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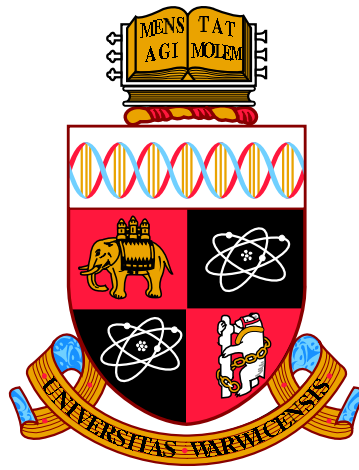http://wrap.warwick.ac.uk/175176

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Essays in Shareholder Activism

by

Jiaqi Zhao

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My endless gratitude goes to my family. I dedicate this work to my father Rongbao Zhao, who could not see this day, but gave me the strength to fight another day.

Declarations

This thesis is submitted to The University of Warwick in support of the requirements for the degree of Doctor of Philosophy. I confirm that I have not submitted the thesis or any work therein for a degree at another university.

I declare that the second chapter is co-authored with Dr. Jana Fidrmuc and Dr. Jesús Gorrín. The third chapter is co-authored with Dr. Jana Fidrmuc, Dr. Jesús Gorrín, and Dr. Swati Kanoria. The fourth chapter is my sole work.

Jiaqi Zhao

September, 2022

Abstract

This thesis consists of three essays on shareholder activism. Chapter 2 uses US shareholder activism data to show that activists are significantly more likely to target female rather than male CEOs. We use both matching and an instrumental variable approach to provide evidence of the difference in targeting. We also show that campaigns targeting female-led firms are more likely to aim for board representation, more hostile, but not more likely to attain a goal success. The high hostility in female-CEO campaigns leads to a higher propensity for activists to ask for reimbursement. Despite these campaign differences, we find no gender differences in the market reaction to activist 13D filings, in post-campaign firm performance, or merger activity.

Chapter 3 studies career changes of CEOs following activism campaigns in their companies. Compared to otherwise similar peers, targeted CEOs experience a significant decline not only in the number of executive and director positions held, but also in the level of compensation received. For executive and board positions, the results are driven by the internal slot at the targeted companies; for compensation, the results are driven by both the equity-based and nonequity-based portion of compensation. Furthermore, the career consequences are particularly pronounced for male CEOs. Activist tactics and campaign outcomes are also associated with CEO career changes.

Using a unique and comprehensive hand-collected sample of activist-nominated directors, Chapter 4 examines the attributes and careers of these directors. The group of activist directors is dominated by young men who possess less board and executive experience than target board members, but are more experienced and better educated than other individuals in the director labor pool. Additionally, activist directors are rewarded by the labor market. Compared to their non-activist colleagues, activist directors are more likely to retain their current seats and gain more new seats following the campaigns.

Chapter 1

Introduction

Shareholder activism is a channel through which shareholders claim their rights as company owners to influence corporate actions and address agency conflicts in the company with the goal of increasing firm value. Several recent studies show positive corporate governance and performance consequences of such activism (Brav et al., 2008; Klein and Zur, 2009; Gantchev et al., 2019). By and large, this thesis belongs to the body of research on shareholder activism. The first chapter highlights potential inefficiencies in activist monitoring, showing that the CEO gender is an important determinant of targeting by shareholder activists. The second and third chapters analyze career consequences arising from shareholder activism events for incumbent CEOs and activist directors, respectively. Results indicate that incumbent CEOs suffer career losses following activist interventions, whereas activist directors fare better ex post.

Research on shareholder activism pictures shareholder activists as highly motivated profit seekers and argues that shareholder activism occupies a middle ground between internal monitoring by the board of directors and external monitoring by corporate raiders (Brav et al., 2008; Klein and Zur, 2009; Gantchev, 2013). Therefore, conditional on firm performance, activists should treat female versus male CEOs equally unless they expect other private benefits. Using a sample of shareholder activism against US public companies during the period from 2006 to 2015 from SharkRepellent, Chapter 2 provides consistent evidence that CEO gender affects shareholder activism. Female CEOs are significantly more likely to be targeted by shareholder activists than their male-CEO counterparts.

Differently from previous literature (Gupta et al., 2018; Francis et al., 2021), we show that the difference in targeting is not driven by differences in performance, CEO quality, or other CEO characteristics. Our results suggest that activists' tactics when targeting female CEOs are more hostile, but are not associated with an increase in activism announcement abnormal returns, and are not more likely to be successful. Activists are also more likely to seek compensation for their campaign costs, a private benefit not shared with other investors. We show that these effects are mostly driven by an activists' desire for more board seats in

female-led firms, which is not materialised *ex-post*. Two further results in our sample suggest that activists learn from this experience, which is in line with their profit-seeking nature: (i) it is very rare for the same activist to target more than one female-led firm; and (ii) the differential targeting of males and females is less strong in more recent years.

This chapter contributes to the literature on shareholder activism and corporate governance by highlighting potential inefficiencies in activist monitoring. The documented gender-targeting differences may induce disruptive and unnecessary activism, inhibit value improvement in companies with female leaders, and waste time and resources. This work also complements the literature concerning effects of managers' gender on investment flows, which shows evidence of potential biases from investors towards female managers. This is a relevant contribution because we show that investors widely perceived as smart money also exhibit differential treatment towards female leaders.

Chapter 3 analyzes career consequences for incumbent CEOs of target companies. Based on the BoardEx database, we identify 1,874 unique CEOs in charge of the companies at the time of shareholder activism between 2006 to 2015. Applying difference-in-differences analysis to samples of targeted and non-targeted CEOs matched on firm and individual characteristics, we show that target CEOs suffer a loss following activist interventions. In particular, compared to their otherwise similar control peers, target CEOs on average have 0.04 fewer executive positions, 0.13 fewer board seats, and 19 percent less compensation in the period from the shareholder-activism year through three years post-activism. For executive and board positions, the results are driven by the internal slot at the targeted companies; for compensation, the results are driven by both the equity-based portion and the nonequity-based portion of compensation. To sharpen the interpretation of the results, we examine the career consequences for a sample of CEOs who had and only had experienced campaigns where shareholder activists behave like passive investors. The evidence indicates that CEOs experiencing 'passive' activism campaigns do not appear to suffer any significant labor market loss during the post-activism period, refuting a hypothesis that the career changes would have taken place absent the activist's own effort.

We also observe substantial heterogeneity in career outcomes among female and male CEOs. Specifically, the careers of female CEOs are largely unaffected by shareholder activism, whereas the careers of male CEOs deteriorate after the activism. Besides, the career effects vary with activist tactics and campaign outcomes. For example, a threatened proxy contest and a real proxy contest can impose additional adverse effect on CEO compensation and directorships, respectively. Moreover, in comparison with campaigns where activists' fail their mission, campaigns resulting in the target companies meeting activists' value creation or governance related demands can induce a greater decrease in CEO compensation, whereas campaigns resulting in the activists receiving board representation can generate a stronger negative impact on all aspects of CEO careers. Again, these results are significant only for male CEOs.

Our analysis in this chapter differs from that in prior literature on shareholder activism

by including all forms of activism campaigns and CEOs' external career prospects. To our knowledge, this paper is the first to provide evidence in this regard. In addition, our results lend support to the ex post settling-up for CEOs in the labor market, establishing that CEOs are disciplined by the disgruntled shareholder activists. This chapter also relates to the body of research regarding women in leadership. We show that female CEOs face more challenges from activist investors than male CEOs, but the labor market perceives that activist's hostile posture towards women leaders is biased, resulting in female CEOs suffer less from shareholder activism in their firms.

Chapter 4 investigates the characteristics and career prospects of activist directors. These directors are selected expressly by shareholder activists from outside the management slate of directors. Activist directors obtain board seats through shareholder activism, and are more willing and able to monitor management on behalf of shareholders than other regular directors. Using a unique and comprehensive hand-collected sample of activist directors who gain access to the boardroom through activism campaigns conducted between 2006 to 2017, I show that the group of activist directors is diverse: approximately 50% shareholder activist's employees and 20% repeat players in the activism game. Of the 244 repeat players, 67% are employed by the activists. Hence, there is some evidence that shareholder activists are more apt to repeatedly put forward their own employees. However, we find that activist employees possess less board and management experience than non-employee counterparts.

To uncover the common characteristics that describe activist directors, I compare activist directors to other directors in the BoardEx universe. Results indicate that activist directors are younger and more likely to be male. Although they do not possess as much board and executive experience as target directors who are disfavored by shareholder activists, the firms on whose boards the activist directors serve exhibit market performance superior to that of firms where the target directors hold board appointments. Moreover, activist directors are more experienced and better educated than non-target directors in the labor pool, suggesting that shareholder activists are capable of hunting talent in the labor market.

Turning to the career consequences for activist directors, difference-in-differences results show that these directors are rewarded with directorships in the directorial labor market post-activism. In comparison with non-activist directors serving on the same board, activist directors hold an average of 0.52 more seats (or about 20% of the total seats held by an average director) three years after campaigns. The positive career effects do not vary with the identity of activist directors. That is, activist employees and non-activist employees, as well as one-time and repeat players, hold a similar number of board appointments post activism. By separately measuring directorship retention and acquisition, I show that being an activist director not only increases the director's likelihood of remaining on the current board, but also creates greater opportunity for receiving additional board memberships. Moreover, though activist employees and repeat players are more likely to leave the current boards following campaigns, they tend to obtain more new board appointments, relative to their respective complementary samples of activist

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directors.

This chapter contributes to the growing literature on shareholder activism by allowing us for the first time to systematically understand the identity and career outcomes of directors who go on the target boards with the support of shareholder activists. Furthermore, using data at the individual director level and allowing analysis based on within-board variation in director behavior (i.e., whether to team up with activist investors and serve on the target boards), this study overcomes endogeneity in board formation and completes studies that examine the ex post settling-up in the directorial labor market.

Chapter 2

Shareholder activism and target CEO gender

2.1 Introduction

Female CEOs remain a rare sight: from 2003 to 2017 women represented on average only 3% of CEOs in publicly listed US companies. This gender gap in corporate leadership has attracted increasing attention. Previous studies have examined gender differences in CEO compensation (Mohan and Ruggiero, 2003; Bugeja et al., 2012), in corporate risk-taking (Elsaid and Ursel, 2011; Faccio et al., 2016), and in corporate performance (Khan and Vieito, 2013; Lam et al., 2013). This paper provides consistent evidence that CEO gender affects shareholder activism. Female CEOs are significantly more likely to be targeted by shareholder activists than their male-CEO counterparts. Differently from previous literature (Gupta et al., 2018; Francis et al., 2021), we show that the difference in targeting is not driven by differences in performance, CEO quality, or other CEO characteristics. Our results suggest that activists' tactics when targeting female CEOs are more hostile, but are not associated with an increase in activism announcement abnormal returns, and are not more likely to be successful. Activists are also more likely to seek compensation for their campaign costs, a private benefit not shared with other investors. We show that these effects are mostly driven by an activists' desire for more board seats in female-led firms, which is not materialised *ex-post*.

Shareholder activism is an important governance mechanism associated with significant improvements in performance and governance of targeted firms (Brav et al., 2008; Klein and Zur, 2009; Becht et al., 2017). Moreover, the threat of activism also disciplines non-targeted peers and generates similar improvements, which expands the activists' governance impact (Gantchev et al., 2019). Activists are known for carefully selecting target companies in order to improve the targets' performance and earn profits. They focus strongly on maximizing the value of their holdings (Brav et al., 2008; Denes et al., 2017). Therefore, conditional on firm performance, they should treat female versus male CEOs equally unless they expect extra

private benefits through more board seats or more frequent reimbursement for campaign costs.

Using a sample of shareholder activism against US public companies during the period from 2006 to 2015 from SharkRepellent, this paper provides a thorough analysis of gender differences among firms targeted by shareholder activists. We show that shareholder activists target female CEOs more often, while accounting for other firm and CEO characteristics. We also address potential endogeneity issues, instrumenting CEO gender by female labor proportion in outside industries where board members hold their other appointments. This instrument strongly predicts the CEO female dummy and our second stage still shows strong positive female-CEO effects on the activism targeting probability.

Further analysis suggests that activist investors launch campaigns against firms with female CEOs with more board-related goals and higher hostility than for targets with male CEOs, but these campaigns are not more successful. Still, activists seek reimbursement of their campaign costs more often with female CEOs, which could be explained through higher hostility of these deals. Moreover, we do not find any differences in long-term firm performance between male- and female-CEO target firms, nor in the market reaction to 13D filings. If anything, the market seems to punish hostile campaigns towards female-led firms while it views hostility towards male CEOs positively. The insignificant outcome results decrease concerns that the differential targeting is driven by unobservable characteristics that change firm value, such as female CEOs foregoing better investment opportunities. We also show that targeted female managers are better in terms of observable characteristics that the literature associates with better general managerial abilities as in Custodio et al. (2010).

In short, our results suggest that the main characteristic of female-led targets is the activists' more frequent aim of board seats and associated higher campaign hostility. Higher activists' reimbursement demands fit the picture. Noteworthy is the fact that female-led targets are not associated with higher campaign success in gaining board seats, higher market reaction to 13D filings or better long-term performance. Higher activists' expectations when targeting female-led targets do not materialize. Two further results in our sample suggest that activists learn from this experience, which is in line with their profit-seeking nature: (i) it is very rare for the same activist to target more than one female-led firm; and (ii) the differential targeting of males and females is less strong in more recent years.

