers behind excess returns to shareholders. The abnormal returns to restructurings, such as sale of assets or refocusing the target firm by selling of divisions or segments showed the highest abnormal return of 6,6% over the 7-day event window, while CEO or chairman changes showed the second highest positive abnormal returns of 6% over the same event window. Furthermore, positive operational improvements in Return on assets were economically large but statistically insignificant. Also, observing metrics on employees and total assets were significantly lower two years after Hermes engagement. This is an illustration of one of the funds main objective to increase focus, and often engage in restructurings and divestitures to unlock potential value trapped in complex organizational structures.

6.1 Hypotheses

Previous literature on hedge fund activism shows both positive abnormal stock returns and positive operational improvements to the target companies. The theoretical framework suggests similar positive impact due to increased monitoring and exertion of pressure by hedge funds on company management to focus on maximizing shareholder value. In addition, the incentives structures in place for hedge funds to monitor target companies to focus on maximizing shareholder value should therefore result in a positive market reaction to announcement, and subsequent significant positive operational improvements in key operating metrics. These observations predict that Cevian Capitals announced engagement will result in abnormal returns to a relevant normal market, and target firms will experience positive improvements in key operating metrics in the long run. To test these predictions, a pre-event period is compared to the post event development, both for short term stock returns and long-term key operational ratios. The following hypotheses are therefore developed.

H1: Relative to a representative market index, Cevian Capitals announced engagement will in the short term generate positive abnormal returns.

H2: Relative to a control sample, Cevian Capitals target companies will show larger improvement to key operating metrics in the post event period.

7. Data Collection

To analyse the impact of Cevian activist engagements, all publicly disclosed campaigns in Europe during the period 2010-2019 had to be collected. The period was chosen due to the high activity of the activist in Europe during this time, and because the period did not entail any major long lasting market downturns that could potentially skew the results.

The European regulatory environment lacks an equivalent to the “active intentions” disclosure requirement (13-d) filing required in the US by the SEC. Any data collection must therefore rely on the press release of the activist, or media coverage, to infer the entry date and agenda of the activist. Cevian Capital is primarily a European activist but has since 2016 published three original 13-d filings outlining its investing agenda.

The sample for this study was hand collected using multiple sources. First a collection of shareholder activism activity was collected from Thomson Refinitiv Eikons data stream on European markets over the specified period. This data was primarily based on information from media articles and press releases, which adequately represents when the market takes part of and reacts to information in the European context.

The search was then narrowed down to include only Cevian Capital campaigns. This collection totalled in 19 activist announcements. This activist sample was then narrowed down to only include the original announcement date, subsequent campaigns to holdings targeted prior to the observation period were excluded. This search resulted in 14 unique campaigns.

To find more campaigns I run a Factiva search on Cevian Capital and filter with keywords related to activism and announcements of purchase. This search resulted in Cevian Capitals press releases and industry papers detailing interviews and indications of Cevians activity surrounding a target company. This search was then cleaned and resulted in 6 additional original campaigns.

Once the total sample was collected, the appropriate event date had to be established. The date for the activist engagement in Thomson Reuters did not always correspond to the first announcement date and therefore all dates had to be adjusted with Factiva searches for every target company to find the first occurrence of an announcement date. This approach was

inspired by Boyson and Mooradiani (2010) to approximate the true event date and subsequent abnormal return.

Once the target sample and the announcement date had been established for every target firm, data could then be collected. For the short-term event study analysis, time-series stock market data was downloaded from the Bloomberg database for all target companies in conjunction with the MSCI Europe market index, according to the specifications mentioned in method section on the event study 8.1. Due to high restructuring and M&A activity surrounding some of target companies, data was no available, and 4 campaigns had to be dropped. This resulted in a total sample of 16 original campaigns for final analysis.

