# The Beneficial Ownership Report: Stock Returns and Shareholder Activism

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# **Abstract**

In this thesis we study the association between large investors that file SC 13D forms and stock returns. We analyse shareholder activism by studying Schedule 13D filings and differentiate between active and passive investors through the intentions disclosed in Item 4. The results of this thesis indicate that disclosures made by large shareholders are associated with positive abnormal returns for the subject firm in the period prior to the filing date. This paper finds that firms with shareholders that reveal intentions of activism are related to significant and positive cumulative abnormal returns (CAR). Firms that have investors disclosing passive intentions are also associated with significant and positive CAR, yet only in the periods after the median event date. We also find that firms with an active SC 13D filing experience significantly higher CAR than those that are passive.

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# Introduction

In this thesis we use an event study to explore the association between SC 13D filers and stock returns. We analyse shareholder activism by studying Schedule 13D filings and differentiate between active and passive investors through the intentions disclosed in Item 4. Research on campaigns initiated by shareholder activist find mixed results on its relation with stock prices. Recently, researchers have begun using the contents of Schedule 13D¹ to identify active investors and found positive market reactions. It is assumed that the information contained in SC 13D filings are not disclosed to the public prior to the filing date. A SC 13D filing may in itself be perceived as a signal of activist intentions because investors disclose influential voting power and may file a less revealing form to the SEC if they have no intentions of utilizing their voting power to affect the subject firm. Additionally, by having stronger incentives to monitor the subject firm, this thesis hypothesize that SC 13D filers are associated with positive abnormal returns. This relationship may be explained by the ability of large investors to mitigate agency problems, specifically the free-rider problem.

Investors are categorized as either active or passive by analysing the contents of Item 4 in SC 13D, which describe the intentions of the investor. Investors revealing activist intentions may expect a more substantial positive market reaction when their intentions are disclosed. Consequently, these investors can have stronger incentives to buy stocks prior to the public announcement, actions which may also be subject to informational leakages to a larger extent. As these characteristics may push up the stock price, we hypothesize that firms with active intentions are associated with higher abnormal returns than those with passive intentions.

By focusing on specific investor types, research on SC 13D filings may not have been able to include the diverse group that activist shareholders consist of. We believe that by adopting a wider definition of shareholder activism our study complements existing research. In alignment with this goal, this thesis analyse all

<sup>&</sup>lt;sup>1</sup> The Schedule 13D filing is a mandatory filing for all investors that intend to influence a U.S. publically traded company in which they own more than 5% of the voting class stock. It is commonly referred to as the "beneficial ownership report". (SEC 2012)

of the SC 13D filings between 06.05.1996 and 30.12.2011. Because of the vast amount of data we have developed a computer program that automatically collects and analyses SC 13D filings from the SEC EDGAR database and matches it to our market and firm specific stock data before it generates appropriate output for further statistical analysis. Consequently, our study may also complement existing research by how we process this information.

The results of this thesis indicate that disclosures by large shareholders are associated with positive abnormal returns in the period prior to the filing date. This paper finds that firms with investors that reveal activist intentions are related to significant and positive cumulative abnormal returns (CAR). Firms that have investors disclosing passive intentions are also associated with significant and positive CAR, yet only in the periods after the median event date<sup>2</sup>. In the period prior to the public announcement, firms with activist investor intentions experience significantly higher CAR than those that disclose passive intentions. This result remains significant after controlling for size, book-to-market and volatility.

The rest of this thesis is organized as follows. First we describe the background and the literature relevant for articulating our hypotheses. Then we explain the contents of Schedule 13D filings and how we have differentiated between active and passive investors. Subsequently, there is a description the empirical methods before we analyse the results and conclude the thesis.

<sup>&</sup>lt;sup>2</sup> By event date we mean the day a transaction or circumstance occurred which induced the investor to file a SC 13D. We use this date to study the developments in the stock price in the period leading up to the filing date.

# **Background and literature**

#### Principal-Agent problems

In order to understand how SC 13D filers are associated with increased stock returns, it is important to review the Principal-Agent problem, specifically the implications of the free-rider problem (Shleifer and Vishny 1986). As firms grow, they will often require additional funding which in time may lead to separation of ownership and control (Berle and Means 1932). This separation may create a potential conflict of interest between equity holders, debt holders, management and other stakeholders (Jensen and Meckling 1976). In a perfect market, the manager will maximize firm value without any stakeholder externalities (Modigliani and Miller 1958). However, suboptimal corporate decisions that fail to maximize profits may appear as a result of expropriation, differences in decision power, conflicts of interest and information asymmetry. As these inefficiencies become more severe, the opportunities to create value by intervening in the company are increased accordingly.

The value of shareholder activism is manifested in the stock price, which is a public benefit that accrues to all the shareholders. This is one reason why we expect a positive association between firms with beneficial owners<sup>3</sup> and stock returns. Another reason is that the cost of shareholder activism is a private cost which the activist internalizes. This can create a free-rider problem in which the investors that do not incur costs in the intervention obtain a share of the public benefits. Therefore, minority shareholders in firms with dispersed ownership may have little incentive to monitor management (Grossman and Hart 1980). Consequently filers of SC 13D forms are expected to have a stronger positive effect on stock returns both because they have stronger incentives of becoming more informed as well as their increased ability to affect corporate outcomes through their voting power (Zeckhauser and Pound 1990).

