

Shareholder Activism and CEO Quality

Abstract

We examine the relationship between shareholder activism and managerial quality at firms targeted by activists. We decompose variations in different measures of firm performance into firm and manager components and use principal component analysis of the manager fixed effects to construct a measure of managerial ability. We find that this measure of CEO quality is a significant predictor of shareholder activism. In addition, conditional on a firm being targeted, we find that the likelihood of the activist's demand being control-related is higher for firms with lower quality CEOs. Finally, hedge fund activists appear no different from other activists in their sensitivity to CEO quality when making control-related demands, but hedge funds are more sensitive to their percentage shareholding in the target firm when making control-related demands.

Shareholder Activism and CEO Quality

1. Introduction

This paper examines the relationship between shareholder activism and the quality of the incumbent CEO at targeted firms. Shareholder activism can take many forms, but essentially involves a non-controlling and dissatisfied equity investor in a company who uses her ownership rights to pressure the company to improve performance. As pointed out by Gillan and Starks (2007), shareholder activism can be viewed as a spectrum of responses by investors. At one extreme, dissatisfied investors can simply sell their shares (i.e., “vote with their feet”). At the other extreme, they can accumulate controlling stakes with the intention of making fundamental changes, as in corporate takeovers and buyouts. In this study, we focus on governance-based activism, whereby dissatisfied equity-holders with minority stakes “voice” their dissatisfaction and attempt to implement changes in the target company while maintaining or even increasing their investment in the company (Gillan and Starks (1998)).

Shareholder activism has grown in prominence in recent years, which has coincided with the increasingly important share of public equities being held by institutional investors (Sias and Starks (1998); Gillan and Starks (1998)). In particular, hedge funds have become prominent shareholder activists and are now a dominant force in such interventions (Gillan and Starks (2007)).

At its root, the phenomenon of shareholder activism has been viewed as a response to a fundamental agency problem inherent in the typical public corporation with absentee owners and run by hired managers whose interests are different from those of the owners (Jensen and Meckling (1976)). Kahn and Winton (1998) develop a model of intervention decision by an investor in a poorly performing firm taking into account the resulting effect on the value of

currently held shares as well as potential profits from trading in the firm's shares. There is also a large body of empirical research examining the effectiveness of shareholder activism on firm performance (see, for example, Karpoff (2001), Romano (2001), Gillan and Starks (2007) for surveys of the literature). These empirical studies cover a broad variety of types of shareholder activism (e.g., shareholder proposals, "just vote no" campaigns, Schedule 13D filings), identities of the shareholder activists (e.g., pension funds, hedge funds, labor unions, institutional sponsors), and measures of firm performance (e.g., short-term stock market reactions to announcements of activism, long-term stock market and operating performance changes, voting outcomes for shareholder proposals, changes in strategy or investment policies). Not surprisingly, given the broad range of issues covered, these studies reach different conclusions about the effectiveness of shareholder activism. Gillan and Starks (2000), for example, conclude that governance-related shareholder proposals have been largely ineffective in improving firms' operations. However, focusing on hedge fund activists, other studies find that hedge funds may be more successful than other shareholders in increasing shareholder value. For instance, publicly listed target firms have positive abnormal returns of 7% when hedge fund shareholders announce activist intentions through Schedule 13D filings with the SEC (Brav et al. (2008)). Moreover, these abnormal returns are higher when the filings are made by hedge fund activists than when they are made by other private investors (Klein and Zur (2009)).

There has been much less research about determinants of shareholder activism beyond the poor prior performance record of targeted firms. An early study (Nesbitt (1994)) finds that companies targeted by one activist pension fund, CalPERS, underperformed the S&P 500 by 66% in the five years before being targeted and outperformed by 41% in the five years afterwards. John and Klein (1995) examine factors associated with the likelihood of a company

being targeted by shareholder proposals on corporate governance and social issues, and find that targeted companies are larger, more likely to have reported losses in the preceding year, have worse accounting profitability measures, more outside directors, lower share ownership by directors, and are more likely to ask their shareholders to ratify the choice of external auditors. These studies were conducted at a time before hedge funds emerged as activists, and therefore do not examine differential activist tactics to potentially explain the superior performance of hedge fund activists.

In this paper, we examine the types of demands made by activist shareholders in Schedule 13D filings with the Securities and Exchange Commission (SEC). Schedules 13D are required to be filed, within ten days, by any person or group of persons who acquire beneficial ownership of more than 5% of a voting class of a company's equity securities. The filing discloses, along with other information, the purpose of the transaction and the aggregate amount and percentage of the target firm's securities owned by the filer. We hypothesize, based on standard agency theory, that activists will make more control-related demands (such as a stated intention to replace management, to acquire control, or to change or nominate the board of directors) when the incumbent management team of the target firm is of lower quality. Non-control related demands include a stated intention to hold discussions with management, capital structure issues, calls for or against a proposed merger or acquisition, but with no direct and explicit intention to replace the incumbent management or to obtain control.