To investigate the second hypothesis on the long-term impact on key operational ratios, all data was collected from Bloomberg's spreadsheet builder. The control firm pairing for every target company was constructed based on the Thomson Reuters industry specification collected on every target company. This industry classification was then further filtered to only include firms from Western Europe. The adjusted industry list was then sorted, and a control firm was chosen based the market cap and revenue similar to the target firm surrounding the event period. All ratios of interest were collected for every target company and the respective control firm, according to specifications mentioned in method section 8.2. Table 1 represents the target sample as well as the paired control company sample, used for further analysis.

Table 1
Industry and size adjusted control sample for the Cevian Capital target sample

Event Date	Target company	Control company
2019-02-06	CRH	Holcim Ltd
2018-12-21	Nordea AB	Credic Agricole
2018-03-01	Autoliv	Hella GmbH & Co
2017-05-30	Telefonaktiebolaget LM	Nokia Oyj
2016-02-24	Rexel	Ferguson PLC
2015-06-04	ABB	Schneider Electric
2014-03-29	RSA Insurance Group	Unipolsai SPA
2014-03-20	Volvo AB	Volkswagen AG
2013-09-25	ThyssenKrupp AG	SSAB
2013-09-16	Tieto Oyj	Bechtle AG
2013-08-12	G4S PLC	Securitas AB
2011-11-28	Danske Bank A/S	BNP Paribas Fort
2011-11-14	Vesuvius PLC	Morgan Advanced Materials
2011-10-31	Bilfinger SE	Sweco AB
2010-08-23	Swedbank	Soc Generale
2010-02-16	Panalpina World Transport	Odet
<i>Total</i>	<i>16</i>	<i>16</i>

7.1 Data Processing

For the short-term processing of the stock and market index data, an excel workbook is created and the data is sorted chronologically to the 2010-2019 timeline for all events. The data is then organized, with company name, event date, stock price, return, and market return, to be processed in an event study package in the statistical software Stata.

For the key performance ratio data for both the target sample and the control groups, the data is structured to be summarized in averages over the pre-event to post event window. The target firm data and sample firm data are separated and analysed separately. The means for the two sample groups are then compared with the t-test as described in method 8.3.

8. Method

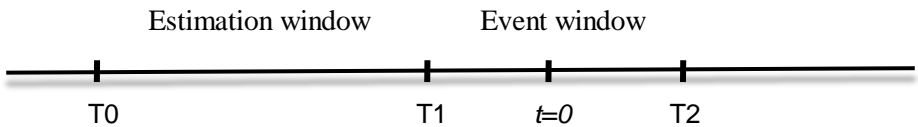
8.1 Event Study

To test the first hypothesis on the short-term market response to Cevian Capitals announced engagement the event study methodology proposed by MacKinlay (1997) is used. The event study is an established quantitative method used in corporate finance research. The method is constructed to analyse any abnormal impact of an event on a specific dependent variable over a specified event window. In an efficient market the information of the activist event should immediately become reflected in the stock price. Given the three different event windows, one can then evaluate the significance of the economic event over a short time (MacKinlay, 1997)

The first step in conducting an event study is to identify the relevant events, and the appropriate time event window during which the stock price will be analysed. The event of interest in this study is exclusively Cevian Capitals first announcement of ownership in all target firm over the period 2010-2019. Similarly, to Venkiteshwaran et al. (2010) three different event windows of, 3 days, 21 days and 41 days are used for analysis. A 3-day event window means the impact from [-1, +1] trading days with the announcement date being at date 0.

The next step is to establish an estimation window in order to produce normal market returns to be used for later comparison. The estimation window was set according to MacKinlay (1997) of 250 trading days prior to announcement (T0) and ending 10 days prior to event date (t=0). The figure below illustrates the timeline of the event study.

Figure 1 Illustration of event study timeline



T0-T1 is the estimation window. T1-T2 is the event window, and t=0 is the event date.

For estimating the normal market return I have used the market model (1) proposed by McKinlay:

$$(1) \quad R_{it} = \alpha_i + \beta_i R_{mt}$$

R_{it} and R_{mt} are the returns of the security and the market portfolio respectively over the period- t . α_i and β_i represent the estimated parameters of the market model. Compared to the CAPM and other economic models, the market model is less prone to bias, and is therefore preferable in event studies (McKinlay, 1997).