Previous research on hedge funds has found that the private cost of monitoring and initiating an activist campaign consume more than two-thirds of the private

<sup>&</sup>lt;sup>3</sup> By beneficial owner, we follow the definition by SEC that require them to file a SC 13D. This applies;" When a person or group of persons acquires beneficial ownership of more than 5% of a voting class of a company's equity securities registered under Section 12 of the Securities Exchange Act of 1934 " (SEC 2012).

benefit, consistent with the free-rider theory (N. M. Gantchev 2013). The author also finds that even though the mean return is almost zero, the best activists have higher returns on their investment in which they take an active interest than in those of which they are not actively involved. This is one reason why we expect that firms with SC 13D's which disclose activist intentions are associated with higher abnormal returns than those that are passive.

The source of the agency cost can be an inefficient manager that fails to meet the expectations of the shareholders. This inefficiency may be mitigated when large investors receive a sufficient portion of the public benefits to cover the cost of activism, i.e. they own a large share of the company. However, this example of agency conflicts may also be reversed because inefficiencies may also originate from large shareholders, which expropriate minority shareholders by exerting private benefits, for instance through tunneling and executive compensation (Luo and Jackson 2012). There are indications that larger shareholders may reduce this agency cost by increasing dividend payouts (Bøhren, Josefsen and Steen 2012). Yet, because of the complexity in the issues relating to corporate governance and agency costs, it is no definitive answer to whether shareholder activism should create value or not.

Blockholders vary in their skills, governance styles and how they prefer to implement their strategies of activism. Since Item 4 of SC 13D requires that filer disclose any intention that is relevant with regards to his investment, this is a valuable source when studying the widespread relationship between shareholder activism and stock returns. For instance, filers may have different views on CEO pay, financial leverage and different selection criterion. It is found that the ability of shareholders to affect firm performance and corporate policies increase with size of ownership, board membership and when they are involved directly as executive officers (Cronqvist and Fahlenbrach 2007). They also argue that blockholders may either be influencing the firms in order to obtain certain policies, or that they systematically invest in firms based on their current policies. Therefore, this study will not determine any causality between stock returns and firms with active or passive investors, but rather the association between them. As will be explained later, we were not able to quantitatively extract all of the investor-related factors contained in SC 13D. This is one reason why we, instead

of focusing on specific shareholders, study the presence of shareholder activists in each firm.

#### Shareholder activism

Since much of the prior research on shareholder activism has focused on hedge funds, we adopt a wider view of the source of activism by including everyone that files a SC 13D. Shareholder activism is a loaded term that is commonly used to describe anything from shareholders taking an interest in a firm's direction, to hostile takeovers. Following (ECGI 2013), we adopt a broad definition of shareholder activism, only excluding activists that disclose current plans of merging with the subject firm. Since the positive relationship between proposed takeovers and abnormal returns has already been thoroughly studied, this allows us to isolate the effect of other kinds of shareholder activism. This should also prevent that the effect of takeovers influence the abnormal returns of this study.

An empirical literature survey on shareholder activism and its effect on various performance measures find mixed results (Karpoff 2001). He concludes that there is little empirical evidence that support value creation by shareholder activism. He finds that proxy proposals and private negotiations initiated by active investors can make changes to a firm's governance structure, but that the effect on share value and operating performance is most often statistically insignificant. The general results are that shareholder proposals have negligible and insignificant effects on share price even in the short term. This indicates that the effect of shareholder activism on firm value is not instantly reflected in the share price. However, the results of the survey may also imply that shareholder activism does not change firm value, even in the long run.

Much of the research in this survey is based on event studies and the mixed results may be explained by differences in the events considered and how the researcher defines successful events. Some researchers focus on private negotiations, while others concentrate on proxy proposals. Therefore, by instead focusing on activist intentions that is not dependent on specific events; this thesis should complement the research covered in this survey. By using a selection process that includes a more diverse definition of shareholder activism, this paper should contribute to the results of this survey by clarifying the relationship between shareholder

activism and abnormal returns. Another consequence of this selection process is that firms that have investors with activist intentions are included in the activist-category, independently of whether they are successful in implementing their intentions. As will be explained in the data section, we do not track the intentions of each filer over time. Consequently, unlike many of the papers in this survey, we did not control for whether the investors actually followed through with their intentions. Therefore, we look solely for evidence of shareholder activism and the short term effects around the announcement day. To our knowledge, the method of using SC 13D filings to identify shareholder activism, have not been applied in the research covered in this survey. By obtaining the information regarding shareholder activists through another channel, this may also contribute to the existing research on this topic.

Another differentiator between the various studies in this survey is that they focus on different investor types, for instance individuals, pension funds or institutional funds (Karpoff 2001). Pension funds may have political or social intentions, diluting the traditional measure of shareholder wealth (Romano 1993). Additionally, most institutions create a second layer of agency problems through the ones found within their own organization (Murphy and Van Nuys 1994). Proposals sponsored by active institutional investors tend to have a relatively large negative impact on the stock price, whereas active individual investors are associated with a small positive impact (Gillian and Starks 2000). Unfortunately, due to inconsistencies across the SC 13D forms, we were not able to quantitatively extract the information about investor types from the SC 13D forms with sufficient accuracy. This is another reason why this study will only analyze the presence on shareholder activism. However, we will control for other factors that may be relevant when analyzing stock returns, such as; volatility (Dutt and Humphery-Jenner 2013), and the size effect and the effect of book to market (Fama and French 1993).

More specifically this paper complements recent research on hedge fund activist campaigns that finds significant positive abnormal returns at the time of SC 13D filings and over the subsequent year (Klein and Zur 2009). They have also found evidence that the abnormal return is not solely derived from shareholder activists creating value, but also through expropriation of bondholders (Klein and Zur

2011). This indicates that some of the abnormal returns may not be a result of value creation, but merely a transfer of wealth from debt holders to shareholders. Much of the abnormal returns may also be explained by the activist's ability to force the target firm into a takeover (Greenwood and Schor 2009). They find that portfolios with activist shareholders have poor performance in the subsequent periods when general takeover interest declines. This may indicate that increase in firm value may not be a result of fundamental changes in the target company, but merely a result of speculation.

