Activist directors: Determinants and consequences

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Abstract

This paper examines the determinants and consequences of hedge fund activism with a focus on activist directors, i.e., those directors appointed in response to demands by activists. Using a sample of 1,969 activism events over the period 2004–2012, we identify 824 activist directors. We find that activists are more likely to gain board seats at smaller firms and those with weaker stock price performance. Activists remain as shareholders longer when they have board seats, with holding periods consistent with conventional notions of "long-term" institutional investors. As in prior research, we find positive announcement-period returns of around 4–5% when a firm is targeted by activists, and a 2% increase in return on assets over the subsequent one to five years. We find that activist directors are associated with significant strategic and operational actions by firms. We find evidence of increased divestiture, decreased acquisition activity, higher probability of being acquired, lower cash balances, higher payout, greater leverage, higher CEO turnover, lower CEO compensation, and reduced investment. With the exception of the probability of being acquired, these estimated effects are generally greater when activists obtain board representation, consistent with board representation being an important mechanism for bringing about the kinds of changes that activists often demand.

1. Introduction

Hedge fund activism has become a significant phenomenon in recent years. This kind of activism differs from more traditional forms of shareholder activism, such as shareholder proposals filed under SEC Rule 14a-8, both in the nature of the activists, as well as in the scale and type of intervention. More traditional activism has often been initiated by pension funds and individual activists (sometimes called "gadflies") with relatively weaker incentives to generate higher returns by influencing the management of a firm. In contrast, as pointed out by Brav, Jiang and Kim (2010), hedge funds have stronger incentives to produce higher returns, fewer conflicts of interest, and "much more flexibility to intervene in the invested companies." Brav et al. (2010, 187). These differences appear to have led to hedge fund activists making a broader range of demands and adopting a wider range of tactics to have those demands met than traditional shareholder activists.

One approach used by hedge fund activists to influence companies in which they have invested, is to seek to join the board of directors of these companies. But this is not costless. First, there are direct costs associated with getting on the board, which Gantchev (2013) finds to be significant. Second, by joining the board the activists (or their nominees) stake their reputations by taking on a role in implementing their demands. Third, board positions also come with fiduciary responsibilities towards all shareholders. Given the additional cost and commitment required of activists that get board representation—and the tendency for such investors to take "long-term" positions when they do so—studying the actions of firms with such directors can provide new insight into the motives and effects of hedge fund activists.

Hedge fund activism is not without its critics. Some have argued that hedge fund activism is potentially harmful due to the possibility that the activist interests are "not necessarily aligned with the interests of long-term investors" (Strine Jr 2014). Given the potentially greater influence that activists have when they get in the boardroom, by focusing on such cases, our paper aims to deepen our understanding of the effects of hedge fund activism.

Our paper addresses a number of questions related to activist directors. First, we focus on the circumstances surrounding the appointment of activist directors to the board. When do activists seek board representation? And when are they successful in obtaining it? How do activist directors differ from other directors? Second, what impact do activists have when they get on the board? Does their impact differ from that of other cases of activism? Finally, is there evidence of short-termism?

Our sample of 1,969 activism events comprises all activism events targeted at US companies from 2004 to 2012.[1] In each case, we code whether the activist made demands for board representation and whether the activist obtained seats on the board. We identify 824 directors who were appointed to the board in response to activist demands. With regard to the first set of questions, we find, consistent with prior research, that activists tend to target firms with more institutional shareholders, smaller market capitalization, and worse recent stock performance. Additionally, conditional on being targeted by activists, we find that activists are more likely to demand board representation when the firm has less leverage and is smaller. With regard to performance, we find evidence that board representation is demanded at firms with worse stock market performance, but higher operating performance (return on assets); this is consistent with board representation being sought for objectives other than reversing poor operating performance. But we also find that firms with older directors, with directors with longer tenure, and with staggered boards are more likely to be targeted. Conditional on a firm being targeted for activism, we find little that explains when activists get board seats.

We describe the characteristics of activist directors and compare them with new directors appointed at other firms.[2] We find that activist director characteristics differ according to whether the director is affiliated with activists or not. Activist-affiliated directors (i.e., employees or principals of members of the activist group) are about 9 years younger than other new directors and much less frequently female. Activist directors are appointed to key committees just

[1] We additionally require that the target firm is matched to CRSP, is not an investment trust or mutual fund, and that the event is not a control contests involving another corporation.

[2] In prior research, we show that activism is often associated with departure of incumbent directors (Gow, Srinivasan and Shin 2014).

as often as other new directors, suggesting that they quickly move into key board positions. About 42 percent (346 of 824) of activist directors are directly employed at the hedge fund activist; the rest (478) appear to be unaffiliated directly to the hedge fund despite being sponsored by the activist for the board position.

Using methods that account for censoring, we find that activists hold stock in a target firm for a median of about 2.4 years when their demands do not include board representation, and that this increases to 3 years in cases where the activists obtain board representation. A three-year holding period implies that these activists can be considered as "long-term" investors.[3]

We then examine a number of possible consequences of activist directors for the firms whose boards they join. Consistent with prior research, we find significant risk-adjusted returns around the announcement of activism, with returns from -20 to $+20$ trading days around the announcement ranging from 3.9% to 4.9%. We find no evidence of a market reaction at the appointment of activist directors, perhaps reflecting the difficulty of identifying precisely when the market learns about activist board appointments. Looking beyond positive announcement-period returns, operating performance seems to improve, with return on assets increasing by more than 2% over the five years after activism. In terms of underlying actions, we find evidence of increased divestiture, decreased acquisition activity, higher probability of being acquired, lower cash balances, higher payout, greater leverage, higher CEO turnover, lower CEO compensation, and lower capital expenditure, research and development, and advertising. With the exception of the probability of being acquired, the estimated effects are generally greater when activists obtain board representation (though not always statistically so), consistent with board representation being an important mechanism for bringing about the kinds of changes that activists often demand.

The primary goal of our paper is to contribute to the understanding of the increasingly important phenomenon of hedge fund activism. Overall, we find that activist directors are associated with significant strategic and operational actions by firms. While the observational data avail-

[3] As discussed in Section 5, pension funds have a typical duration of 2 years and investor relation professionals consider a horizon of more than 2.8 years to warrant the label "long-term."

able to us do not permit unequivocal causal inferences, the associations we document appear consistent with hedge fund activists having an impact, especially when they obtain board representation. The breadth and depth of these apparent effects suggests that, when activists get board representation, their impact is not simply about the "ability of activists to force target firms into a takeover" (Greenwood and Schor 2009, 362). However, even if given a causal interpretation, it is unclear whether all of these effects are beneficial to shareholders. For instance, while our evidence is consistent with activist directors playing a significant role in curbing expenditures on capital, research and development (R&D), and advertising, it is unclear whether this reflects curtailment of excessive investments or, as critics of activists might suggest, underinvestment with a focus on the short term. However, the relatively long-term holding period in cases where activists become directors, positive stock market effect, and long-term operating performance improvements seem inconsistent with activist directors being short-termist.

The rest of the paper proceeds as follows. Section 2 describes features of shareholder activism campaigns and related literature. Section 3 describes our data and descriptive statistics. Section 4 examines the circumstances in which activists seek and obtain board representation. Section 5 examines the association with activist board representation and activist holding periods. Section 6 examines stock returns for activism targets with and without board-related demands and for firm where activists get board representation. Section 7 examines the association between activist directors and firm outcomes, such as operating performance, investment behavior and CEO incentives. Section 8 concludes.

2. Institutional background and prior literature

In this section we discuss institutional details and related research. We first provide some illustrative examples of activist engagements with companies to provide a flavor of the wide variety of tactics and strategies employed by activists, the types of demands made, and outcomes that are associated with activism. These examples show how seeking directorships in target firms is an important element of the activist approach.