We examine a comprehensive sample of Schedule 13D filings over the period 2000 to 2009. Managerial quality is not directly observable but can be estimated through manager fixed effects, as in Bertrand and Schoar (2003), who analyze a sample of managers who have changed firms, an approach which yields relatively small sample sizes. We use an alternative approach to

estimate manager fixed effects based on Abowd, Kramarz, and Margolis (1999; AKM henceforth), which allows for fixed effects to be estimated for a larger number of managers. An implementation of the AKM approach in the finance literature is provided by Graham et al. (2009) who provide evidence to validate the interpretation of manager fixed effects as innate managerial ability or social capital. Using Execucomp data, we estimate manager fixed effects in regressions of several measures of firm performance, and we then perform a factor analysis to generate a single summary measure of managerial quality for each executive. We find that firms led by lower quality CEOs are more likely to be targeted by shareholder activists and that a lower quality CEO is associated with a higher likelihood of an activist's demand being control-related and with the number of times that the targeted firm is subject to a control-related demand during the CEO's tenure. We also examine hedge funds' sensitivity to CEO quality and other factors in their activism decisions compared to other categories of activists, and while the results are not very strong, possibly due to the small sample size, we find that the activist's percentage ownership plays a greater role for hedge funds in making control-related demands than for other activists.

This paper's findings complement existing studies of shareholder activism. Whereas other studies have examined the determinants of what companies get targeted, we further examine determinants of the types of demands made by activists and show that managerial quality in the target company is an important factor. In addition, we contribute to the growing literature on hedge fund activism, which has shown positive stock market reactions upon announcement of activism by hedge funds (Brav et al. (2008); Klein and Zur (2009)), but remains unclear about the source of hedge funds' returns. Greenwood and Schor (2009) find evidence suggesting that the superior performance may be linked to hedge funds' ability to force the target firm into a

takeover, and our analyses provide additional insights about hedge funds' decision-making when they intervene in target firms.

The rest of the paper is organized as follows. Section 2 provides a review of the related literatures on shareholder activism and on managerial quality. In section 3, we formulate our hypotheses based on standard agency theory models. Section 4 describes the data and construction of the sample. Section 5 presents the analyses, and section 6 concludes.

2. Prior Literature

2.1 Shareholder Activism

Shareholder activism has a long history in the U. S. (see Gillan and Starks (2007) for a review). In its modern form, the current wave of shareholder activism can be traced back to the introduction by the SEC in 1942 of a rule that allowed shareholders to submit proposals for inclusion in the matters to be voted on at annual general meetings. In the first several decades after the introduction of the rule, most activist shareholders were individual investors. Institutional activists became more prominent starting from the 1980s, initially comprised of pension funds, followed by corporate raiders, labor unions and, more recently, hedge funds and private equity funds.

Shareholder activism spans a variety of activities, and empirical studies of shareholder activism have generally focused on one particular activity, for example, the submission of a shareholder proposal, the votes cast at annual general meetings, whether there were proxy contests or not, or the accumulation of shares and voting rights to pressure the target firm's management. The timing of activism on the part of the investor also varies, as do investor horizons. A relatively recent category of investors, hedge funds, are often considered to have

short-term investment horizons but, as documented by Brav et al. (2008), hedge funds also engage in relationship investing, i.e., have an ongoing long-term relationship with the target firm.

The empirical literature on shareholder activism has examined its effectiveness, with mixed results. Several studies conclude that shareholder proposals are largely ineffective. They have no effect on executive compensation (Johnson et al. (1997)) and there is no improvement in long-term stock market or operating performance (Gillan (1995), Karpoff et al. (1996), Wahal (1996), Del Guercio and Hawkins (1999)). Other studies suggest that coordinated activism may be more successful (Opler and Sokobin (1995)), that shareholder reaction and voting outcomes depend on the issues raised and the identity of the sponsor (Gillan and Starks (2000)), for example, private investment groups and individuals are most effective in garnering voting support (Thomas and Cotter (2006)). Focusing on hedge fund activists, studies by Brav et al. (2008) and Klein and Zur (2009) find significant abnormal returns in the targets upon announcement of the activism.

There is a much smaller body of work examining determinants of shareholder activism. Studies focusing on firms targeted by pension funds and by institutional activists find that the targets tend to have lower insider ownership and larger shareholdings by other institutions (Carleton et al. (1998)). With regards to profitability, poor operating performance in the period leading to the activists' intervention appears to characterize targets (Karpoff et al. (1996), John and Klein (1995)), however, firms targeted by activist hedge funds are more profitable than similar non-targets (Brav et al., 2008).

2.2 Estimating Managerial Quality

Managerial quality or ability is inherently an unobservable characteristic, making empirical investigation of managerial quality a challenging task. Existing research has tackled this challenge in several ways. Francis et al. (2008), for example, use press coverage of CEOs to proxy for CEO reputation, which they view as “the totality of enduring images that major stakeholders form based on perceived CEO performance, his or her ability, and values” (p. 114). Fischer et al. (2009) make use of stock market reactions to CEO turnover announcements. Bertrand and Schoar (2003) rely on a sample of CEOs and CFOs who move across firms, and ascribe fixed effects in regressions of corporate investment policies to differences in managerial “style”. More recently, Graham et al. (2009) propose an estimation approach for firm and manager fixed effects in a panel dataset of executive compensation using the method of Abowd, Kramarz, and Margolis (1999; “AKM”). Whereas the Bertrand and Schoar approach restricts the sample to managers who have moved between firms, the AKM method estimates fixed effects for moving as well as non-moving managers (as long as they are employed by a firm with at least one mover), and therefore results in the estimation of fixed effects for a greater number of managers.