Researchers often focus on specific events, suggesting that they may exclude investors that tend influence the firm in a different manner. Since this thesis only excludes investors below 5% ownership, we may be in a better position to include the disciplining property of the threat of takeovers (Jessen 1986). Even though we remove the investors that explicitly state that they intend to take over the firm, our impression is that the filers tend to be quite vague in their disclosures. It is common that the filer of a 13D will only disclose present plans of activist intentions, while explicitly stating that they reserve the right to do so in the future. Therefore, some of the abnormal returns may be derived from the market speculating in what lies "between the lines" of Item 4. Consequently, the particular way we classify active intentions may also include those that convey imprecise signals of takeovers in the future. Seeing that the ownership prior to launching a bid commonly exceeds 5% (Betton, Eckbo and Thorburn 2009), most of these acquirers are included in our sample. This suggests that our study may, to a larger extent than prior research, include the disciplining property of the threat of takeovers. This is another reason why we adopt a wide definition of shareholder activism.

Additionally, since the investors in our study own more than 5% of the stock, the size of the ownership revealed in a SC 13D-filing may in itself be interpreted as a signal of activism, which may induce managers to manage the company in a different manner. Considering that the U.S. publicly traded firms have a relatively dispersed ownership, reaching the 5% threshold may be an even stronger signal in the U.S. stock market than in countries where the ownership structure is more concentrated. These are both arguments that can explain why we also find abnormal returns for firms subject to a SC 13D with a "passive" Item 4. Empirical

studies have found that there are significant increases in the stock price when new large shareholders appear; especially when they are the market perceive that they try to gain control of the firm (Ruback and Mikkelson 1985). This is one reason why we expect that firms with an active SC 13D is significantly different from those that have a passive SC 13D.

Stock liquidity is also thought to encourage shareholder activism and may thereby be associated with increases in firm value (Norli, Ostergaard and Schindele 2010). Therefore changes in the share price may also be explained by information asymmetry.

The downside of researching publicly traded firms exclusively is that non-listed firms may not be operating under the same legal obligations and may have other characteristics that make our findings non-transferable (Berzins, Bøhren and Rydland 2008). In their paper they also indicate that non-listed firms have a much larger impact on the economy compared to listed firms, making it an interesting subject for future research.

A survey of empirical findings regarding corporate governance problems emphasizes the importance of legal protection of investors and creditors in relation to how agency problems are mitigated (Shleifer and Vishny 1997). The United States has relatively high financier protection, which may be a substitute for shareholder activism and concentrated ownership. Therefore one might expect that investor activists in the U.S. have a smaller impact on firm value compared to investors in countries with lower financier protection. Consequently, if this thesis finds that active investors are associated with higher abnormal returns than passive investors; this result should also apply to less regulated markets, possibly with an even higher difference in abnormal returns.

# SC 13D and informational content

Obtaining beneficial ownership, which requires filing of a Schedule 13D form, could be thought of as an indicator of shareholder activism because the filer is subject to stricter regulations regarding disclosures which may be disadvantageous that others obtain. Considering that investors have been found to use total return swaps in order to delay the filing of beneficial ownership, we believe that this is a valid assumption (Beraccini 2009). Additionally, if the investor is clearly passive, they may file a SC 13G form, which have fewer informational requirements and allow less frequent amendments (ECFR 2013). Under the assumption that active investors trade on valuable information, they would seek to delay the filing for as long as possible. Consequently, we assume that the SC 13D filing is the first time the information contained in it, becomes public. The drawback of this assumption is that the information may be disclosed publicly through other news sources prior to the filing. Hence, we cannot be certain of whether our findings are related to informational leakages and activists pushing up the price or if they are a result of information becoming public through other sources.

# Hypothesis

This thesis uses an event study to analyze how shareholder activism is related to abnormal returns. In order to do this, we analyze the association between the intentions disclosed in Item 4 of SC 13D filings and the abnormal returns around the filing date. Following the existing literature on shareholder activism and the characteristics of SC 13D we propose the following hypotheses:

- 1. Firms with shareholders that disclose activist intentions are positively related to abnormal returns.
- 2. Firms with shareholders that disclose passive intentions are positively related to abnormal returns.
- 3. The firms with shareholders that disclose activist intentions are associated with higher positive abnormal returns than firms that have shareholders that disclose passive intentions.

# Data

The sample of firms which will be studied in this paper are U.S. publicly traded firms that are subject of an SC 13D or a SC 13D/A filing in the period from the 6th of May 1996 until the end of 2011. This data is found in the Electronic Data Gathering, Analysis and Retrieval system of the U.S Securities and Exchange Commission (SEC 2012). The Centre for Research in Security Prices is accessed to collect daily stock returns and market data (CRSP 2013). The SMB, HML and MOM factors are retrieved from the Ken French website (French 2013).

There is a large amount of data needed to perform the analysis that this thesis is based on. We have 240 915 SC 13D and SC 13D/A filings from 1996 to 2012. Unlike previous research on SC 13D's, i.e. (Klein and Zur 2009), we decided that we would not read through the data manually to categorize it, but instead we would develop a sort of automatic categorizing. Considering that we only differentiate between active and passive investors, we believe that this methodology is appropriate for our thesis.

We excluded all market and firm specific data before 1995, all filings that did not have enough stock data, and malformed filings. The biggest issue we encountered was inconsistent filings. Many filings were malformed and did not follow any particular structure. Some also missed key data, such as event date, CUSIP or Item 4. This made it very difficult to parse<sup>4</sup> the filings and extract the data we needed. We excluded all filings that we were not able to parse and match against our stock data, but even after this process we still had 181 181 filings.