2.1. *Illustrative cases*

In some cases, activists make pointed demands that yield swift reaction from the target firms. For example, on June 6, 2012, Becker Drapkin Management LP filed a 13D reporting a 5% stake in Tuesday Morning Corporation. In a letter to the board, Becker Drapkin complained that the company's performance had suffered since Kathleen Mason became CEO in 2000, and that shareholder representation on the board was necessary to instill accountability. Later that same day, the company announced the departure of Kathleen Mason as president and CEO and that it had commenced a search for a new CEO. On June 26, 2012, Becker Drapkin disclosed that it was engaged in discussions with the company regarding board representation. On July 2, 2012, the company announced the appointment of two representatives of Becker Drapkin to the board, that it would work with Becker Drapkin to add two additional independent directors, and Becker Drapkin agreed to standstill provisions lasting two years.[4]

In other cases, board demands emerge only after continued poor performance and resistance to the activist's demands. For example, on June 28, 2007, Barington Capital Group L.P. sent a letter to the Chairman and CEO of Dillard's Inc. requesting a meeting to discuss measures to achieve better financial performance and operational efficiency. After this request was declined, on August 30, 2007, Barington sent yet another letter to the board expressing disappointment with the company's poor operating performance and poor corporate governance. On January 29, 2008, Barington jointly filed a 13D with the Clinton Group and RJG Capital Management, LLC, asking for a review of executive pay and measures to improve performance and enhance corporate governance. The dissident group gave formal notice to the company of its intent to nominate directors for the upcoming election on March 19, 2008. On April 1, 2008, Dillard's settled with Barington and other dissidents and nominated two candidates proposed by the dissident group for election to the board of directors.

Another example is Blockbuster Inc. which was the target of prominent activist Icahn Associates Corp. This event started on April 7, 2005, when Carl Icahn disclosed that he had

[4]Material in this subsection draws primarily from synopses provided by StreetEvents.

requested Blockbuster extend the deadline for nominating directors for election at the company's 2005 annual meeting. The company rejected the request and on April 8, 2005, Icahn sent formal notice that he was nominating himself and two others for election to Blockbuster's board. In his communications with stockholders, Icahn criticized Blockbuster's compensation practices and management's business plan and stated that if elected his nominees would bring discipline to the "spending spree." Icahn also stated that he believed the company should put itself up for sale. At the annual meeting, Icahn received 63% of the votes cast and his two other nominees received 68% of the votes cast.

Following these illustrative examples we examine several outcomes in activist director companies. These include firm performance outcomes measured using stock returns and accounting performance; governance outcomes such as CEO turnover and CEO compensation; strategic outcomes such as divestitures and acquisitions; financial policy outcomes such as leverage and payouts; and investment policy decisions such as capital expenditures, research and development, and advertising. While we examine these outcomes in the context of activist directors, prior papers have examined some of these outcomes in the context of hedge fund activism in general. We discuss this research next.

2.2. Causes and consequences of hedge fund activism

The phenomenon of shareholder activism that we examine is driven in large part by activist hedge funds over the last decade. Brav, Jiang, Partnoy and Thomas (2008) identifies structural benefits enjoyed by hedge funds—such as fewer regulations and better incentives—that have allowed such funds to be more active in pursuing governance changes in companies than mutual fund or pension managers. Like prior research (Brav et al. 2008), the ultimate source for much of the data we use to identify activism events comes from 13D filings with the SEC. According to the SEC, "when a person or group of persons acquires beneficial ownership of more than 5% of a voting class of a company's equity securities registered under Section 12 of the Securities Exchange Act of 1934, they are required to file a Schedule 13D with the SEC."[5] This

[5] `https://www.sec.gov/answers/sched13.htm`, accessed 2014-05-26.

filing should be made within 10 days of the trade date of the securities transaction triggering the requirement to file. If a shareholder has not "acquired the securities with any purpose, or with the effect of, changing or influencing the control of the issuer," then a more abbreviated filing on Form 13G may be used.[6] As hedge fund activists when launching a campaign look to change or influence the target and quite often exceed the 5% threshold, 13D filings are a typical concomitant of such campaigns.

In terms of firm characteristics that attract activist hedge fund attention, prior research suggests that hedge fund activists typically target smaller firms, value-oriented firms (low market-to-book), and firms with sound operating cash flows but low sales growth, leverage and dividend payouts (Brav et al. 2010). This evidence motivates us to use firm-level covariates to control for factors causing firms to be targeted by activist investors. Gantchev (2013) models activism as involving a sequence of decisions beginning with broad activist demands, followed by demands for board representation, then threatened, then actual, proxy contests. Gantchev (2013) estimates costs associated with these stages using a system of recursive logistic regressions and finds that such costs reduce activist returns by more than two-thirds, but net returns are not negative. Our paper complements Gantchev (2013) by providing evidence on the kinds of actions facilitated by escalation of activism to the level of obtaining board representation.

In terms of consequences, prior research (see Brav et al. 2008, Klein and Zur 2009, Greenwood and Schor 2009) finds a positive stock price reaction of about five percent to the announcement of activist campaigns, typically centered around the 13D announcement dates. Greenwood and Schor (2009) find that the positive market reaction arises from cases where the activists are able to force the target firms to be sold following the activist campaign. They find no significant market reaction at the 13D filing date for firms that are not acquired ex-post. Klein and Zur (2009) suggests that one source of shareholder gains is the transfer of wealth from debtholders to stockholders. This likely occurs because activists demand reduction in cash holdings and increase in leverage in target firms. Brav et al. (2008) and Bebchuk et al. (2013) also find

[6] `http://www.sec.gov/divisions/corpfin/guidance/reg13d-interp.htm`, accessed 2014-05-26. Also see SEC Rule 13d-1(c)(1).

that operating performance as measured by return on assets is higher in the three to five year period following the launch of activism. The mechanisms that drive possible performance improvements in firms that continue to be independent have not been explored much in research with the exception of Brav et al. (2013). Using plant-level information from the US Census Bureau they find that the average target firm improves production efficiency in the three years after the activist engagement. Employees exhibit increase in labor productivity but a stagnation in wages. In related research, Brav et al. (2014) find that targets of hedge fund activism exhibit reduction in research and development spending but an increase in innovation output suggesting an improvement in innovation efficiency. Our paper complements this research by identifying a role for activist directors in the changes brought about by activism thereby identifying a mechanism by which activists carry out the changes they demand.

2.3. Other shareholder activism

While hedge fund activism is a relatively recent phenomenon, a body of prior research has examined the effect of shareholder activism by pension and labor union funds. Early research focused on the activities of pension plans, such as CalPERS (Smith 1996) and TIAA-CREF (Carleton, Nelson and Weisbach 1998). While pension plans have typically focused on governance changes generally proposed as part of 14a-8 shareholder proposals, hedge funds often seek to make more wide-ranging changes to the firms they target. One conclusion from research on pension plan activism is that activist shareholders and firms often reach agreement without a formal 14a-8 proposal being voted upon—for instance, Carleton et al. (1998) finds that TIAA-CREF is able to reach agreements with targeted companies 95 percent of the time and in over 70 percent of cases without a shareholder vote on the proposal. In the UK, Becht, Franks, Mayer and Rossi (2010) studies a mutual fund (Hermes) and find that this fund acts—predominantly through private interventions. This is consistent with our finding that activists often obtain board representation without a formal proxy fight.

2.4. *Director elections and proxy fights*

The routine mechanism for someone to become a director is to be nominated for election by the incumbent board. Unless invited onto the board, the only way for activist shareholders to obtain board representation is to initiate a proxy solicitation campaign in a contested election. Contested elections are contests between the incumbent set of directors put forward by the company and a dissident slate nominated by an outside investor. Dodd and Warner (1983) provides early evidence consistent with proxy fights creating value for shareholders. They find a statistically significant positive share price effect associated with a proxy contest regardless of whether the contest was successful or not. However, a number of studies find limits to the effectiveness of proxy contests. While Mulherin and Poulsen (1998) find evidence "that proxy contests create value" using a sample of 270 proxy contests covering 1979–1994, but they also find that "the bulk of the wealth gains stemming from firms that are acquired." Pound (1988) identifies cost and management incumbency as impediments to successful proxy fights. More recently, Bebchuk (2007) claims that shareholders' power to obtain board representation is largely a "myth" due to free-rider issues associated with investing in costly proxy contents. While activist directors often join boards as a result of a proxy contest, the majority of activist directors in our sample join through negotiation with the incumbent board. We contribute to this debate by providing evidence consistent with an important class of investors being able to get board representation even absent a contested election.

