Does Mitigated Verbalization of Hedge Funds Affect Abnormal Stock Returns?

January 8, 2020

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Abstract:

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JEL Classification: G14, G18, G23

Keywords: Hedge Fund Activism, Market Microstructure, Tactical Communication, Activism Goals, Textual Analysis, Verbalization, Ownership, Corporate Governance, Schedule 13D, Disclosure.

Data Availability Statement: The data is obtained from Bloomberg, CRSP, Kenneth R. French Data Library, SEC (EDGAR), and WRDS. We provide detailed information in this article.

We would like to thank seminar participants at the Bamberg University, Germany for helpful comments and suggestions. All remaining errors are our own. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. Declarations of interest: none.

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1 Introduction

When hedge funds report their activism intentions, the underlying information turns into a public good. Consequently, the disclosure of activism goals could diminish the potential for hedge funds to internalize profit (Macey and Netter, 1987; Chattopadhyaya, 2011). Hedge funds are hardly regulated and flexible investors, which concentrate on a few investments (Lhabitant, 2002; Brav et al., 2008). Thus, hedge funds can more easily acquire significant ownership in a company than other funds. When a hedge fund with activism intentions acquires more than five percent of a company it must fill in Schedule 13D with the Security and Exchange Commission (SEC). In this filing, the respective hedge fund has to reveal its activism goals (Li, 1997; Coffee and Palia, 2016). In pre-existing research 13D filing disclosures are commonly considered as the starting point of hedge fund activism (Klein and Zur, 2009).

The disclosure of hedge fund activism leads to positive abnormal stock returns (Carrothers, 2017; Krishnan et al., 2016; Clifford, 2008). Stock market reactions differ depending on the communicated activism goals (Brav et al., 2008; Klein and Zur, 2009; Greenwood and Schor, 2009). To our knowledge, it remains unexamined whether stock markets differentiate on how the qualitative information regarding the activism purpose is expressed by hedge funds. This paper examines if abnormal stock returns differ when hedge funds verbalize their activism goals mitigated. For robustness, this paper also analyzes effects of vague articulation. We concentrate on mitigated and vague reporting which may help hedge funds to maintain and capitalize their pursued business model. In detail, as soon as the activism goals are disclosed, other investors are able to “free-ride on the research done by the filer who must reveal his plans”

(Macey and Netter, 1987, p. 140). Mitigated and vague reporting might alleviate free-riding incentives.

Since there is no official database regarding hedge fund activism (Mihov, 2016, p. 235), our study bases on a hand-collected data set for all companies listed in the S&P 1500 composite index between 2010 and 2016. Our research methodology as well as the procedure to hand-collect the applied hedge fund activism data set is extensively presented in Section 3. To disclose possible market microstructure effects, Section 4 analyzes abnormal stock returns, abnormal share volumes, information on the period between crossing the reporting threshold and disclosing the mandatory ownership report, as well as weekday preferences of hedge funds. Subsequently, the textual analysis focusing on evaluating the transaction purposes stated in Item 4 of Schedule 13D and, if attached, in letters to the CEO and boards is presented. We evaluate if hedge funds' verbalization of activism goals affects abnormal stock returns. The results reveal that the mitigated or vague verbalization of hedge fund activism objectives does not result in significantly lower or higher abnormal stock returns.

2 Related Literature

As a “key aspect of the corporate landscape” (Bebchuk et al., 2015, p. 1087; see additionally Bebchuk et al., 2017, p. 109 and Xu, 2019, p. 2) hedge fund activism is examined in diverse ways. Several studies concentrate on the point in time when hedge funds disclose Schedule 13D (e.g. Brav et al., 2008; Klein and Zur, 2011; Edmans et al., 2013; Krishnan et al., 2016). Schedule 13D is a beneficial ownership report which is required by Section 13(d) of the 1934 Securities Exchange Act when an investor (or group of investors) acquires more than five percent of beneficial ownership (SEC, 2019; Brav et al., 2009; Slawotsky, 2015). The disclosure of Schedule 13D could be seen as the beginning and announcement of hedge fund activism (Klein and Zur, 2009). Since hedge funds become ‘visible’ and ‘observable’ for other market participants at the time of the filing disclosure, the general academic focus on those points in time seems reasonable. Brav et al. (2009, p. 193) reason as follows: “Since there is no centralized database for hedge fund activism the most reliable source for such events comes from Schedule 13D filings”.

Abnormal stock returns surrounding the disclosure of Schedule 13D are examined in numerous studies (Bebchuk et al., 2015). Recent research shows that even though the competition between hedge funds has increased and possibilities for activism have declined in the last decade, hedge fund activism is still associated with significant positive abnormal returns (Krishnan et al., 2016). Average cumulative abnormal returns of five to eight percent are measured in a 21- or 41-day period surrounding the disclosure of Schedule 13D (Bebchuk et al., 2015; Becht et al., 2017; Carrothers, 2017; Krishnan et al., 2016). Evidence on the distribution of abnormal stock returns shows that positive abnormal stock returns arise before and subsequent to the filing disclosure. Bebchuk et al. (2015, p. 1122) measure average cumulative abnormal

returns of three percent points before and three percent points after the disclosure of Schedule 13D in a 41-day window. Brav et al. (2008) show that abnormal returns emerge before the filing disclosure. By suggesting that information leakages exist which drive abnormal trading volumes as well as abnormal returns before the event, Coffee and Palia (2016) provide an explanation for this phenomenon. Bebchuk et al. (2013, p. 6) provide evidence for activists (not limited to hedge funds) that „their purchases are likely concentrated on the day they cross the threshold as well as the following day". In combination with the fact that hedge funds have ten days to disclose Schedule 13D (Slawotsky, 2015), one could assume that price pressure partly derives from hedge funds themselves. In this context, our first analysis, which assesses the stock market reaction to the disclosure of hedge fund activism, is conducted to confirm and compare the results displayed in pre-existing literature. However, prior research mainly concentrates on data sets covering time periods before the 2008 financial crisis (see Carrothers, 2017; Mihov, 2016; Bebchuk et al., 2015). The influence of fast traders has substantially increased over the last years (Rogers et al., 2017). Thus, we assume that stock markets now react faster to the disclosure of hedge fund activism. We assume that shortly after the disclosure of Schedule 13D, on average, no further abnormal stock returns are measurable.

Hypothesis I: Stock prices promptly reflect activism subsequent to a hedge fund's Schedule 13D disclosure.

Research on hedge fund activism mainly concentrates on "the characteristics of target firms and the changes brought about in target firms" (Krishnan et al., 2016, p. 297). We assess how abnormal stock returns related to hedge fund activism affected companies are linked to qualitative information derived from the textual content in 13D filings and corresponding activism-related letters to the CEO and board, respectively.

The focus on the respective textual content is justified by the simultaneous publication of the general information that a hedge fund has crossed the reporting threshold and the more specific disclosure regarding the transaction purpose in Item 4 of Schedule 13D and in the attached letters to CEO and board. Prior research demonstrates that textual analyses can be effective to explain returns (Tetlock, 2007; Loughran and McDonald, 2013; Feuerriegel and Neumann, 2015). One can conduct a textual analysis by either using pre-defined dictionaries or by applying machine learning techniques (Guo et al., 2016). Machine learning techniques require a training set. Hence, these techniques are applicable for periodically data. Otherwise, machine learning techniques tend to overfit (Lewis et al., 2004, p. 362). This premise makes machine learning techniques unsuitable for this paper. Several financial studies apply pre-defined dictionaries (Tetlock, 2007; Ferris et al., 2013; Loughran and McDonald, 2013; Picault and Renault, 2017). The selection of an appropriate thesaurus is crucial when such dictionaries are applied. Otherwise the risk is increased that words could be misclassified (Loughran and McDonald, 2015). According to Guo et al. (2016, p. 156) two major dictionaries exist: The Harvard Psycho-Sociological dictionary and the Loughran and McDonald dictionary. Guo et al. emphasize Loughran and McDonald's (2011, p. 36) finding that the Harvard dictionary tends to misclassify words when being applied in a financial context. Correspondingly, this paper applies Loughran and McDonald's (2011) dictionary which is compiled for the application in financial contexts.