Francis et al. (2021), the closest to our analysis, focus on CEO gender differences in hedge-fund targeting. They highlight the transformational leadership style of female CEOs as a plausible explanation for the gender effect. They hypothesize that female CEOs are more likely to communicate and cooperate with hedge fund activists to achieve intervention goals. In line with their explanation, they show that female-CEO campaigns are less hostile, settle before voting in proxy fights, are associated with more board seats to hedge funds, and attain more of hedge funds' demands. Francis et al. (2021) also find that female-CEO targets experience significantly larger market reaction to 13D filings. Our results are at odds with value creation and cooperation as the primary motive for differential targeting. Even though

our main sample is different as we incorporate a wider set of activist campaigns, our main results related to differential targeting, higher board representation goals, higher hostility, and worse market reaction in campaigns targeting female CEOs still hold for hedge funds. We also do not cover older campaigns before 2006 as we focus on detailed campaign data from SharkRepellent. We perform a detailed analysis of campaign characteristics and show that the gender difference in activist targeting and campaign hostility is less prevalent in more recent campaigns. However, our evidence still points against the main channel in Francis et al. (2021).

This paper contributes to existing literature in two ways. First, we contribute to the literature on shareholder activism and corporate governance. Research on shareholder activism pictures these investors as highly motivated and argues that shareholder activism occupies a middle ground between internal monitoring by the board of directors and external monitoring by corporate raiders (Brav et al., 2008; Klein and Zur, 2009; Gantchev, 2013). Our results suggest that shareholder activists have higher ex ante demands for board seats in female-CEO campaigns, which do not materialize ex post. They are also more hostile towards female-led targets. If activist investors are biased against female leaders, their behavior may deviate, even without any conscious awareness, from maximizing shareholder value. Moreover, their bias may induce disruptive and unnecessary activism, inhibit value improvement in companies with female leaders, and waste time and resources. This paper highlights potential inefficiencies in activist monitoring, but suggests that they diminish over time with activists' female-CEO experience.

Second, our work complements the literature concerning effects of managers' gender on investment flows, which shows evidence of potential biases from investors towards female managers. For example, Hebert (2020) finds differences in external capital raising by female entrepreneurs, Ewens and Townsend (2020) find evidence of gender bias in early stage investment, and Niessen-Ruenzi and Ruenzi (2018) find evidence of less inflows received by female managed mutual funds. We add to the literature by showing inefficient differential treatment of female CEOs by activist investors. This is a relevant contribution because we show that investors widely perceived as smart money also exhibit differential treatment towards female leaders. Importantly, the patterns documented in this paper affect female leaders in large public companies, so we show they are not limited to small private firms.

The remainder of this paper is organized as follows. Section 2.2 describes our data and provides summary statistics. Section 2.3 discusses our results regarding the probability of being targeted by shareholder activists and how is this affected by the incumbent CEO gender. It includes a discussion and implementation of an identification strategy based on IV. Section 2.4 shows differences in campaign characteristics and in CEO quality. Section 2.5 analyzes shareholder activism outcomes in terms of the market reaction to 13D filings and long-term target performance. Section 2.6 concludes.

2.2 Data

Our shareholder activism data concerning US public companies come from SharkRepellent, which collects shareholder activism information through Schedule 13D filings, proxy statements, press releases, financial news, company websites, and financial trade publications. The SharkRepellent data only cover a broad cross-section of US targets from 2006. For this reason our sample period starts from January 2006. The sample period ends in December 2015 because we track target firm performance for 3 years after the activism event and we have that information up to 2018. Following previous studies (e.g. Brav et al., 2008), we exclude events where the primary activism purpose is to exploit merger arbitrage. We cross-check activism dates in our sample with merger and acquisition (M&A) announcements of target companies in the SDC database. We define any activism event that takes place after an M&A announcement for the target firm but before the deal completion as related to merger arbitrage and, therefore, these events are dropped from our sample. We also exclude campaigns initiated solely by religious groups because their campaigns usually pursue improvement in international human rights and/or labor standards rather than change to company management or operations (Proffitt Jr and Spicer, 2006). Overall, we end up with 3,081 shareholder activism campaigns over the period from 2006 to 2015.

Table 2.1 provides information on campaign distributions across different categories. Because our analysis focusses on gender bias in shareholder activism, we report all statistics also for female- versus male-CEO target companies.[1] Panel A presents the annual distribution of our sample events. Shareholder activism campaigns are distributed relatively evenly across all calendar years, indicating a mature activist market in the US. Panel B illustrates the sample distribution across Fama-French 12 industries. We can see a higher concentration of target firms in the business equipment and finance industries, which highlights the importance of including industry fixed effects later in the regression analysis. Panel B also shows different industry concentration across female- versus male-CEO target companies. Table I.2.1 in the Internet Appendix shows that these differences are not due to higher prevalence of female CEO across industries in the population of US companies in BoardEx. We do not see any particular pattern between the industry targeted by activists and the proportion of female CEOs.

Insert Table 2.1 about here.

Panel C shows the distribution of shareholder-activism events by activist type. Detailed information about activist identities is provided in Appendix 2.A. Note that some campaigns involve more than one activist and therefore activist types do not add to the total of 3,081. Religious groups are included only if they participate in a joint campaign with another activist type. Hedge funds stand out as the dominant activist type with 1,585 campaigns, which represents 51% of all campaigns. The high frequency of hedge-fund engagement in activism

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[1]As described further in this section, data on CEO gender come from BoardEx.

is consistent with their strong financial incentives and trading flexibility due to less stringent regulations. Hedge funds are in a strong position to engage in shareholder activism (Brav et al., 2008). The panel also shows that hedge funds are more prone to target firms with female CEOs.

Panel D shows the primary stated objectives that activist investors provide when announcing their activism campaigns. More than one third of campaigns have board-related objectives, suggesting that shareholder activists seek to change control and to reshape the targets' boardrooms. Further 24% of campaigns state a broad goal of 'maximizing shareholder value' and 20% are associated with voting proposals. The remaining categories are relatively infrequent and concern M&As or proxy fights. We can see a higher frequency of board-related objectives and lower frequency of merger-related objectives for female- versus male-CEO targets.

Finally, Panel E provides frequencies by activists' hostility tactics in our sample. Guided by Brav et al. (2008), we classify activist tactics into four categories from the least to the most hostile.[2] For each category, we show the total number of campaigns as well as a split by individual subcategories. Since activists may adopt multiple hostility tactics, the total percentage across the four categories and within each category exceeds 100%. The second least hostile category is the most common; 89% of all campaigns have at least one individual tactic belonging to this group.[3] The most common individual tactics are sending publicly disclosed letters either to the board/management (60% of all campaigns), or to stockholders (35% of all campaigns); both part of the second least hostile category. This pattern seems reasonable given that activist investors generally employ less costly and hostile tactics at the early stages of their interventions and increase hostility only when necessary (Gantchev, 2013). Also note that 30% of activists in our sample wage a proxy fight, and 29% nominate slate of directors, dovetailing with the role activists play in monitoring the management of target companies. All tactic frequencies seem to be higher for female-CEO targets, which suggests a higher level of activists' engagement.

We use BoardEx to collect information on corporate boards and incumbent CEOs in charge of target firms at the onset of the activism campaigns. Compustat provides financial data, CRSP data on stock returns and stock return volatility, FactSet data on institutional ownership, and IBES analyst-coverage information. The data collection results in an unbalanced panel from 2003 (three years before 2006, the earliest activism-campaign year) until 2018 (three years after 2015, the last activism-campaign year). Panel A in Table 2.2 shows summary statistics for variables related to hedge-fund activism following Brav et al. (2008), additional corporate governance variables and CEO characteristics. Panel B decomposes the sample into female-CEO targets, their male counterparts, and non-target firms and shows means across all

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[2]For details see the definition for tactic category in Appendix 2.B.

[3]Tactics included in this category are letter to board/management, letter to stockholders, call a special meeting, take action by written consent, propose a precatory (non-binding) proposal and propose a binding proposal.

variables. Appendix 2.B provides definitions of all variables. We winsorize all variables at the 1$^{\text{th}}$ and 99$^{\text{th}}$ percentiles. Table I.2.2 in the Internet Appendix shows the correlation matrix.

Insert Table 2.2 about here.

About 5% of the target firms have female CEOs, which is roughly twice as high as the proportion of female CEOs in the BoardEx universe (untabulated). Focusing on Panel B, we can also see that female-CEO targets are different from their male counterparts and non-targets. Column 6 with mean differences between female-CEO targets versus non-targets shows that target firms run by female CEOs do not appear to be poor performers: both accounting (return on assets) and market measures of performance (market-to-book ratio and stock returns) are indistinguishable between female-CEO targets and non-target companies, while female-CEO targets have less volatile stocks than non-targets. Also, operational performance (sales growth) and capital structure (leverage) are not significantly different. Female-CEO targets are larger, have higher institutional ownership, and analyst coverage. In terms of investment, female-CEO targets exhibit similar corporate diversification strategy (Herfindahl index by divisional sales) and innovation inputs (R&D expenditure). They have better corporate governance measured through board independence and CEO-chair duality. Finally, their CEOs are younger, with shorter tenure and higher educational attainment, but similar board experience to CEOs of non-target firms. Female CEO targets have a lower dividend yield (at the 10-percent significance) than non-targets, but they have identical dividend yields to male targeted firms.

Column 5 in Panel B shows fewer significant differences between female- versus male-CEO targets than between female-CEO targets and non-targets. We have some evidence of differences in performance: the return on assets of female-CEO targets is smaller than for male-CEO targets. However, this difference is only significant at the 10-percent level. Also, this effect is statistically insignificant when we use other performance measures, such as market-to-book ratio, sales growth, or stock return. In fact, female-CEO targets have higher market-to-book ratio and stock return, although insignificantly so. Female-CEO targets have also significantly better corporate governance than their male counterparts. Their CEOs are better educated and younger, corroborating findings in the literature that females who gain the top positions are younger and better educated than their male counter-parts (Wang and Kelan, 2013; Faccio et al., 2016).

Finally, to provide a rounded picture Column 7 shows differences between male-CEO targets and non-target companies. In contrast to Column 6 comparing female-CEO targets to non-targets, we see more statistically significant differences, which is also in line with Brav et al. (2008). In particular, male-CEO targets exhibit lower market-to-book ratio, stock return, and sales growth, but better return on assets. Leverage and R&D are higher. In addition, just like female-CEO targets, male-CEO targets are significantly larger in size, less volatile, better governed, with higher institutional holdings, analyst coverage and lower dividend payout than non-target companies. In terms of CEO characteristics, male CEOs are marginally older and

have shorter tenures than the non-targets. To summarize, the univariate differences suggest that even though firms with female CEOs are more frequently targeted by shareholder activists, they do not seem to under-perform significantly male-CEO targets or firms that do not end up as activist targets during our sample period.

2.3 Probability of shareholder activism

In this section, we examine the effect of CEO gender on the probability of a firm being targeted by shareholder activists. As a first step, we estimate a probit model to test whether female CEOs are more likely to be targeted by activist investors, while controlling for other factors already documented in the literature. We include the whole population of firms with data on BoardEx over our sample period from 2006 to 2015. The event year is normalized as $t = 0$ and all explanatory variables are lagged by one year. Observations are based on CEO rather than firm identity because we control for CEO characteristics. We fix the incumbent firm CEO at $t = 0$ regardless of who is the firm CEO at $t = -1$. The dependent variable 'activism target' equals one if a firm CEO becomes a target of shareholder activism at $t = 0$, and zero otherwise. The key explanatory variable 'female CEO' takes a value of one if the CEO is a woman, and zero otherwise. With the exception of dummy variables, all explanatory variables included in Table 2.2 are standardized to a mean of zero and standard deviation of one for easy comparison of marginal effects. We also control for year and Fama-French 12-industry fixed effects. Table 2.3 presents the results.

Insert Table 2.3 about here.

In Column 1, the positively significant coefficient for the female-CEO dummy indicates that, conditional on a set of control variables, female CEOs are more likely to be targeted by shareholder activists. In particular, being a female rather than a male CEO increases the probability of experiencing shareholder activism by 2.27%. Relative to the unconditional probability of being targeted of 8.04%, this is an economically significant effect. Moreover, the female CEO dummy exhibits the largest marginal effect of all explanatory variables. Column 3 with additional control variables concerning CEO characteristics shows a somewhat larger female-CEO marginal effect of 2.52%. The increase in the marginal effect when controlling for CEO characteristics is not surprising. Female CEOs are on average younger and more educated, which should make them less likely targets. Once we control for these variables, the gender effect becomes stronger. The remaining coefficients and marginal effects confirm findings in the literature. Activists favor smaller firms with poorer performance, low R&D expenditures, low dividend payouts and higher institutional ownership (Brav et al., 2008; Denes et al., 2017). Table I.2.3 in the Internet Appendix shows that the female CEO effect pertains also when we focus solely on hedge-fund activist campaigns that represent majority of our shareholder-activism sample.

We implement an instrumental-variable (IV) approach to deal with potential endogeneity. In our setup we might have a problem of omitted variables. It is plausible that an omitted variable causes both a firm to appoint a female CEO and for activists to target them more frequently. This would then mean that a positive correlation between female CEO and shareholder activism is spurious.[4] Potential candidates that are unobservable and could cause spurious correlation include the quality of the CEO or CEO preferences, the quality of the board, and the quality of the firm. The sign of that potential bias is not clear *ex-ante*.

For example, female CEOs are usually more cautious and take less risks. Faccio et al. (2016) show that firms led by female CEOs have lower leverage and less volatile earnings than otherwise similar firms led by male CEOs. Shareholder activists may view management-team cautiousness as less desirable and may wish to target these firms with the goal of increasing desirable risk-taking. During their campaign, they would then increase the firm value either by replacing the CEO or via improved supervision by a restructured board of directors. This kind of spurious correlation would lead to a positive bias – we observe a large female-CEO effect, but the real effect is smaller.