The vast amount of data was a challenge with regards to the time it takes to extract and sort it. In order to access and process the data effectively it was necessary to compile all of our data in a database, which allowed us to develop our own data manipulation tool to prepare the data for statistical analysis. Another challenge has been to limit the scope of the thesis. The data opens up a lot of possibilities in regards to research topic and factors to include.

<sup>&</sup>lt;sup>4</sup> Parsing is a method in which a computer program process strings of information.

# Analyzing Schedule 13D and 13D/A

An investor is required to file a SC 13D when they acquire more than 5% of a voting class security of a company registered under Section 12 of the Securities and Exchange Act (SEC 2012). The investor has to state; who they are, how many shares they own, transaction history, their intentions and more. A SC 13D is the form that is submitted when a filer has not filed a SC 13D with a specific company before. In a SC 13D/A, the filer has already filed a SC 13D to the respective company, but there are material changes to the facts disclosed in the previous filing. Both schedules are to be filed pursuant to § 240.13d- (ECFR 2013).

Using SC 13D and SC 13D/A forms to quantitatively detect shareholder activism is not something we have seen in prior research. Therefore we will describe how the form looks and the challenges we have met extracting information from it.

The way of making updates through amendments creates a challenge relating to how you can track the intention of the investor. The amendments range from being a completely new filing, to basically being the same form, except that something is added or deleted. An amendment typically entails other structural differences that make it difficult to teach a program to identify what has changed. These differences may include typing errors, differences in formats, various signs and hidden symbols that all make quantitative data extraction a challenging process. Yet, it is the inconsistencies across different filers and apparent revisions in how the SEC registers the forms that remain the biggest issue. Because of the vast number of forms, large structural variation and errors, we were not able to create an algorithm that could extract all the information available in the SC 13D forms. One of the SC 13D-sections that are not subject of this thesis is a table containing the transactions by the filer in the months preceding the filing date. This table is relevant for research on what is the source of the abnormal returns that we find. Consequently, this represents an interesting source of information for future research.

During a qualitative review of over one thousand forms, we identified some parts of the form, which produced consistent results across our dataset. Every form has a field on the top of the filing, which contains key information that has small

variation. This text field allowed us to extract the form type and filing date. In our analysis we define the filing date as  $\tau=0$ . Further down the form we extracted information that could identify the filer and the subject trough their Central Index Key (CIK). The CIK is a unique number that the SEC uses to identify a company or reporting person (CIK Lookup 2009). We were also able to find the CUSIP of the subject company and the event date of the filing. The CUSIP is another code that is used to track financial securities (SEC 2006). By matching the CUSIP with the respective GVKEY<sup>5</sup> and PERMNO<sup>6</sup>, we confirmed that the firm identifiers were correct. Additionally, this allowed us to match the firm with the firmspecific data found in the CRSP database. The event date found in the form is the date where a transaction or some other circumstance occurred, which required the filer to submit the form. The median event date defines the start of the period we call the "event-window".

Further down the form, there are typically one or more tables, which provide information relating to the filer. Each table contains 14 different paragraphs with information, some of which is particularly interesting in relation to this thesis. Paragraph 4 is a field where the filer inserts "source of funds". Using a two-letter code, the filer can disclose where the funds of the transaction originate. However, this is also a field where the dataset contains some variation. For instance, the filer is not always consistent with the two-letter codes provided by the SEC. In paragraph 13, the filer discloses the size of ownership as a percentage of the shares of the subject company. Paragraph 14 is labeled "Type of Reporting Person". Using another two-letter code provided by the SEC, the filer can disclose what kind of investor they are. This paragraph suffers the same inconsistencies as the paragraph titled "source of funds".

There is one particular problem that makes it difficult to use the data extracted from these tables. The SEC asks investors that they clearly state if they are a part of a group that are collaborating (ECFR 2013). It is common that the filer report these tables on behalf of other investors in the group. Consequently, the numbers of tables vary, typically ranging from one to ten. The challenge is to determine which table is the filer and which is written on behalf of investors from the group.

<sup>&</sup>lt;sup>5</sup> The GVKEY is Compustat's permanent company identifier (CRSP 2013).

<sup>&</sup>lt;sup>6</sup> The PERMNO is CRSP's permanent issue identifier (CRSP 2013).

The information connecting an investor to his respective table is found in paragraph 1 of each table. The filer reports the company name or the name of the investor. We had issues connecting this name to the name of the filer because they are often written in a different way in the tables than elsewhere in the form. An alternative would be to use the I.R.S identification number, which is included when the investor is an entity. However, because the low consistency in the structure of the filings, we were unable to extract this information quantitatively. Therefore we were not confident in using the information contained in the tables in this paper. Still, the tables should be of interest for further research because it can provide researchers with information that is valuable when studying the effect of various investor-related factors.

#### Descriptive statistics

Our dataset start out with 240 915 filings, which is filed in relation with 22319 unique CUSIP's (Table 1). We parse through these filings and are able to quantitatively extract 17940 unique CUSIP's, 17268 of which have at least one Item 4 that our program reads consistently. This data suggest that each firm is subject to approximately 11 filings on average.

As will be explained later, we use Item 4 as a differentiator between active and passive investors. Along with phrase-criterion, which will be explained in the next section, we also employ Item 4-length as a way of differentiating between active and passive filings. The character-length threshold is set at 1750 characters, which has the consequence of excluding approximately 30% of the unique firms in each query. After running the query there is 8874 active firms and 5605 passive firms. By retaining firms that satisfy conditions necessary to conduct an estimation of abnormal returns and remove those with insufficient data on book-to-market and market capitalization, these figures are reduced to 1838 and 1391 respectively. For reasons explained in the next section, we also exclude 14 firms because they have coinciding estimation windows.