The MSCI Europe Index was chosen as a proxy for the market portfolio. The index covers 15 developed markets in Europe, including all markets where Cevian Capital target companies are listed on and operate in. The normal return is composed of two parts, the relationship between stock return and the estimated parameters representing the market index, and secondly the actual market return.

The first equation (2) measures the economic impact of the event, by calculating the abnormal return based on the return of the stock, the market, and estimated parameters. The daily abnormal return is the difference between the given daily stock return (R_{it}) and the normal return. This abnormal return is calculated daily for every target company over the specified event window.

$$(2) \quad AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})$$

The total impact can then be calculated by a cumulative abnormal return measure, where all daily abnormal returns are compiled. Equation (3) shows this calculation. For total CAR impact for all target firms over the three event windows.

$$(3) \quad CAR(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it}$$

To test the entire sample of target companies over the three different event windows a cumulative average abnormal return is calculated in equation (4)

$$(4) \quad CAAR = \frac{1}{n} \sum_{i=1}^n CAR(t_1, t_2)$$

For a robustness check to test for significance if CAAR significantly differs from 0, the cross-sectional test is used, where a t-test for the CAAR is calculated. In equation (4) S_{CAAR} represents the standard deviation of the cumulative abnormal return across the sample, N represents the number of observations.

$$(4) \quad t_{CAAR} = \sqrt{N} \frac{CAAR}{S_{CAAR}}$$

8.2 Key Performance Indicators

To investigate the second hypothesis of long-term fundamental performance post Cevian Capital engagement, a selection of key operating ratios was adapted to analyse the performance of all target companies and the control sample. The relevant key performance indicators were adapted from Venkiteshwaran et al. (2010) and Bassen et al., (2019). For the selected ratios, see table 2 for definitions.

Table 2

Key performance indicators measuring fundamental impact from cevians engagement

<i>KPI</i>	<i>Change in</i>	<i>Definition</i>
ROA	Operational profitability	Net income/assets
ROE	Operational profitability	Net income/equity
EBIT/Sales	Operational profitability	Earnings before interest and taxes/sales
Capex/assets	Investment level	Sum of investments/assets
Cash/assets	Liquidity ratio	Cash at year end/assets
Debt/equity	Leverage ratio	Total debt/equity
Debt/assets	Leverage ratio	Total debt/total assets
Price/book	Valuation ratio	Market capitalization at years end/equity

To reduce bias and include a reference to the performance of Cevian Capitals activist campaigns, I created an industry, revenue, size, and geography adjusted control sample. Every target company has been matched with a comparable firm unaffected by Cevian's activism.

The key performance indicators in table 2 were compared over a three-year time window. The KPIs in the year before the event date [t-1] were compare with the year following the engagement [t+1] and two years after [t+2]. The KPI results were then aggregated and compared across the three-year time, in relation to the procedure for the control sample.

To test for significance between the target sample and the control sample, I used a t-test statistic. The t-test is frequently used in exiting literature on operating variables and is appropriate for studying small samples (n<30). The t-test analyses if the difference in means between the two groups is statistically significant.

9. Results

The following three sections will present the results from testing the two stated hypotheses, following by a fourth section discuss limitations. The first section will give a brief illustration of the target firms key characteristics, and of Cevian Capitals activist agenda. Secondly, the short-term market reaction results of the event study will be presented. And, in the third section the key performance indicators change relative to a group of control companies will be presented.

9.1 Summary Characteristics

Summary characteristics in table 3 show Cevian Capitals activist engagements to be industry agnostic, with a slight leaning towards financials and construction materials. The activist targeted 13 different TRBS industries during the 2010-2019 period, with the highest activity levels in the years 2010-2014 illustrated in Panel A.