However, we have also a strong case for a negative bias. Our summary statistics show that female CEOs are better concerning observable characteristics, which is also consistent with previous literature (for example, Hill et al., 2015). These observable characteristics could be positively related to CEO abilities. As a more able CEO should be associated with a smaller likelihood of being targeted by shareholder activists, our regression could underestimate the effect of being a female-CEO on shareholder activism.

Given certain conditions an instrument would eliminate this omitted variable bias. This instrument would need to exogenously change the probability of being targeted only through changing the propensity of the firm to have a female CEO. We propose an instrument that can meet these criteria: 'other-industry female fraction.' $OIFF$ is defined as the average across all board directors and their other board positions of the fraction of women employed in the industry of the firm where they hold a directorship. Information on female labor force participation is compiled from the Current Population Survey (CPS) and we match the survey's industry to our data through NAIC codes. In particular,

$$OIFF_i = \frac{1}{N_i M_d} \sum_{d=1}^{N_i} \sum_{b=1}^{M_d} FemaleFrac_{idb},$$

where d $(d = 1, \ldots, N_i)$ is a director on the board of focal firm i, b $(b = 1, \ldots, M_d)$ is another board on which director d sits, and $FemaleFrac_{idb}$ is the fraction of women employed in the industry of firm b that has director d from focal firm i on the board of directors. Additionally, we require that firms i and b operate in different industries. If this is not the case, $FemaleFrac_{idb}$ takes the value of zero. We make this adjustment in order to break a direct link in the

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[4]Reverse causality is less of a concern in this setting, as it is unlikely that firms would go through the lengthy process of changing their CEOs when chances of shareholder activism go up.

propensity to appoint female CEOs within the same industry. Focusing on links external to the industry of the focal firm decreases the likelihood that our instrument is related to unobservable characteristics at the firm level. Put it differently, as we focus on external exposure, board members that do not have external positions are not treated by our instrument. The value of zero for all directorships in the same industry makes $OIFF$ correlate with female CEO less. It also causes the outside female exposure to be low: the average across all firms is only 12.4%, with a standard deviation of 11.8%, even though the fraction varies between 9% in construction to 75% in education and health services and the median is around 40%.

Table 2.4 reports linear IV results with Columns 1 to 3 reporting the first-stage, Columns 4 to 6 the second-stage and Columns 7 to 9 the reduced-form regressions. The main advantage of a linear IV model in relation to a non-linear version, such as a probit model, is that only the linear model guarantees consistency of the second stage estimation (Hausman, 2001; Angrist and Pischke, 2009). Moreover, even when the endogeneous regressor, the female CEO dummy, is discrete; the linear estimation still provides a valid linear approximation estimation (Angrist and Pischke, 2009). Therefore, our preferred estimation uses a linear IV model. Specifications with probit models in the second-stage and reduced-form regressions are reported in Table I.2.4 in the Internet Appendix.

Insert Table 2.4 about here.

A valid instrument needs to be highly correlated with the endogenous variable, i.e., the CEO gender. Our instrument of other-industry female fraction measures an exposure of focal-firm board members to other firms that operate in industries with a certain fraction of female employees. As a higher fraction of female employees usually holds across corporate hierarchy (Cohen et al., 1998; Cook and Glass, 2011), a higher average exposure of directors to female employees should mean that the directors are more familiar with women in highly-ranked managerial positions. Familiarity plays an important role in attitude formation and decision making (Park and Lessig, 1981; Huberman, 2001; Seasholes and Zhu, 2010; Gompers and Wang, 2017). Boards with higher other-industry female fraction should then be more inclined to support an appointment of a female CEO. To confirm that our instrumental variable is indeed strongly correlated with the female-CEO dummy, we rely on the $F-$statistic in the first stage. Column 1 in Table 2.4 shows that the $F-$statistic equals 22.44 when only the IV is included as a regressor. The coefficient is positive and significant at the 1-percent level, confirming that the other-industry female fraction predicts positively firms with female CEOs. Columns 2 and 3 show that it does not drop below 11.46 when we include other exogenous variables from the second stage. This satisfies the recommended minimal value of 10 and we conclude that the other-industry female fraction satisfies the relevance assumption.

A valid instrument should also be randomly assigned – the average female-employment fraction on other-industry boards of corporate directors should be random conditional on our

controls. Our instrument compares two firms within the same industry and with similar characteristics, but where there are differences in the female workforce industry composition of the director's outside seats. Therefore, it is reasonable to assume this composition is random and unrelated to activism. We also provide empirical evidence of this. Our statistics on industry distributions of activist targeting in Panel B of Table 2.1 and industry distributions in the population of US firms on BoardEx in Table I.2.1 do not show any particular pattern of correlation between activist targeting and female CEOs across different industries. Nevertheless, any potential link should be broken by the requirement that our instrument accounts only for board memberships from industries other than the focal-firm industry. This evidence supports the assumption that our instrument, other-industry female fraction, is randomly assigned across shareholder activists targeting female- rather than male-CEO firms.

The last condition for a valid instrument is the exclusion restriction: the only link between the dependent variable and the instrument should go through the instrumented variable. In our setting, the average directors' other-industry female exposure should not be directly linked to targeting by activists other than through the female-CEO link in the first stage. The directors' female exposure should stem from directors' external directorate network and not from variables that are expected to affect the firm itself, such as firm, board, or CEO quality.

The most obvious violation of this assumption would arise if we account for all directors' external links and do not restrict exclusively to links coming from outside the firm's industry. The choice of a female CEO might be related to unobservable characteristics that are common within an industry. To break such a link, our instrument uses external directorships in different industries. Similarly, our IV should not be directly related to the size of the director's network, which potentially correlates with board quality. As we average out the female fraction across directorships rather than cumulate them, our IV should not depend on the size of the director's network.

Our IV estimation must assume that other unobserved variables related to firm, board, or CEO quality that potentially correlate to our instrument are not affecting probability of activism through a different channel that is not CEO gender. However, certain directors could be inclined to serve on boards across industries with higher female participation and female-CEO firms could have a higher fraction of these directors, which then leads to a higher shareholder activism. We argue that a direct link that does not go through female CEO is not plausible. We also provide placebo tests that construct instruments based on outside director linkages that are not determined by gender, but another observable characteristic. We show links associated to performance (return on assets) of other firms in which directors hold appointments do not work. Therefore, it is reasonable to assume that our instrument affects activism only-through CEO gender. It is also unlikely that directors' industry presence would be reversely driven by future shareholder activism; reducing concerns of reverse causality.

Having identified a strong impact of our IV on CEO gender and argued for the exclusion restriction, we now turn to the second-stage results in Columns 4 to 6 in Table 2.4. They show

that the coefficient for the instrumented female CEO variable is positive and significant at the 1-percent level. Overall, the IV model suggests that the positive significant effect documented in Table 2.3 prevails even after testing for possible endogeneity. The probit model in Table I.2.4 in the Internet Appendix confirms the positive and significant effect of female CEO on activism targeting, which means that our results are not sensitive to a choice of the estimation method.

One potential criticism of our instrument is that it could be associated with network characteristics of firms in which board members sit. If these networks are associated with board member quality, preferences, or similar characteristics, then our instrument would not satisfy the exclusion restriction. This is because the instrument would affect the probability of being targeted through variables other than gender. To address this potential criticism, we perform a test with a placebo instrument that is based on outside directorship links, but averages over the return on assets of the outside-directorship firms. The average ROA is still linked to the quality of the board and to the networks of the board members. If our instrument $OIFF$ was explained by board networks, the average ROA should also predict the gender of the CEO. Our placebo test shows that it does not: the first-stage coefficient for the average ROA of outside-director firms in Column 4 of Table I.2.4 is insignificant. Given the link in the first stage is interrupted, we do not find a significant coefficient for the fitted female CEO variable in the second stage in Column 5 either. Overall, this placebo test provides evidence against a direct link between our instrument $OIFF$ and the activism targeting.

To summarize, this section's results suggest that female CEOs are targeted by shareholder activists significantly more frequently than their male counterparts while controlling for firm performance and other firm and CEO characteristics. This result stands when using an IV approach to account for potential endogeneity.

2.4   CEO quality and campaign differences

2.4.1   CEO quality

To provide more evidence that the excess targeting is not related to lower quality for female CEOs we use previously established measures of general managerial abilities. We follow Custodio et al. (2010) and apply their General Ability Index to our setting. An advantage of this index is that it is constructed independently from CEO gender, which mitigates concerns that the index could be mechanically related to gender effects in our tests. The index is constructed as the first factor of a principal component analysis using five proxies of managerial abilities: number of previous positions, number of previous firms, number of industries where the CEO has worked, past conglomerate experience, and past experience as a CEO. Results in Table 2.5 show that the average targeted female CEO significantly outperforms her male counterpart in almost all individual proxies of CEO quality and in the overall index. The only characteristic that is not significantly different is in previous experience as a CEO. Targeted female CEOs

are better than their male counterparts in terms of observable characteristics related to managerial quality, which is against an argument that lower female CEO quality explains gender differences in targeting.

Insert Table 2.5 about here.

2.4.2 Campaign characteristics

This section explores differences in campaign strategies involving female versus male CEOs, analyzing campaign-goal types, hostility through proxy fights, and success in attaining activist demands.

Table 6 focusses on campaign goals and hostility. Columns 1 to 3 of Panel A show that on average 34% of male-CEO campaigns aim at board-related goals, such as board representation for the activist, board control, or removing of a director, and 24% of male-CEO campaigns aim at value maximization. The remaining category covering 42% of male-CEO campaigns includes proposal votes, mergers, but also campaigns without publicly disclosed goals and we label it 'other goals'. We can also see that female-CEO campaigns exhibit higher frequency of board-related goals at 43%, which represents a sizeable difference of a quarter from 34% for male CEOs. Value maximization is also somewhat higher at 26% for female-CEO campaigns.

Insert Table 2.6 about here.

Panel B in Columns 1 to 3 reports results of multinomial logistic regressions that compare the likelihood of board-related and value-maximization goals relatively to the reference category of other goals. The first specification, which includes only the female CEO dummy and year and Fama-French 12 industry fixed effects, shows that shareholder activists aim board changes in targets with female CEOs more often than in targets with male CEOs. This effect persists also when controlling for CEO characteristics in Column 2 and target firm characteristics in Column 3.[5]

Columns 4 to 6 explore hostility of activist campaigns distinguishing between no proxy fights, threats of proxy fights and launched proxy fights. Panel A shows that 74% of male-CEO campaigns do not experience proxy fights, but this fraction is only 63% for female CEOs. The difference in hostility is reflected in both higher threat of proxy fights (10% versus 6%) as well as higher frequency of proxy launches (26% versus 20%) for female versus male CEOs, respectively.

This pattern is confirmed in Column 4 of Panel B with a multinomial logistic regression comparing proxy-fight threat and launches to no proxy fights (the reference category). In Column 4, we control only for year and Fama-French 12 industry fixed effects. Both female-CEO

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[5]Note that Table 2.6 reports only 2 out of 4 included CEO characteristics (age, tenure, education, experience) and 9 of 15 firm characteristics (return on assets, market-to-book ratio, stock return, firm size, institutional ownership, stock volatility, leverage, analyst coverage, sales growth, dividend yield, HHI, R&D expenditure, board size, independent directors, and CEO-chair duality) to save space.

coefficients are positive and statistically significant at the 5-percent level confirming that activists are more likely to use a threat or launch of a proxy fight for targets with female CEOs. Column 5 adds two dummies for campaign goals and CEO characteristics. Naturally, campaign goals are associated with campaign hostility. Both board-related goals and value maximization increase the probability of proxy threats. However, only board-related goals increase the probability of proxy fight launches, while value maximization decreases it. Importantly, controlling for campaign goal types results in the female CEO dummy becoming insignificant for both threat and launches.[6] Column 6 confirms that the female CEO dummy remains insignificant when controlling for target firm characteristics. This suggests that female-CEO campaign hostility is closely linked to the tendency of female-CEO campaigns to aim more often at board seats. Once we control for campaign goals, hostility is similar for female- versus male-CEO campaigns.

Columns 7 to 9 in Table 2.6 explore hostility outcomes and by definition focus only on campaigns with launched proxy fights. Panel A shows that the faction of launched proxy fights that end up in a shareholder vote is the same for male versus female CEOs. However, female CEOs end up more often in settlements (51% versus 46%) and less often in withdraws (16% versus 21%). The multinomial logistic regressions in Panel B show that the differences are not statistically significant when controlling for year and industry fixed effects (Column 7), CEO characteristics with fixed effects (Column 8), and target characteristics with fixed effects (Column 9).

Table I.2.5 in the Internet Appendix shows that female CEOs are more likely to settle when the analysis includes all campaigns. In order to include all campaigns, we regress the female CEO dummy on outcomes of launched proxies represented by two dummy variables for settled proxy fights and for votes. We also include control variables. For comparison with Table 2.6, Columns 1 to 3 restrict the sample to launched proxy fights and the results are consistent across the two tables; settles and votes are not statistically significant. However, Columns 4 to 6, where we include all campaigns, show that female CEOs are associated with a higher probability of settled proxy fights. This is because the last three columns take into account the fact that proxy fights are more frequent for female-CEO campaigns.

Table 2.7 explores gender differences in campaign success. The success dummy is set to one if activists' value-creation and/or board-related demands are fully or partially implemented and zero otherwise. Panel A shows that 56% of female-CEO campaigns versus 52% of male-CEO campaigns end up successfully achieving their goals. Column 1 in Panel B shows that the difference of 4% is not statistically significant when we control for year and industry fixed effects.[7] The female CEO dummy variable is not significant. Column 2 that controls for

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[6]The female CEO dummy is not significant also when we drop CEO characteristics.