Table 1: Descriptive statistics

	Acti	ve	Passi	ive	Popula	ition
	Matched	%	Matched	%	Matched	%
	filings		filings		Filings	
Total SC	98 078	100.0%	83 103	100.0%	181 181	100.0%
13D						
Unique	11 972	12.2%	12 113	14.6%	24 085	13.3%
CUSIP						
Phrase	8 874	9.0%	5 605	6.7%	14 479	8.0%
search						
Removal	1 838	1.9%	1 391	1.7%	3 229	1.8%
of missing						
data						
Window	1 824	1.9%	1 391	1.7%	3215	1.8%
filter						

# Item 4

Item 4 is where the filer describes the purpose of the transaction. We use this to determine whether the form is disclosing shareholder activism or not. The SEC provides ten explicit conditions that the filer has to disclose if there are any plans or proposals relating to them (ECFR 2013). Other than that, Item 4 follows no specific standard, which means it has to be interpreted. We analyze each filing with an algorithm that quantitatively determines whether an investor is active or passive.

There are some characteristics of Item 4 that make it difficult to classify quantitatively. One of them is that the filer tends to disclose a review of various circumstances relating to the filer, a member of the group or sometimes even investors that appear to be outside the group. We are not able to accurately determine the origins of every such circumstance, which makes it difficult to track investor intentions. This is the main reason why associate the contents found in Item 4 with the subject firm and not the investor. To further accommodate this

issue, we only allow each firm to be classified once in each query<sup>7</sup>. The first time a specific firm matches our search-criterion in a query, the amendments to this filing is disregarded i.e. the search through any subsequent filings with this specific firm is stopped. Since we have two queries, this allows a specific firm to be classified no more than twice in our study. This could pose a problem to our analysis if a firm matches both our queries within a short proximity in time. For example, if a firm is classified as active and passive within the same time period, the market reactions associated with each event will be difficult to separate. Therefore we have excluded the active firm from the active-query and retained the passive firm from the passive-query whenever a firm is classified as passive and active within 30 days of each other. We find 446 firms that at some point are classified as either active or passive, 14 of which satisfy this exclusion-criterion.

Another relating issue is that the events described in Item 4 may either have occurred in the past or be directly relating to the event that is the cause of the filing. It is our interpretation that the specific phrases we have used in the queries, are typically used when referring to the present event. This is an important reason why using the contents of item 4 to differentiate between particular forms of shareholder activism is a complex task. We believe that the general nature of the query we have developed will accommodate this issue, while retaining a reliable way of separating active and passive investors. In the following section we will describe how the query was developed and how it counteracts these issues.

#### Identifying active and passive investors

We manually reviewed and categorized one thousand filings. This has been the foundation in developing the algorithm that categorizes the filings. Several different algorithms and methods were reviewed. We looked at word counters, weighting words probability ratings, yet we decided that these methods were just too complicated for the task at hand.

We tackled the problem by looking at phrases that proved investors to be passive and basically creating the inverse of this query in order to find active investors.

<sup>&</sup>lt;sup>7</sup> For the purposes of this study, the query is a request for information retrieval based on the defined search criterion of Item 4. We have two queries; the active-query and the passive-query.

This is our preferred method because these three passive-phrases did not seem to appear in filings that we interpreted as being active. We also found that the passive-phrases were surprisingly consistent in correctly identifying passive investors and generally not subject to the inconsistencies described in the preceding section. It is our perception that the reason for this is that filers seem to follow some kind of etiquette when disclosing their intentions through Item 4. By that we mean that when the filer wants to convey that they are passive, they almost exclusively do it by using one of the passive-phrases. The same applies to a wide selection of active-phrases that we identified. However, we did not use these active-phrases in our query because they are subject to much more variation. Additionally, the more active-phrases we found, the more specific to each form of activism they became. This is problematic for the purposes of our study because the more specific we get when identifying different kinds of activism, the more exposed the query becomes to the phrase referring to events of a different time and events unrelated to the filer or his respective group. However, we identified one specific type of wording amongst the active-phrases that entailed few of these weaknesses. Concurrent with our goal of excluding activist with present plans of taking over the subject company, we used this phrase in the active-query to achieve this.

*Table 2: The passive-query* 

	Passive-query			
Coding	Include	Exclude		
and/or	"investment purposes"			
and/or	"estate planning"			
and/or	"ordinary course of business"			
and	Under 1751 characters			

*Table 3: The active-query* 

	Active-query			
Coding	Include	Exclude		
and/or		"investment purposes"		
and/or		"estate planning"		
and/or		"ordinary course of business"		
and		"Merger Agreement"		
and	Over 1751 characters			

The passive-phrases are grouped and programmed in an "and/or" manner, while the active phrase is programmed separately in an "and" manner. It is befitting to treat the active-phrase separately in our active-query because its presence should be absolute in eliminating filings that disclose present plans of takeovers. For the passive-phrases the "and/or" programming makes sense because investors typically use one or more of them in order to disclose that they are passive. Consequently, an Item 4 that contains several passive-phrases is treated the same way as those that include only one.

The second dimension that we use to separate active and passive investors is through the length of the item 4. We believe that filings with active investors typically have longer Item 4's because the SEC require them to disclose any information that is relevant pursuant to § 240.13d- (ECFR 2013). Based on the qualitative review, we set the threshold between the active-query and the passive-query at 1750 characters, which is about the equivalent of one page.

To test for whether our results are sensitive to this specific character length, we perform a student t-test for an identical query with the threshold set at 2500 characters. This test indicates no significant difference in the CAR between the thresholds for any of our estimation windows (Table 4). Hence, we retain the queries with the threshold set at 1750 characters for this paper.