The method that we use in this paper implements the AKM approach. Our basic statistical model decomposes time-varying measures of firm performance, y_{it} (for firm i at time t), into firm fixed effects θ_i , CEO fixed effects ψ_j (for CEO j employed by firm i at time t), other time-varying characteristics represented by the matrix x_{it} (with no intercept included in x_{it}), and a residual ε_{it} :

$$y_{it} = \theta_i + \psi_j + x_{it}\beta + \varepsilon_{it}$$

The AKM method identifies manager (and firm) fixed effects through connectedness: A group of persons and firms are connected when the group contains all persons who ever worked at any of the firms and also contains all firms at which any person in the group were employed. The entire available sample is partitioned into a finite number G of mutually exclusive groups, whereby each group contains firms and CEOs that are connected, but no two groups are connected. In order to construct the groups, the following grouping is applied, as set out in Abowd, Creecy and Kramarz (2002):

“For $g = 1, \dots$, repeat until no firms remain:
The first firm not assigned to a group is in group g .
Repeat until no more firms or persons are added to group g :
 Add all persons employed by a firm in group g to group g .
 Add all firms that have employed a person in group g to group g .
 End repeat.
End for.”

Abowd et al. (2002) show that, for each group g , the group mean of y and $N_g - 1 + J_g - 1$ person and firm effects are identified, where N_g is the number of persons in group g and J_g is the number of firms in group g .

3. Development of hypotheses

In classical principal-agent settings, information asymmetry exists between the principal and agent, and the private information can be about what the agent does and the decisions he takes (“hidden action”), or it can be about who the agent is and what his characteristics are (“hidden information”) (Salanié (2005)). We use this dichotomous distinction between two classes of private information to develop our hypotheses.

If a shareholder is dissatisfied with some aspect of an investee firm’s performance, she can choose from among a variety of actions. One response would be to sell shares in the firm and

instead invest in other firms. Another response would be to accumulate more shares in the firm in order to eventually acquire and exercise control with the objective of extracting value from the firm's assets and generate positive investment returns through the "market for corporate control" (Jensen and Ruback (1983)). However, there are circumstances in which these responses may not be available, for example, if the investor is an indexed mutual fund. Even so, if the activist shareholder decides to intervene in an investee firm, there is a second decision to be made regarding the type of demand made as part of the intervention. We hypothesize that both the investor's decision to intervene and the type of demands she makes will reflect her perception of the quality of the incumbent management. If the investor perceives that the executives currently in place have high ability, and that the poor performance is a result of unsatisfactory actions, her demands will focus on rectifying the actions that gave rise to the poor performance. On the other hand, if the investor is of the opinion that the existing management is of low quality, one of her demands will involve replacing the low quality executives. We refer to such demands as control-related demands. A recent study by Fischer et al. (2009) presents evidence consistent with our hypotheses: the authors find that uncontested director elections reflect positive perceptions by investors of the board's performance. Stated formally in alternative form, our first two hypotheses are that:

H1_a: Firms with lower quality CEOs are more likely to be targeted by activist shareholders than firms with higher quality CEOs.

H2_a: Conditional on shareholder activism, firms with lower quality CEOs are more likely to face control-related demands compared to firms with higher quality CEOs.

In recent years, hedge funds have emerged as a dominant class of activist shareholders. As unregulated pools of capital, hedge funds are subject to much less regulation and constraints than other activists such as pension funds and mutual funds, and they also have at their disposal more resources than individual shareholders. Hedge funds appear to be able to intervene successfully (Brav et al. (2008), Klein and Zur (2009)) whereas other shareholder activists appear largely ineffective (Gillan and Starks (2000, 2007)). Greenwood and Schor (2009) suggest that one reason may be hedge funds' greater success in forcing target firms into a takeover. Given that hedge funds as a class appear to be different from other categories of shareholder activists, we investigate whether they are more or less sensitive to targets' managers' quality and other factors during their interventions. Since we do not have a strong theoretical basis for making directional predictions, we state our third hypothesis in null form:

H3₀: Conditional on shareholder activism, the extent to which CEO quality affects the type of demand made is no different for hedge fund activists than for other shareholder activists.

4. Data

4.1 Sample Construction

We combine two main databases in order to construct our sample. The two main variables of interest for our study are CEO quality and shareholder activism being pursued (including whether or not a firm is being targeted by activists and the type of demands that have been made).

We use Compustat's Execucomp database to compute measures of managerial quality. The Execucomp database covers the period 1992 to 2009 and contains information collected from the annual proxy statements (Form DEF14A) of companies in the S&P 1500. We collect data on all executives appearing in the database. For our main analyses, we focus on the CEOs, but we also repeat our analyses using both CEO and non-CEO executives, and our conclusions continue to hold.

Our shareholder activism data is obtained from Audit Analytics. Audit Analytics' Shareholder Activism dataset contains all Schedule 13D and Schedule 13D/A filings made with the SEC over the period 2000 to 2009. Any person or group of persons who acquire beneficial ownership of more than 5% of the voting shares of a company are required to file a Schedule 13D with the SEC within ten days after the purchase². Schedule 13D/A are amendments to the original Schedule 13D filing and are required whenever there is a material change in the facts disclosed, including additional accumulation or disposal of shares. In addition to the identity of the activist filer and of the target firm, the filings also disclose the aggregate amount and percentage of shares owned by the filer. Audit Analytics also classify the matter disclosed in the "Purpose of Transaction" section (Item 4) of the filings into seven main categories: 1)

² In some circumstances, such as accumulation of shares by passive investors which takes them above the 5% threshold, filers can file a more abbreviated Schedule 13G. Our sample does not include Schedule 13G filings.