Table 3 Characteristic of Cevian Capital's target companies between 2010 - 2019

<i>Panel A: distribution of engagement by year and TRBC Industries</i>		
<i>Year</i>	<i>TRBC industries</i>	<i>Number</i>
2010	Ground freight & logistics; Banks	2
2011	Construction & engineering; Construction materials; Banks	3
2013	Business support services; Software; Consumer goods conglomerates	3
2014	Property & casualty insurance; Heavy machinery & vehicles	2
2015	Heavy electrical equipment	1
2016	Electrical components & equipment	1
2017	Communications & networking	1
2018	Auto, truck & motorcycle parts; Banks	2
2019	Construction materials	1
<i>Total</i>		<i>16</i>
<i>Panel B: stock exchange listing and name of target firms</i>		
	Euronext Paris (France): <i>Rexel</i>	1
	London Stock Exchange (UK): <i>Vesuvius, G4S, RSA, CRH</i>	4
	OMX Nordic Exchange Copenhagen A/S (Denmark): <i>Danske Bank</i>	1
	OMX Nordic Exchange Helsinki Oy (Finland): <i>Tieto oyj</i>	1
	OMX Nordic Exchange Stockholm: <i>Autoliv, Swedbank, Ericsson, Volvo, Nordea</i>	5
	SIX Swiss Exchange (Switzerland): <i>ABB</i>	2
	XETRA German Electronic Exchange (Germany): <i>Bilfinger, Thyssenkrupp</i>	2
<i>Total</i>		<i>16</i>

Panel B indicates that Cevian Capitals interest primarily lies in the Nordic regions, with increasing interest in UK and Western Europe, with a particular focus on Germany and Switzerland.

Panel C shows summarized key financials of the Cevian Capital target sample one year prior to investment. The mean financials are heavily skewed by larger outliers, which is also confirmed by the quartiles. Table 3 shows Cevian Capital engaging both small and large cap companies during this period. Cevian also seem to target asset heavy companies, as all summary statistics show higher asset values than market cap at year end. Also, all companies in the sample show positive net income. Three financial companies were excluded due to the different accounting standards to the rest of the sample.

Table 3 Characteristics of Cevian Capital's target companies between 2010 - 2019 (continued)

<i>Panel C: Key financials of target firms prior to Cevian Capital's entry announcement (n=13)*</i>				
<i>(\$m)</i>	Mean	Median	Quartile 1	Quartile 3
Net income	748	284	29	2 594
EBIT	1 426	347	187	2 869
EBITDA	4 419	957	437	4 675
Assets	105 596	10 922	5 610	105 596
Market Cap at year end	66 366	9 137	2 909	66 366
<i>Panel D: purpose of engagement according to collected sources</i>			<i>Number</i>	
Valuation			4	
Business strategy			5	
Capital structure			2	
Corporate governance			9	
Restructuring			5	
<i>Total</i>			<i>25</i>	

In table 3, panel D, the categorization of purpose was adopted by Greenwood and Schor (2009) and Bassen et al. (2009) in the following categories:

- 1) *Valuation* (pointing to undervaluation compared to industry peers, demanding initiatives to improve shareholder return)
- 2) *Business strategy* (propose change to business strategy, advocating for cost savings and efficiency improvements in existing operations)
- 3) *Capital structure* (Advocating for cash distributions to shareholders and buyback programs of undervalued shares)

- 4) *Corporate governance* (trying to replace underperforming board members and senior executives, active involvement in board work by Cevian’s principals.
- 5) *Restructuring* (Advocating for restructuring of the firm and its divisions, sale of unrelated businesses, focusing the scope of the business)

Following the categorization, table 3 illustrates Cevian Capital main objective concerns change to corporate governance, as well as change in business strategy and to initiate restructurings. The primary objectives are often to refocus and simplify complex business structures, similarly to the practice of the Hermes UK Focus fund in Becht et al. (2008). Also, in contrast to Wyser Pratte in Bassen et al. (2019), Cevian do not engage in proxy fights or aggressive media campaigns, or publicly sharing letters with improvements plans with shareholders, but instead engages the company board and management privately, and afterwards describe their engagement in press-releases and interviews. However, often the categorizations are interlinked, and a “Corporate governance” change can be advocated to replace executives unwilling to act on changes to the capital structure, business strategy or proposals to restructure the business.