Table 4: Item 4 and sensitivity to length

	Run-up	Event	Filing	Run-up	Event	Filing
	window	window	window	window	window	window
	Differe	nce short a	nd long	Differe	nce short a	nd long
	item4: Active					
	it	em4: Activ	ve	ite	em4: Passi	ve
Mean	0.004	em4: Activ	-0.0001	0008	em4: Passi 0046	<b>ve</b> 0007

Run-up window: [-28, -10], Event window: [-9, 3], Filing window: [-1, 1]. The numbers in parenthesis are p-values. \*\*\* = Significant at the 99% level, \*\* = Significant at the 95% level, \* = Significant at the 90% level. We assume unequal variances.

There may be one particular problem of using the length of Item 4 as a way to differentiate between active and passive filings. Both of our queries treat the Item 4's of SC 13D and SC 13D/A forms the same, i.e. it uses exactly the same algorithm. The issue is that in SC 13D/A's, some filers only include the information that is different from what was disclosed in the Item 4 of the previous filing. As a result, these SC 13D/A filings will be shorter than if the form was completely rewritten, or if they would have amended it by including what was relevant from the previous filing. As a consequence, this rule will exclude some of the Item 4's that would otherwise have been classified as active. Yet, seeing that the differentiation by character length greatly increased the accuracy of our queries, we still chose to retain this rule. This specific way of making amendments of Item 4 may also have implications for the phrases we use. However, we had this in mind when selecting the phrases in our queries and it seems that those specific phrases typically are recited in the amendments, regardless of how the filer choose to amend the previous filing.

Before we continue, we note that categorizing the intentions disclosed in Item 4 is a challenging task, even when performing it manually. Considering that our queries search through the Item 4's of over 180 000 filings, which contain variations difficult to comprehend, they may categorize some filings wrongfully. Therefore, we acknowledge that our queries are not perfect in separating active filings from those that are passive and advice the reader to treat our results accordingly.

# **Empirical methods**

#### Abnormal returns

In order to study the abnormal returns, we create an event study of the SC 13D filings that satisfy the conditions of our queries. To compute the abnormal return for firm i at day t, we use the following formula:

$$AR_{it} = r_{it} - \hat{\beta}_{i,r}r_{mt} - \hat{\beta}_{i,SMB}SMB_t - \hat{\beta}_{i,HML}HML_t - \hat{\beta}_{i,MOM}MOM_t$$

Here  $r_{it}$  and  $r_{mt}$  is the continuously compounded excess returns of firm i and the market portfolio respectively. The SMB factor estimate the size effect and HML measures book to market effect (Fama and French 1993). The factor named MOM is a momentum factor (Carhart 1997). Since the stocks that are subject to shareholder activism may be selected based on various investment strategies, we can use these factors to control for the selection criterion relating to each factor. We use an estimation window of 252 trading days prior to the start of the run-up window to estimate these coefficients. The abnormal returns for firm i in period  $[\tau_1, \tau_2]$  are cumulated as follows:

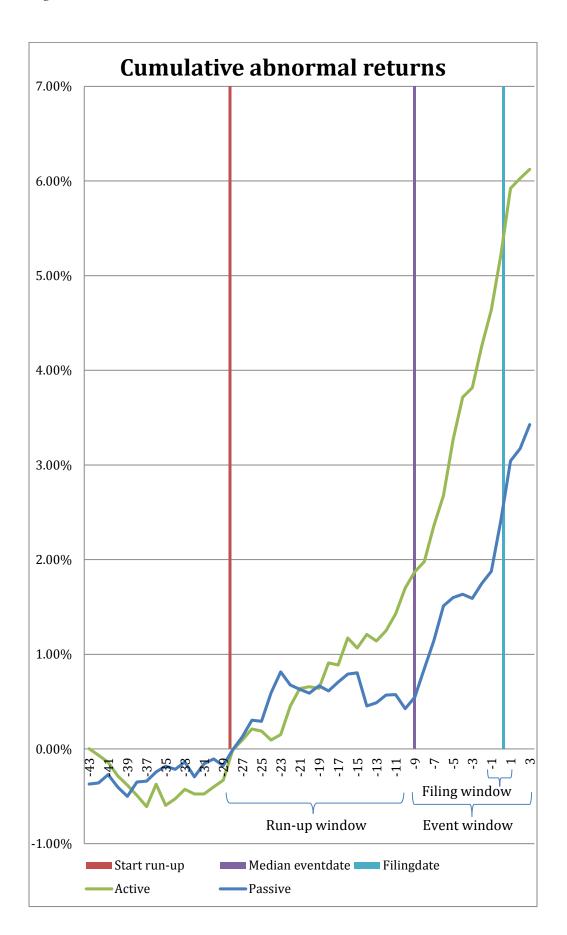
$$CAR_{i}[\tau_{1}, \tau_{2}] = \sum_{t=\tau_{1}}^{\tau_{2}} AR_{it}$$

### The estimation windows

Following (Schwert 1996), we employ a run-up window starting around the time we see an impact in the CAR prior to the public announcement. In the run-up window, researchers typically end the estimation-window a few days after the announcement, when the information has been reflected in the stock price. However, because we have the event date of each filing, we want to measure how this affects abnormal returns by analyzing two different periods prior to the filing. There are at least two reasons why we expect to see abnormal returns in the period before the filing; informational leakage and activists pushing up the price. It is argued that outside investors would never take over a diffusely held firm in order to improve it because the incumbent shareholders will also require the value of the improvement when selling their stock (Grossman and Hart 1980). By obtaining a toehold in a company prior to launching a bid, the acquirer may therefore increase the likelihood of a successful bid as well as receiving a lower price (Betton, Eckbo and Thorburn 2009). It is found that hedge funds often increase their shareholdings of a target company the month preceding activist campaigns (Gantchev and Jotikasthira 2013). These are all findings consistent with investors pushing up the stock price in the period prior to them disclosing their intentions. By acquiring shares prior to disclosing their intentions, SC 13D-filers may receive the shares at a lower price, while increasing their influence over the subject company. This is the main reason why we believe that much of the abnormal returns accumulated in the time preceding the public announcement can be explained by this increase in demand by activist investors (Figure 1).