Agreements, 2) Concerns, 3) Control, 4) Discussions, 5) Dispute, 6) Support, and 7) Other. We create a dummy variable for control-related demands equal to one if the activist's campaign includes at least one control-related matter in the third category. In our study, we focus on the first filing to indicate the start of activism. We use the subsequent Schedule 13D/A's filed throughout the activist's campaign to calculate the maximum percentage holdings in the target firms and to determine whether there was a control-related demand made at any point during the campaign.

Over the period 2000 to 2009, there are 3,919 unique CEOs employed by 2,398 unique firms in the Execucomp dataset. After merging with the Audit Analytics database, we identify 793 firms that were the subjects of Schedule 13D and 13D/A filings over the same time period. Note that the same firm can be targeted by more than one activist. In total, we identify 2,153 firm-activist pairs representing interventions by 905 activists in those 793 unique firms. In the next section, we present some descriptive statistics for our final sample.

4.2 Descriptive Statistics

Table 1 provides summary descriptive statistics. Panel A shows firm-level characteristics across the sample period 2000 to 2009. We show separately the descriptive statistics for firm-years targeted by shareholder activists and non-targeted firm-years. The average firm in the sample had total assets of \$2,029 million, a market-to-book ratio of 2.85, return on assets (ROA) of 4%, return on equity (ROE) of 10%, and an abnormal stock market return over the past 12 months of 9.5%.

When comparing firm-years targeted by activists to non-targets, we find that targeted firm-years are much less profitable (an average ROA ratio of 2% compared to 5% for non-targeted

firm-years) and also have lower returns on their stock over the previous year (3% compared to 11%). These patterns are consistent with prior research (John and Klein (1995), Gillan and Starks (1998)). The average firm in our sample reported sales growth of 12%, had employed the incumbent CEO for the past seven years, and had almost 3% of their shares held by insiders.

Panel B shows the industry distribution of firms in our sample. Activists appear to refrain from targeting utilities companies, but otherwise, there does not appear to be strong industry concentrations.

4.3 Estimating CEO quality using the AKM method

We implement the method in Abowd, Kramarz and Margolis (1999; AKM) to estimate managerial fixed effects. We consider several measures of firm performance in the regressions used to estimate the manager fixed effects. We consider measures reflecting returns to all capital providers (return on assets) or to equity investors in particular (return on equity), and we also consider cash flow as well as income measures. In addition, we calculate abnormal stock market returns over a 12-month period ending at the end of the third month following the fiscal year end. We separately run ordinary least squares regressions of each measure of firm performance on manager and firm fixed effects, firm size, and year dummies. We collect the results for manager fixed effects from each of the specifications and standardize the measures by demeaning and dividing by the sample standard deviation for each set of measures. We then perform a principal component analysis to derive a summary measure of managerial quality. For the estimation of managerial ability, we utilize all available years on Execucomp. Although the AKM method allows us to estimate manager fixed effects for a larger number of executives compared to the “mover dummy variable method” used by Bertrand and Schoar (2003), it still requires that non-

movers have worked in firms that have hired at least one mover. Table 2 summarizes the managerial quality measures obtained for CEOs. Of the 5,629 CEOs tracked by Execucomp over 1992 to 2009, we are able to estimate fixed effects for 5,236 CEOs. We obtain CEO quality measures which show a fair degree of heterogeneity, consistent with results documented in Graham et al. (2009). We are thus able to estimate a CEO quality measure for each firm-year in the Execucomp sample. When identifying which firm-years were targeted by activists, we restrict the sample to the period 2000 onwards since the Audit Analytics Shareholder Activism database only covers those years.

4.4 Validating the CEO quality measures obtained using the AKM method

Next, we conduct validation tests on the CEO quality measures derived from the AKM approach. First, we re-estimate CEO fixed effects using the same performance variables as in the AKM estimations, but using the approach in Bertrand and Schoar (2003). This yields CEO fixed effects for [] CEOs over the Execucomp sample period. We then compare the Bertrand and Schoar to the AKM measures for overlapping CEOs whose fixed effects can be estimated under both methods. The Pearson (Spearman) correlation between the two measures is [% (%)].

We run an alternative validation exercise using the stock market reaction to announcement of CEO departures. The sample of 165 departing CEOs and market reaction data is the same as in Fischer et al. (2009)³. Ceteris paribus, upon announcement that a good quality CEO is leaving, the market is expected to react negatively, whereas the market reaction is expected to be positive if a bad quality CEO is leaving. The Spearman rank correlation between abnormal announcement returns and the CEO quality measures obtained from the AKM estimation is -0.18 with a p-value

³ We thank Hal White for providing these data. The measurement window for the announcement return is from 3 days before to one day after the announcement date

of 0.02, and the Pearson correlation is -.04 and not statistically significant. After examining the data more closely, we note that there are extreme values of announcement returns to CEO departures: the highest 5-day cumulative abnormal return value is +45% and the lowest value is -31%. After removing extreme outliers (the top and bottom 1% of observations sorted by announcement abnormal returns), the Pearson correlation is -0.15 with a p-value of 0.06. These patterns suggest that the AKM approach yields measures of CEO quality that are consistent with market perceptions of departing CEOs.