2.5. *Specialist outside directors*

Our paper is also related to prior literature that examines the impact of specialist directors, such as financial experts, since activist directors are often associated with hedge funds or are unaffiliated directors selected for particular expertise. DeFond, Hann, and Hu (2005) finds a positive stock price reaction when directors with accounting expertise are appointed to the audit committee. Güner, Malmendier and Tate (2008) finds evidence consistent with bankers influencing financing and investing decisions, but perhaps in ways that reflect conflicts of interests. Huang,

Jiang, Lie and Yang (2014) finds that firms with investment bankers on their boards make more acquisitions and experience higher takeover announcement returns and pay lower premiums than other firms.

Overall, this literature shows that directors bring specific types of expertise to boards and firms appear to use this expertise. One difference of our paper from this research stream is that we examine a class of directors that are not voluntarily invited by the boards that they join. Even in cases that do not involve a proxy fight, activist directors join boards as a result of a negotiated outcome between the activist and the incumbent board and management. Given that activist directors join the board for a specific activist purpose, their role on the board is likely to be different from that of other directors.

3. Data and descriptive statistics

3.1. Activism events

Our data on activism events come from FactSet's SharkWatch database, which contains information on shareholder activism events, primarily in the United States and generally involving hedge fund activists. From SharkWatch, we collect information on all publicly disclosed activism events that commenced between January 1, 2004 and December 31, 2012 where the target firm is matched to CRSP, is incorporated in the United States, and is not an investment trust or mutual fund, and where the event is not a control contest involving another corporation. This provides us with 1,969 activism events. Note that our sample does not include activism consisting only of shareholder proposals submitted under Rule 14a-8. Table 1 provides details of the number of activism events over our sample period. We divide the 1,969 activism events into three mutually exclusive categories: *Activist director* events in which an activist won board representation (424 events), *Board demand* events in which the activist sought, but did not win, board seats (456 events), and *Non-board activism* events in which activists targeted the firm, but board representation was neither sought nor obtained (1,089 events).

3.2. *Activist directors*

For each activism event in which SharkWatch indicated that the activist obtained board representation, we used proxy statements (DEF 14A) and current filings (Form 8-K, Item 5.02) to collect names of the directors who were appointed as a result of the activist campaign. We also collected appointment dates and basic biographical details. We then examined subsequent SEC filings to determine whether and, if so, when the director subsequently left the board during our sample period. We classified directors into two categories. The *Affiliated* category comprises directors that we identified as employees or principals of the members of the activist group, and *Unaffiliated* covers the rest. Table 2 provides the yearly distribution of *Affiliated* and *Unaffiliated* directors. Of 824 activist directors appointed as the result of activism campaigns in our sample, 346 are *Affiliated* and 478 are *Unaffiliated*. For illustration, in the Blockbuster case discussed in Section 2, Carl Icahn is clearly an affiliated director, while the other two nominees, "veteran entertainment industry executives" Edward Bleier and Strauss Zelnick, are unaffiliated.

3.3. *Activist holdings*

To identify activist holdings of the stock of targeted firms, we use data from WhaleWisdom, which provides comprehensive coverage of SEC Form 13F and 13F/A filings related to holdings in at quarter-ends from 2001 onward.[7] These filings are required on a quarterly basis for investors having more than $100 million in assets under management. We find that 1,394 (70.87%) of the activism events in our sample are associated with activist that files on Form 13F.

[7] See `www.whalewisdom.com`.

3.4. Director characteristics

Our director-level data come from Equilar.[8] The Equilar database comprises directors of every company that files both an annual report and an annual proxy statement (SEC Forms 10-K and DEF 14A, respectively). For each director on a company's board, Equilar provides director-level information such as committee memberships, gender, age, equity holding, etc. Panel A of Table 3 presents director characteristics for each classification of directors. While we have data on 358,193 directors, the more appropriate comparison group for activist directors, for whom we present data in their first year on the board, is their fellow new directors. We identify 28,440 directors as new directors. We identify 678 activist directors (of our full sample of 824) on Equilar; we find that some activist directors leave within a year (e.g., if the firm is acquired) and Equilar appears not to capture most such directors, as they often do not appear in the proxy statement (DEF 14A), which is the primary source for Equilar's data. Note that these 678 directors represent almost all of the 710 new directors at these firms, suggesting that we successfully identify activist directors when they exist.

In general, the unaffiliated directors are similar to other new directors on most dimensions except that there is a noticeably smaller number who are female (0.04 versus 0.12). However, affiliated directors (i.e., employees or principals of members of the activist group) appear different: they are younger (45 years of age), rarely female (0.01) and not often designated financial experts (0.05). While activist directors appear more likely to become members of the compensation committee in their first year of service (0.66) versus (0.60 for directors not associated with activism campaigns), they are less frequently added to the audit committee (0.29), especially affiliated directors (0.24), than non-activism directors (0.33), or designated as "audit committee financial experts" (0.07 for activist directors versus 0.14 for non-activism directors).[9]

Panel B of Table 3 presents some data on the tenure of our activist directors. About 35% of both affiliated and unaffiliated activist directors remain on their respective boards at the time

[8] Equilar is an executive compensation and corporate governance data firm.

[9] SEC rules require a company to disclose whether it has at least one "audit committee financial expert" serving on its audit committee, and if so, the name of the expert and whether the expert is independent of management. See `http://www.sec.gov/rules/final/33-8177.htm`.

of our data collection (December 2013). Affiliated (unaffiliated) directors who have left their respective boards, did so after being on the board for 695 (752) days on average (i.e., they remained on the board for about two years). In many cases, their departure was associated with the company being acquired, going private, or going bankrupt. Affiliated and unaffiliated activist directors who are still on their respective boards in December 2013 have an average tenure of nearly four years. There is no apparent difference between affiliated and unaffiliated directors in these tenure statistics.

3.5. Other data

Data on divestitures and acquisitions as used in Table 8 come from Capital IQ and CRSP. In Tables 4 and 8–11, we use a number of controls drawn from several sources. We calculate *Analyst*, the number of analyst forecasts for each firm-year using data from IBES. We derive the proportion of the firm's outstanding stock held by institutions (*Institutional*) using data from WhaleWisdom. Data on stock market performance come from CRSP and Ken French's website. The following variables come from Compustat: *Market value*, the value of market capitalization; *Book-to-market*, market capitalization divided by the book value of common equity; *Leverage*, sum of long-term debt and current liabilities divided by sum of long-term debt, current liabilities and the book value of common equity; *Payout*, the ratio of the sum of dividends and repurchases divided to EBITDA); *ROA*, EBITDA divided by the lagged total assets; *Sales growth*, Sales divided by lagged sales. From Equilar, we get the following variables: *Num. directors*, the number of directors on the board; *Outside percent*, the percentage of outside directors; *Age*, the average age of directors on the board; *Tenure*, the average years of directorship on the board; and, *Staggered board*, an indicator for a classified board.

4. Activist target selection

Prior research suggests that hedge fund activists typically target smaller firms, value-oriented firms (low market-to-book), and firms with sound operating cash flows but low sales growth,

leverage and dividend payouts (Brav, Jiang and Kim 2010). We extend this analysis to our sample and additionally examine whether the factors that are associated with activists seeking, or getting, board representation differ from those associated with activism in general.

We first examine the circumstances in which firms find themselves as the targets of activists. Panel A of Table 4 reports the results of logistic regressions where the dependent variables are indicators for activism and the sample is the universe of firm-years meeting our sample requirements for the years 2004 to 2012. The first column looks at the probability of being targeted for any kind of activism event, the second column examines the determinants of an activist making demands for board representation, and the third column examines the determinants of an activist getting representation on a firm's board.[10] Consistent with prior research (Brav et al. 2008), we find that size-adjusted returns and growth are negatively associated with being targeted by activists, consistent with activists targeting poorly performing firms. Also, consistent with prior research, we find that smaller companies are more likely to be targeted. We also find in all specifications that activists are more likely to target firms with more directors, consistent with the number of directors being a proxy for poor governance and activists targeting firms with worse governance (Yermack 1996). However, the significantly positive coefficient on *Outside percent* is difficult to explain in the same way, as this measure is suggested by some to be a proxy for *good* governance (Bhagat and Bolton 2008). We also see evidence that activists are more likely to target firms with greater portion of their shares held by institutional investors, consistent with these investors being more open to supporting activists.