In the SC 13D we extract the event date and use this to create a separate window through which we intend to measure the effect on stock prices until the information is disclosed to the public. We have chosen to start this window nine trading days prior to the filings because this is the median event date. This may appear as too long, seeing that the SEC requires that a SC 13D is filed within ten calendar days of the event date (ECFR 2013). However, by looking at the CAR and considering that one of our objectives is to find the relationship between the event date and the filing date, we believe that nine trading days is the most appropriate measure.

Figure 1: CAR



Following Norli, Ostergaard and Schindele (2010), we use three days after the filing as measure for when the information from the public announcement is reflected in the stock price. In our analysis we name this period the "event window". Another reason why we include the event window is because it is argued that the disclosure period is too long, allowing the investors to accumulate sizeable positions prior to the public disclosure (Emmerich, et al. 2012). Others claim that tightening the filing period will not make the market more efficient, but reduce the benefits of having blockholders because they are already faced with significant jurisdictional hurdles (Olin and Jackson Jr. 2012). Consequently, our thesis may help clarify this issue by showing how the current disclosure period is associated with abnormal returns.

As we approach the event window, we believe that the abnormal returns are higher than in the run-up window for two reasons. Firstly because investors have a ten day window to trade on private information before they are required to disclose their intentions to the public. Secondly, as you approach the filing date, there may be more imprecise signals to insiders and favored analysts that can induce them to trade accordingly (Brunnermeier 2005). He finds evidence of a trading strategy of the early-informed insiders, which may have implications for the price reaction around a public announcement. They buy stocks before the announcement in anticipation of positive price movements around the announcement. After the announcement they tend to reduce their position because they predict an overreaction by the market. Therefore Brunnermeier (2005) concludes that information leakages are associated with an increase in the preannouncement informativeness<sup>8</sup> and reduce the long-term informational efficiency<sup>9</sup> of prices. He also point out that the SEC mitigated this as of October 23, 2000 when they introduced the Regulation Fair Disclosure (FD), which prevent early-informed insiders from using their optimal trading strategy.

Gantches and Jotikasthira (2012) find that investors tend to acquire a substantial amount of shares on the day of the announcement, making them incentivized monitors not only by their official intent, but also through size of their ownership.

<sup>&</sup>lt;sup>8</sup> Informational efficiency is defined as; "the informational content of the price relative to the pooled information in the economy" (Brunnermeier 2005)

<sup>&</sup>lt;sup>9</sup> Informativeness measures; "how informative the price process is in absolute terms" (Brunnermeier 2005)

This is also called the "active monitoring hypothesis" first proposed by (Demsetz 1983) and supported by (Agrawal and Mandelker 1990). In our analysis we define this period as the "filing window", in which the filers intentions is publicly disclosed through the SC 13D filing. To measure the immediate announcement return we have used a window starting one day prior to the filing date and one day after the filing date. The CAR in this period could be interpreted as the informational value of the public announcement that is not already reflected as a result of informational leakage and/or the activist shareholder pushing the stock price up.

# **Analysis**

In this section we analyse the CAR in the periods described in the previous section. The subsequent discussion refers to the firms with a filing indicating the presence of an active shareholder as active and firms with a filing indicating the presence of a passive shareholder as passive. The results of this study indicate that there is an increase in stock prices prior to the announcement of a SC 13D that cannot be explained by Carhart's four-factor model. The results suggest that these CAR are associated with the SC 13D filing and that our active filings differs from those that are passive.

By performing a student t-test, we find that the CAR for active firms is significantly different from zero in every estimation window (Table 5). This result is consistent with our first hypothesis, which proposed that activist shareholders are associated with positive abnormal returns. The coefficient is largest in the event window, suggesting that the activist is most aggressive in acquiring shares of the subject company in the period after the event date. It may also be a result of increased informational leakage as the filing date is approaching. The significant abnormal returns in the filing window suggest that some of the new information disclosed in the filing is not already reflected in the stock price.

Table 5: CAR of active and passive firms different from zero

	Run-up window	<b>Event window</b>	Filing window	
	Active			
CAR	.020	.044	.017	
	(0.00)***	(0.00)***	(0.00)***	
	Passive			
CAR	.006	.030	.013	
	(0.29)	(0.00)***	(0.00)***	

Run-up window: [-28, -10], Event window: [-9, 3], Filing window: [-1, 1]. The numbers in parenthesis are p-values. \*\*\* = Significant at the 99% level, \*\* = Significant at the 95% level, \* = Significant at the 90% level

In the same test for the passive-query we only find a significant relationship with CAR for the event window [-9, 3] and the filing window [1, -1]. Therefore our second hypothesis is only consistent for these two periods. We believe that the CAR in the run-up window [-28, -10] is not significant because unlike active investors, they would not anticipate that the market reacts by valuing the stock higher when they learn of their intentions. Consequently, they would not have the same incentive as active investors to acquire shares before their intentions are reflected in the stock price. Alternatively it could be interpreted as passive filings being less subject to information leakage in this period.

The third hypothesis is studied by comparing the firms with active filings to those with passive filings. We use a student t-test to analyze whether the CAR for firms with active filings are higher than those with passive filings. A dummy variable is employed to measure the difference in CAR. The results show that active filings are associated with 1.4% higher CAR within both the run-up window and the event window, significant at the ten percent level and the five percent level respectively.