5. Analysis

5.1 Effect of CEO quality on the probability that a firm-year will be subject to shareholder activism

First, we investigate the role of CEO quality on the likelihood that a firm-year is the target of any type of Schedule 13D filing. We start with all available firm-years in the Execucomp sample over the period 2000 to 2009. We then use the Audit Analytics database to identify firm-years which were subject to an activist Schedule 13D filing. We analyze the effect of CEO quality on the likelihood of activism using probit tests. The probit model uses lagged values of CEO quality, i.e.,:

$$\text{Pr}(\text{Activism})_{it} = a_0 + a_1 * \text{CEO Quality}_{i, t-1} + \text{control variables}$$

Table 3 shows the results of the probit tests. We obtain a significantly negative coefficient on the CEO quality variable, indicating that the likelihood of a firm-year being targeted by shareholder activists is lower for firms with higher quality CEOs. In terms of economic significance, the predicted probability of a firm being targeted by activists increases from 10% for a CEO at the lower quartile of the CEO quality measure to 13% for a CEO at the upper

quartile. The probit analysis also confirms earlier studies that targeted firms tend to be poor performers. For instance, they have lower ROA in the previous year and have also reported slower growth in sales. Targeted firms also tend to have CEOs with shorter tenure, and have greater insider ownership of shares in the firm. For robustness, we also conduct logit regressions, and the results continue to hold.

The results on firm size are opposite in direction to those in John and Klein (1995) who document that firms subject to shareholder proposals tend to be larger. One explanation could be that their study and ours examine different forms of shareholder activism (shareholder proposals and Schedule 13D filings, respectively). We further explore this apparent discrepancy and interact the size variable with a dummy variable equal to one if the activist is a hedge fund. The results (untabulated) suggest that hedge funds tend to target larger firms whereas non-hedge fund activists tend to target smaller firms. Recent research also suggests that hedge funds tend to target more profitable companies (Brav et al., 2008). When interacting the ROA variable with the hedge fund activist dummy, we find that the coefficient on the interaction term is positive and significant, consistent with those prior studies.

5.2 Effect of CEO quality on type of activism conditional on CEO's firm being targeted

Next, we investigate the role played by CEO quality in the activist's choice of tactics. We classify the activists' tactics into two main groups: control-related demands and non-control-related demands. Control-related demands explicitly indicate that the activists' objective is to replace management, whereas non-control-related demands focus on other specific aspects of the target, such as capital structure or dividend policies. For these tests, the unit of analysis is a firm-activist combination pair, representing an activist campaign. Note that the same firm may be

subject to more than one activist campaign, and each campaign may or may not involve a control-related demand. We analyze the effect of CEO quality on the likelihood of the activist's demand being control-related using probit tests. The probit model is run according to the following specification:

$$\text{Pr}(\text{Control-related demand} \mid \text{Activism})_{it} = a_0 + a_1 * \text{CEO Quality}_{i, t-1} + \text{control variables}$$

Table 4 shows that firms targeted by shareholder activists are more likely to face control-related demands if their CEOs are of lower quality. The negative coefficient of -0.057 in the probit model corresponds to an increase in the predicted probability of a demand being control-related from 6% for a CEO at the lower quartile of CEO quality to 8% for a CEO at the upper quartile. On the other hand, the percentage of shares in the targeted firm owned by the activist is only weakly associated with the type of demand made, but in the expected direction. Although other shareholders are not obligated to participate in the activist's campaign and bear the resulting costs, they stand to gain from any improvement in operational performance and ultimately in the value of the target firm. Given that shareholder activists face this free rider problem, it is not surprising that the greater their shareholding in the target firm, the more they stand to gain from a successful intervention, and the more likely they are to be more forceful in their demands and therefore make control-related demands.

The likelihood of an activist's demand being control-related is also higher for target firms with lower market-to-book ratios and where the CEO has been in place for a longer time. Thus, shareholder activism appears to address CEO entrenchment problems at targeted firms.

As for the previous tests, we repeat all the analyses using alternative logit regression specifications and our conclusions are unchanged.

5.3 Comparing hedge fund activists and non-hedge fund activists

In this section, we compare hedge fund activists to other activists. Recent research suggests that hedge funds are more successful than other activists (e.g., Brav et al., 2008, Klein and Zur, 2009). We obtain a list of activist hedge funds studied by Brav et al. (2008)⁴ and we create a dummy variable to indicate whether the activist in our sample was a hedge fund or not. We then run the probit regressions with interactions of CEO quality with this dummy variable, and of activist's shareholding percentage with the hedge fund dummy:

$$\begin{aligned} \text{Pr}(\text{Control-related demand} \mid \text{Activism})_{it} = & a_0 + a_1 * \text{CEO Quality}_{i, t-1} \\ & + a_2 * \text{CEO Quality}_{i, t-1} * \text{Dummy for hedge fund activist} + \text{control variables} \end{aligned}$$

Table 5 presents the results. The CEO quality variable continues to be significant and negative, however, the interaction term of CEO quality and hedge fund dummy, while negative in magnitude, is not statistically significant. The coefficient on activist's share ownership also continues to hold. The interaction of activist's share ownership and hedge fund dummy is weakly significant and of positive sign, suggesting that hedge funds are more likely to base their decisions on whether to make control-related demands on the percentage of shares they hold in the target firm. In terms of economic significance, the probability of a control-related demand being made goes from 13.1% at the lower quartile of activist's ownership to 14.2% at the upper quartile of activist's ownership if the activist is a hedge fund, compared to corresponding predicted probabilities of 6.3% and 7.1% for non-hedge fund activists. The results suggest that hedge funds' approaches to shareholder activism differ from those of other investor activists.

⁴ We thank Alon Brav for providing the list of activist hedge funds.