Table 4 shows the key performance indicators one year prior to Cevian activist engagement. The pre 1 year return is the mean monthly stock return [-13, -1] for the target/control sample, adjusted for the MSCI Europe index, prior to the engagement by Cevian. The negative pre 1 year return in the Cevian target sample, indicates an underperforming trend to the market index, and to the industry adjusted control sample.

Table 4 reports the mean key performance indicators of the Cevian capital sample as reported in the year previously to Cevians announced entry date, along with an industry/size adjusted control sample. See method 8.2 for definitions of key performance indicators and the control sample. The t-test statistic is reported for difference in mean between the target sample and the control sample.

Table 4		Target firm characteristics prior to Cevian Capital's engagement				
<i>Key figures</i>		Cevian Capital Sample		Control sample		T-test for differences in means
		<i>obs.</i>		<i>obs.</i>		
Pre 1 year return	Mean	15	-0,033	15	0,078	-

Table 4		Target firm characteristics prior to Cevian Capital's engagement (continued)				
<i>Key figures</i>		Cevian Capital Sample		Control sample		T-test for differences in means
		<i>obs.</i>		<i>obs.</i>		
ROA	Mean	15	0,009	15	0,027	-1,405
ROE	Mean	15	-0,005	15	0,093	-1,754*
EBIT/Sales	Mean	11	0,027	11	0,034	-0,414
Capex/Assets	Mean	15	0,085	15	0,070	0,671
Cash/Assets	Mean	15	0,023	15	0,024	-0,120
Debt/Equity	Mean	15	2,987	15	2,520	0,302
Debt/Assets	Mean	15	0,255	15	0,247	0,148
Price/Book	Mean	15	1,348	15	1,388	-0,152

Notes: * indicates a significance level at the 10% level

The negative return on assets and negative return on equity in table 4, shows significantly lower values in the Cevian Capitals target sample in comparison to the control group. This supports Cevian focus on underperforming companies, with the intention to improve operations and return metrics illustrated in table 3, Panel D.

9.2 Event Study

Table 5 shows the mean cumulative average abnormal return for the Cevian Capital target sample over the three event windows of 3 days, 21 days, and 41 days. The CAAR for the three-day event window show negative abnormal returns of 0,4 %. The 21-day event window show a close to 0 negative return, while the 41-day event window show a positive abnormal return of 2,3% for the total sample. The table shows a trend of more positive abnormal returns as the observed event windows increases. During the three-day event window, 6/16 individual CAR showed positive return, while 10/16 showed positive return in the 41-day event window. None of the CAAR t-values from the event study show statistical significance.

Table 5 Short term event study results surrounding the engagement date

	All Cevian Capital's targets (<i>n=16</i>)		
	<i>Event windows in days</i>		
	[-1, +1]	[-10, +10]	[-10, +30]
CAAR	-0,004	-0,0001	0,023
t-value	-0,57	-0,01	1,62
p-value	0,579	0,994	0,125
P/N	6/10	9/7	10/6

Notes: T-tests showed no significance levels for any of the event windows

The empirical results in table 5 are not consistent with the findings of previous authors illustrated in the literature review section. The CAAR results in table 5 are minimal and statistically insignificant, contrasting strongly with the substantial abnormal returns showed on previous studies on single activists.

The individual target company cumulative abnormal returns, and a graphical illustration of the daily abnormal returns over a 41-day event window for Panalpina Welt transport, can be observed in Appendix A and B.

9.3 Key performance indicators

Table 6 shows the change in key operating metrics compared to the control sample over the three-year observation window. The Cevian sample show a statistically significant improvement in ROA one year after engagement compared to the control group. However, in the subsequent year [t+2], ROA slowed down and showed a small but negative return compared to the control sample. The return on equity metric showed similarly positive return in the year after Cevian Capitals engagement, with a subsequent decline in the second year. Results are however not statistically significant. The valuation ratio of price to book, showed a large improvement one year after post engagement in the Cevian sample compared to the sample group, and statistically significant at the 5% level. In the second year, this difference is smaller than the sample group, however not statistically significant. Another significant finding is the reduction in the Debt/Equity ratio in the second year after the event date in the Cevian target sample. Lastly, EBIT/Sales showed a positive increase in the second year in the Cevian sample compared to the control group. Indicating an increase in profitability. Most results presented in table 6 are however not statistically significant.