Hedge funds are known for being a strong corporate governance force (Bratton, 2007; Briggs, 2007). Therefore, market participants might not expect that hedge funds express objectives mitigated. Thus, this paper applies the thesaurus for modal weak terms of Loughran and McDonald (2011). Modal weak terms can also be used to

express possibilities (Loughran and McDonald, 2011, p. 37). Therefore, we apply Loughran and McDonald's thesaurus for words of uncertainty as a robustness check since vague expressions might be a proxy for mitigated verbalization.

Stock markets might perceive mitigated and vague communication of investors as a sign of weakness and modest prospects for the venture. Lower abnormal stock returns would result. However, communication is not only about the content, but also about who is communicating (Buttle and Groeger, 2017). Hedge funds are generally known as sophisticated investors (Brunnermeier and Nagel, 2004; Cao et al., 2018). Verbalizing modal weak or uncertain might be tactical. Hence, we expect that verbalizing activism goals mitigated or vaguely has no significant impact on abnormal stock returns.

Hypothesis II: Hedge funds' mitigated verbalization of activism goals does not lead to negative abnormal stock returns.

3 Data and Methodology

We examine hedge fund activism by concentrating on the event of the initial Schedule 13D disclosure. This procedure is in line with prior research (e.g. Klein and Zur, 2009; Klein and Zur, 2011; Gantchev, 2013; Krishnan et al., 2016). We systematically construct a hand-collected data set for companies listed in the S&P 1500 composite index focusing on the period 01/2010 to 12/2016. The selection of this index is motivated by the fact that it "cover[s] approximately 90% of the U.S. market capitalization" and can be employed to "replicate the performance of the U.S. equity market" (S&P Dow Jones Indices LLC, 2019). We obtain detailed information on the composition of the index from WRDS. Indeed, our focus on companies in the S&P 1500

composite index might lead to the identification of less events than in other studies. However, the procedure identifies the relevant events for the US equity market.

For all companies in the index we receive the Schedule 13D filings from the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. We remove filings where the company is not the affected company (in Schedule 13D called 'issuer'). In order to restrict the analysis to S&P 1500 companies, we remove filings when the company is not listed in the index at the time of the filing date. This procedure leads to the identification of 761 potential events. There is no standardized procedure to classify investors (in Schedule 13D called 'reporting persons') as hedge funds (Klein and Zur, 2009, p. 195). Thus, we employ information provided by Bloomberg for the required classification. To be more precise, we match the identified reporting persons listed in the 13D filings with the publicly accessible private company information and company profile on the Bloomberg website. Additionally, the respective Schedule 13D filings are screened for viable information. We classify a reporting person as a hedge fund if Bloomberg particularize the investor as a 'hedge fund', 'hedge fund manager' or 'hedge fund sponsor'. If Bloomberg provides the information 'investment manager' with the addition of 'the firm also launches and manages hedge funds' (and other versions hereof) we do not classify the reporting person as a hedge fund. We do not extend our search beyond these two sources. Although, employing multiple sources would lead to the identification of more events (see Klein and Zur, 2009, p. 195 who use unspecified newspapers among others), our procedure is comprehensible and ensures that we employ a classification for hedge funds that most stock market participants are likely to agree with. Employing this procedure, we can assign 300 events to hedge funds. Daily stock data is available for 299 events. For consistency,

we exclude two events where no stock data is available for the filing date, and five events where it took more than ten trading days to disclose Schedule 13D.[i]

We take daily stock data as total return data from CRSP. Abnormal stock returns are derived by employing the three-, four- and five-factor model of Fama and French (1993), Carhart (1997) and Fama and French (2015), respectively. In accordance with Greenwood and Schor (2009) we use an estimation period of [–110:–10]-trading days to estimate the coefficients which are then used for calculating expected daily stock returns. Because of the estimation period we exclude further eight events based on insufficient stock data history. Equation (1) exemplary presents the four-factor model.

$$r_{i,t} - r_t^F = \alpha_i + \beta_{1,i} \times (r_t^M - r_t^F) + \beta_{2,i} \times SMB_t + \beta_{3,i} \times HML_t + \beta_{4,i} \times MOM_t + u_i, \quad (1)$$

where $r_{i,t}$ denotes the stock return of the i^{th} event on trading day t, r_t^F represents the risk-free return, and r_t^M the market return. SMB_t, HML_t and MOM_t are the Fama and French (1993) and Carhart (1997) factors. The Kenneth R. French Data Library provides the respective US factors. u_i represents the error term. Applying the generated coefficients, daily stock returns [–10:+10]-trading days surrounding the disclosure of Schedule 13D are estimated. Equation (2) represents the procedure exemplary for the four-factor model.

$$\mathrm{E}[r_{i,\,t}] = r_t^F + \hat{\alpha}_i + \hat{\beta}_{1,i} \times (r_t^M - r_t^F) + \hat{\beta}_{2,i} \times SMB_t + \hat{\beta}_{3,i} \times HML_t + \hat{\beta}_{4,i} \times MOM_t, \quad (2)$$

where $\hat{\alpha}_i$, $\hat{\beta}_{1,i}$, $\hat{\beta}_{2,i}$, $\hat{\beta}_{3,i}$ and $\hat{\beta}_{4,i}$ are the estimated coefficients from Equation (1) for each event i. We subtract the expected daily stock return from the actual daily stock return to receive the abnormal stock return for the i^{th} event at trading day t (Al-Shattarat and Al-Shattarat, 2017, p. 361), i.e.

$$AR_{i,t} = r_{i,t} - E\left[r_{i,t}\right]. \quad (3)$$

Daily abnormal stock returns are multiplied to receive cumulative abnormal stock returns (Miskolczi, 2017; Oehler et al., 2017, p. 177), i.e.

$$CAR_{i,n,m} = \prod_{t=n}^{m}\left(1 + AR_{i,t}\right) - 1. \quad (4)$$

We estimate the daily abnormal share volume $ASV_{i,t}$ for each event i as follows

$$ASV_{i,t} = \frac{SV_{i,t} - \emptyset SV_i}{\emptyset SV_i} \text{ with } \emptyset SV_i = \frac{1}{(110-9)}\sum_{t=-110}^{-10} SV_{i,t}, \quad (5)$$

where $SV_{i,t}$ is the share volume of the stock belonging to event i at trading day t and $\emptyset SV$ is the average daily share volume of the respective stock [–110:–10]-trading days prior to the event. We set the estimation period analogously to the estimation procedure of abnormal stock returns.

Schedule 13D has to be filled by the investor(s) with the SEC within ten days when an investor (or group of investors) exceeds the five percent reporting threshold and has the intention to influence the company's management (Clifford, 2008, p. 324; Klein and Zur, 2009, p. 188; Carrothers, 2017, p. 44). To determine how much time hedge funds take to fill in Schedule 13D, we count the trading days from the date that requires the filing to the SEC filing date for each event. The filing date is taken from EDGAR, the date which requires the filing is given in the filing itself.