[7]We run OLS regressions instead of probit or logit regressions because we include interaction terms in Columns 2 to 4 and nonlinear models suffer problems with interaction terms and their interpretation. Ai and Norton (2003) show that the magnitude of the interaction effect in nonlinear models does not equal the marginal effect of the interaction term. Following Norton et al. (2004), we use simple OLS regressions that do

goal types reveals that board-related and value-maximization goals are associated with higher success. We can also see that proxy threats are associated with higher, while proxy launches with lower goal success relatively to no proxy fights. Importantly, female-CEO campaigns are more successful when their campaign aims at value maximization: the interaction term for female CEO and value maximization goals is positive, large and statistically significant. The interaction term between board-related goals and female CEO is not significant. Female- and male-CEO campaigns are also similar when it comes to goal success conditional on proxy fights. The two interaction terms are statistically insignificant.

Insert Table 2.7 about here.

These results hold also when we control for CEO characteristics in Column 3. In Column 4 with firm characteristics, the significance of the interaction term between value maximization and female CEO disappears, but not because some of the control variables explain goal success better, but rather because of the restricted data set.[8] Extra unreported regressions show that the coefficient for campaign success is not significantly different for female- versus male-CEO campaigns in settled proxy fights. So, even though female-led targets may have higher propensity to settle proxy fights before they come to vote, they are not more inclined to accommodate to activist demands.

To summarize, our results in this section show that campaigns targeting firms with female CEOs are more frequently aiming at board seats or board changes (board-related goals) and they are more hostile, i.e. they use proxy fight threats and proxy fight launches more often. At the same time, female-CEO campaigns are more successful with achieving value-maximization goals, but not with board-related goals. Female CEOs settle launched proxy fights more often in the overall sample, but conditional on campaign hostility, we do not find any differences between male and female CEOs. So, activists aim for more board-related goals and are proportionately more hostile with female CEOs, but are not more successful in achieving these board-related goals. In contrast, activists' value-maximization goals do not differ by CEO gender, still female-CEO campaigns are more successful in achieving them.

2.4.3 Activist reimbursement demands

This section explores gender differences in activists seeking reimbursement from their target companies for costs associated with their campaigns. Panel A in Table 2.8 shows that 10% of all campaigns (303 out of 3,081) are associated with activists seeking reimbursement for their campaign costs. All of the reimbursement demands are associated with launched proxy fights and majority (96%) with board-related goals. Reimbursement demands are more common when activists are successful with their demands and when targeted CEOs have less board

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not suffer the interaction term problem.

[8]If we estimate the specification in Column 2 with the same 1,711 firms from specification in Column 4, the interaction term is statistically insignificant. We lose around 800 observations.

experience. For all the categories listed in Panel A, reimbursement demands are higher for female- than for male-CEO targets.

Insert Table 2.8 about here.

Panel B shows logistic regressions with the dependent variable indicating activists' reimbursement demands. The only exception is Column 6 with an OLS regression due to included interaction terms. Column 1 with all observations and year and FF-12 industry fixed effects confirms the significantly higher probability of seeking reimbursement for campaigns with female CEOs. However, when limiting the sample to campaigns with launched proxies (Column 2) or board-related goals (Column 3), the coefficient for female CEO decreases in size and becomes statistically insignificant.[9] So, activists seek reimbursement more frequently for female-CEO campaigns because these campaigns are more hostile and aim at board-related goals.

Columns 4 and 5 control for goal success and CEO board experience, respectively, and show that higher goal success and lower CEO board experience are associated with a higher probability of activists seeking reimbursement of their campaign costs. Column 6 with an interaction term between the female-CEO dummy and CEO board experience shows that activists are significantly more likely to demand reimbursement with an inexperienced CEO when it is a female.

2.5 Outcomes of shareholder activism

2.5.1 Market reaction to shareholder activism

Table 2.9 shows the market reaction to Schedule 13D filings to reveal market's perception of CEO gender differences across campaigns. We follow Brav et al. (2008) and use the buy and hold abnormal returns from 20 days before to 20 days after 13D filings as the dependent variable.[10] The main regressor of interest is the female CEO dummy and is statistically insignificant in Columns 1 to 3. We control for year and FF-12 industry fixed effects (Column 1) together with campaign and CEO characteristics (Column 2) or campaign and firm characteristics (Column 3). Columns 1 to 3 show that the market does not distinguish campaigns across the CEO gender.

Insert Table 2.9 about here.

Column 4 includes goal and hostility dummies and their interactions with the female-CEO dummy. We can see that the market reaction does not vary across different campaign

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[9]Note that running regressions within the limited sample is the only option as dummy variables for proxy launches and board-related goals are (almost) perfectly correlated with the dependent variable.

[10]Our main results hold using the buy and hold abnormal returns from 10 days before to 10 days after 13D filings as the dependent variable.

goals, while campaign hostility matters for the market reaction.[11] For male CEOs, both threats and launches of proxy fights are associated with a larger campaign announcement effect as documented by the positive and significant single coefficients for proxy fights. The economic significance at 4% and 6% for threats and launches, respectively, is also meaningfully large. For female CEOs, the interaction terms are negative, suggesting that the market reacts less positively to campaigns hostility with female CEOs. But only the interaction term between launches and female CEO is statistically significant. An extra F-test shows that the overall market reaction to proxy launches for female-CEO campaigns is insignificantly different from zero. This evidence prevails when controlling also for campaign, CEO, and firm characteristics in Columns 5 and 6.

In summary, Table 2.9 shows no differences in the market reaction to female- versus male-CEO campaigns. If anything, our analysis shows that the market reacts more negatively to hostile campaigns led against female CEOs.

2.5.2 Long-term outcomes

This section investigates whether differential targeting of female- versus male-led firms could be explained by differences in long-term outcomes after activism. The main conclusion of Section 2.3 is that being a female increases the likelihood being targeted. The targeting is not explained by corresponding underperformance of female CEOs at the moment of activism. A concern remains whether unobservable characteristics associated with future performance explain this targeting. Alternatively, activists could be able to generate better *ex-post* performance in firms led by female CEOs. In that case, even when present performance is not different, activist investors might still have incentives to target female-led firms. We examine the effect of shareholder activism on post-activism firm performance by comparing firm performance of targets to those of non-targets over a seven-year period: from three years before to three years after the activism campaign. We rely on the return on assets for accounting performance and market-to-book ratio for a market-based measure. We also explore changes in dividend yield and cash levels.

Since activist investors do not randomly choose their targets, we employ the propensity score matching procedure to find suitable counterfactuals to the activist target firms. We estimate the propensity score as a function of firm and CEO characteristics together with year and Fama-French 12-industry fixed effects. We match on all our CEO characteristics[12] because we are concerned with potential differences in CEO characteristics that could be associated with gender. However, we narrow the group of firm characteristics to the most important determinants of activist targeting: return on assets, market-to-book ratio, firm size, institutional ownership, and board size. Matching on too many variables may result in an inferior

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[11]On the 13D filing date, market participants are aware that a proxy contest is either highly likely or is already taking place.

[12]Our CEO characteristics include age, tenure, education, and experience.

match. We then exclude CEOs who experience shareholder activism during the period from 2006 to 2018 from the pool of potential control firms to provide a cleaner identification of the shareholder-activism impact. From this set, we perform a 1:1 matching where (i) a target CEO is matched to a non-target peer/control from the same Fama-French 12 industry and fiscal year, and (ii) the constructed control sample has the smallest absolute propensity score distance from the targeted firms. In total, this procedure yields 130 treatment-control pairs for the female-CEO subsample and 2,452 treatment-control pairs for the male-CEO subsample.

Panel A in Table 2.10 summarizes mean values of all matching variables for the female and male subsamples as well as their matched non-target counterparts one year before the campaigns. The differences in means for male-CEO targets versus their matches in Column 6 are insignificant across all 9 matching characteristics and the propensity-score difference is zero. The female subsample is smaller and statistics in Columns 1 to 3 suggest that it is more difficult to find matching firms that fit across all characteristics. The minimization of the propensity-score difference for this subsample results in a sample of matched firms that exhibit some differences to the target firms. Intuitively, differences prevail in CEO characteristics; 3 out of 4 characteristics are significantly different. Note that the targeted female CEOs exhibit lower age and tenure and higher education and board experience than their control CEOs. The remaining firm characteristics are not significantly different across female-CEO and matched firms. Importantly, the difference in propensity score between the two groups is zero.

Insert Table 2.10 about here.

Using the matched control firms, we estimate the following difference-in-differences (DiD) model separately for female and male CEOs:

$$Y_{it} = \gamma \ \text{Target}_i \times \text{Post}_t + \theta \ \text{Post}_t + X_{it} \ \delta + \alpha_i + \beta_t + \epsilon_{it}, \tag{2.1}$$

where Y_{it} is an outcome variable for firm i in fiscal year t; $Target_i$ is a dummy variable equal to one in case the focus firm i is targeted by shareholder activists during our sample period; $Post_t$ is a dummy variable equal to one if year t falls into the post-treatment period (event years 1 to 3); α_i is a firm fixed effect, and β_t is a year fixed effect. Regressions include additional firm controls X_{it}: firm size, institutional ownership, and board size. We are interested in the DiD interaction term coefficient γ: it represents the change in outcome from pre- to post-campaign period between treatment and control firms.

The main assumption underlying this approach is that absent shareholder activism, the average change in the treated and control groups would have been the same; i.e., the two groups would have continued to experience parallel trends. Panel B in Table 2.10 shows regression results for a model similar to (2.1) where we replace the *post* dummy with separate dummies for each event year. We leave year t_{-3} as the reference category and report only DiD interaction terms for two pre-activism dummies $target \times t_{-2}$ and $target \times t_{-1}$. We see no evidence of

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differential trends between the two groups prior to shareholder activism, except the market-to-book ratio for male-CEO targets. Panel C tests parallel trends in the pre-activism period in a univariate setting. We report the average increase in the outcome variables from year t_{-3} to t_{-1} for female (male) targets in Column 1 (4) and their control firms in Column 2 (5) and then report their difference in means in Column 3 (6). These tests confirm that the pre-activism trends are not significantly different across target versus their matched control firms for both female and male subsamples, except the difference in the market-to-book ratio for the male subsample.

Table 2.11 shows DiD estimation results. Panels A and B tabulate the estimated DiD interaction terms from Model (2.1) for the female and male matched subsamples, respectively. To complement these results, in Panel C we run a DiD model that covers the full sample with male and female CEOs combined that allows us to compare the female versus male outcome effects. This means that we add interaction terms with a female CEO dummy, which is equal to one for the female subsample across all seven years in the data panel and zero for the male subsample. Specifically, we include a triple interaction term with *Target* and *Post* and a double interaction term with *Post*. Panel C reports the triple interaction term that shows the differential effect for female versus male CEOs in the post-campaign period and the double DiD coefficient that in this specification reflects the DiD effect for male CEOs.

Insert Table 2.11 about here.

The DiD-outcome results for the return on assets in Column 1 show positive and significant DiD coefficients for both female- and male-CEO targets, which is consistent with performance improvements following activist interventions. The DiD coefficients are not statistically significant for the market-to-book ratio in Column 2. For the dividend yield and cash in Columns 3 and 4, respectively, we have positive and statistically significant DiD coefficients for the male-CEO subsample in Panel B, but insignificant DiD coefficients for the female-CEO subsample in Panel A. For all four performance measures, the triple interaction term in Panel C is not statistically significant. Female-CEO targets do not seem to improve performance more than their male counterparts.

Panel D shows regressions results when we match the targeted female-CEO firms with comparable female firms to account for a possibility that firm performance is gender specific, for example, female CEOs perform generally better than male CEOs because only the best female manage to get to the top. The DiD coefficients are not statistically significant.

To confirm that our conclusions do not closely depend on the specific matching procedure, we perform an alternative matching procedure where the propensity score matching is done based on firm characteristics only. Table I.2.6 in the Internet Appendix shows that the quality of matching and parallel-trend tests perform somewhat poorer than for our primary matched sample. Still, results in Table I.2.7 lead to the same conclusions.

To round up the analysis of post-activism outcomes, Table 2.12 explores the probability of being taken over as a result of the activist campaign (Greenwood and Schor, 2009). Due to high takeover premia, it is important to check also this channel of campaign return potential. The dependent variable is set to one for all campaigns that received an M&A offer during 3 years after the activism 13D filing. We repeat specifications from Section 2.4 and find no CEO-gender differences and conclude that the gender difference in activist targeting is not driven by activists being more successful at collecting takeover premia.

Insert Table 2.12 about here.

2.5.3 Additional tests

To reconcile our analysis, which suggests unmaterialized activists' expectations towards female CEOs, with the literature on shareholder activism concerning strong profit orientation of activist investors (especially hedge funds, see Brav et al., 2008; Gantchev et al., 2019), we perform two additional tests. First, we explore the activists' propensity to target female-led firms repeatedly. We identify 132 separate activist investors that target female-led firms in our data set that includes 10 years of campaign data. We find that 85% of these activist investors target female-led firms only once. Additional 10% activists do this type of transaction twice and only 5% repeat these transactions 3 or more times.[13]

Second, we explore whether our main results in Sections 2.3 and 2.4 show a changing trend over time. In unreported results, the differential targeting of female- versus male-led firms becomes insignificant in the later part of our sample. In addition, there is no evidence of activists' tendencies to aim for more board-related changes or to choose a more hostile tactic when targeting female CEOs in more recent years.