In Panel B of Table 4, we focus on activism events in examining two questions. First, given that a firm has been targeted by activists, what are the factors that are associated with the activist demanding board seats? Second, given that an activist has demanded board seats, what factors are associated with the activist's demands being met? We find evidence that conditional on selecting a firm as a target, an activist is more likely to demand board representation when the firm is smaller, and when leverage is lower. Again activists are more likely to de-

[10]Note that, in contrast to our other analyses, for the purpose of this table, our activism indicators are *not* mutually exclusive. That is, *Activism** includes cases in any of the categories *Activism*, *Board demand*, and *Activist director*. *Board demand* includes cases of *Activist director* as well as cases where the board demands are not succesful

mand board representation at firms with more directors, consistent with activists being more inclined to seek board representation when targeting firms with worse governance (Yermack 1996). We also see evidence that activists are more likely both to seek and to get board representation when targeting firms with greater portion of their shares held by institutional investors, consistent with these investors being more open to supporting activist candidates. We see no evidence of staggered boards preventing activists from getting board representation (coef. -0.173, $p > 0.1$), suggesting that the effect observed in column (3) of Panel A may arise due to deterrence of activism entirely. There is little or no relation between prior poor performance and seeking or obtaining board representation. This may be a measurement timing issue, as the Barington/Dillard's example discussed in Section 2 suggests that poor performance *after* the commencement of the activism campaign may be more relevant for determining whether an activist seeks or obtains board representation conditional on targeting a firm; our covariates relate to pre-activism measures of performance.

5. Activist holding periods

We next examine whether the category of activism is associated with the length of time the activist holds the stock. We use 13F filing data to determine when an activist acquires and disposes of stock. Because 13F filings are quarterly, our measures of holding period (expressed in days) have some measurement error. We examine three holding periods: *Entry–Exit*, which runs from the first date on which the stock was held to the last date the stock was held; *Annc–Exit*, which runs from the date on which activism was first announced (typically with a 13D filing) to exit; and *Appt–exit*, which runs from the first appointment of an activist director through to the date of exit.[11]

One issue with measuring holding periods is that censoring is significant in our sample. This occurs because many of the activism campaigns in our sample are recent and the activist continues to hold stock at the time we measure the holding period. Thus to estimate the association

[11] We measure the exit date as the record date of the first 13F filing in which the stock is no longer part of the activist's portfolio.

between activism category and holding period, we use censored median regression (Portnoy 2003). Table 5 presents these results. We find that, relative to *Activism* without board demands, *Board demand* events have holding periods that are one quarter shorter, though statistical significance is weak. Turning to *Activist director* cases, we find a highly significant incremental holding period of 236 days from entry to exit and 352 days from announcement of activism to exit.[12] While the estimated median holding period for *Activism* events is 860 days (i.e., about 2.4 years), the equivalent for *Activist director* events is 1,095 days (i.e., about 3 years). From announcement to exit, *Activist director* activists hold the stock for 798 days (2.2 years) and for 601 days (1.6 years) from first appointment of an activist director.

To put these statistics into perspective, it is helpful to consider some benchmarks. Cremers et al. (2013) examine the holding period of various kinds of investors. They examine four categories of investors (banks, pension funds, investment companies, and others) and find that pension funds have the longest duration at 2 years. They also examine the holdings of some institutional investors and provide only one example of an investor with a duration greater than three years, namely the well-known long-term investor, Berkshire Hathaway, which had a duration of between 3 and 4 years during our sample period. Another reference point is provided by the Beyer et al. (2014) survey of investor relation professionals, who consider 2.8 years as a cutoff beyond which investors can be considered "long-term" investors. These benchmarks suggest the three-year holding period of activists getting representation on boards provides them with a relatively long investment horizon.

6. Stock returns

We follow prior research in examining the impact of activism on stock returns, but examine whether stock market reactions to activism differ by the three categories of activism: *Activism*, *Board demand*, and *Activist director*.

We begin by looking at short-window returns around the announcement of activism. Because

[12]This is consistent with *Activist director* having a shorter period from entry to announcement of activism.

prior research has documented a run-up in the 10 days prior to the public announcement of activism and some drift thereafter, we follow Brav et al. (2008) in using a window beginning 20 days before and ending 20 days after the announcement of activism. For short-window tests, we consider raw, market-adjusted, and size-adjusted returns (R, R^{MKT}, and R^{SZ}, respectively). Results are reported in Panel A of Table 6. Consistent with prior research, (Brav et al. 2008), we find significant announcement-period returns for activism events, with market-adjusted returns ranging from 3.9% to 4.9% for the three categories, and with no statistically significant differences across the categories.[13] We get very similar results when we consider returns windows such as $(-10, +10)$ and $(-1, +1)$ days.

In Panel B of Table 6, we examine the market reaction around the appointment of activist director. We do not find any significant market reaction around this date, perhaps due to the difficulty in measuring exactly when the market learned about the appointment in many cases. Because we did not find any reaction around this date, we partition *Activism director* cases into large and small investments using a cut-off of $100 million, denoted *Invest* $<$ *$100m* and *Invest* $>$ *$100m*, respectively. This allows for the possibility that the market may react more to activism when the activist's stake is higher. However, the results in Panel B suggest no reaction in either partition.

In Panels C and D of Table 6, we examine returns over the 12-month and 36-month periods from the announcement of activism. Due to the greater importance of controlling for risk over longer periods, we also consider Fama-French abnormal returns, using both equal-weighted and value-weighted returns for the associated benchmark portfolios. While we see some large, statistically significant returns in raw returns for three of the four categories, these generally disappear once risk is taken into account. There is relatively weak evidence of positive returns (at the 10% level from t to $t+12$ months) for activism not involving activist directors, but returns for both activist director categories are statistically indistinguishable from zero.

One issue with interpreting the returns for the activist director cases is that the director ap-

[13]Note that at the time of the announcement of activism, the market would not know which category the activism would ultimately fall into.

pointments generally occur well after the announcement of activism events. Thus we consider longer-window returns for activist director cases beginning from the appointment of these directors to the board. Results are reported in Panels E (12-month returns) and F (36-month returns) of Table 6. While we do not find positive risk-adjusted returns over either period for smaller investments (i.e., *Invest* $<$ *\$100m*), we do find evidence over the longer period for larger investments (i.e., *Invest* $>$ *\$100m*): estimated excess returns relative to a Fama-French value-weighted portfolio are 25.1% over the three-year window ($p < 0.05$).

7. Firm outcomes

While stock market reaction provides a useful measure for evaluating the impact of activists, it is not without issues. First, we need to identify the time at which the market learned about the prospect of activist involvement. Second, we need the market to estimate the impact of activism in an unbiased manner and impound this estimate into price promptly. Finally, even if these difficulties are addressed, the stock market reaction does not provide insight into *how* activists affect corporate policy and firm value.

In this section, we examine the impact of activists, especially activist directors, on a number of outcomes, with a focus on outcomes that are commonly sought by activists.

7.1. Profitability

We first examine the association between activism and operating performance. Our empirical approach follows that of Bebchuk et al. (2013), which is a modification of the approach used in Brav et al. (2008). Thus we measure operating performance as return on assets calculated as earnings before interest, taxes, depreciation, and amortization (Compustat item `oibdp`) divided by lagged total assets (`at`). For each firm-year t, we construct indicators for activism in year $t + s$ where $s \in \{-3, \ldots, +5\}$, where, for example, $\textit{Activist}_{t-3}$ takes the value 1 for $t = 2004$ and a given firm if an activism campaign began in 2007.

We estimate three models. Following Bebchuk et al. (2013), all models include year fixed effects, market value, and firm age, and indicators for activism. Following, Bebchuk et al. (2013), models (A) and (B) add industry and firm fixed effects, respectively. To examine a possible *incremental* effect of an activist getting board representation, Model (C) refines model (B) by including indicators for activist director appointments in years ranging from three years prior (*Activist director*$_{t-3}$) to five years subsequent (*Activist director*$_{t+5}$).