The investor(s) verbalize the purpose(s) of their securities acquisition and their respective plans or proposals in Item 4 of Schedule 13D (Li, 1997; Macey and Netter, 1987). At least one letter to the CEO or board is attached to Schedule 13D in about eleven percent of the considered events. Hedge funds use these letters to communicate their goals to the CEO or board. To analyze the information in Item 4 of each Schedule 13D and, if attached, the information in additional letters, we first extract

the information printed between Item 4 and the heading of Item 5 as well as the letter-content into separate documents per event. Afterwards, we separate all corpus entries into single terms (Feuerriegel and Neumann, 2015, p. 18). Applying Feinerer (2018b), all numbers and punctuations are removed, and all characters are transformed into lower case letters. We remove English stop words like “by”, “I”, or “and” provided by Feinerer (2018a) since they exhibit hardly any information content (Feinerer et al., 2008, p. 25). Stemming is a technique to diminish complexity without losing essential information (Feinerer et al., 2008, p. 24; Porter, 2006). However, because of Loughran and McDonald’s (2011, 2016, p. 1216) concern that using explicit inflections is less prone to errors, we apply the original word lists of Loughran and McDonald (2011) without stemming.

The selection of the term weighting scheme is essential for the effectiveness of the analysis (Zhang et al., 2012). Several factors of the term weighting scheme can define the influence of a single word (Chisholm and Kolda, 1999; Loughran and McDonald, 2011, p. 42). Our analysis is based on the term weighting scheme of Loughran and McDonald (2011, p. 42). It is a common scheme with an adjustment for document length (Loughran and McDonald, 2011, p. 42). The modification for the document length is relevant for our analysis since events with a letter attached have significant longer text documents than events without activism-related letters. We calculate for every j^{th} document a separate value w for the i^{th} word in the thesaurus by applying the following weighting scheme (Loughran and McDonald, 2011, p. 42).

$$w_{i,j} = \begin{cases} \frac{(1+\log(tf_{i,j}))}{(1+\log(a_j))} \times \log(\frac{N}{df_i}) & \text{if } tf_{i,j} \geq 1 \\ 0 & \text{otherwise,} \end{cases} \quad (6)$$

where $tf_{i,j}$ denotes the raw count of word i in document j, a_j represents “the average word count in the document”, N stands for the total number of documents in our data

set, df_i represents "the number of documents containing at least one occurrence of the i^{th} word" (Loughran and McDonald, 2011, p. 42). This procedure leads to 26 (297) values per document when we apply the thesaurus 'modal weak' ('uncertainty'). We sum up the values to get an aggregated value per document. Table 1 provides respective descriptive statistics.

< Insert Table 1 about here >

When a hedge fund discloses Schedule 13D with the SEC, the stock market gets informed about the new significant shareholder and simultaneously about the stated transaction purpose (Li, 1997; Macey and Netter, 1987). We design our Ordinary Least Squares (OLS) regression model as follows to assess how mitigated verbalization of hedge funds affects abnormal stock returns.

$$AR_i(t) = \alpha + \beta_1 \times w_i^{MW} + \beta_2 \times Letter_i + \beta_3(Letter_i \times w_i^{MW}) + \sum_{j=4}^{J} \beta_j \times Cat_{i,j} + \sum_{k=J+1}^{K} \beta_k \times SIC_{i,k} + u_i \quad (7)$$

whereby AR_i denotes the abnormal stock return of the i^{th} event on trading day t. The variable w_i^{MW} stands for the weighted value determined for the i^{th} event by applying the thesaurus 'modal weak'. For robustness, we conduct the regression employing the variable w_i^{UC} which contains the weighted value determined for the i^{th} event by applying the thesaurus 'uncertainty'. The variable $Letter$ controls for the attachment of an activism-related letter to Schedule 13D that intensifies hedge funds' communication with the CEO or board. The interaction variable $Letter_i \times w_i^{MW}$ is included to identify if mitigating statements has an additional effect when communication is intensified. Furthermore, we add fifteen dummy variables for the objective activism goals (Cat). We stick to the activism categories stated by Brav et al. (2008) and extend their list by a category for mergers for when it is unclear who acquires whom or if it is a merger of

equals. Item 4 of Schedule 13D and the activism-related letters provide the information for the applied control variables. Ascertaining the data, an event is assigned to an activism category if the hedge fund clearly states the goal. Statements concerning a possible future are not considered. As noted in Table 2, no event is assigned to the category (3d). Consequently, we do not include a variable for this category. Furthermore, we apply dummy variables for the Standard Industry Classification (SIC) divisions to control for industry effects. To circumvent multicollinearity, we omit the in our data set most common SIC division (see Greene, 2012, p. 192). Data on the SIC divisions is obtained from 'CRSP Daily Stock' via WRDS. The regression model does not include control variables for the target company's market size, book-to-market ratio etc. since the applied estimation procedure for abnormal stock returns already considers such impacts.

< Insert Table 2 about here >

4 Results and Discussion

We begin our analysis by presenting and discussing descriptive statistics on abnormal stock returns, abnormal share volumes, information on the delay between crossing the reporting threshold and disclosing Schedule 13D, as well as weekday preferences. Afterwards, we examine how verbalizing activism goals affects abnormal stock returns.

We estimate abnormal stock returns with the three-, four-, and five-factor model of Fama and French (1993), Carhart (1997), and Fama and French (2015), respectively. Our results show that average abnormal stock returns derived from the three different models do not substantially differ from each other. We observe a mean cumulative outperformance of more than five percent within [−10:+10]-trading days surrounding the disclosure of Schedule 13D. Figure 1 visualizes the cumulative abnormal stock returns during this event window. The mean cumulative abnormal stock return is slightly lower than stated by prior research (e.g. Brav et al., 2008 and Carrothers, 2017). This might be caused by an increased competition (see Krishnan et al., 2016, p. 296 and the therein cited literature). If the abnormal stock returns do not fully cover the size effect the finding might be caused by our data set, which does not cover the smallest listed companies (deHaan et al., 2019, p. 550). Since the constituent factor models only lead to slightly different results, solely four-factor model abnormal stock returns are employed in the following analyses. Figure 2 illustrates the daily mean four-factor model abnormal stock return surrounding the Schedule 13D filing dates.

< Insert Figure 1 about here >

< Insert Figure 2 about here >

Table 3 shows that the major proportion of average abnormal stock returns emerges before the hedge fund discloses Schedule 13D. Figure 3 provides the daily mean

abnormal share volume. The mean abnormal share volume increases significantly prior to the disclosure. It is not clearly distinguishable to which extent the buying pressure of the hedge funds themselves is causing the abnormal stock returns. To assess this issue, Table 4 and Figure 4 provide the distribution of how many trading days before the disclosure of Schedule 13D hedge funds exceeded the reporting threshold. The distribution of these points in time and the distribution of abnormal share volumes reveal two matching groups. Initially, abnormal share volume increases sharply from the eighth to the sixth trading day before the disclosure. Consistently, nearly half of the hedge funds cross the reporting threshold during these trading days. The second time a sharp increase in abnormal share volume can be detected is right before the filing disclosure, i.e. [–2:0]-trading days. Consistently, nearly a third of hedge funds cross the reporting threshold in this period. Combining our result with prior evidence that the "purchases are likely concentrated on the day they cross the threshold as well as the following day" (Bebchuk et al., 2013, p. 6), one might suggest that abnormal stock returns are at least partly driven by hedge funds themselves. In brief, insiders as well as the respective hedge funds themselves most likely drive abnormal stock returns before the disclosure of Schedule 13D.