These additional tests suggest that activists learn from their experience and do not undertake such transactions repeatedly. Note that some female-led targets do underperform and become valid activist targets.

2.6 Conclusions

In this paper, we study the role of CEO gender in the propensity of targeting by activist investors. Using a probit regression and controlling for CEO and firm characteristics, we show that activist investors are more likely to target female CEOs. To deal with potential endogeneity problems, we implement an IV strategy. As an instrument, we use the average exposure to female workforce by board members that hold appointments in firms outside the target-firm industry. We show that this exposure IV increases the likelihood of a firm appointing a female CEO, and the instrumented female-CEO variable still predicts the probability of activist targeting. If anything, the female-CEO effect increases when using the IV.

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[13]In particular, we have 4 activists with 3, 1 with 4 and 1 with 7 female-CEO campaigns.

We then show that the gender-targeting differences are more consistent with activists' tendencies to aim for more board-related changes and associated campaign hostility rather than higher potential for value improvement. Announcement buy-and-hold abnormal returns are on average not different between male- versus female-led targets. Moreover, activism does not increase long-term firm performance in female-led firms more than in male-led firms.

Activists play an important monitoring role and previous literature shows that activism increases firm value on average. We find an activists' weak spot. Activist investors target disproportionately female CEOs. Our tests suggest that the gender-targeting is consistent with differential *ex-ante* expectations of achieving demands with female versus male CEOs. *Ex-post* these expectations do not materialize on average. We show evidence of learning by activist investors.

Appendix 2.A   Activist identities

Activist Identity	Definition
Corporation	Public or private company that is usually in the same industry as the target company of the campaign. A corporation is not typically an activist. This usually occurs when a corporation is attempting to take over another company whether via a proxy fight or hostile tender offer (e.g., Oracle Corporation campaign to takeover PeopleSoft, Inc.).
Hedge fund company	A fund that uses derivative securities and is extremely risky. Typically, these companies are very secretive about their investments. Includes funds that use puts, calls, margins, and shorts, often as "hedges" to reduce risk (e.g., Soros Fund Management). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Individual	The activist is an individual or family.
Investment adviser	If an investment firm does not have the majority of its investments in mutual funds and is not a subsidiary of a bank, brokerage firm, or insurance company, then the firm is considered an Investment Advisor. An Investment Advisor provides investment advice and manages a portfolio of securities (e.g., Franklin Mutual Advisors). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Labor union	The activist is a labor union including labor union pension funds (e.g., The Service Employees International Union).
Mutual fund manager	An investment firm with the majority of its investments in mutual funds. A mutual fund raises money from shareholders and reinvests the money in securities (e.g., BWD Rensburg Unit Trust Managers Ltd). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Public pension funds	A fund established by a state or local government to pay benefits of retired workers (e.g., The California Public Employees Retirement System).
Religious group	The activist is a religious organization (e.g., Interfaith Center on Corporate Responsibility).
Named stockholder group	The name adopted by the activist group for the specific activist campaign (e.g., The Committee for Concerned Cyberonics, Inc. Shareholders).
Other institutions	Other institutional investors not already categorized. Includes Arbitrage, Bank Management Division, Broker, Broker/Investment Bank Asset Management, Fund Distributor, Foundation/Endowment, Holding Company, Insurance Company, Insurance Management Division, Corporate Pension Fund, Private Banking Portfolio, and Venture Capital Firms. Institution types are assigned by FactSet LionShares.
Other stake holders	Other non-individual and non-institutional investor entities such as ESOPs, venture capital, private equity firms and other investment firms not categorized as an institution by FactSet LionShares.

Appendix 2.B   Variable definitions

Variable	Definition
Firm characteristics	
Return on assets (ROA)	Net income scaled by total assets.
Market-to-book ratio	The ratio of market value of equity to the book value of equity.
Stock return	Market-adjusted buy-and-hold return during the year prior to the event year.
Firm size	The natural logarithm of the market value of equity.
Institutional ownership	The sum of the holdings of all institutions in a firm's stock divided by market capitalization at the end of each fiscal year.
Stock volatility	The standard deviation of daily stock returns over the fiscal year standardized to a mean of 0 and standard deviation of 1.
Leverage	The ratio of total debt to total assets.
Analyst coverage	The number of analysts who made forecasts about firm's earnings in each fiscal year.
Sales growth	The growth rate of sales over the previous year.
Dividend yield	The ratio of a company's total annual dividend payments to its market capitalization.
HHI	The Herfindahl-Hirschman index of sales in different business segments.
R&D	R&D scaled by lagged assets.
Cash	Cash and short-term investments scaled by total assets.
Board size	The number of directors on board.
Independent directors	The fraction of independent directors on the firm's board.
CEO-chair duality	A dummy variable that equals to 1 when a firm's CEO is also the chairman of the board.
OIFF	The other-industry female fraction is our instrumental variable. $OIFF_i = \frac{1}{N_i M_d} \sum_{d=1}^{N_i} \sum_{b=1}^{M_d} FemaleFrac_{idb}$, where d $(d = 1, \ldots, N_i)$ is a director on the board of focal firm i, b $(b = 1, \ldots, M_d)$ is another board on which director d sits, and $FemaleFrac_{idb}$ is the fraction of women employed in the industry of firm b that has director d from focal firm i on the board of directors. Additionally, we require that firms i and b operate in different industries. If this is not the case, $FemaleFrac_{idb}$ takes the value of zero.
CEO characteristics	
Female CEO	A dummy variable equal to 1 if the CEO is female, and 0 otherwise.
Male CEO	A dummy variable equal to 1 if the CEO is male, and 0 otherwise.
CEO age	The current CEO age in a given fiscal year.
CEO tenure	The number of years since the CEO first became director at the firm.
CEO education	The number of qualifications at undergraduate level and above for the CEO.
CEO board experience	The number of boards that an incumbent CEO has served on.
Activism characteristics	
Targeted	A dummy variable equal to 1 if the CEO's firm is targeted by shareholder activists in a given year and 0 otherwise.
Number of activists	The number of activists in a dissident group. We count all entities under one institution or one family as one member.
Number of activist types	The number of activist types in a dissident group. There are eleven types of activist investors in our sample: corporation, hedge fund, individual, investment adviser, labor union, mutual fund, public pension fund, religious group, named stockholder group, other institutions, and other stake holders. For a detailed definition of the types see Appendix 2.A.

Variable	Definition
Tactic category	For category 1, either the activist withholds vote for directors or the activist seeks board seats without launching or threatening to launch a proxy contest. Category 2 includes the following cases: (1) the activist makes formal shareholder proposals; (2) the activist issues open letters to board, management, or stockholder; (3) the activist calls a special meeting; and (4) the activist takes action by written consent. Category 3 includes cases where the activist threatens to launch a proxy fight and where the activist issues an acquisition offer that is not hostile. Category 4 includes: (1) the activist sues the company; (2) the activist launches a proxy contest; and (3) the activist issues a(n) hostile/unsolicited offer.
Campaign goals	A nominal variable with the following three categories: board-related goals, value maximization goals, and others. Board-related goals include cases where activists attempt to remove directors and/or gain board seats. Value maximization goals include cases where activists attempt to pressure a company to enhance stockholder value. The remaining cases are labeled as other goals.
Campaign hostility	A nominal variable with the following three categories: no proxy fights, threatened proxy fights, and launched proxy fights. Note that threatened proxy fights consist of cases in which activist threatens to begin a proxy solicitation. As soon as the activist publicly discloses it delivered formal notice to the company that it intends to solicit proxies from stockholders, it is considered an actual solicitation.
Campaign success	A dummy variable equal to 1 if the value creation (e.g., return cash via dividends or buybacks) and/or corporate governance related (e.g., add independent directors) demands made by the activist(s) have been fully or partially implemented (e.g., the activist is requesting a $10 million stock repurchase, the company instead authorizes only a $5 million stock repurchase).
Abnormal returns	The target's daily return in excess of the return on the CRSP value-weighted market index and cumulated from 20 days prior to the Schedule 13D filing date to 20 days afterwards.
Activist ownership	The total ownership stake held by the activist group.
ATPs	A relative measurement of anti-takeover provisions at target firms, ranging from 0 to 10, with a 10 representing the most formidable defenses.
Positive earnings news	A dummy variable equal to 1 if the earnings news before the activist campaign announcement date is positive.

Table 2.1. Sample distributions

This table shows distributions of shareholder activism events by year, industry, activist identity, activist objective, and activist tactic. The sample covers 3,081 campaigns, where 145 occur in female- and 2,936 in male-CEO companies. Columns 1 and 2 show the total number of activism campaigns and the fraction (in %) of all campaigns, respectively. Columns 3 and 4 show the number and percentage of activism events in female-CEO companies, respectively. Columns 5 and 6 show the number and percentage of activism events in male-CEO companies, respectively. Detailed information about activist identities is provided in Appendix 2.A.

	(1)	(2)	(3)	(4)	(5)	(6)
	All targets		Female-CEO targets		Male-CEO targets	
	N	Percent	N	Percent	N	Percent
Panel A: By year						
2006	299	10	15	10	284	10
2007	372	12	18	12	354	12
2008	312	10	17	12	295	10
2009	195	6	10	7	185	6
2010	215	7	7	5	208	7
2011	291	9	10	7	281	10
2012	253	8	13	9	240	8
2013	296	10	11	8	285	10
2014	433	14	22	15	411	14
2015	415	13	22	15	393	13
Total	3,081	100	145	100	2,936	100
Panel B: By industry						
Consumer nondurables	114	4	16	11	98	3
Consumer durables	75	2	2	1	73	2
Manufacturing	217	7	11	8	206	7
Oil, gas, and coal extrac. & products	183	6	0	0	183	6
Chemicals and allied products	54	2	1	1	53	2
Business equipment	604	20	26	18	578	20
Telephone and television transmission	148	5	13	9	135	5
Utilities	84	3	2	1	82	3
Wholesale, retail, and some services	353	11	29	20	324	11
Healthcare, med. equipment & drugs	285	9	13	9	272	9
Finance	574	19	27	19	547	19
Other	390	13	5	3	385	13
Total	3,081	100	145	100	2,936	100
Panel C: By activist identity (not mutually exclusive)						
Hedge fund	1,585	51	88	61	1,497	51
Investment adviser	467	15	25	17	442	15
Individual	277	9	10	7	267	9
Pension fund	182	6	6	4	176	6
Labor union	136	4	6	4	130	4
Corporation	102	3	4	3	98	3
Named stockholder group	52	2	4	3	48	2
Other institutions	76	2	2	1	74	3
Mutual fund	30	1	4	3	26	1
Religious groups	5	0	0	0	5	0
Other stake holders	390	13	11	8	379	13

	(1)	(2)	(3)	(4)	(5)	(6)
	All targets		Female-CEO targets		Male-CEO targets	
	N	Percent	N	Percent	N	Percent
Panel D: By objective categories						
Board representation	843	27	52	36	791	27
Board control	185	6	9	6	176	6
Remove director	23	1	1	1	22	1
Maximize shareholder value	741	24	38	26	703	24
Vote against man. proposal	145	5	10	7	135	5
Vote for stockholder proposal	462	15	16	11	446	15
Vote against a merger	97	3	2	1	95	3
Enhance corporate governance	98	3	3	2	95	3
Hostile acquisition	99	3	2	1	97	3
Remove officer	19	1	1	1	18	1
Public short position	45	1	1	1	44	1
Support dis.group in proxy fight	62	2	1	1	61	2
Not publicly disclosed	262	9	9	6	253	9
Total	3,081	100	145	100	2,936	100
Panel E: By hostility tactic categories (not mutually exclusive)						
Category 1 (least hostile):	748	36	51	50	697	36
Nominate slate of directors	601	29	38	37	563	29
Withhold vote for directors	151	7	13	13	138	7
Category 2:	1,822	89	96	93	1,726	89
Letter to board/management	1,239	60	75	73	1,164	60
Letter to stockholder	724	35	35	34	689	35
Call special meeting	43	2	2	2	41	2
Take action by writ.consent	39	2	2	2	37	2
Propose precatory proposal	465	23	25	24	440	23
Propose binding proposal	117	6	6	6	111	6
Category 3:	225	11	15	15	210	11
Threaten proxy fight	194	9	15	15	179	9
Tender offer	39	2	0	0	39	2
Category 4 (most hostile):	782	38	41	40	741	38
Proxy fight	621	30	38	37	583	30
Unsolicited offer	169	8	5	5	164	8
Hostile offer	77	4	3	3	74	4
Lawsuit	127	6	6	6	121	6

Table 2.2. Summary statistics

Panel A reports the mean, standard deviation, the 25th, 50th, and 75th percentile, and number of observations for an unbalanced panel that covers all BoardEx CEO-firm-year observations over 2006-2015. Panel B decomposes the sample into female-CEO targets, their male counterparts, and non-target firms and shows means across all variables. All variables are defined in Appendix 2.B and winsorized at the 1th and 99th percentile.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: summary statistics							
	Mean	S.D.	p25	p50	p75	# obs.	# obs. female
Return on assets	0.05	0.23	0.02	0.09	0.15	36,577	143
Market-to-book ratio	2.74	4.44	1.12	1.84	3.23	36,725	143
Stock return	0.04	0.55	-0.26	-0.05	0.20	35,416	140
Firm size	6.21	2.01	4.74	6.15	7.57	34,603	128
Institutional ownership	0.53	0.34	0.22	0.59	0.85	38,687	143
Stock volatility	0.03	0.02	0.02	0.03	0.04	35,958	139
Leverage	0.22	0.22	0.02	0.16	0.34	38,169	140
Analyst coverage	5.65	6.65	1.00	3.00	8.00	38,687	145
Sales growth	0.17	0.53	-0.03	0.07	0.21	37,087	145
Dividend yield	0.02	0.03	0.00	0.00	0.02	34,509	117
HHI	0.79	0.28	0.55	1.00	1.00	31,240	145
R&D	0.06	0.15	0.00	0.00	0.04	38,687	140
Board size	8.46	2.44	7.00	8.00	10.00	36,162	140
Independent directors	0.82	0.10	0.77	0.86	0.89	36,707	141
CEO-chair duality	0.40	0.49	0.00	0.00	1.00	38,687	145
CEO age	54.97	7.83	50.00	55.00	60.00	38,658	145
CEO tenure	8.16	8.73	1.40	5.30	11.90	38,642	145
CEO education	1.85	1.07	1.00	2.00	2.00	35,961	138
CEO board experience	4.64	4.10	2.00	3.00	6.00	35,603	135