Table 6: CAR of active firms different from passive firms

	Run-up window	Event window	Filing window
<b>Dummy active</b>	.014	.014	.004
	(0.06)*	(0.04)**	(0.24)
Constant	.006	.030	.013
	(0.29)	(0.00)***	(0.00)***

Run-up window: [-28, -10], Event window: [-9, 3], Filing window: [-1, 1]. The numbers in parenthesis are p-values.\*\*\* = Significant at the 99% level, \*\* = Significant at the 95% level, \* = Significant at the 90% level. We use robust standard errors.

The robustness of these results is analyzed when we perform a regression that control for other factors that may be relevant in explaining stock returns. We use the natural logarithm of the firm's market capitalization, which is lagged to December the preceding year. The book to market variable is lagged by one year. We also include the volatility of the stock, which is calculated in an interval [-520, -60], with a minimum of 126 daily observations within this period. Since we use trading days, it follows that the volatility variable is lagged by three months. The

result of this regression is that active firms remain significantly different from passive investors (Table 7). Firms with active investors are associated with 1.64% higher CAR in the run-up window and 1.60% higher CAR in the event window than those that have passive filings. The coefficients are both significant at the five percent level. Consequently, our results for these periods are consistent with our third hypothesis. The difference in CAR is not significant in the filing window, which suggests that differentiating between active and passive filings does not explain the difference in the immediate announcement return. It may also indicate that market participants have a reaction to the SC 13D filing itself, rather than to the contents of Item 4. That is, the immediate announcement return may be more a result of large shareholder making a disclosure rather than the exact contents of each Item 4. Overall, the results of Table 7 may indicate that the present ten day disclosure period allow filers and favored analysts to trade on private information, allowing the investors to accumulate sizeable positions prior to the public disclosure (Emmerich, et al. 2012). However, for such conclusions to be drawn one would have to study the transaction history disclosed in SC 13D. This is why this section of the SC 13D form is a particularly interesting subject for future research.

Table 7: CAR of active firms different from passive with control variables

	Run-up window	Event window	Filing window
<b>Dummy active</b>	.01640	.01605	.0048
	(0.03) **	(0.02)**	(0.15)
Ln mcap lagged	0029	0042	0029
	(0.27)	(0.07)*	(0.00)***
Book to Market	0014	0005	.0001
	(0.19)	(0.74)	(0.86)
Volatility	.4988	1624	2499
	(0.04)**	(.424)	(0.01)***
Constant	.0009	.0562***	.0366
	(0.96)	(0.00)	(0.00)***

Run-up window: [-28, -10], Event window: [-9, 3], Filing window: [-1, 1]. The numbers in parenthesis are p-values. \*\*\* = Significant at the 99% level, \*\* = Significant at the 95% level, \* = Significant at the 90% level. We use robust standard errors.

Consistent with prior research on large shareholders, i.e. Klein and Zur (2009), the results of this thesis suggests that SC 13D filers are associated with positive abnormal returns around the time of the public announcement. This indicate that blockholders have stronger incentives of becoming more informed and have increased ability to affect corporate outcomes through their voting power as opposed to minority shareholders (Zeckhauser and Pound 1990). It may also suggest that the positive effects of having large shareholders are higher than the negative effects of them exerting private benefits, for instance through tunneling and executive compensation (Luo and Jackson 2012). However, the positive CAR may also be a consequence of a transfer of wealth from debt holders to shareholders (Klein and Zur 2011). Since the CAR remains significant after controlling for other variables, another implication is that our results may be a consequence of the presence of blockholders rather than a result of their specific investment policy (Cronqvist and Fahlenbrach 2007).

Since this thesis study large shareholders and because of the specific way our query works, some of the abnormal returns may also be as a result of an implicit threat of takeovers (Jessen 1986). Because active firms have a significantly higher CAR than passive firms, this may suggest that the market perceive that the active-filer try to gain control of the firm (Ruback and Mikkelson 1985). However, a better explanation may be that as the filing date approach, both the market and the filer trade so that the expected value of the campaign is reflected in the stock price. Considering that the U.S. publicly traded firms have a relatively dispersed ownership, reaching the 5% threshold may be an even stronger signal in the U.S. stock market than in countries where the ownership structure is more concentrated. Therefore, another interesting direction for future research would be to study what role such environmental factors have on large shareholders and stock returns.

# Conclusion

We have performed an event study on how SC 13D filings and the intentions disclosed within it, are associated with stock returns. Prior to the announcement of a SC 13D, this study finds that there is an increase in the stock values of the subject firm that cannot be explained by Carhart's four-factor model. Consistent with our first hypothesis, we find that firms with investors that reveal activist intentions are related to significant and positive CAR. Firms that have investors disclosing passive intentions are also associated with significant and positive CAR, yet only in the periods after the median event date. Consequently, our results are only consistent with our second hypothesis in the event window and in the filing window. Firms that have shareholders disclosing active intentions have significantly higher CAR than those that disclose passive intentions in the run-up window and in the event window. These results are consistent with our third hypothesis and robust when controlling for size, book-to-market and volatility. Firms with activist intentions are not significantly different from those with passive intentions in the filing window. This is not consistent with our third hypothesis and suggests that the market reacts similarly to SC 13D filings at the announcement date for both categories. The results of this thesis indicate that SC 13D-filings are associated with positive abnormal returns in the period prior to the filing date. It also shows that the intentions conveyed in Item 4 of SC 13D are relevant for the size and significance of these abnormal are. As a concluding remark, it is an interesting topic for future research to study the relationship between the filer's transaction history disclosed in SC 13D and the abnormal returns associated with its filing.

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