Table 6 shows the medium/long term fundamental operating performance of the target companies compared to the control sample. The difference in means is calculated and a t-test is performed to measure the significance of the performance over time.

Table 6 Changes in target firm's financial and operating performance

<i>Key figures</i>	Period	Cevian Capital Sample		Control sample		Difference in mean
		<i>obs.</i>	ΔX	<i>obs.</i>	ΔY	$H_0: \Delta = 0$
ΔROA		15		15		
	[t+1-t-1]		0,031		0,010	0,020*
	[t+2-t+1]		-0,019		-0,010	-0,009
ΔROE		15		15		
	[t+1-t-1]		0,134		0,031	0,103
	[t+2-t+1]		-0,051		-0,028	-0,023
$\Delta EBIT/Sales$		11		11		
	[t+1-t-1]		0,005		0,006	-0,001
	[t+2-t+1]		0,004		-0,008	0,012
$\Delta Cash/assets$		15		15		
	[t+1-t-1]		0,014		0,007	0,008
	[t+2-t+1]		-0,002		0,001	-0,003
$\Delta Capex/assets$		15		15		
	[t+1-t-1]		-0,001		-0,002	0,001
	[t+2-t+1]		-0,002		0,000	-0,002
$\Delta Debt/Equity$		15		15		
	[t+1-t-1]		-0,175		-0,286	0,111
	[t+2-t+1]		-0,190		0,177	-0,367*
$\Delta Debt/Assets$		15		15		
	[t+1-t-1]		0,009		-0,007	0,016
	[t+2-t+1]		0,001		0,009	-0,008
$\Delta Price/Book$		15		15		
	[t+1-t-1]		0,639		0,185	0,454**
	[t+2-t+1]		0,140		0,261	-0,121

Note:

* indicates a significance level of 0,1.

** indicates a significance at the 0,05 level.

9.4 Limitations

Several factors limiting the extent of the study can give partial explanation and nuance to the empirical results. One important variable not controlled for was the extent to which Cevian Capitals engagements were implemented in practice. This limits the conclusion on the impact of activism. Cevian Capitals engagements often span several years, with amendments to demands, and it is therefore difficult to measure the impact without private data from the activist. Therefore, conclusions can only be partially drawn on the extent Cevian Capitals involvement is attributable to positive or negative impact on the target company.

Also, coinciding events surrounding the event date such as profit warnings or earnings announcements have not been considered or adjusted for in the stock price returns. These events could significantly distort short term stock returns.

Lastly, returns have not been adjusted for agency costs, which can significantly lower returns to activism, as the activist must internalize the costs to activism and has no effective mechanism to recoup this cost by other shareholders. In this study this would further lower the observed short-term abnormal results to Cevian Capital.

10. Conclusion and Further Research

10.1 Conclusion

This study examined both the short- and long-term impact of Cevian Capitals engagements on European public companies. Using the event study methodology to examine the short term cumulative abnormal return for the entire sample of Cevian engagements over three different event windows. The evidence do not support the claim that announcement of Cevian Capitals purchase generate positive abnormal returns. All event windows showed negligible and statistically insignificant results, indicating no significant increase or decrease in shareholder value. This can suggest that the semi strong form of market efficiency is valid and the announcement date of Cevian is already incorporated in market prices prior to the estimated event date. This is a limitation within the European context where event dates must be estimated. Further the limitations raised in section 9.4 about adjusting for company events could have implication for this return development. These explanations however only partially explain the meagre results, as such adjustment were not made in studies by Venkiteshwaran et al. (2010), Bassen et al., (2019) and Becht et al. (2008), where much larger Cumulative abnormal returns were observed. Another explanation can be the non-aggressive and less vocal approach of Cevian Capital in contrast to previous detailed single activists. Previous literature show smaller short term abnormal market returns to announcement date, compared to more aggressive campaigns (Bessler et al., 2013). Also, the long-term focus of Cevian Capital may not warrant an immediate spike in return. The indications of higher abnormal return in the longest event window (+2,3%) can to some extent support this interpretation.