Panel B: targets versus non-targets

	Female CEO	Male CEO	Non-targets	Differences in means (2)-(3)	(2)-(4)	(3)-(4)
Return on assets	0.04	0.07	0.05	-0.03^c	-0.01	0.02^a
Market-to-book ratio	2.92	2.49	2.76	0.43	0.16	-0.27^a
Stock return	-0.01	-0.02	0.04	0.01	-0.05	-0.06^a
Stock volatility	0.03	0.03	0.03	-0.00	-0.00^b	-0.00^a
Sales growth	0.11	0.12	0.17	-0.01	-0.06	-0.06^a
Leverage	0.22	0.23	0.22	-0.01	0.00	0.01^a
Firm size	6.78	6.52	6.18	0.26	0.60^a	0.34^a
Institutional ownership	0.63	0.61	0.53	0.03	0.11^a	0.08^a
Analyst coverage	7.80	6.84	5.55	0.96	2.26^a	1.30^a
HHI	0.77	0.79	0.79	-0.02	-0.02	-0.00
R&D	0.06	0.04	0.06	0.02	-0.00	0.02^a
Dividend yield	0.01	0.01	0.02	-0.00	-0.01^c	-0.01^a
Board size	9.24	8.59	8.45	0.65^a	0.79^a	0.14^a
Independent directors	0.86	0.83	0.82	0.02^a	0.04^a	0.01^a
CEO-chair duality	0.30	0.40	0.40	-0.09^b	-0.09^b	-0.00
CEO age	52.81	55.40	54.95	-2.60^a	-2.14^a	0.46^a
CEO tenure	5.04	7.89	8.20	-2.85^a	-3.16^a	-0.31^c
CEO education	2.28	1.86	1.85	0.41^a	0.43^a	0.09
CEO board experience	5.00	4.70	4.63	0.30	0.37	0.08

Table 2.3. Likelihood of targeting by activists: Probit/OLS analysis

The table presents results of probit (Columns 1 and 3) and OLS (Columns 2 and 4) regressions with 'activism target' as the dependent variable. The sample consists of all CEOs in the BoardEx universe with required information during the period from 2006 to 2015. All variables are first winsorized at the 1th and 99th percentiles and then standardized to a mean of zero and standard deviation of one, except dummy variables. All variables are defined in Appendix 2.B and lagged by one year. 'Coefficient' refers to estimated coefficients, while 'Mar.pr.' to the marginal-probability change induced by a one-standard-deviation change in the values of the corresponding explanatory variable (or a change from zero to one for a dummy variable). Standard errors are reported in parentheses. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1) Probit		(2) OLS	(3) Probit		(4) OLS
	Coefficient	Mar.pr.	Coefficient	Coefficient	Mar.pr.	Coefficient
Female CEO	0.136^b	2.27%	0.021^b	0.151^b	2.52%	0.022^b
	(0.062)		(0.010)	(0.064)		(0.010)
Return on assets	-0.038^c	-0.59%	-0.005^b	-0.038^c	-0.58%	-0.005^b
	(0.020)		(0.002)	(0.021)		(0.002)
Market-to-book ratio	-0.045^a	-0.69%	-0.003^a	-0.045^a	-0.68%	-0.004^a
	(0.013)		(0.001)	(0.013)		(0.001)
Stock return	-0.049^a	-0.76%	-0.003^c	-0.045^a	-0.69%	-0.003
	(0.015)		(0.002)	(0.016)		(0.002)
Firm size	-0.125^a	-1.92%	-0.019^a	-0.138^a	-2.11%	-0.021^a
	(0.027)		(0.003)	(0.028)		(0.003)
Institutional ownership	0.091^a	1.41%	0.020^a	0.085^a	1.30%	0.018^a
	(0.019)		(0.002)	(0.019)		(0.002)
Stock volatility	-0.025	-0.38%	-0.005^b	-0.032	-0.50%	-0.006^b
	(0.021)		(0.002)	(0.022)		(0.002)
Leverage	0.014	0.22%	0.004^b	0.016	0.25%	0.003^c
	(0.013)		(0.002)	(0.014)		(0.002)
Analyst coverage	0.047^a	0.72%	-0.003	0.058^a	0.89%	-0.002
	(0.017)		(0.002)	(0.018)		(0.002)
Sales growth	-0.027^c	-0.42%	-0.001	-0.041^b	-0.63%	-0.002
	(0.015)		(0.002)	(0.016)		(0.001)
Dividend yield	-0.053^a	-0.81%	-0.005^a	-0.055^a	-0.84%	-0.005^a
	(0.015)		(0.001)	(0.016)		(0.001)
HHI	0.004	0.06%	0.003^b	0.010	0.15%	0.004^b
	(0.014)		(0.002)	(0.014)		(0.002)
R&D	-0.062^a	-0.96%	-0.003	-0.063^b	-0.97%	-0.003
	(0.024)		(0.002)	(0.025)		(0.002)
Board size	0.069^a	1.06%	0.005^b	0.076^a	1.15%	0.006^a
	(0.018)		(0.002)	(0.019)		(0.002)
Independent directors	0.067^a	1.03%	0.006^a	0.067^a	1.02%	0.005^a
	(0.015)		(0.002)	(0.015)		(0.002)
CEO-chair duality	-0.019	-0.29%	0.002	-0.024	-0.37%	0.003
	(0.024)		(0.003)	(0.027)		(0.003)
CEO age				0.036^b	0.55%	0.002
				(0.015)		(0.002)
CEO tenure				-0.010	-0.16%	-0.003^c
				(0.015)		(0.002)
CEO education				0.012	0.19%	0.002
				(0.013)		(0.001)
CEO board experience				0.025^c	0.38%	0.003^b
				(0.013)		(0.002)
N	23,706		22,702	22,727		21,775
pseudo R^2	0.031		0.015	0.033		0.016
Percent targeted	8.04%					

Table 2.4. Likelihood of targeting by activists: Instrumental-variable approach

This table estimates the female-CEO effect on activist targeting using two-stage least squares with 'other-industry female fraction' ($OIFF$) as the instrument. $OIFF_i = \frac{1}{N_i M_d} \sum_{d=1}^{N_i} \sum_{b=1}^{M_d} FemaleFrac_{idb}$. The dependent variable in the first stage regressions (Columns 1–3) is 'female CEO', a dummy equal to one when the CEO is female and zero otherwise. The second stage (Columns 4–6) and the reduced form (Columns 7–9) use OLS and the dependent variable is 'targeted', a dummy equal to one when the focus firm is targeted by shareholder activists. Standard errors are reported in parentheses. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B and lagged by one year. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	First stage: Female CEO			Second stage: Targeted			Reduced form: Targeted		
OIFF	0.034^a	0.035^a	0.034^a				0.149^a	0.079^a	0.075^a
	(0.007)	(0.010)	(0.010)				(0.012)	(0.017)	(0.017)
Female CEO				4.336^a	2.254^a	2.223^a			
				(0.968)	(0.779)	(0.809)			
Return on assets		0.002	0.008		-0.028	-0.040^c		-0.023^c	-0.021^c
		(0.008)	(0.008)		(0.021)	(0.023)		(0.012)	(0.012)
Market-to-book		0.000	0.000		-0.002^a	-0.002^a		-0.001^a	0.001^a
		(0.000)	(0.000)		(0.001)	(0.001)		(0.000)	(0.000)
Stock return		-0.003	-0.002		-0.006	-0.005		-0.011^a	-0.010^a
		(0.002)	(0.002)		(0.006)	(0.006)		(0.003)	(0.003)
Firm size		-0.002^c	-0.003^b		-0.004	-0.003		-0.009^a	-0.010^a
		(0.001)	(0.001)		(0.003)	(0.004)		(0.002)	(0.002)
Inst. ownership		0.022^a	0.023^a		-0.016	-0.019		0.034^a	0.032^a
		(0.005)	(0.005)		(0.021)	(0.023)		(0.008)	(0.008)
Stock volatility		-0.034	-0.068		0.025	0.089		-0.051	-0.063
		(0.102)	(0.105)		(0.286)	(0.298)		(0.167)	(0.173)
Leverage		-0.009	-0.009		0.038^b	0.041^b		0.018^b	0.020^b
		(0.006)	(0.006)		(0.017)	(0.017)		(0.009)	(0.010)
Analyst coverage		-0.001^b	-0.001^a		0.003^a	0.003^a		0.001^a	0.001^a
		(0.000)	(0.000)		(0.001)	(0.001)		(0.000)	(0.000)
Sales growth		-0.002	-0.003		-0.002	-0.002		-0.006^c	-0.009^b
		(0.002)	(0.002)		(0.006)	(0.006)		(0.004)	(0.003)
Dividend yield		0.151^a	0.154^a		-0.605^a	-0.625^a		-0.265^a	-0.282^a
		(0.053)	(0.054)		(0.184)	(0.191)		(0.069)	(0.071)
HHI		-0.001	-0.005		0.017	0.028^b		0.014^c	0.017^b
		(0.005)	(0.005)		(0.013)	(0.014)		(0.008)	(0.008)
R&D		0.016	0.015		-0.101^a	-0.097^b		-0.065^a	-0.064^a
		(0.015)	(0.015)		(0.038)	(0.038)		(0.018)	(0.019)
Board size		0.002^a	0.002^a		-0.001	-0.000		0.004^a	0.004^a
		(0.001)	(0.001)		(0.002)	(0.002)		(0.001)	(0.001)
Indep. directors		0.043^a	0.018		-0.022	0.036		0.076^a	0.076^a
		(0.012)	(0.013)		(0.050)	(0.038)		(0.021)	(0.022)
CEO-chair duality		-0.012^a	-0.004^c		0.021^c	0.003		-0.005	-0.007^c
		(0.002)	(0.002)		(0.011)	(0.008)		(0.004)	(0.004)
CEO age			-0.001^a			0.002^a			0.000^c
			(0.000)			(0.001)			(0.000)
CEO tenure			-0.001^a			0.001^b			-0.000
			(0.000)			(0.001)			(0.000)
CEO education			0.003^a			-0.005			0.002
			(0.001)			(0.004)			(0.002)
CEO board experience			0.001^c			-0.000			0.001^b
			(0.000)			(0.001)			(0.001)
F-statistic	22.44	12.72	11.46						
# observations	38,152	23,304	22,337	38,152	23,304	22,337	38,152	23,304	22,337

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Table 2.5. CEO quality: General ability index

This table shows a series of characteristics correlated with general managerial skills following Custodio et al. (2010). Number of positions is defined as the number of different positions CEOs have held (BoardEx). Number of firms refers to the number of publicly traded firms where the CEO has worked. Number of industries (4-digit SIC) refers to the different industries where CEO has worked based on past work experience in publicly traded firms (BoardEx). Experience as a CEO dummy is a dummy variable that equals one if the CEO held a CEO position at another publicly traded firms, and zero otherwise (BoardEx). Conglomerate experience dummy is a dummy variable that equals one if CEO worked at multi-segment publicly traded firms, and zero otherwise (BoardEx and Compustat). General ability index is defined as in Custodio et al. (2010). Their index is defined as the first factor of applying principal components analysis to five proxies of general managerial ability. These proxies are number of positions, number of firms, number of industries, CEO experience dummy, and Conglomerate experience dummy. The index is standardized to have a mean of zero and a standard deviation of one. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)
	Female-CEO targets	Male-CEO targets	Difference (1)-(2)
Number of positions	3.70	3.10	0.608[a]
Number of firms	2.78	2.08	0.700[a]
Number of industries	2.01	1.59	0.424[a]
Experience as a CEO dummy	0.13	0.14	-0.008
Conglomerate experience dummy	0.84	0.72	0.113[a]
General ability index	0.64	0.12	0.519[a]

Table 2.6. Campaign characteristics

This table shows differences between male and female CEO campaigns in terms of campaign goals and hostility. Panel A shows univariate frequencies, while Panel B uses multinomial logistic regressions where the dependent variable is set to 0 for other goals, to 1 for board-related goals, and 2 for value maximization in Columns 1-3, to 0 for no hostility, to 1 for threat of proxy fights, and 2 for launched proxies in Columns 4-6, and to 0 for withdrawn proxy fights, to 1 for settled proxy fights, and 2 for proxy fights with voting in Columns 7-9. We control for year and Fama-French 12-industry fixed effects in all specifications. Columns 2, 5, and 8 in addition control for CEO characteristics (age, tenure, education, experience) and Columns 3, 6, and 9 for firm characteristics (return on assets, market-to-book ratio, stock return, firm size, institutional ownership, stock volatility, leverage, analyst coverage, sales growth, dividend yield, HHI, R&D expenditure, board size, independent directors, CEO-chair duality). We show only control variables with significant coefficients. Standard errors are reported in parentheses. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B and lagged by one year. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