< Insert Table 3 and Figure 3 about here >

< Insert Table 4 and Figure 4 about here >

Mean abnormal stock returns are significant and positive until one trading day after the filing disclosure. Afterwards, abnormal share volume declines sharply, and we measure no notable abnormal stock returns. This result stands in contrast to prior research which show increases of abnormal stock returns over the first twenty days after the disclosure of Schedule 13D (Brav et al., 2008; Bebchuk et al., 2015; Carrothers, 2017). Thus, our first hypothesis can be confirmed. Stock markets react,

on average, very fast to the announcement of hedge fund activism. Our results indicate that stock markets are rather semi-strong efficient (see Fama, 1970 and Fama, 1991) in regard to hedge fund activism—in this context, stock market efficiency has increased.

With reference to prior research on weekday preferences of investors (e.g. Boubaker et al., 2017), Table 5 provides information on which weekdays hedge funds cross the reporting threshold and on which weekdays Schedule 13D is disclosed. Marginal evidence shows that hedge funds prefer to cross the reporting threshold at the beginning and at the end of the trading week. Schedule 13D is disclosed analogously. Overall, hedge funds do not seem to have a clear preference for a weekday. Our findings underline Boubaker et al.'s (2017) skepticism about weekday effects.

< Insert Table 5 about here >

Schedule 13D does not only signal that a hedge fund has crossed the reporting threshold, it also provides information on the hedge fund's transaction purpose and respective activism intentions. In the following, we present our analysis how hedge funds' verbalization of activism goals affects abnormal stock returns. In brief, we assess if abnormal stock returns differ when hedge funds mitigate their statements on activism goals by using weak modal words (e.g. 'apparently', 'conceivable', 'may' or 'maybe')?

Applying a regression analysis, we first focus on abnormal stock returns on the disclosure day (t_0) as well as the following trading day (t_1). This is driven by the fact that the transaction purpose is announced on the disclosure day and that subsequent to the following trading day, on average, the information is reflected in the stock price. We first use w^{MW} as well as the interaction term $Letter \times w^{MW}$ as independent

variables. The interaction term is not included in the complete model since Variance Inflation Factors indicate collinearity issues (VIF above ten; see Hair, Jr. et al., 2014, p. 200; Oehler et al., 2018, p. 38). Our results, presented in Table 6, indicate that on the first trading day mitigated verbalization of activism goals does not affect abnormal stock returns. In detail, our regression coefficients indicate a negative linkage of weak modal words and abnormal stock returns, however the results are statistically insignificant. The OLS regression results are similar when we analyze abnormal stock returns of the subsequent trading day. Mitigated verbalization of hedge funds does not affect abnormal stock returns significantly one trading day after the filing disclosure. To exclude the influence of potential insider trading, we run our OLS regression on abnormal stock returns on the trading day prior to the filing disclosure (t_{-1}). The results show that mitigated reporting is to a slight extent (ten percent-level) negatively associated with abnormal stock returns. For robustness checking, we apply the thesaurus 'uncertainty'. Table 7 provides the results. Our robustness check does not confirm the prior slightly significant result. Considering the prior and subsequent trading day as well as the disclosure day, the robustness check reveals a negative but insignificant impact on abnormal stock returns.

< Insert Table 6 about here >

< Insert Table 7 about here >

We examine combined trading days surrounding the filing disclosures to ensure that effects do not occur over several days. Combining the disclosure day and the subsequent trading day reveals an insignificant negative linkage of modal weak verbalization and abnormal stock returns. The coefficient measuring modal weak verbalization is slightly significant when we include the trading day prior to the filing disclosure, i.e. CAR[–1:0] and CAR[–1:+1]. The robustness check (w^{UC}), however,

does not confirm the slightly significant negative influence of mitigated verbalization on abnormal stock returns. Table 8 outlines the respective results.

< Insert Table 8 about here >

A universal standard for the analysis of textual documents does not exist. Thus, quick stock market participants like high frequency trading might not be able to fully exploit qualitative information. Loughran and McDonald (2017) analyze the use of EDGAR filings by investors and find a remarkably low degree of “nonrobot investor requests” (Loughran and McDonald, 2017, p. 244). Furthermore, they report that approximately a quarter of Schedule 13D requests within 400 days are done on the first two days, 42.6 percent are done within the first week. Therefore, we examine the influence of mitigated verbalization on abnormal stock returns in the subsequent trading days. First, we analyze the first five trading days subsequent to the disclosure. Second, we analyze the first ten trading days subsequent to the disclosure. In other words, the first and the second subsequent trading week. Third, we analyze the cumulative abnormal returns on the first eleven trading days to include the disclosure day in the analysis, i.e. CAR[0:+10]. Table 9 provides the results. The regression coefficients are small and insignificant, independently of whether we apply the thesaurus ‘modal weak’ or ‘uncertainty’. Finally, this leads us to accept our hypothesis that hedge funds’ mitigated verbalization of activism goals does not lead to negative abnormal stock returns. When hedge funds verbalize their activism goals mitigated or vaguely it does not imply higher levels of uncertainty for the stock market, higher risk premia, or lower abnormal stock returns.

< Insert Table 9 about here >

5 Conclusion

We examine hedge fund activism in the recent past and document that hedge fund activism leads to mean cumulative abnormal stock returns of approximately five percent surrounding the activism disclosure—this result is slightly lower than in pre-existing studies (e.g. Bebchuk et al., 2015; Carrothers, 2017; Krishnan et al., 2016). Furthermore, our analysis shows that stock markets react faster to hedge fund activism as has been documented in less recent literature. Mean abnormal stock returns are significant and positive on the disclosure day of Schedule 13D and the subsequent trading day. Thereafter, mean abnormal stock returns are insignificant. We suggest that this finding derives from a rising influence of high frequency trading. Because of limited data availability, we leave this advanced hypothesis open for future research.

Furthermore, we examine the reporting standard of disclosing the purpose of the transaction in Schedule 13D as well as attached letters to the CEO and board. When hedge funds state their activism goals, other investors can use this information for their own purpose. Consequently, when being disclosed, information turns into a public good (Macey and Netter, 1987; Chattopadhyaya, 2011). When hedge funds verbalize their goals mitigated or vaguely it might be a form of legal protection and the attempt to cover up intentions. Thus, our research analyzes how mitigated verbalization of activism goals affects abnormal stock returns. Our research provides evidence that mitigated and vague reporting of hedge funds does not affect abnormal stock returns. Our results are relevant for investors who must disclose their intentions as well as respective consulting firms. Furthermore, our results are worthwhile for individuals who assess investments in hedge funds.

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Table 1: Descriptive Statistics about Textual Analysis.

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
#Total Words	0.00	330.00	469.50	759.80	742.00	14,232.00
#Total Words (after Preparation Process)	0.00	193.00	263.00	427.50	401.00	8,714.00
Weighted Value Modal Weak	0.00	0.21	0.36	1.03	1.06	21.74
Weighted Value Uncertainty	0.00	1.08	1.97	4.57	2.83	99.40

Note: This table provides descriptive statistics about the total number of words in Item 4 of Schedule 13D and corresponding letters to the CEO or board before and after the preparation process (esp. deleting stop words, numbers and punctuation). Furthermore, this table provides descriptive statistics about the values derived from the textual analysis. We apply the thesauri for modal weak words and words of uncertainty. The minimum in all columns is zero since in one case a hedge fund did not add textual content to Item 4.

Table 2: Goals of Activism Stated by Hedge Funds.