Table 7 presents results. The quantities presented in the table represent estimates of the impact of activism and activist directors, and are calculated as the difference between the estimated coefficients on the respective activism indicators for years $t+s$ and t, where $s \in \{1, \ldots, 5\}$. With model (A), we find significant increases in *ROA* for years $t+3$ through $t+5$. Once we add firm fixed effects, i.e., in models (B) and (C), we find statistically significant increases in *ROA* in all five years. These effects are economically significant, with the five-year increase in *ROA* exceeding 2% in both models.

Looking at the incremental effect of getting an activist candidate on the board, we do not detect a statistically significant effect. While the incremental effects are positive in all years, they are statistically indistinguishable from zero. If an incremental effect does exist, our failure to detect it statistically may be attributed to a lack of power stemming from a small number of observations (e.g., we have just 34 observations with *Activist director*$_{t+5}$ equal to one) and multicollinearity between our activism indicators (in many cases, the activist director is appointed in the same year that the activist campaign commences).

Having demonstrated an effect of activism on operating performance, we next turn to a range of other outcomes that activists often seek to influence more directly. The examples discussed above in Section 2 suggest that activists often seek to influence corporate policy or decisions on a wide range of matters. The include matters related to mergers and acquisitions (including divestitures of businesses), CEO turnover and compensation, capital structure (including cash holdings and dividend payout), and investment policy.

7.2. *Divestiture and acquisitions*

The first set of outcomes we examine relate to mergers and acquisitions. The examples discussed above suggest that one concern activists have is with excessive spending on acquisitions by target firms. Thus, the first outcome we consider is *Acquisition*, an indicator for whether the firm completed any acquisitions in the three years a given fiscal year. Greenwood and Schor (2009, 362) suggest that announcement returns associated with activism "are largely explained by the ability of activists to force target firms into a takeover." Thus one outcome we consider, *Acquired*, is an indicator for whether the firm was acquired in the three years after a given fiscal year. Finally, often activists urge firms to divest businesses. Thus our third outcome is *Divestiture*, an indicator for whether the firm divested significant assets in the three years after a given fiscal year. We regress these indicators on industry and year dummies as well as the following controls (as described in Section 3), *Analyst*, *Institutional*, *Market value*, *Book-to-market*, *Leverage*, *Payout*, *ROA*, *Sales growth*, *Outside percent*, *Age*, *Tenure*, and *Staggered board*.

Table 8 presents these results. Examining the first column in Table 8, we see all three categories of activism are associated with significantly lower probability of acquisitions (coefs -0.081 to -0.116, $p < 0.01$). On the other hand, activism is positively associated with being acquired (coefs 0.044 to 0.150), but the association is strongest when activism is in the category *Non-board activism* and lower when an activist director is appointed (the difference between *Non-board activism* and the other two forms of activism is statistically significant). Finally, divestitures are only associated with activism of the form *Activist director* (coef. 0.058, $p < 0.05$).

7.3. *CEO turnover and compensation*

We next consider the association of activism with CEO turnover and compensation. We conjecture that activists may seek CEO turnover and may also seek to alter the level or structure of CEO compensation. While it seems plausible that activists would see to decrease CEO compensation, it is unclear whether they would reduce the percentage of compensation that is variable or increase it to enhance performance sensitivity.

We code the indicator *CEO turnover* equal to 1 if the CEO at the end of year t is no longer the CEO (but the company still exists) in year $t+3$. For total CEO pay, we regress total CEO compensation in year $t+3$ on controls, including CEO compensation in year t, and indicators for each category of activism. To assess change in performance-based compensation, we regress the proportion of CEO compensation that is variable (i.e., not salary) on its lagged value, controls, and activism indicators. We regress these variables on their lagged (year t) values, industry and year dummies as well as the following controls (as described in Section 3), *Analyst*, *Institutional*, *Market value*, *Book-to-market*, *Leverage*, *Payout*, *ROA*, *Sales growth*, *Outside percent*, *Age*, *Tenure*, and *Staggered board*.

Results of our analysis are presented in Table 9. We find no statistically significant association between *Non-board activism* and CEO turnover. We find positive associations between CEO turnover and both *Board demand* (coef. 0.089, $p < 0.05$) and *Activist director* (coef. 0.153, $p < 0.01$). We find that CEO compensation is negatively associations between CEO compensation and both *Non-board activism* (coef. -0.098, $p < 0.01$) and *Activist director* (coef. -0.132, $p < 0.01$). Finally, we see some evidence of reduction in the proportion of compensation that is non-salary associated with *Non-board activism*, but not with the other two categories of activism. These results collectively point to a changing pattern of CEO incentives in the presence of activist directors.

7.4. Capital structure and payouts

Among the most common demands activists make are requests for firms to increase the payment of dividends, reduce cash holdings, and to increase leverage. In Table 10, we examine the association between activism and measures of cash holding, leverage, and shareholder payout (dividends and share repurchases). We find that only *Activist director* is associated with reduced cash holdings (coef. -0.029, $p < 0.05$). We find that leverage is associated with both *Non-board activism* (coef. 0.018, $p < 0.01$) and *Activist director* (coef. 0.021, $p < 0.05$). Finally, only *Activist director* (coef. 0.112, $p < 0.05$) is associated with increased payout. Overall, the evidence

in Table 10 points to activist directors being associated with the kinds of capital structure and payout changes demands frequently demanded by activists.

As outcome variables we consider *Cash*, calculated as the ratio of total cash and short-term investments to the book value of total assets; *Leverage*, measured as the ratio of book value of debt to the sum of the book value of debt and equity; and, *Payout*, measured as the ratio of total dividends and share repurchases to EBITDA for the three years after year t. We regress these variables on their year-t values, industry and year dummies as well as the following controls (as described in Section 3), *Analyst*, *Institutional*, *Market value*, *Book-to-market*, *Leverage*, *Payout*, *ROA*, *Sales growth*, *Outside percent*, *Age*, *Tenure*, and *Staggered board*.

7.5. Investment

Finally, we examine the association between activism and three areas of spending commonly regarded as investment: capital expenditures, research and development (R&D), and advertising. We measure investment using the following proxies: *CapEx*, measured as the ratio of capital expenditure for three years after announcement of activism to the lagged book value of total assets; *R&D*, measured as the ratio of total R&D expenditure for three years after announcement of activism to the lagged book value of total assets; and, *Advertising*, measured as the ratio of advertising expenditure for three years after announcement of activism to the lagged book value of total assets. We regress these variables on their year-t values, industry and year dummies as well as the following controls (as described in Section 3), *Analyst*, *Institutional*, *Market value*, *Book-to-market*, *Leverage*, *Payout*, *ROA*, *Sales growth*, *Outside percent*, *Age*, *Tenure*, and *Staggered board*.

Results are presented in Table 11. We find negative associations between all three categories of activism and capital expenditure, the coefficient on *Activist director* (coef. -0.054, $p < 0.01$) is significantly more negative than that on *Non-board activism* (coef. -0.020, $p < 0.01$). Only with *Activist director* do we see a negative associations with R&D spending (coef. -0.024, $p < 0.01$) and advertising (coef. -0.005, $p < 0.01$).

Overall, the evidence in Table 11 is consistent with activist directors playing a significant role in curbing expenditures on capital, research and development (R&D), and advertising. However, it is unclear whether this reflects curtailment of excessive investments or, as critics of activists might suggest, underinvestment and a focus on the short term.

8. Conclusion

In recent years, the phenomenon of hedge fund managers attempting to actively intervene in the governance of firms they invest in has gained prominence. These fund managers often lay-out an investment thesis regarding their target firms and vigorously engage with their targets to realize their thesis. Instead of passively waiting for an investment hypothesis to validate itself (like most institutional fund managers do), activist hedge fund managers often demand seats on the board of their targets as a mechanism to effect change in investee firms and thereby actively control the outcome of their investment. While attaining directorship might not be the end goal, it is perhaps the stick that activists use to force companies to take their demands seriously. Given the importance that the demand for board positions has in the activist game plan, we examine hedge fund activism thorough the lens of activist directors, i.e., cases where candidates sponsored by the activists become directors of the target companies.