Panel A: univariate differences

	(1) campaign goals board-related		(2) campaign goals value max.		(3) campaign goals other		(4) proxy fights threat		(5) proxy fights launch		(6) proxy fights none		(7) outcomes settled		(8) outcomes vote		(9) outcomes withdrawn	
female CEO	62	43%	38	26%	45	31%	15	10%	38	26%	92	63%	19	51%	12	32%	6	16%
male CEO	989	34%	703	24%	1,244	42%	179	6%	583	20%	2,174	74%	259	46%	183	33%	121	21%

Panel B: multinomial logistic regressions

	(1) board	(1) value	(2) board	(2) value	(3) board	(3) value	(4) threat	(4) launch	(5) threat	(5) launch	(6) threat	(6) launch	(7) settled	(7) vote	(8) settled	(8) vote	(9) settled	(9) vote
Female CEO	0.55^a	0.37	0.55^b	0.38	0.56^b	0.44	0.70^b	0.43^b	0.53	0.33	0.45	0.12	0.53	0.16	0.50	-0.04	0.15	-0.38
	(0.21)	(0.23)	(0.22)	(0.24)	(0.27)	(0.31)	(0.29)	(0.20)	(0.33)	(0.31)	(0.37)	(0.38)	(0.48)	(0.54)	(0.53)	(0.61)	(0.54)	(0.68)
Board-rel.									2.66^a	3.92^a	2.34^a	4.07^a						
									(0.22)	(0.18)	(0.26)	(0.23)						
Value-max.									0.69^a	-16.35^a	0.29	-15.99^a						
									(0.26)	(0.17)	(0.30)	(0.22)						
CEO education			-0.08^c	-0.00					0.08	0.06					0.03	0.22		
			(0.05)	(0.05)					(0.09)	(0.07)					(0.14)	(0.14)		
CEO board exp.			-0.04	-0.03					-0.09	-0.12^c					0.01	-0.13		
			(0.05)	(0.05)					(0.09)	(0.07)					(0.14)	(0.14)		
ROA					0.14	0.02					0.20	0.34^b					-0.68^b	-0.52^c
					(0.10)	(0.11)					(0.16)	(0.14)					(0.30)	(0.29)
Stock return					-0.14^b	-0.08					-0.09	-0.04					0.01	-0.04
					(0.07)	(0.06)					(0.12)	(0.09)					(0.18)	(0.18)
Firm size					-0.38^a	-0.38^a					-0.03	0.04					0.24	-0.02
					(0.12)	(0.14)					(0.24)	(0.18)					(0.36)	(0.37)
Inst. ownership					0.33^a	0.29^a					-0.01	-0.03					-0.29	-0.26
					(0.09)	(0.10)					(0.16)	(0.13)					(0.26)	(0.26)
Stock volatility					-0.10	-0.09					0.02	0.03					-0.52^b	-0.39
					(0.09)	(0.10)					(0.15)	(0.14)					(0.25)	(0.24)
Leverage					-0.06	0.02					-0.02	-0.21^b					0.12	0.43^b
					(0.06)	(0.07)					(0.09)	(0.09)					(0.17)	(0.17)
Analyst cover.					-0.31^a	-0.28^a					-0.23	-0.33^a					-0.49^b	-0.24
					(0.08)	(0.09)					(0.16)	(0.12)					(0.25)	(0.25)
R&D					0.26^b	0.19					0.12	0.39^b					0.51^c	0.15
					(0.11)	(0.13)					(0.22)	(0.17)					(0.28)	(0.29)
Indep. dir.					0.02	0.00					0.03	0.16					0.09	0.35^c
					(0.07)	(0.07)					(0.12)	(0.10)					(0.19)	(0.20)
Adjusted R^2	0.03		0.03		0.07		0.02		0.35		0.37		0.05		0.06		0.13	
# observations	3,081		2,823		2,071		3,081		2,823		2,071		621		565		439	

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Table 2.7. Campaign success

This table shows differences between female and male CEO campaigns in terms of campaign goal success. Panel A shows univariate frequencies, while Panel B uses OLS regressions where the dependent variable is set to 1 for campaigns that attained their goals set at the onset and 0 otherwise. We control for year and Fama-French 12-industry fixed effects in all specifications. Column 3 in addition controls for CEO characteristics (age, tenure, education, experience) and Column 4 for firm characteristics (return on assets, market-to-book ratio, stock return, firm size, institutional ownership, stock volatility, leverage, analyst coverage, sales growth, dividend yield, HHI, R&D expenditure, board size, independent directors, CEO-chair duality). We show only control variables with significant coefficients. Standard errors are reported in parentheses. All variables are winsorized at the 1$^{\text{th}}$ and 99$^{\text{th}}$ percentiles and defined in Appendix 2.B and lagged by one year. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)
	Success with goals			
	Yes		No	
Panel A: univariate differences				
female CEO	71	56%	55	44%
male CEO	1,260	52%	1,162	48%
	All campaigns			
Panel B: OLS regressions				
Female CEO	0.04	-0.11	-0.11	-0.14
	(0.05)	(0.07)	(0.07)	(0.10)
Board-related goal		0.46^a	0.45^a	0.42^a
		(0.03)	(0.03)	(0.03)
Female x board-rel.goal		0.10	0.12	0.21
		(0.12)	(0.12)	(0.15)
Value-maximization goal		0.14^a	0.13^a	0.06
		(0.03)	(0.03)	(0.04)
Female x value-max.goal		0.22^c	0.20^c	0.08
		(0.12)	(0.12)	(0.16)
Proxy threat		0.07^c	0.06	0.04
		(0.04)	(0.04)	(0.04)
Female x threat		-0.11	0.01	-0.24
		(0.16)	(0.16)	(0.17)
Proxy launch		-0.11^a	-0.11^a	-0.13^a
		(0.03)	(0.03)	(0.03)
Female x launch		0.10	0.14	0.02
		(0.12)	(0.12)	(0.14)
CEO education			-0.01	
			(0.01)	
CEO board experience			-0.01	
			(0.01)	
Inst. ownership				0.08^a
				(0.02)
Analyst coverage				-0.06^a
				(0.02)
HHI				-0.03^b
				(0.01)
Board size				0.03^c
				(0.02)
Constant	0.48^a	0.33^a	0.32^a	0.38^a
	(0.06)	(0.06)	(0.06)	(0.07)
Adjusted R^2	0.02	0.15	0.16	0.17
# observations	2,529	2,529	2,333	1,711

Table 2.8. Activist reimbursement demands

This table shows differences between female and male CEO campaigns in terms of activist reimbursement demands. Panel A shows univariate frequencies of seeking reimbursement across different types of campaigns, while Panel B uses logistic regressions where the dependent variable is set to 1 when activists seek reimbursement of their campaign-related costs from the target company and 0 otherwise. Column 6 reports results of an OLS regression. We control for year and Fama-French 12-industry fixed effects in all specifications. Column 2 is restricted to all launched proxy fights, Column 3 is restricted to all board-related activists' goals, while the remaining columns include all campaigns. Standard errors are reported in parentheses. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B and lagged by one year. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
			Activists seek reimbursement			
	No	Yes	Yes % for			
	#	#	Female CEO	Male CEO		
Panel A: univariate differences						
All campaigns	2,778	303	13%	10%		
Proxy fights						
no proxy	2,266	0				
threat	194	0				
launch	318	303	55%	49%		
Campaign goals						
board-related	760	291	31%	28%		
value-maxim.	741	0				
other	1,277	12	4%	1%		
Goal success						
no goal success	1,134	87	11%	7%		
goal success	1,092	216	21%	17%		
CEO board experience						
# > median	1,026	96	10%	9%		
# = median	287	33	17%	10%		
# < median	1,238	147	18%	10%		
			All campaigns			
	All	Launched PFs	Board-rel. goals	All	All	All & OLS
Panel B: regressions						
Female CEO	0.42^c	0.18	0.11	0.31	0.43	0.05
	(0.25)	(0.36)	(0.30)	(0.26)	(0.26)	(0.03)
Goal success				0.93^a		
				(0.14)		
CEO board experience					-0.19^b	-0.01^b
					(0.08)	(0.00)
Female x CEO board experience						-0.05^c
						(0.03)
Constant	-2.60^a	-0.69	-0.94^b	-2.83^a	-2.56^a	0.07^b
	(0.38)	(0.53)	(0.46)	(0.40)	(0.39)	(0.03)
Adjusted R^2	0.02	0.04	0.02	0.05	0.02	0.01
# observations	3,081	621	1,051	2,529	2,827	2,827

Table 2.9. Market response to shareholder activism

This table shows coefficient estimates and standard errors (in parentheses) for OLS regressions with the cumulative abnormal return in the $[-20; +20]$ event window as the dependent variable. The sample consists of all campaigns. We control for year and Fama-French 12-industry fixed effects in all specifications. Columns 2 and 5 in addition control for the dummy for positive earnings news, activist ownership, number of activists, ATPs, and CEO characteristics (age, tenure, education, experience). Columns 3 and 6 for the dummy for positive earnings news, activist ownership, number of activists, ATPs, and firm characteristics (return on assets, market-to-book ratio, stock return, firm size, institutional ownership, stock volatility, leverage, analyst coverage, sales growth, dividend yield, HHI, R&D expenditure, board size, independent directors, CEO-chair duality). We show only control variables with significant coefficients. Standard errors are reported in parentheses. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B and lagged by one year. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Female CEO	-0.00	-0.02	-0.02	0.01	0.01	-0.00
	(0.02)	(0.02)	(0.03)	(0.03)	(0.04)	(0.04)
Board-related goal				-0.02	-0.03^c	-0.03
				(0.01)	(0.02)	(0.02)
Female x board-rel.goal				0.05	0.04	0.09
				(0.05)	(0.06)	(0.07)
Value-maximization goal				0.01	-0.00	-0.03^c
				(0.01)	(0.01)	(0.01)
Female x value-max.goal				-0.01	-0.05	-0.04
				(0.05)	(0.06)	(0.06)
Proxy threat				0.04^c	0.03	0.04^c
				(0.02)	(0.02)	(0.03)
Female x threat				-0.08	-0.07	-0.12
				(0.09)	(0.13)	(0.13)
Proxy launch				0.06^a	0.06^a	0.06^a
				(0.01)	(0.02)	(0.02)
Female x launch				-0.09^c	-0.12^c	-0.15^b
				(0.06)	(0.06)	(0.07)
Positive earnings news		0.04^a	0.05^a	0.03^a	0.05^a	0.06^a
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Activist ownership		-0.00	-0.00		-0.00	-0.00
		(0.00)	(0.00)		(0.00)	(0.00)
# of activists		0.01	0.01		0.01	0.01
		(0.01)	(0.01)		(0.01)	(0.01)
ATPs		0.00	0.00		0.00	0.00
		(0.00)	(0.00)		(0.00)	(0.00)
CEO education		0.00			0.00	
		(0.01)			(0.00)	
CEO board experience		0.00			0.00	
		(0.00)			(0.00)	
Return on assets			0.13^b			0.12^b
			(0.05)			(0.05)
Firm size			-0.01			-0.01^c
			(0.01)			(0.01)
Institutional ownership			0.04			0.04^c
			(0.03)			(0.03)
Constant	0.08^a	0.03	-0.05	0.05^b	0.02	-0.04
	(0.02)	(0.05)	(0.08)	(0.02)	(0.05)	(0.08)
Adjusted R^2	0.00	0.02	0.02	0.01	0.02	0.03
# observations	2,676	1,704	1,422	2,607	1,704	1,422

Table 2.10. Characteristics of target and matched non-target companies

This table displays means for firm and CEO characteristics of target and matched non-target companies across all matching variables in Panel A; DiD interaction terms $target \times t_{-2}$ and $target \times t_{-1}$ that test for parallel trends in the pre-activism period in Panel B; and parallel-trend univariate tests in Panel C. In all three panels, Columns 1 to 3 cover the female subsample, while Columns 4 to 6 cover the male subsample. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Female subsample			Male subsample		
Panel A: matching summary statistics						
	Targets	Controls	Means diff.	Targets	Controls	Means diff.
Return on assets	0.06	0.09	-0.024	0.07	0.07	0.003
Market-to-book ratio	2.97	3.09	-0.112	2.54	2.37	0.164
Firm size	6.89	6.73	0.160	6.61	6.52	0.086
Institutional ownership	0.65	0.71	-0.056	0.63	0.62	0.002
Board size	9.35	8.98	0.377	8.64	8.59	0.049
CEO age	52.84	54.25	-1.415^c	55.86	56.00	-0.139
CEO tenure	5.37	6.41	-1.036	8.79	9.01	-0.229
CEO education	2.28	1.92	0.369^a	1.85	1.87	-0.022
CEO board experience	5.01	3.71	1.300^a	4.57	4.47	0.104
Propensity score	0.10	0.10	0.000	0.10	0.10	0.000
Panel B: parallel-trend regression test						
		$Target \times t_{-2}$	$Target \times t_{-1}$		$Target \times t_{-2}$	$Target \times t_{-1}$
Return on assets		0.056	0.044		-0.006	-0.007
		(0.057)	(0.060)		(0.005)	(0.004)
Market-to-book ratio		0.577	1.210		0.158	0.649^a
		(0.775)	(0.817)		(0.247)	(0.226)
Dividend yield		0.001	-0.002		-0.000	-0.001
		(0.004)	(0.004)		(0.001)	(0.001)
Cash		0.021	0.007		-0.000	-0.001
		(0.016)	(0.016)		(0.004)	(0.003)
Panel C: parallel-trend univariate test						
	Targets	Controls	Means diff.	Targets	Controls	Means diff.
Return on assets	0.05	0.03	0.015	-0.00	0.01	-0.010
Market-to-book ratio	0.05	-1.03	1.085	-0.26	-0.87	0.612^b
Dividend yield	-0.00	0.00	-0.002	0.00	0.00	0.000
Cash	0.01	0.01	-0.001	-0.00	-0.00	-0.001