Objective Categories of Activism Goals[ii]	Percentage of Events
General undervaluation / maximize shareholder value (1)	45.77
Excess cash, under-leverage, dividends / repurchases (2a)	9.15
Equity issuance, restructure debt, recapitalization (2b)	2.46
Operational efficiency (3a)	10.92
Lack of focus, business restructuring and spinning off (3b)	8.80
M&A: as target (against the deal / for better terms) (3c)	2.11
M&A: as acquirer (against the deal / for better terms) (3d)	0.00
Merger (against the deal / for better terms) (3e)	1.06
Pursue growth strategies (3f)	4.23
Sell company or main assets to a third party (4a)	6.34
Take control / buyout company and / or take it private (4b)	1.06
Rescind takeover defenses (5a)	2.46
Oust CEO, chairman (5b)	3.87
Board independence and fair representation (5c)	17.61
More information disclosure / potential fraud (5d)	3.17
Excess executive compensation / pay for performance (5e)	5.99

Note: This table provides descriptive statistics on the objective categories hedge funds state in Item 4 of Schedule 13D ('purpose of transaction') as well as corresponding letters to the CEO or board. For instance, hedge funds address the compensation of executives in approximately six percent of all events. Hedge funds can address more than one goal per event. The detailed categories of activism goals are mainly based on Brav et al. (2008, p. 1742) and can be captioned by (2) capital structure, (3) business strategy, (4) sale of target company, and (5) governance.

Table 3: Descriptive Statistics on Abnormal Stock Returns and Abnormal Share Volume.

	[–10]	[–9]	[–8]	[–7]	[–6]	[–5]	[–4]
AR (4FM; in %)	–0.09	0.15	0.57 ***	0.44 *	0.43 **	0.50 **	0.10
CAR (4FM; in %)	–0.09	0.06	0.63 **	1.08 ***	1.51 ***	2.02 ***	2.12 ***
ASV (in %)	28.94 **	64.12 **	121.63 **	148.38 ***	160.36 ***	86.15 ***	99.27 ***
	[–3]	[–2]	[–1]	[0]	[+1]	[+2]	[+3]
AR (4FM; in %)	0.34 **	0.69 **	0.11	1.59 ***	0.86 ***	–0.02	–0.07
CAR (4FM; in %)	2.47 ***	3.17 ***	3.28 ***	4.92 ***	5.82 ***	5.84 ***	5.76 ***
ASV (in %)	89.50 **	154.62 **	88.13 ***	128.33 ***	104.10 ***	32.16 ***	36.09 ***
	[+4]	[+5]	[+6]	[+7]	[+8]	[+9]	[+10]
AR (4FM; in %)	–0.12	–0.23 *	0.02	0.00	–0.07	–0.01	0.10
CAR (4FM; in %)	5.64 ***	5.40 ***	5.16 ***	5.25 ***	5.17 ***	5.17 ***	5.27 ***
ASV (in %)	26.83 ***	21.89 ***	26.13 ***	15.55 **	9.36 *	11.17 **	15.23 **

Note: This table provides descriptive statistics on abnormal stock returns (AR) derived by employing the four-factor model (4FM) surrounding the disclosure of Schedule 13D per trading day, cumulative abnormal stock returns (CAR) [–10:+10]-trading days and abnormal share volume (ASV) per trading day. We additionally report results of the two-sided *t*-test for AR, CAR and ASV to show if the reported mean is different from zero. The symbols ***, ** and * denote statistical significance levels at the one, five and ten percent level, respectively. Our results show that hedge fund activism leads to a mean CAR of 5.27 percent. Furthermore, we show that ASV is increased sharply surrounding the filing disclosure. For instance, ASV is 128 percent higher on the publication day than [–110:–10]-trading days before the filing disclosure.

Table 4: Period between Threshold Crossing and 13D Filing Disclosure.

Trading Day	Percentage of Filings	Cumulated Percentage
[–10]	0.35	0.35
[–9]	0.70	1.06
[–8]	22.89	23.94
[–7]	14.08	38.03
[–6]	11.97	50.00
[–5]	10.21	60.21
[–4]	5.28	65.49
[–3]	4.23	69.72
[–2]	8.10	77.82
[–1]	15.14	92.96
[0]	7.04	100.00

Note: This table provides information on the distribution how much time hedge funds take to disclose that they crossed the reporting threshold. For instance, approximately ten percent cross the reporting threshold five trading days before the filing disclosure.

Table 5: Distribution on the Days of the Week.

	Monday	Tuesday	Wednesday	Thursday	Friday
Reporting Threshold Date	68 (24 %)	62 (22 %)	48 (17 %)	47 (17 %)	59 (21 %)
Filing Date	67 (24 %)	39 (14 %)	45 (16 %)	73 (26 %)	60 (21 %)

Note: This table provides information on which weekdays hedge funds cross the reporting threshold and on which weekdays the SEC discloses 13D filings. For instance, in nearly a quarter of all events the hedge fund crossed the reporting threshold on a Monday. Due to rounding, the sums of the percentage values are higher than hundred percent.

Table 6: OLS-Regressions of Mitigated Verbalization on Abnormal Stock Returns Surrounding the Disclosure of Schedule 13D.

Dependent Variable:	AR[–1]	AR[–1]	AR[0]	AR[0]	AR[1]	AR[1]
Intercept	0.19	–0.15	1.84 ***	0.62	1.10 ***	0.49
	(0.64)	(–0.37)	(5.80)	(1.37)	(4.44)	(1.38)
w^{MW}	–0.06	–0.29 *	–0.45	–0.06	–0.27	–0.10
	(–0.20)	(–1.74)	(–1.32)	(–0.33)	(–1.00)	(–0.72)
Letter		2.77 **		0.43		0.05
		(2.22)		(0.32)		(0.05)
Letter × w^{MW}	0.13		0.56		0.17	
	(0.41)		(1.63)		(0.62)	
General undervaluation / maximize shareholder value (1)		1.27 **		1.06 *		1.57 ***
		(2.39)		(1.87)		(3.50)
Excess cash, under-leverage, dividends / repurchases (2a)		–1.15		0.35		–0.19
		(–1.17)		(0.33)		(–0.23)
Equity issuance, restructure debt, recapitalization (2b)		3.40 **		–3.48 *		–2.33 *
		(2.04)		(–1.96)		(–1.66)
Operational efficiency (3a)		–4.05 ***		2.06 *		–1.16
		(–3.70)		(1.76)		(–1.25)
Lack of focus, business restructuring and spinning off (3b)		1.64		–0.17		–0.67
		(1.65)		(–0.16)		(–0.80)
M&A: as target (against the deal / for better terms) (3c)		–1.63		–0.55		–0.45
		(–0.98)		(–0.31)		(–0.32)
Merger (against the deal / for better terms) (3e)		–3.66		1.37		0.25
		(–1.53)		(0.54)		(0.12)
Pursue growth strategies (3f)		1.00		–0.62		0.37
		(0.72)		(–0.42)		(0.32)
Sell company or main assets to a third party (4a)		0.59		0.27		–0.96
		(0.52)		(0.22)		(–1.01)
Take control / buyout company and / or take it private (4b)		–0.38		2.02		0.08
		(–0.17)		(0.84)		(0.04)
Rescind takeover defenses (5a)		–2.22		1.41		1.69
		(–1.14)		(0.68)		(1.02)
Oust CEO, chairman (5b)		–0.14		–0.67		2.88 **
		(–0.10)		(–0.43)		(2.34)
Board independence and fair representation (5c)		0.61		1.52 **		–0.63
		(0.85)		(1.97)		(–1.04)
More information disclosure / potential fraud (5d)		1.91		0.42		0.97
		(1.21)		(0.25)		(0.72)
Excess executive compensation / pay for performance (5e)		1.60		–2.01		–0.91
		(1.35)		(-1.59)		(–0.91)
SIC Division Dummies	no	yes	no	yes	no	yes
Multiple R^2	0.00	0.13	0.01	0.18	0.01	0.15
Adjusted R^2	0.00	0.04	0.00	0.10	0.00	0.07
N	284	284	284	284	284	284