6. Conclusion

In this paper, we examine the role of CEO quality on shareholder activism. We study shareholder activism manifested through Schedule 13D filings with the SEC. We exploit disclosure requirements in item 4 of the filing which indicates the purpose for which the filer has entered into the transaction thus resulting in their accumulating more than 5% of the voting rights of the target company.

We introduce to the accounting literature a new method to estimate manager fixed effects across a large sample, based on Abowd, Kramarz, and Margolis (1999), and we use these manager fixed effects from firm performance regressions as proxies for managerial quality. We hypothesize and find evidence that shareholder activists are more likely to target firms with lower quality CEOs, and that the nature of the activists' demands also varies with the quality of the incumbent CEO at the target firm: Shareholder activists are more likely to make control-related demands when they perceive the CEO to be of lower quality. We also examine hedge fund activists separately. Despite being relatively new entrants to shareholder activism, hedge funds have nevertheless become an important force pushing for change in targeted companies. We do not find differences in hedge funds' sensitivity to CEO quality when making control-related demands, but we document that hedge funds are more likely than other activists to make control-related demands when they own greater percentages of the shares of the target firm.

This paper does not address a number of important questions that would be fruitful avenues for future research. In particular, the role of hedge funds as shareholder activists is not well understood. While several studies suggest that hedge funds are more effective than other activists in generating gains from activism, the sources of these gains are unclear. This paper's findings suggest that hedge funds make choices differently from other activist investors, but further

research is warranted to establish whether there are causal consequences in terms of long-term effects on the targeted companies arising from their different approaches to activism. It would also be interesting to investigate further questions about whether investment gains made by hedge funds derive from improvement in the target firms' fundamentals or, as has been alleged by several commentators, whether these gains are made at the expense of other stakeholders in the target firms, such as debtholders.

References

- Abowd, J. M., R. H. Creedy, and F. Kramarz, 2002. "Computing Person and Firm Effects Using Linked Longitudinal Employer-Employee Data," Cornell University working paper.
- Abowd, J. M., F. Kramarz, and D. N. Margolis, 1999. "High Wage Workers and High Wage Firms," *Econometrica* 67(2): 251-333.
- Bertrand, M. and A. Schoar, 2003. "Managing with Style: The Effect of Managers on Firm Policies," *Quarterly Journal of Economics* 118(4): 1169-1208.
- Brav, A., W. Jiang, R. S. Thomas, and F. Partnoy, 2008. "Hedge Fund Activism, Corporate Governance, and Firm Performance," *Journal of Finance* 63(4): 1729-1775.
- Carleton, W. T., J. M. Nelson, and M. S. Weisbach, 1998. "The Influence of Institutions on Corporate Governance through Private Negotiations: Evidence from TIAA-CREF," *Journal of Finance* 53(4): 1135-1362.
- Del Guercio, D. and J. Hawkins, 1999. "The Motivation and Impact of Pension Fund Activism," *Journal of Financial Economics* 52: 293-340.
- Fischer, P. A., J. D. Gramlich, B. P. Miller, and H. D. White, 2009. "Investor Perceptions of Board Performance: Evidence from Uncontested Director Elections," *Journal of Accounting and Economics* 48: 172-189.
- Francis, J., A. H. Huang, S. Rajgopal, and A. Y. Zang, 2008. "CEO Reputation and Earnings Quality," *Contemporary Accounting Research* 25(1): 109-147.
- Gillan, S., 1995. "Shareholder Activism through the Proxy Mechanism: an Empirical Investigation," dissertation, University of Texas at Austin.
- Gillan, S. and L. Starks, 1998. "A Survey of Shareholder Activism: Motivation and Empirical Evidence", *Contemporary Finance Digest* 2(3): 10-34.
- Gillan, S. and L. Starks, 2000. "Corporate Governance Proposals and Shareholder Activism: The Role of Institutional Investors", *Journal of Financial Economics* 57: 275-305.
- Gillan, S. and L. Starks, 2007. "The Evolution of Shareholder Activism in the United States", *Journal of Applied Corporate Finance* 19(1): 55-73.
- Graham, J. R., S. Li, and J. Qiu, 2009. "Managerial Attributes and Executive Compensation," Duke University working paper.
- Jensen, M. C. and W. H. Meckling, 1976. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics* 3(4): 305-360.

- Jensen, M. C. and R. S. Ruback, 1983. "The Market for Corporate Control: The Scientific Evidence," *Journal of Financial Economics* 11:5-50.
- John, K. and A. Klein, 1995. "Shareholder Proposals and Corporate Governance," New York University working paper.
- Johnson, M., S. Porter, and M. Shackell, 1997. "Stakeholder Pressure and the Structure of Executive Compensation," University of Michigan working paper.
- Kahn, C. and A. Winton, 1998. "Ownership Structure, Speculation, and Shareholder Intervention," *Journal of Finance* 53(1): 99-129.
- Karpoff, J., 2001. "The Impact of Shareholder Activism on Target Companies: A Survey of Empirical Findings," University of Washington working paper.
- Karpoff, J., P. Malatesta, and R. Walkling, 1996. "Corporate Governance and Shareholder Initiatives: Empirical Evidence," *Journal of Financial Economics* 42: 365-395.
- Klein, A. and E. Zur, 2009. "Entrepreneurial Shareholder Activism: Hedge Funds and Other Private Investors," *Journal of Finance* 64(1): 187-229.
- Nesbitt, S., 1994. "Long-Term Rewards From Shareholder Activism: A Study of the CalPERS Effect," *Journal of Applied Corporate Finance* 6, 75-80.
- Opler, T. and J. Sokobin, 1995. "Does Coordinated Institutional Activism Work? An Analysis of the Activities of the Council of Institutional Investors," Ohio State University and Southern Methodist University working paper.
- Romano, R., 2001. "Less is More: Making Shareholder Activism a Valued Mechanism of Corporate Governance," *Yale Journal on Regulation* 18(2): 174-252.
- Salanié, B., 2005. "The Economics of Contracts," The MIT Press, Massachusetts.
- Sias, R. and L. Starks, 1998. "Institutional Investors in Equity Markets," Washington State University working paper.
- Wahal, S., 1996. "Pension Fund Activism and Firm Performance," *Journal of Financial and Quantitative Analysis* 31:1-23.