We find that activists are more likely to gain board seats at smaller firms and those with weaker stock price performance. As in prior research, we find positive announcement-period returns of around 4–5% when a firm is targeted by activists, including in cases where the activists ex-post gain board seats, and a 2% increase in return on assets over the subsequent one to five years. When they have board seats, activists remain as shareholders long enough to be considered long-term investors by conventional standards, with holding periods averaging three years. The long-term shareholding combined with positive stock-price and operating performance effects suggests that the short-termism concern often expressed in the context of hedge fund activists may be less apparent in cases when activists become directors.

Activist directors appear to be associated with significant strategic and operational changes in

target firms. We find evidence of increased divestiture, decreased acquisition activity, higher probability of being acquired, lower cash balances, higher payout, greater leverage, higher CEO turnover, lower CEO compensation, and reduced investment. With the exception of the probability of being acquired, the estimated effects are generally greater when activists obtain board representation, consistent with board representation being an important mechanism for bringing about the kinds of changes that activists often demand.

Our results do not allow us to conclude that these actions themselves are value-enhancing even if they are concomitant with better operating performance and stock returns. Moreover, the data available to us do not permit causal inferences. Despite these limitations, the range of associations that we document suggest that gaining board positions is an important mechanism that allows hedge fund activists to have an impact in ways that line up with the demands that they make of companies.

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Table 1: Activism events

Table presents number of activism events by year. *Activism* refers to activism events in any of the following three mutually exclusive categories: *Non-board activism* refers to the number of non-board related activism events. *Board demand* refers to the number of activism events where activists demanded, but did not win, board seats. *Activist director* refers to activism events where activists were granted one or more board seats.

Year	Activism	Non-board activism	Board demand	Activist director
2004	101	51	24	26
2005	199	111	50	38
2006	316	170	72	74
2007	368	217	82	69
2008	336	181	77	78
2009	158	80	47	31
2010	201	127	33	41
2011	172	88	48	36
2012	118	64	23	31
Total	1,969	1,089	456	424

Table 2: Activist directors

Table presents number of activist directors by year. *Activist directors* are directors who were appointed to the board in response to demands by activists. *Affiliated* (*Unaffiliated*) indicates activist directors who are (are not) employees or principals of a member of the dissident group. *Elected* indicates that the director was elected by shareholders through a shareholder vote. *Settled* indicates that the director were appointed to the board without a shareholder vote.

Year	Activist director	Affiliated	Unaffiliated	Elected	Settled
2004	50	19	31	11	39
2005	84	38	46	16	67
2006	149	60	89	26	121
2007	140	65	75	36	99
2008	149	59	90	41	107
2009	54	23	31	17	37
2010	73	29	44	11	60
2011	64	26	38	9	55
2012	61	27	34	0	61
Total	824	346	478	167	646

Table 3: Director characteristics

This table presents descriptive statistics for directors. Panel A presents data on directors matched to Equilar. *N* refers to the number of observations. *Age* refers to mean age of directors in each category. Values for *Female*, *Comm.*, *Comp comm.*, *Audit comm.*, *Fin. expert* are means of indicator variables for being female, being a member of at least one board committee, being a member of the compensation committee, being a member of the audit committee, and being designated a financial expert of the audit committee, respectively. Panel A includes all directors, with *Activist directors* relating to activist directors in their first year on their respective boards. Panel B presents data on all activist directors (i.e., no requirement for Equilar match). *Tenure* is measured in days and is censored for directors still active on December 31, 2013.

Panel A: Director characteristics by activism classification

Category	N	Age	Female	Comm.	Comp comm.	Audit comm.	Fin. expert
All directors	358,193	59.29	0.10	0.76	0.40	0.41	0.17
New directors: No activism	28,440	54.18	0.12	0.60	0.26	0.33	0.14
New directors: Non-board activism	730	54.07	0.09	0.56	0.27	0.29	0.11
New directors: Board demand	131	54.66	0.05	0.57	0.31	0.34	0.10
New directors: Activist director	710	51.14	0.04	0.55	0.26	0.23	0.06
Activist directors	678	50.26	0.03	0.66	0.32	0.29	0.07
Affiliated directors	283	45.31	0.01	0.68	0.34	0.24	0.05
Unaffiliated directors	395	53.81	0.04	0.64	0.31	0.32	0.09

Panel B: Activist director tenure

Category	N	Left board	Tenure	Still active	Tenure
Unaffiliated directors	478	316	752	162	1,424
Affiliated directors	346	218	695	128	1,413

Table 4: Activist target selection

All regressions in this table include the following controls measured for the prior fiscal year-end: *Analyst*, the number of analyst forecasts for each firm-year (I/B/E/S); *Institutional*, the proportion of the firms outstanding stock held by institutions; *Size-adj. ret*, twelve-month size-adjusted returns calculated as raw return over a year minus return for the size-matched decile provided by CRSP; *Market value*, the value of market capitalization; *Book-to-market*, market capitalization divided by the book value of common equity; *Leverage*, sum of long-term debt and current liabilities divided by sum of long-term debt, current liabilities and the book value of common equity; *Payout* the ratio of the sum of dividends and repurchases divided to EBITDA); *ROA*, EBITDA divided by the lagged total assets; *Sales growth*, Sales divided by lagged sales; *Num. directors*, the number of directors on the board; *Outside percent*, the percentage of outside directors; *Age*, the average age of directors on the board; *Tenure*, the average years of directorship on the board; *Staggered board*, indicator for staggered board. All controls are winsorized at the 1% and 99% levels. Values in parentheses are standard errors clustered by firm. *** (**, *) indicates significance at the 1% (5%, 10%) level.

Table 4: Activist target selection

Panel A presents logit regression where the dependent variables are indicators for being targeted for activism in any category (*Non-board activism*, *Board demand*, or *Activist director*, column 1), being the target of an activist demanding or getting board seats (*Board demand or Activist director*, Column 2) and activists getting board seats (*Activist director*, Column 3). Sample includes firm-years with and without activism.

Panel A: Activism, board demands and activist directors

	Dependent variable:		
	Activism	Board demand	Activist director
	(1)	(2)	(3)
Analyst	0.006	−0.003	−0.008
	(0.007)	(0.010)	(0.012)
Inst	1.640***	1.877***	2.051***
	(0.082)	(0.111)	(0.139)
Size-adj. ret	−0.296***	−0.419***	−0.462***
	(0.059)	(0.083)	(0.134)
Market value	−0.664***	−0.912***	−0.903***
	(0.064)	(0.074)	(0.100)
Book-to-market	−0.003	−0.060	−0.028
	(0.049)	(0.054)	(0.068)
Leverage	0.060	−0.278**	−0.629***
	(0.117)	(0.138)	(0.181)
Payout	−0.098	−0.232	−0.406
	(0.159)	(0.196)	(0.299)
ROA	0.097	0.261	0.474**
	(0.133)	(0.165)	(0.237)
Sales growth	−0.175*	−0.237**	−0.255*
	(0.094)	(0.097)	(0.133)
Num. directors	0.052***	0.105***	0.135***
	(0.011)	(0.014)	(0.016)
Outside percent	1.057***	1.589***	1.511***
	(0.254)	(0.306)	(0.334)
Age	0.024***	0.028***	0.021*
	(0.007)	(0.009)	(0.011)
Tenure	−0.042***	−0.056***	−0.069***
	(0.009)	(0.011)	(0.013)
Staggered board	−0.106*	−0.105	−0.251***
	(0.055)	(0.073)	(0.092)
Constant	−3.620***	−4.254***	−4.722***
	(0.431)	(0.520)	(0.655)
Pseudo-R^2	0.298	0.308	0.288
Observations	35,981	35,153	35,153

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4: Activist target selection

Panel B presents logit regression where the dependent variables are indicators for activist demanding or getting board seats (*Board demand or Activist director*, Column 1) and activists getting board seats (*Activist director*, Column 2) conditional on the firm being targeted by activists.