The second claim concerning the long-term impact on target firm operational metrics by Cevian Capital activist engagements was examined by comparing key operating ratios one year prior to engagement with one [t+1] and two year [t+2] post engagement in the target companies. Similarly, Brav et al., (2008); Bassen et al. (2019), Venkiteshwaran et al. (2010), Becht et al., (2008) findings show Cevian targets companies with significantly smaller returns on asset and returns on equity than the control group. In between the three-year observation window, changes to key operational ratios show a positive trend and statistically significant improvements in ROA the year after the engagement. Another interesting finding is the statistically significant reduction in Debt/Equity ratio two years post engagement. This evidence partially supports the hypothesis of Cevians monitoring and pressure on the company results in larger improvements in the operations of target companies. Most ratios however show statistically insignificant results.

The impact of Cevian Capitals activism in Europe is therefore inconclusive, as most results are not large enough to be statistically significant. This is partially explained by the small sample size of campaigns considered. Another observation is that no significant value destruction is observed in the empirical evidence. This contradicts some existing literature on hedge fund activism and thus furthers evidence on this topic in the European context.

10.2 Further Research

The limitations outlined in this study can inspire new research into the subject of hedge fund activism.

One interesting idea would be to include ratios on ESG metrics and compare with industry samples. This could potentially further existing research with evidence on the sustainability impact of activist's campaigns on target companies. As sustainability is becoming more important in corporate governance, this research could provide evidence for regulatory agencies interested in promoting sustainability initiatives in public markets.

Another interesting area of study would be the long-term impact of excessive focusing of businesses into leaner organizations. The practice of simplifying businesses and breaking up complex structures is often an activist strategy. But research by Clay Christensen on disruptive innovations indicate how an obsession with increased profitability metrics and increased focusing, can leave companies vulnerable to disruptive innovations. Thus, a long-term study of firms that have been demerged/spun off, versus industry-controlled samples that have remained intact, and the competitive situation and financial health of the companies in question. These results could yield significantly implications for the literature of hedge fund activism, but could also be generalized to other areas such as consulting or private equity where focusing businesses is a frequently employed strategy.

This study supplied limited evidence and ammunition for the debate on hedge fund activism's impact on companies. Therefore, further research is needed to explore this diverse topic and its impact on target firm performance and society at large.

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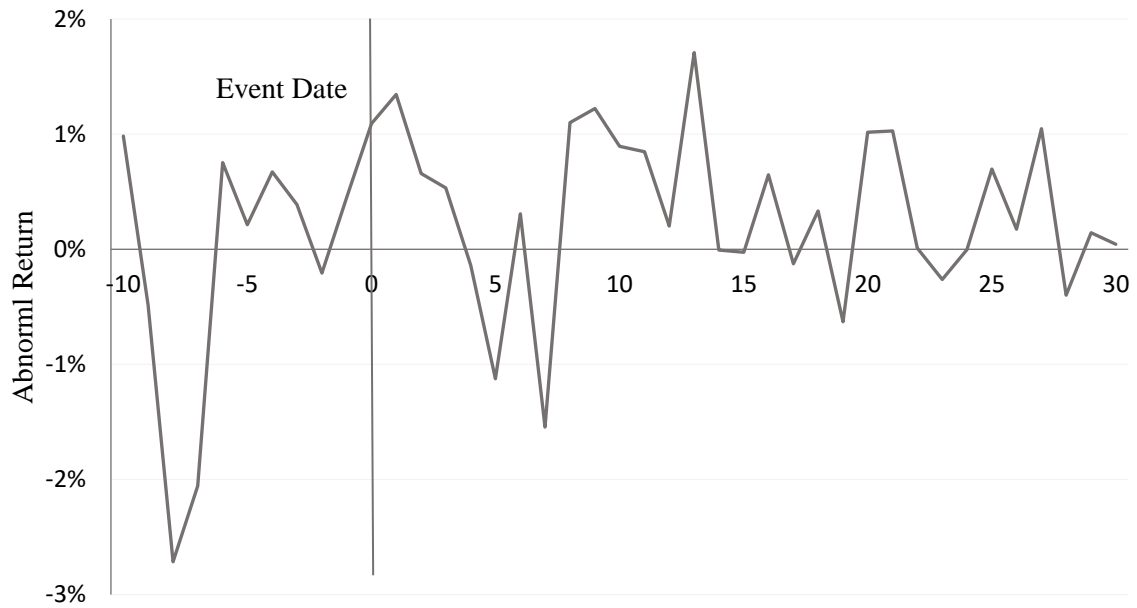
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12. Appendix