Note: This table provides regression coefficients and in parentheses *t*-statistics of linear regression employing Equation (7). The dependent variable AR stands for the abnormal stock return on the disclosure day [0], the prior trading day [–1], and the following trading day [+1] of Schedule 13D. The independent variable w^{MW} represents the weighted value calculated for each document from textual analysis. MW stands for the thesaurus 'modal weak' of Loughran and McDonald (2011). $Letter$ is a dummy variable which turns one when at least one letter is attached to Schedule 13D, and otherwise zero. The control variables for the objective activism goals are mainly based on Brav et al. (2008). SIC division dummies are included to control for industry effects. The symbols ***, ** and * denote statistical significance levels at the one, five and ten percent level. Variance Inflation Factors indicate no collinearity issues (VIF < 10, see Hair, Jr. et al., 2014, p. 200).

Table 7: OLS-Regressions of Vague Verbalization on Abnormal Stock Returns Surrounding the Disclosure of Schedule 13D.

Dependent Variable:	AR[–1]	AR[–1]	AR[0]	AR[0]	AR[1]	AR[1]
Intercept	0.02	–0.31	1.37 ***	0.62	1.10 ***	0.52
	(0.06)	(–0.75)	(4.05)	(1.40)	(4.16)	(1.49)
w^{UC}	0.05	–0.03	0.10	–0.03	–0.06	–0.06
	(0.50)	(–0.50)	(0.94)	(–0.48)	(–0.69)	(–1.44)
Letter		2.08		0.62		0.64
		(1.54)		(0.43)		(0.57)
Letter × w^{UC}	–0.02		–0.06		0.03	
	(–0.21)		(–0.56)		(0.36)	
General undervaluation / maximize shareholder value (1)		1.36 **		1.06 *		1.55 ***
		(2.55)		(1.88)		(3.48)
Excess cash, under-leverage, dividends / repurchases (2a)		–1.20		0.35		–0.16
		(–1.22)		(0.34)		(–0.20)
Equity issuance, restructure debt, recapitalization (2b)		3.67 **		–3.46 *		–2.32 *
		(2.21)		(–1.96)		(–1.66)
Operational efficiency (3a)		–3.55 ***		2.13 *		–1.04
		(–3.36)		(1.90)		(–1.17)
Lack of focus, business restructuring and spinning off (3b)		1.43		–0.13		–0.53
		(1.42)		(–0.12)		(–0.63)
M&A: as target (against the deal / for better terms) (3c)		–1.53		–0.45		–0.22
		(–0.90)		(–0.25)		(–0.16)
Merger (against the deal / for better terms) (3e)		–3.27		1.45		0.38
		(–1.37)		(0.57)		(0.19)
Pursue growth strategies (3f)		0.96		–0.51		0.65
		(0.68)		(–0.34)		(0.55)
Sell company or main assets to a third party (4a)		0.45		0.30		–0.87
		(0.39)		(0.24)		(–0.91)
Take control / buyout company and / or take it private (4b)		0.04		2.11		0.25
		(0.02)		(0.88)		(0.13)
Rescind takeover defenses (5a)		–1.31		1.45		1.65
		(–0.69)		(0.72)		(1.04)
Oust CEO, chairman (5b)		–0.60		–0.64		3.03 **
		(–0.41)		(–0.42)		(2.48)
Board independence and fair representation (5c)		0.43		1.50 **		–0.65
		(0.60)		(1.97)		(–1.09)
More information disclosure / potential fraud (5d)		1.42		0.69		1.72
		(0.81)		(0.37)		(1.18)
Excess executive compensation / pay for performance (5e)		1.51		–1.98		–0.81
		(1.26)		(–1.56)		(–0.81)
SIC Division Dummies		yes		yes		yes
Multiple R^2	0.01	0.12	0.01	0.18	0.01	0.16
Adjusted R^2	0.00	0.03	0.00	0.10	0.00	0.07
N	284	284	284	284	284	284

Note: This table provides regression coefficients and in parentheses *t*-statistics of linear regression employing Equation (7). The dependent variable AR stands for the abnormal stock return on the publication day [0], the prior trading day [–1] and the following trading day [+1] of Schedule 13D. The independent variable w^{UC} represents the weighted value calculated for each document from textual analysis. UC stands for the thesaurus 'uncertainty' of Loughran and McDonald (2011). $Letter$ is a dummy variable which turns one when at least one letter is attached to Schedule 13D, and otherwise zero. The control variables for the objective activism goals are mainly based on Brav et al. (2008). SIC division dummies are included to control for industry effects. The symbols ***, ** and * denote statistical significance levels at the one, five and ten percent level. Variance Inflation Factors indicate collinearity issues for the models that contain the interaction term (VIF > 10).

Table 8: OLS-Regressions of Mitigated and Vague Verbalization on Cumulative Abnormal Stock Returns Surrounding the Disclosure of Schedule 13D.

Dependent Variable:	CAR[–1:0]	CAR[–1:0]	CAR[0:1]	CAR[0:1]	CAR[–1:1]	CAR[–1:1]
Intercept	0.50	0.34	1.13 **	1.16 **	1.02 *	0.89
	(0.94)	(0.64)	(2.21)	(2.30)	(1.66)	(1.47)
w^{MW}	–0.36 *		–0.18		–0.45 *	
	(–1.71)		(–0.87)		(–1.86)	
w^{UC}		–0.05		–0.09		–0.11
		(–0.76)		(–1.49)		(–1.51)
Letter	3.49 **	2.90 *	0.62	1.40	3.48 *	3.55 *
	(2.20)	(1.70)	(0.41)	(0.86)	(1.91)	(1.81)
General undervaluation / maximize shareholder value (1)	2.28 ***	2.37 ***	2.59 ***	2.57 ***	3.88 ***	3.96 ***
	(3.39)	(3.52)	(4.00)	(4.00)	(5.03)	(5.12)
Excess cash, under-leverage, dividends / repurchases (2a)	–0.75	–0.80	0.11	0.14	–0.94	–0.96
	(–0.60)	(–0.64)	(0.09)	(0.12)	(–0.66)	(–0.67)
Equity issuance, restructure debt, recapitalization (2b)	–0.11	0.21	–5.75 ***	–5.70 ***	–2.72	–2.40
	(–0.05)	(0.10)	(–2.83)	(–2.83)	(–1.12)	(–1.00)
Operational efficiency (3a)	–2.60 *	–2.00	0.77	0.99	–3.72 **	–3.02 *
	(–1.88)	(–1.49)	(0.58)	(0.77)	(–2.34)	(–1.97)
Lack of focus, business restructuring and spinning off (3b)	1.54	1.35	–0.82	–0.64	0.73	0.69
	(1.22)	(1.06)	(–0.68)	(–0.53)	(0.50)	(0.47)
M&A: as target (against the deal / for better terms) (3c)	–2.26	–2.07	–1.04	–0.70	–2.72	–2.29
	(–1.07)	(–0.97)	(–0.51)	(–0.34)	(–1.12)	(–0.93)
Merger (against the deal / for better terms) (3e)	–2.31	–1.83	1.55	1.78	–1.96	–1.37
	(–0.76)	(–0.60)	(0.53)	(0.62)	(–0.56)	(–0.39)
Pursue growth strategies (3f)	0.69	0.74	–0.19	0.21	1.11	1.44
	(0.39)	(0.41)	(–0.11)	(0.13)	(0.55)	(0.70)
Sell company or main assets to a third party (4a)	0.84	0.71	–0.63	–0.51	–0.13	–0.15
	(0.58)	(0.49)	(–0.46)	(–0.37)	(–0.08)	(–0.09)
Take control / buyout company and / or take it private (4b)	1.52	2.05	2.11	2.41	1.67	2.36
	(0.53)	(0.72)	(0.77)	(0.88)	(0.51)	(0.72)
Rescind takeover defenses (5a)	–1.06	–0.04	2.96	2.99	0.68	1.61
	(–0.43)	(–0.02)	(1.24)	(1.30)	(0.24)	(0.59)
Oust CEO, chairman (5b)	–0.84	–1.30	2.27	2.44	2.20	1.92
	(–0.46)	(–0.71)	(1.28)	(1.39)	(1.04)	(0.91)
Board independence and fair representation (5c)	2.13 **	1.92 **	0.93	0.88	1.45	1.23
	(2.33)	(2.11)	(1.06)	(1.02)	(1.38)	(1.18)
More information disclosure / potential fraud (5d)	2.59	2.29	1.48	2.53	3.59	4.10
	(1.29)	(1.04)	(0.76)	(1.20)	(1.56)	(1.62)
Excess executive compensation / pay for performance (5e)	–0.25	–0.32	–2.83 *	–2.69 *	–1.28	–1.24
	(–0.17)	(–0.21)	(–1.95)	(–1.86)	(–0.74)	(–0.71)
SIC Division Dummies	yes	yes	yes	yes	yes	yes
Multiple R^2	0.17	0.17	0.23	0.23	0.22	0.21
Adjusted R^2	0.09	0.09	0.15	0.16	0.14	0.14
N	284	284	284	284	284	284