Panel B: Activism, board demand and activist director (activism only)

	Dependent variable:	
	Board demand	Activist director
	(1)	(2)
Analyst	−0.002	−0.006
	(0.013)	(0.015)
Inst	0.501**	0.733***
	(0.220)	(0.260)
Size-adj. ret	−0.160*	−0.131
	(0.084)	(0.107)
Market value	−0.507***	−0.423***
	(0.124)	(0.137)
Book-to-market	−0.034	0.011
	(0.085)	(0.095)
Leverage	−0.409**	−0.649***
	(0.165)	(0.195)
Payout	−0.215	−0.336
	(0.304)	(0.347)
ROA	0.245	0.510
	(0.382)	(0.414)
Sales growth	−0.126	−0.098
	(0.112)	(0.148)
Num. directors	0.108***	0.123***
	(0.023)	(0.024)
Outside percent	1.393**	0.735
	(0.682)	(0.601)
Age	0.010	−0.001
	(0.013)	(0.015)
Tenure	−0.021	−0.029
	(0.016)	(0.018)
Staggered board	−0.023	−0.173
	(0.106)	(0.114)
Constant	−0.299	−1.057
	(0.756)	(0.810)
Sample	Activism	Activism
Pseudo-R^2	0.778	0.688
Observations	1,504	1,504
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 5: Activist holding periods

Table presents results of censored median regression analysis of holding period (days) on activism category. *Entry–exit* refers to the time (in days) between the record date of the first filing by the activist where the target stock is listed in the activist's portfolio through to the record date of the first filing where it is not (exit date) *Annc–exit* refers to the time between announcement of activism and the exit date. *Appt–exit* refers to the time between the first activist director appointment and the exit date.

Regression coefficients

	Entry–exit	Annc–exit
Intercept	859.721***	446.120***
	(2.753)	(16.282)
Board demand	−91.592	1.224
	(193.231)	(43.946)
Activist director	235.687***	352.040***
	(56.649)	(57.296)

Implied median holding periods (days)

	Entry–exit	Annc–exit	Appt–exit
Non-board activism	860	446	
Board demand	768	447	
Activist director	1095	798	601

Table 6: Stock returns

Table presents returns by category of activism where R, R^{MKT}, R^{SZ} denote raw, market-adjusted, and size-adjusted returns respectively.

Panel A: Days -20 to $+20$ around announcement of activism.

	Dependent variable:		
	R	R^{MKT}	R^{SZ}
	(1)	(2)	(3)
Non-board activism	0.053^{***}	0.048^{***}	0.049^{***}
	(0.009)	(0.008)	(0.008)
Board demand	0.044^{***}	0.038^{***}	0.039^{***}
	(0.014)	(0.013)	(0.012)
Activist director	0.047^{**}	0.042^{**}	0.041^{**}
	(0.021)	(0.020)	(0.020)
Observations	1,892	1,892	1,890
Note:			*p<0.1; **p<0.05; ***p<0.01

Panel B: Days -1 to $+1$ around appointment.

	Dependent variable:		
	R	R^{MKT}	R^{SZ}
	(1)	(2)	(3)
Invest. $>$ \$100m	0.005	0.005	0.005
	(0.005)	(0.005)	(0.005)
Invest. $<$ \$100m	0.008^{*}	0.006	0.006
	(0.005)	(0.004)	(0.004)
Observations	401	401	401
Note:			*p<0.1; **p<0.05; ***p<0.01

Table 6: Stock returns

Table presents returns by category of activism where R, R^{MKT}, R^{SZ} denote raw, market-adjusted, and size-adjusted returns respectively. R^{FFV} (R^{FFE}) denotes value-weighted (equal-weighted) Fama-French three-factor adjusted returns.

Panel C: From activism announcement (month t) to month $t + 12$.

	Dependent variable:				
	R	R^{MKT}	R^{SZ}	R^{FFV}	R^{FFE}
	(1)	(2)	(3)	(4)	(5)
Non-board activism	0.127^{***}	0.062^{***}	0.051^{**}	0.029	0.023
	(0.027)	(0.024)	(0.022)	(0.019)	(0.019)
Board demand	0.874^{**}	0.759^{*}	0.703^{*}	0.114^{**}	0.108^{**}
	(0.426)	(0.424)	(0.420)	(0.052)	(0.052)
Activist director	0.110^{**}	0.021	-0.004	-0.007	-0.014
	(0.043)	(0.036)	(0.039)	(0.031)	(0.030)
Observations	1,925	1,925	1,916	1,809	1,809

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6: Stock returns

Table presents returns by category of activism where R, R^{MKT}, R^{SZ} denote raw, market-adjusted, and size-adjusted returns respectively. R^{FFV} (R^{FFE}) denotes value-weighted (equal-weighted) Fama-French three-factor adjusted returns.

Panel D: From activism announcement (month t) to month $t + 36$.

	Dependent variable:				
	R	R^{MKT}	R^{SZ}	R^{FFV}	R^{FFE}
	(1)	(2)	(3)	(4)	(5)
Non-board activism	0.676^{**}	0.518^{**}	0.459^{*}	0.010	-0.009
	(0.267)	(0.259)	(0.258)	(0.032)	(0.032)
Board demand	1.352^{**}	1.150^{**}	1.001^{**}	0.064	0.048
	(0.528)	(0.515)	(0.509)	(0.062)	(0.062)
Activist director	0.241^{**}	0.098	0.001	-0.031	-0.051
	(0.096)	(0.088)	(0.084)	(0.056)	(0.055)
Observations	1,657	1,657	1,649	1,586	1,586
Note:					*p<0.1; **p<0.05; ***p<0.01

Panel E: From activist appointment date (month t) to month $t + 12$.

	Dependent variable:				
	R	R^{MKT}	R^{SZ}	R^{FFV}	R^{FFE}
	(1)	(2)	(3)	(4)	(5)
Invest. $>$ \$100m	0.224^{***}	0.121^{**}	0.089^{*}	0.045	0.035
	(0.074)	(0.057)	(0.054)	(0.050)	(0.048)
Invest. $<$ \$100m	0.079^{*}	-0.005	-0.048	-0.007	-0.015
	(0.047)	(0.042)	(0.042)	(0.043)	(0.042)
Observations	411	411	410	397	397
Note:					*p<0.1; **p<0.05; ***p<0.01

Table 6: Stock returns

Table presents returns by category of activism where R, R^{MKT}, R^{SZ} denote raw, market-adjusted, and size-adjusted returns respectively. R^{FFV} (R^{FFE}) denotes value-weighted (equal-weighted) Fama-French three-factor adjusted returns.

Panel F: From activist appointment date (month t) to month $t + 36$.

	Dependent variable:				
	R	R^{MKT}	R^{SZ}	R^{FFV}	R^{FFE}
	(1)	(2)	(3)	(4)	(5)
Invest. $>$ \$100m	0.497^{***}	0.320^{***}	0.225^{*}	0.251^{**}	0.219^{*}
	(0.138)	(0.117)	(0.116)	(0.120)	(0.121)
Invest. $<$ \$100m	0.326^{***}	0.127	0.043	0.082	0.060
	(0.114)	(0.109)	(0.108)	(0.101)	(0.100)
Observations	321	321	320	315	315

Note: *p<0.1; **p<0.05; ***p<0.01

Table 7: Operating performance

Table presents estimates of the impact of activism on return on assets over 5 years after the announcement of activism. The empirical approach follows that of Bebchuk et al. (2013). We regress return on assets on indicators for activism events in any of the three categories, including *Board demand* and *Activist director*, ranging from three years prior (*Activism*$_{t-3}$) to five years subsequent (*Activism*$_{t+5}$). We estimate three models. Following Bebchuk et al. (2013), all models include year fixed effects, market value, and firm age, and indicators for activism. Models (A) and (B) add industry and firm fixed effects, respectively. Model (C) also adds firm fixed effects, as well as indicators for activist director appointments in years ranging from three years prior (*Activist director*$_{t-3}$) to five years subsequent (*Activist director*$_{t+5}$). The quantities presented in the table represent estimates of the impact of activism and activist directors, and are calculated as the difference between the estimated coefficients on the respective activism indicators for years $t+s$ and t, where $s \in \{1, \ldots, 5\}$. Numbers in parentheses are heteroskedasticity-robust standard errors. *** (**, *) indicates significance at the 1% (5%, 10%) level.