1) Appendix A

Graphical illustration of daily abnormal return over the 41-day event window for PWTN.

Daily Abnormal return for PWTN over the 41 day event window
[-10, +30]



2) Appendix B

The tables show the Cumulative Abnormal Return and the t-value for every target company over the three event windows used in the event study, [-1,+1], [-10,+10], [-10,+30].

The 3 day event window cumulative abnormal return for every target company

<i>Target Company</i>	<i>CAR</i>	<i>t value</i>
PWTN SW Equity	0,021	2,607
SWEDA SS Equity	-0,022	-1,222
GBF GY Equity	-0,067	-1,592
VSVS LN Equity	0,001	0,021
DANSKE DC Equity	0,059	2,052
GFS LN Equity	0,017	5,690
TIETO FH Equity	0,001	0,093
TKA GY Equity	-0,005	-0,924
VOLVB SS Equity	-0,002	-1,103
RSA LN Equity	0,010	1,700
ABBN SW Equity	-0,005	-0,418
RXL FP Equity	-0,010	-0,356
ERICB SS Equity	-0,004	-1,752
ALV US Equity	-0,038	-3,960
NDA SS Equity	-0,017	-1,251
CRH ID Equity	0,000	-0,001
<i>Total</i>	<i>16</i>	<i>16</i>

The 21 day event window cumulative abnormal return for every target company

<i>Target Company</i>	<i>CAR</i>	<i>t value</i>
PWTN SW Equity	-0,028	-1,425
SWEDA SS Equity	0,006	0,339
GBF GY Equity	0,001	0,020
VSVS LN Equity	-0,084	-3,250
DANSKE DC Equity	-0,013	-0,432
GFS LN Equity	0,017	1,762
TIETO FH Equity	0,032	3,136
TKA GY Equity	-0,042	-5,099
VOLVB SS Equity	-0,013	-1,002
RSA LN Equity	0,017	1,345
ABBN SW Equity	-0,054	-3,755
RXL FP Equity	0,121	3,941
ERICB SS Equity	-0,032	-4,042
ALV US Equity	0,008	0,596
NDA SS Equity	0,013	0,620
CRH ID Equity	0,047	3,829
<i>Total</i>	<i>16</i>	<i>16</i>

The 41 day event window cumulative abnormal return for every target company

<i>Target Company</i>	<i>CAR</i>	<i>t value</i>
PWTN SW Equity	0,088	5,680
SWEDA SS Equity	-0,011	-0,722
GBF GY Equity	-0,052	-1,765
VSVS LN Equity	-0,068	-2,805
DANSKE DC Equity	0,064	2,642
GFS LN Equity	0,071	6,567
TIETO FH Equity	0,019	1,905
TKA GY Equity	-0,004	-0,447
VOLVB SS Equity	0,021	1,588
RSA LN Equity	0,066	5,667
ABBN SW Equity	-0,016	-0,858
RXL FP Equity	0,068	2,521
ERICB SS Equity	-0,069	-7,712
ALV US Equity	0,015	1,139
NDA SS Equity	0,107	6,549
CRH ID Equity	0,066	5,334
<i>Total</i>	<i>16</i>	<i>16</i>