Note: This table provides regression coefficients and in parentheses *t*-statistics of linear regression employing Equation (7). The symbols ***, ** and * denote statistical significance levels at the one, five and ten percent level. Variance Inflation Factors indicate no collinearity issues (VIF < 5). For a description of the variables see Table 6 and Table 7.

Table 9: OLS-Regressions of Mitigated and Vague Verbalization on Cumulative Abnormal Stock Returns Subsequent to the Disclosure of Schedule 13D.

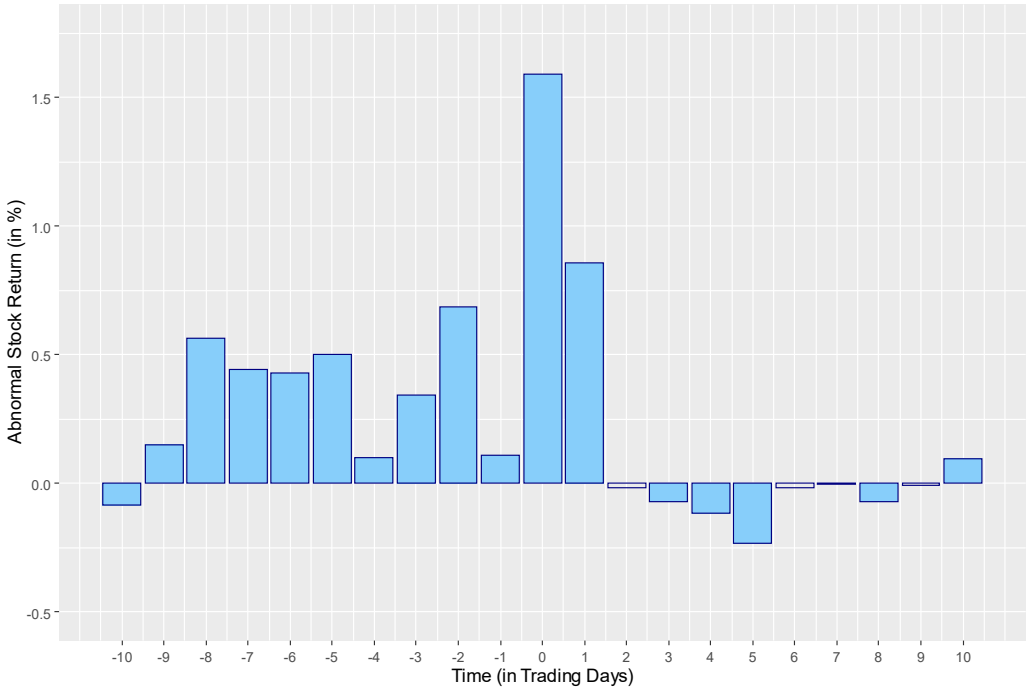
Dependent Variable:	CAR[0:10]	CAR[0:10]	CAR[1:5]	CAR[1:5]	CAR[1:10]	CAR[1:10]
Intercept	–1.20	–1.16	–0.54	–0.45	–1.79 **	–1.75 **
	(–1.38)	(–1.36)	(–1.00)	(–0.86)	(–2.44)	(–2.43)
w^{MW}	–0.06		0.16		0.01	
	(–0.17)		(0.74)		(0.03)	
w^{UC}		–0.05		0.02		–0.03
		(–0.52)		(0.26)		(–0.29)
Letter	–0.54	0.12	0.13	0.46	–0.64	–0.20
	(–0.21)	(0.04)	(0.08)	(0.27)	(–0.29)	(–0.08)
General undervaluation / maximize shareholder value (1)	4.51 ***	4.49 ***	2.61 ***	2.56 ***	3.40 ***	3.38 ***
	(4.09)	(4.09)	(3.86)	(3.80)	(3.66)	(3.65)
Excess cash, under-leverage, dividends / repurchases (2a)	1.91	1.94	0.16	0.19	1.74	1.76
	(0.95)	(0.96)	(0.13)	(0.15)	(1.02)	(1.04)
Equity issuance, restructure debt, recapitalization (2b)	–8.39 **	–8.42 **	–2.09	–2.24	–5.05 *	–5.10 *
	(–2.46)	(–2.48)	(–0.99)	(–1.06)	(–1.76)	(–1.78)
Operational efficiency (3a)	–0.94	–0.90	–2.73 *	–3.00 **	–3.06	–3.11 *
	(–0.42)	(–0.42)	(–1.96)	(-2.24)	(–1.60)	(–1.69)
Lack of focus, business restructuring and spinning off (3b)	–0.65	–0.50	–1.88	–1.77	–0.64	–0.53
	(–0.32)	(–0.24)	(–1.48)	(–1.39)	(–0.37)	(–0.30)
M&A: as target (against the deal / for better terms) (3c)	–3.07	–2.80	–1.03	–1.10	–1.58	–1.46
	(–0.83)	(–0.75)	(–0.48)	(–0.51)	(–0.51)	(–0.46)
Merger (against the deal / for better terms) (3e)	2.00	2.06	1.92	1.71	0.45	0.43
	(0.41)	(0.42)	(0.63)	(0.57)	(0.11)	(0.10)
Pursue growth strategies (3f)	0.71	0.98	2.05	2.06	1.21	1.36
	(0.25)	(0.34)	(1.16)	(1.15)	(0.51)	(0.56)
Sell company or main assets to a third party (4a)	–2.18	–2.09	–0.99	–0.92	–2.59	–2.52
	(–0.93)	(–0.89)	(–0.69)	(–0.64)	(–1.30)	(–1.27)
Take control / buyout company and / or take it private (4b)	3.30	3.40	–0.94	–1.17	1.13	1.13
	(0.71)	(0.74)	(–0.33)	(–0.41)	(0.29)	(0.29)
Rescind takeover defenses (5a)	5.11	4.96	1.85	1.37	3.83	3.62
	(1.27)	(1.28)	(0.74)	(0.57)	(1.13)	(1.11)
Oust CEO, chairman (5b)	1.42	1.61	1.99	2.22	1.94	2.10
	(0.47)	(0.54)	(1.07)	(1.20)	(0.77)	(0.84)
Board independence and fair representation (5c)	1.33	1.34	–0.72	–0.63	–0.26	–0.23
	(0.90)	(0.91)	(–0.79)	(–0.69)	(–0.21)	(–0.19)
More information disclosure / potential fraud (5d)	2.53	3.30	0.12	0.34	2.01	2.49
	(0.78)	(0.93)	(0.06)	(0.15)	(0.73)	(0.83)
Excess executive compensation / pay for performance (5e)	–2.55	–2.44	–2.64 *	–2.60 *	–0.75	–0.68
	(–1.05)	(–1.00)	(–1.75)	(–1.71)	(–0.37)	(–0.33)
SIC Division Dummies	yes	yes	yes	yes	yes	yes
Multiple R^2	0.21	0.21	0.15	0.14	0.16	0.16
Adjusted R^2	0.13	0.13	0.06	0.06	0.08	0.08
N	277	277	283	283	277	277