Table 1: Summary Statistics

This table provides summary statistics for the sample of firm-years appearing on the Execucomp database between 2000 and 2009. *Activism* is an indicator variable that equals 1 if there was a Schedule 13D filing for the firm-year, 0 otherwise. *Size* is the natural logarithm of total assets in \$ millions. *Market-to-Book* is market value of equity measured three months after the end of the fiscal year divided by book value of equity at the end of the fiscal year. *ROA* is income before extraordinary items divided by lagged total assets. *Sales Growth* is the annual percentage of growth in sales. *Abnormal Returns* is the monthly return minus the corresponding market returns cumulated from the fourth month of the fiscal year till the third month of the next fiscal year. *CEO Tenure* is the number of years that the person has been CEO. *Insider Ownership* is the number of shares held by the CEO divided by the total number of shares outstanding. SIC codes are classified into the 12 Fama–French Industry Groups following the definition at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

Panel A: Firm-Year Characteristics						
	Obs.	Mean	Median	Std. Dev.	Min.	Max.
Activism=0						
Size	11782	7.67	7.51	1.72	3.93	12.17
Market-to-Book	11758	3.03	2.24	3.08	-6.34	19.44
ROA	11782	0.05	0.05	0.11	-0.48	0.34
Sales Growth	11782	0.13	0.09	0.27	-0.50	1.62
Abnormal Returns	11595	0.11	0.04	0.45	-0.82	2.14
CEO Tenure	11350	7.05	5.04	6.05	0.67	22
Insider Ownership	11396	0.02	0.03	0.05	0	0.33
Activism=1						
Size	1544	7.21	7.14	1.63	3.93	12.17
Market-to-Book	1541	2.59	1.91	3.39	-6.34	19.44
ROA	1544	0.02	0.04	0.12	-0.48	0.34
Sales Growth	1544	0.10	0.07	0.26	-0.50	1.62
Abnormal Returns	1462	0.03	-0.06	0.49	-0.82	2.14
CEO Tenure	1480	6.70	4.58	6.07	0.67	22
Insider Ownership	1483	0.03	0.04	0.06	0	0.33

Table 1: Summary Statistics (continued)

Panel B: Industry Distribution (Fama–French 12 Industry Groups)

	Activism=0		Activism=1	
	Freq	Pct	Freq	Pct
Consumer Non-Durables	694	5.89	116	7.51
Consumer Durables	322	2.73	61	3.95
Manufacturing	1,447	12.28	188	12.18
Energy	474	4.02	32	2.07
Chemicals and Allied Products	344	2.92	59	3.82
Business Equipment	2217	18.82	277	17.94
Telecommunication	203	1.72	61	3.95
Utilities	626	5.31	45	2.91
Shops	1450	12.31	213	13.80
Health	915	7.77	100	6.48
Money	1763	14.96	167	10.82
Other	1327	11.26	225	14.57
Total	11,782	100.00	1,544	100.00

Table 2: CEO Quality Measures

This table provides summary statistics of CEO personal effects estimated using the AKM method and based on different firm performance measures. *FE_OROA* is the CEO personal effects using firm's operating ROA as performance measure. Operating ROA is operating cash flow divided by lagged total assets. *FE_OROE* is the CEO personal effects using firm's operating ROE as performance measure. Operating ROE is operating cash flow divided by lagged shareholder's equity. *FE_ROA* is the CEO personal effects using firm's ROA as performance measure. ROA is income before extraordinary items divided by lagged total assets. *FE_ROE* is the CEO personal effects using firm's ROE as performance measure. ROE is income before extraordinary items divided by lagged shareholder's equity. *FE_Abret* is the CEO personal effects using firm's Abnormal Returns over the fiscal year as performance measure. Abnormal Returns over the fiscal year is the monthly return minus the corresponding market returns cumulated from the fourth month of the fiscal year till the third month of the next fiscal year. *CEO Quality* is the first principal component of the five individual CEO personal effects: *FE_OROA*, *FE_OROE*, *FE_ROA*, *FE_ROE*, and *FE_Abret*.