	(1)	(2)	(3)	(4)
	Activism	Activism	Activism	Activist director
$ROA_{t+1} - ROA_t$	0.006	0.009**	0.010**	0.003
	(0.008)	(0.004)	(0.004)	(0.008)
$ROA_{t+2} - ROA_t$	0.009	0.011**	0.012**	0.004
	(0.008)	(0.005)	(0.006)	(0.013)
$ROA_{t+3} - ROA_t$	0.012*	0.015***	0.014**	0.011
	(0.009)	(0.006)	(0.006)	(0.013)
$ROA_{t+4} - ROA_t$	0.015**	0.013**	0.013**	0.002
	(0.008)	(0.006)	(0.007)	(0.014)
$ROA_{t+5} - ROA_t$	0.020**	0.021***	0.022**	0.001
	(0.011)	(0.008)	(0.009)	(0.015)
Model:	(A)	(B)	(C)	(C)
Fixed effects:	Industry, year	Firm, year	Firm, year	Firm, year

Number of observations with activism indicator equal to 1

	Activism	Activist director
Year$_{t-3}$	920	172
Year$_{t-2}$	968	177
Year$_{t-1}$	999	179
Year$_t$	1016	183
Year$_{t+1}$	841	136
Year$_{t+2}$	673	104
Year$_{t+3}$	547	82
Year$_{t+4}$	420	48
Year$_{t+5}$	268	34

Table 8: Divestitures and acquisitions

Table presents regressions of outcome variables on firm-year level activism indicators. *Acquisition* indicates the firm completed acquisitions within three years after year t. *Acquired* indicates delisting within three years of year t with CRSP delisting code dlstcd $\in [200, 399]$. *Divestiture* indicates the firm completed divestitures and spinoffs within three years of year t. Regressions include industry and year fixed effects and the following controls (Control variables are measured for the fiscal year-end of year t): *Total assets*, book value of total assets; *Analyst*, number of analyst forecasts for each firm-year (I/B/E/S); *Institutional*, proportion of the firm's outstanding stock held by institutions; *Size-adj. ret*, twelve-month size-adjusted returns; *Market value*, the value of market capitalization; *Book-to-market*, market capitalization divided by the book value of common equity; *Leverage*, ratio of debt to debt plus book value of common equity; *Payout* the ratio of the sum of dividends and repurchases divided to EBITDA; *ROA*, EBITDA divided by the lagged total assets; *Sales growth*, sales divided by lagged sales; *Num. directors*, the number of directors on the board; *Outside percent*, the percentage of outside directors; *Age*, the average age of directors; *Tenure*, the average tenure of directors; *Staggered board*, indicator for staggered board. All controls and *CEO comp* are winsorized at the 1% and 99% levels. Values in parentheses are standard errors clustered by firm. *** (**, *) indicates significance at the 1% (5%, 10%) level.

	Dependent variable:		
	Acquisition	Acquired	Divestiture
	(1)	(2)	(3)
Non-board activism	-0.084^{***}	0.150^{***}	0.024
	(0.016)	(0.017)	(0.018)
Board demand	-0.081^{***}	0.081^{***}	0.047
	(0.029)	(0.027)	(0.030)
Activist director	-0.116^{***}	0.044^{**}	0.058^{**}
	(0.024)	(0.022)	(0.023)
Constant	-0.066	0.255^{***}	-0.229^{**}
	(0.086)	(0.052)	(0.100)
F-tests for equal coefficients (p-values)			
Board demand = Activist director	0.310	0.261	0.745
Non-board activism = Activist director	0.202	0.000	0.195
Non-board activism = Board demand	0.937	0.018	0.493
Observations	86,882	86,235	86,882
Adjusted R^2	0.123	0.045	0.135

Table 9: CEO turnover and compensation

Table presents regressions of variables on firm-year level activism categorical variables. *CEO exit* indicates a change in CEO between the end of year t and the end of year $t+3$. *CEO comp*$_{t+3}$ is log of total CEO compensation in year $t+3$ *Perf comp* is the percentage of CEO compensation that not salary. Controls are as described in Table 8. Values in parentheses are standard errors clustered by firm. *** (**, *) indicates significance at the 1% (5%, 10%) level.

	Dependent variable:		
	CEO exit$_{(t+1,t+3)}$	CEO comp$_{t+3}$	Perf comp$_{t+3}$
	(1)	(2)	(3)
Non-board activism	0.023	-0.098^{***}	-0.063^{***}
	(0.023)	(0.029)	(0.023)
Board demand	0.089^{**}	-0.017	0.009
	(0.042)	(0.053)	(0.024)
Activist director	0.153^{***}	-0.132^{***}	-0.029
	(0.038)	(0.047)	(0.018)
Dep. var.$_t$	-0.042^{***}	0.426^{***}	0.076^{***}
	(0.010)	(0.010)	(0.029)
Constant	0.105	6.557^{***}	-0.108
	(0.091)	(0.189)	(0.161)
F-tests for equal coefficients (p-values)			
Board demand = Activist director	0.212	0.087	0.136
Non-board activism = Activist director	0.001	0.499	0.210
Non-board activism = Board demand	0.146	0.158	0.026
Observations	39,762	49,757	49,779
Adjusted R^2	0.043	0.717	0.021

Table 10: Capital structure

Cash is calculated as the ratio of total cash and short-term investments to the book value of total assets. *Leverage* is measured as the ratio of book value of debt to the sum of the book value of debt and equity. *Payout* is measured as the ratio of total dividends and share repurchases to EBITDA for the three years after year t. Controls are as described in Table 8. Values in parentheses are standard errors clustered by firm. *** (**, *) indicates significance at the 1% (5%, 10%) level.

	Dependent variable:		
	Cash	Leverage	Payout
	(1)	(2)	(3)
Non-board activism	-0.008	0.018^{***}	-0.052
	(0.008)	(0.007)	(0.061)
Board demand	-0.015	-0.002	0.050
	(0.015)	(0.007)	(0.064)
Activist director	-0.029^{**}	0.021^{**}	0.112^{**}
	(0.013)	(0.010)	(0.056)
Dep. var.$_t$	0.876^{***}	0.882^{***}	0.328^{***}
	(0.018)	(0.007)	(0.015)
Constant	0.025	0.012	0.120^{**}
	(0.021)	(0.012)	(0.053)
F-tests for equal coefficients (p-values)			
Board demand = Activist director	0.466	0.060	0.412
Non-board activism = Activist director	0.112	0.773	0.040
Non-board activism = Board demand	0.688	0.034	0.223
Observations	62,226	62,262	59,475
Adjusted R^2	0.517	0.858	0.236

Table 11: Investment

Table presents regressions of variables on firm-year level activism categorical variables. *CapEx* is measured as the ratio of capital expenditure for three years after announcement of activism to the lagged book value of total assets. *R&D* is measured as the ratio of total R&D expenditure for three years after announcement of activism to the lagged book value of total assets. *Advertising* is measured as the ratio of advertising expenditure for three years after announcement of activism to the lagged book value of total assets. Controls are as described in Table 8. Values in parentheses are standard errors clustered by firm. *** (**, *) indicates significance at the 1% (5%, 10%) level.

	Dependent variable:		
	CapEx	R&D	Advertising
	(1)	(2)	(3)
Non-board activism	-0.020^{***}	-0.003	-0.002
	(0.007)	(0.003)	(0.002)
Board demand	-0.028^{***}	0.001	-0.003^{*}
	(0.009)	(0.008)	(0.002)
Activist director	-0.054^{***}	-0.024^{***}	-0.005^{***}
	(0.010)	(0.007)	(0.001)
Dep. var.$_t$	2.336^{***}	3.273^{***}	3.105^{***}
	(0.060)	(0.053)	(0.036)
Constant	0.087^{***}	0.006	0.003
	(0.010)	(0.007)	(0.004)
F-tests for equal coefficients (p-values)			
Board demand = Activist director	0.040	0.007	0.268
Non-board activism = Activist director	0.004	0.001	0.124
Non-board activism = Board demand	0.458	0.607	0.689
Observations	62,387	62,387	62,387
Adjusted R^2	0.680	0.840	0.867