Note: This table provides regression coefficients and in parentheses *t*-statistics of linear regression employing Equation (7). The symbols ***, ** and * denote statistical significance levels at the one, five and ten percent level. Variance Inflation Factors indicate no collinearity issues (VIF < 5). For a description of the variables see Table 6 and Table 7.

Figure 1: Average Cumulative Abnormal Stock Return Surrounding 13D Filing Dates.

Note: This figure presents the average cumulative abnormal stock returns derived by employing the three-, four- and five-factor model of Fama and French (1993), Carhart (1997) and Fama and French (2015), respectively.

Figure 2: Daily Average Abnormal Stock Return Surrounding 13D Filing Dates.



Note: This figure presents the daily average abnormal stock return derived by employing the four-factor model.

Figure 3: Daily Average Abnormal Share Volume Surrounding 13D Filing Dates.

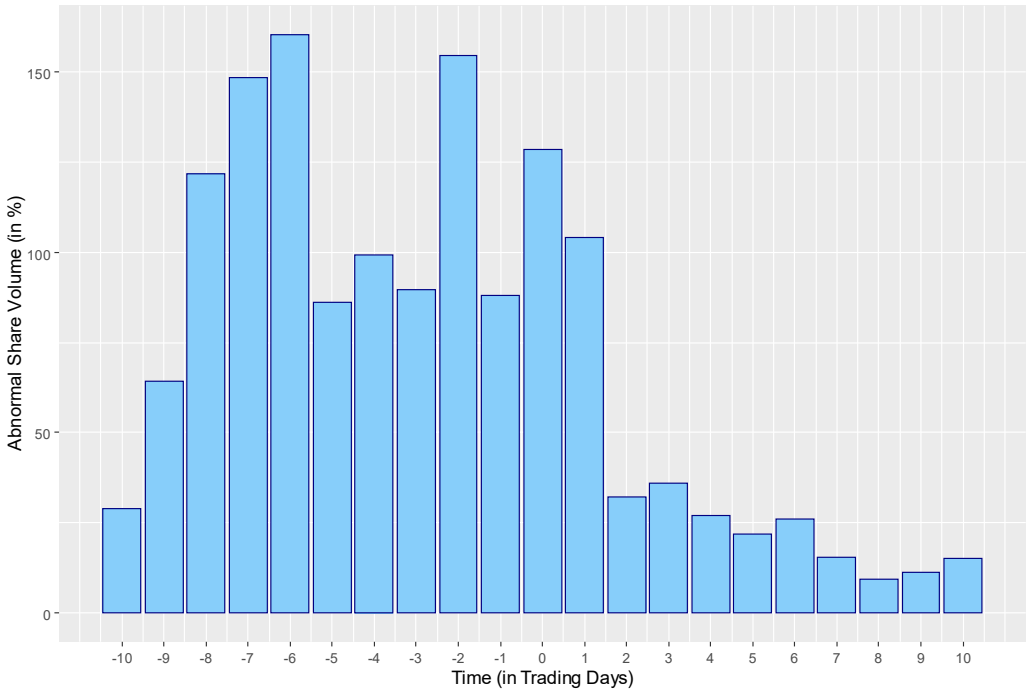
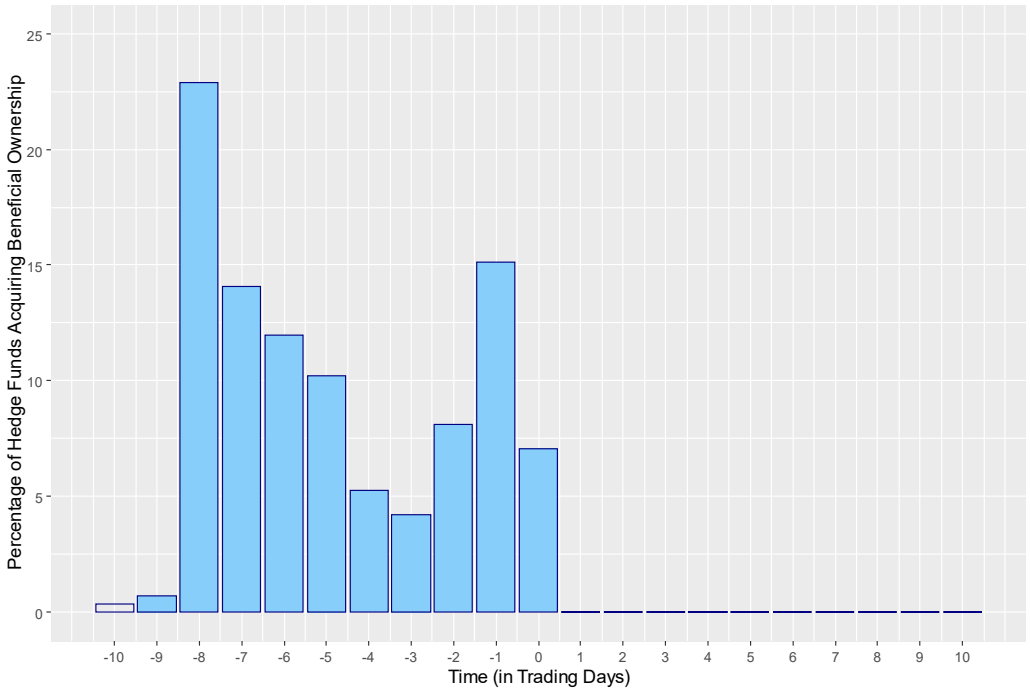


Figure 4: Distribution of the Points in Time When Hedge Funds Cross the Reporting Threshold.



Note: This figure visualizes the distribution how much time hedge funds take to disclose that they crossed the reporting threshold. For instance, approximately ten percent cross the reporting threshold five trading days before the filing disclosure.

[i] Bebchuk et al. (2013) show that more than ten percent of investors with activism intentions wait more than ten days to disclose Schedule 13D. They appeal to the SEC to "*consider more consistent enforcement*" (p. 7).

[ii] The objective categories of activism goals are mainly based on Brav et al. (2008, p. 1742). We add the category 'Merger (against the deal / for better terms)' since M&A-activities cannot always be clearly assigned or can also considered as a merger between equals.