	Obs.	Mean	Median	Std. Dev.	Min	Max
FE_OROA	25695	0.000	-0.006	0.089	-0.467	0.601
FE_OROE	25695	0.000	-0.017	0.264	-1.692	2.516
FE_ROA	26723	0.000	0.000	0.092	-0.784	0.847
FE_ROE	26723	0.000	0.017	0.217	-1.748	1.295
FE_Abret	24731	0.000	-0.029	0.473	-1.894	1.906
CEO Quality	23703	0.000	0.013	1.669	-13.208	9.307

Table 3: Likelihood of Activism

This table shows results examining the role of CEO quality on the likelihood that a firm-year is the target of any type of Schedule 13D filing. The dependent variable (*Activism*) is an indicator variable that equals 1 if there was a Schedule 13D filing for the firm-year, 0 otherwise. *CEO Quality* is the first principal component of the five individual CEO personal effects: *FE_OROA*, *FE_OROE*, *FE_ROA*, *FE_ROE*, and *FE_Abret*. These CEO personal effects are measured by the AKM method based on different firm performance measures. *Size* is the natural logarithm of total assets in \$ millions. *Market-to-Book* is market value of equity measured three months after the end of the fiscal year divided by book value of equity at the end of the fiscal year. *ROA* is income before extraordinary items divided by lagged total assets. *Sales Growth* is the annual percentage of growth in sales. *Abnormal Returns* is the monthly return minus the corresponding market returns cumulated from the fourth month of the fiscal year till the third month of the next fiscal year. *CEO Tenure* is the number of years that the person has been CEO. *Insider Ownership* is the number of shares held by the CEO divided by the total number of shares outstanding. SIC codes are classified into the 12 Fama–French Industry Groups following the definition at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html. We run a probit regression with both industry and year fixed effects and cluster the standard errors at the firm level. Z-statistics are shown in parentheses. *, ** and *** indicate significance at two-tailed probability levels of 10%, 5%, and 1%, respectively. The constant term is not reported.

	Activism	
CEO Quality	-0.067***	(-3.15)
Size	-0.110***	(-6.16)
Market-to-Book	-0.010	(-1.11)
ROA	-0.801***	(-2.83)
Sales Growth	-0.248***	(-2.65)
Abnormal Returns	-0.012	(-0.27)
CEO Tenure	-0.012***	(-2.81)
Insider Ownership	0.019***	(3.82)
Industry Effects	Yes	
Year Effects	Yes	
Observations	9126	
Pseudo R ²	0.101	

Table 4: Likelihood of Control-Related Demand Being Made by the Activist

This table shows results examining the effect of CEO quality on type of activism conditional on CEO's firm being targeted. The dependent variable (*Control*) is an indicator variable that equals 1 if the activist's demand is control-related, 0 otherwise. *CEO Quality* is the first principal component of the five individual CEO personal effects: *FE_OROA*, *FE_OROE*, *FE_ROA*, *FE_ROE*, and *FE_Abret*. These CEO personal effects are measured by the AKM method based on different firm performance measures. *Activist Ownership* is the number of shares held by the activist divided by the total number of shares outstanding. *Size* is the natural logarithm of total assets in \$ millions. *Market-to-Book* is market value of equity measured three months after the end of the fiscal year divided by book value of equity at the end of the fiscal year. *CEO Tenure* is the number of years that the person has been CEO. *Insider Ownership* is the number of shares held by the CEO divided by the total number of shares outstanding. SIC codes are classified into the 12 Fama–French Industry Groups following the definition at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html. We run a probit regression with both industry and year fixed effects and cluster the standard errors at the activist level. Z-statistics are in parentheses. *, ** and *** indicate significance at two-tailed probability levels of 10%, 5%, and 1%, respectively. The constant term is not reported.

	Control	
CEO Quality	-0.057**	(-2.48)
Activist Ownership	0.006*	(1.86)
Size	-0.036	(-1.17)
Market-to-Book	-0.020**	(-2.09)
CEO Tenure	0.020***	(2.83)
Insider Ownership	-0.012	(-1.47)
Industry Effects	Yes	
Year Effects	Yes	
Observations	2153	
Pseudo R^2	0.057	

Table 5: Hedge Fund Activists and Control-Related Demands

This table shows results examining the interaction effect of CEO quality and hedge fund activist on type of activism conditional on CEO's firm being targeted. The dependent variable (*Control*) is an indicator variable that equals 1 if the activist's demand is control-related, 0 otherwise. *CEO Quality* is the first principal component of the five individual CEO personal effects: *FE_OROA*, *FE_OROE*, *FE_ROA*, *FE_ROE*, and *FE_Abret*. These CEO personal effects are measured by the AKM method based on different firm performance measures. *Activist Ownership* is the number of shares held by the activist divided by the total number of shares outstanding. *Size* is the natural logarithm of total assets in \$ millions. *Market-to-Book* is market value of equity measured three months after the end of the fiscal year divided by book value of equity at the end of the fiscal year. *CEO Tenure* is the number of years that the person has been CEO. *Insider Ownership* is the number of shares held by the CEO divided by the total number of shares outstanding. *Hedge Fund* is an indicator variable that equals 1 if the activist is a hedge fund, 0 otherwise. SIC codes are classified into the 12 Fama–French Industry Groups following the definition at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html. We run a probit regression with both industry and year fixed effects and cluster the standard errors at the activist level. Z-statistics are in parentheses. *, ** and *** indicate significance at two-tailed probability levels of 10%, 5%, and 1%, respectively. The constant term is not reported.

Table 5: Hedge Fund Activists and Control-Related Demands (continued)

	Control	
CEO Quality	-0.052**	(-2.29)
CEO Quality*Hedge Fund	-0.014	(-0.20)
Activist Ownership	0.006**	(2.11)
Activist Ownership*Hedge Fund	0.057*	(1.82)
Hedge Fund	0.026	(0.09)
Size	-0.035	(-1.12)
Market-to-Book	-0.021**	(-2.17)
CEO Tenure	0.019***	(2.66)
Insider Ownership	-0.010	(-1.32)
Industry Effects	Yes	
Year Effects	Yes	
Observations	2153	
Pseudo R^2	0.069	