Table 2.11. Long-term outcomes of shareholder activism

This table reports results for difference-in-differences model:
$Y_{it} = \gamma(target_i \times post_t) + \theta(post_t) + \alpha_i + \beta_t + \epsilon_{it}$, where Y_{it} is an outcome variable for firm i in year t; $target_i$ is a dummy variable equal to one in case the focus firm i is targeted by shareholder activists during our sample period; $post_t$ is a dummy variable equal to one if year t falls into the post-treatment period (event years 1 to 3); α_i is a firm fixed effect; and β_t is a year fixed effect. Panels A and B report the results for female and male subsamples, respectively. Panel C reports results for a full sample that combines both male and female subsamples together using the following specification:
$Y_{it} = \gamma(female_i \times target_i \times post_t) + \mu(target_i \times post_t) + \lambda(female_i \times post_t) + \theta(post_t) + \alpha_i + \beta_t + \epsilon_{it}$, with $female$ being a dummy variable that equals to 1 for the female subsample and 0 otherwise. For brevity, Panel C reports only the γ and μ coefficients. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)
	Return on assets	Market-to -book ratio	Dividend yield	Cash
Panel A: female subsample				
$Target \times Post$	0.022^c	0.192	0.004	-0.001
	(0.012)	(0.539)	(0.003)	(0.010)
# observations	1,540	1,540	1,534	1,532
Adjusted R^2	0.666	0.355	0.316	0.854
Mean	0.055	2.969	0.015	0.190
Standard deviation	0.342	6.339	0.030	0.220
Panel B: male subsample				
$Target \times Post$	0.005^c	0.131	0.001^c	0.005^b
	(0.002)	(0.157)	(0.001)	(0.002)
# observations	28,930	28,960	28,929	28,968
Adjusted R^2	0.760	0.193	0.465	0.858
Mean	0.062	2.456	0.015	0.183
Standard deviation	0.276	6.580	0.029	0.210
Panel C: full matched sample				
$Female \times Target \times Post$	0.010	0.123	0.002	-0.005
	(0.008)	(0.451)	(0.003)	(0.009)
$Target \times Post$	0.005^b	0.138	0.001^c	0.005^b
	(0.002)	(0.156)	(0.001)	(0.002)
# observations	30,470	30,500	30,463	30,500
Adjusted R^2	0.748	0.200	0.456	0.857
Mean	0.062	2.482	0.015	0.183
Standard deviation	0.279	6.569	0.029	0.210
Panel D: female subsample matched to female firms				
$Target \times Post$	0.001	-0.287	0.002	-0.002
	(0.009)	(0.531)	(0.004)	(0.010)
# observations	1,496	1,497	1,493	1,497
Adjusted R^2	0.661	0.409	0.417	0.826
Mean	0.063	2.921	0.019	0.190
Standard deviation	0.349	5.548	0.037	0.201

Table 2.12. Post-activism M&A transactions

This table shows coefficient estimates and standard errors (in parentheses) for OLS regressions with the dummy for being an M&A target as the dependent variable. The sample consists of all campaigns. We control for year and Fama-French 12-industry fixed effects in all specifications. Columns 2 and 5 in addition control for CEO characteristics (age, tenure, education, experience). Columns 3 and 6 for firm characteristics (return on assets, market-to-book ratio, stock return, firm size, institutional ownership, stock volatility, leverage, analyst coverage, sales growth, dividend yield, HHI, R&D expenditure, board size, independent directors, CEO-chair duality). We show only control variables with significant coefficients. Standard errors are reported in parentheses. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B and lagged by one year. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Female CEO	0.02	0.03	0.01	0.02	0.02	0.01
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.05)
Board-related goal				0.05^c	0.06^b	0.06^c
				(0.03)	(0.03)	(0.03)
Value-maximization goal				0.03	0.04^c	0.06^b
				(0.02)	(0.02)	(0.03)
Proxy threat				0.02	0.02	0.01
				(0.04)	(0.04)	(0.05)
Proxy launch				-0.00	-0.02	-0.02
				(0.03)	(0.03)	(0.04)
CEO board experience		0.01^a			0.01^a	
		(0.00)			(0.00)	
Institutional ownership			0.20^a			0.19^a
			(0.05)			(0.05)
Independent directors			0.24^c			0.24^c
			(0.14)			(0.14)
CEO-chair duality			0.04^c			0.04^c
			(0.02)			(0.02)
Constant	0.54^a	0.77^a	0.31^b	0.52^a	0.75^a	0.26^c
	(0.05)	(0.09)	(0.15)	(0.06)	(0.10)	(0.15)
Adjusted R^2	0.01	0.02	0.03	0.01	0.02	0.03
# observations	3,081	2,823	2,071	3,081	2,823	2,071

Internet appendix to

"Shareholder activism and target CEO gender "

(not for publication)

This appendix presents supplementary results not included in the main body of the paper.

Table I.2.1. Distribution across industries: Population
This table reports distributions across Fama-French 12 industries of population firms in the BoardEx database in Columns 1 and 2. Columns 3 and 4 show the industry distributions for firms with female CEOs, while Columns 5 and 6 for firms with male CEOs.

	(1)	(2)	(3)	(4)	(5)	(6)
	Whole sample		Female CEO		Male CEO	
	N	Percent	N	Percent	N	Percent
Consumer nondurables	1,590	4	98	8	1,492	4
Consumer durables	802	2	10	1	792	2
Manufacturing	3,222	8	90	7	3,132	8
Oil, gas, and coal extrac. & products	1,797	5	6	0	1,791	5
Chemicals and allied products	819	2	18	1	801	2
Business equipment	6,467	17	150	12	6,317	17
Telephone and television transmission	941	2	63	5	878	2
Utilities	1,144	3	55	5	1,089	3
Wholesale, retail, and some services	3,365	9	190	16	3,175	8
Healthcare, med. equipment & drugs	4,569	12	168	14	4,401	12
Finance	9,581	25	260	21	9,321	25
Other	4,390	11	114	9	4,276	11
Total	38,687	100	1,222	100	37,465	100

Table I.2.2. Correlation coefficients

This table reports correlation coefficients across all variables used in the analysis. The sample covers an unbalanced panel that covers all BoardEx CEO-firm-year observations over 2006-2015. All variables are defined in Appendix 2.B and winsorized at the 1th and 99th percentiles. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Return on assets																		
2. Market-to-book r.	-0.04^a																	
3. Stock return	0.10^a	0.16^a																
4. Firm size	0.35^a	0.15^a	0.13^a															
5. Institutional own.	0.32^a	0.05^a	0.04^a	0.60^a														
6. Stock volatility	-0.36^a	-0.03^a	-0.03^a	-0.49^a	-0.26^a													
7. Leverage	0.05^a	-0.07^a	-0.01	0.14^a	0.05^a	-0.02^a												
8. Analyst coverage	0.24^a	0.14^a	0.05^a	0.73^a	0.55^a	-0.25^a	0.00											
9. Sales growth	-0.08^a	0.10^a	0.10^a	0.01	-0.08^a	0.04^a	0.01^a	-0.01^b										
10. Dividend yield	0.09^a	-0.07^a	-0.08^a	0.05^a	-0.10^a	-0.09^a	0.18^a	-0.05^a	-0.04^a									
11. HHI	0.05^a	0.05^a	0.00	-0.18^a	-0.08^a	0.10^a	-0.02^a	-0.06^a	0.11^a	-0.01^c								
12. R&D	-0.65^a	0.17^a	0.04^a	-0.13^a	-0.14^a	0.25^a	-0.13^a	-0.05^a	0.17^a	-0.16^a	0.01^b							
13. Board size	0.13^a	-0.04^a	-0.03^a	0.47^a	0.19^a	-0.25^a	0.07^a	0.33^a	-0.08^a	0.12^a	-0.20^a	-0.17^a						
14. Independent dirs.	0.04^a	-0.02^a	-0.02^a	0.26^a	0.22^a	-0.11^a	0.02^a	0.20^a	-0.08^a	-0.01^b	-0.11^a	-0.02^a	0.40^a					
15. CEO-chair duality	0.11^a	0.00	0.01^a	0.10^a	0.09^a	-0.05^a	0.03^a	0.10^a	-0.02^a	0.02^a	-0.03^a	-0.11^a	-0.04^a	-0.10^a				
16. CEO age	0.06^a	-0.06^a	-0.01	-0.01	0.00	-0.06^a	-0.02^a	-0.01^a	-0.09^a	0.05^a	-0.08^a	-0.10^a	0.03^a	-0.09^a	0.30^a			
17. CEO tenure	0.12^a	-0.04^a	0.00	-0.06^a	0.04^a	-0.04^a	-0.07^a	-0.03^a	-0.10^a	0.01^b	0.00	-0.11^a	-0.06^a	-0.23^a	0.40^a	0.45^a		
18. CEO education	-0.09^a	0.03^a	-0.01^c	0.11^a	0.05^a	-0.02^a	-0.01	0.07^a	0.02^a	-0.01^c	-0.06^a	0.12^a	0.09^a	0.11^a	-0.04^a	-0.05^a	-0.13^a	
19. CEO board exp.	-0.05^a	-0.03^a	-0.01^b	0.11^a	-0.03^a	-0.06^a	0.11^a	0.03^a	0.03^a	0.10^a	-0.08^a	-0.03^a	0.10^a	0.02^a	0.13^a	0.20^a	0.00	0.12^a

Table I.2.3. Likelihood of targeting by hedge funds

The table presents results of multinomial probit regressions with 'hedge-fund activism target' as the dependent variable. The sample consists of all CEOs in the BoardEx universe with required information during the period from 2006 to 2015. All variables are first winsorized at the 1th and 99th percentiles and then standardized to a mean of zero and standard deviation of one, except dummy variables. All variables are defined in Appendix 2.B and lagged by one year. 'Coefficient' refers to estimated coefficients, while 'Marg. prob' to the marginal-probability change induced by a one-standard-deviation change in the values of the corresponding explanatory variable (or a change from zero to one for a dummy variable). Standard errors are reported in parentheses. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)		(2)	
	Coefficient	Marg. prob	Coefficient	Marg. prob
Female CEO	0.184^b	1.98%	0.194^b	2.08%
	(0.074)		(0.076)	
Return on assets	-0.053^b	-0.49%	-0.052^b	-0.49%
	(0.025)		(0.026)	
Market-to-book ratio	-0.037^b	-0.35%	-0.043^a	-0.40%
	(0.015)		(0.015)	
Stock return	-0.031^c	-0.30%	-0.031	-0.29%
	(0.019)		(0.019)	
Firm size	-0.247^a	-2.33%	-0.267^a	-2.47%
	(0.034)		(0.036)	
Institutional ownership	0.228^a	2.14%	0.218^a	2.02%
	(0.025)		(0.025)	
Stock volatility	-0.060^b	-0.56%	-0.068^b	-0.63%
	(0.026)		(0.027)	
Leverage	0.040^b	0.38%	0.035^b	0.33%
	(0.017)		(0.017)	
Analyst coverage	-0.012	-0.12%	0.004	0.03%
	(0.024)		(0.024)	
Sales growth	-0.008	-0.08%	-0.031	-0.29%
	(0.019)		(0.020)	
Dividend yield	-0.062^a	-0.58%	-0.065^a	-0.60%
	(0.021)		(0.022)	
HHI	0.033^c	0.31%	0.041^b	0.38%
	(0.018)		(0.018)	
R&D	-0.028	-0.26%	-0.031	-0.29%
	(0.027)		(0.028)	
Board size	0.062^a	0.58%	0.070^a	0.65%
	(0.023)		(0.024)	
Independent directors	0.070^a	0.65%	0.064^a	0.59%
	(0.018)		(0.019)	
CEO-chair duality	0.025	0.23%	0.039	0.36%
	(0.030)		(0.033)	
CEO age			0.019	0.18%
			(0.018)	
CEO tenure			-0.026	-0.24%
			(0.019)	
CEO education			0.019	0.18%
			(0.016)	
CEO board experience			0.036^b	0.33%
			(0.016)	
N	22,702		21,775	
pseudo R^2	0.048		0.050	
Percent targeted	8.04%			

Table I.2.4. Instrumental variable regressions: Further tests

This table shows estimates of two IV systems. Columns 1 to 3 show the first stage, second stage, and reduced form with probit models in the second stage and the reduced form and with 'other-industry female fraction' (OIFF) as the instrument. Columns 4 to 6 use a linear model and directorship-firm average return on assets as the instrument. The dependent variable in the first stage regressions (Columns 1 and 4) is 'female CEO', a dummy equal to one when the CEO is female and zero otherwise. In the second stage (Columns 2 and 5) and the reduced form (Columns 3 and 6) the dependent variable is 'targeted', a dummy equal to one when the focus firm is targeted by shareholder activists. Standard errors are reported in parentheses. All variables are first winsorized at the 1th and 99th percentiles. They are defined in Appendix 2.B and lagged by one year. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	OIFF			average ROA		
	First stage	Second stage	Reduced form	First stage	Second stage	Reduced form
Instrument	0.034^a		0.485^a	0.020		-0.079^a
	(0.010)		(0.107)	(0.013)		(0.025)
Female CEO		1.402^a			-4.041	
		(0.481)			(2.992)	
Return on assets	0.008	-0.150	-0.145	0.019	0.034	-0.044^b
	(0.008)	(0.093)	(0.093)	(0.014)	(0.076)	(0.018)
Market-to-book ratio	0.000	-0.011^a	-0.010^a	0.000	0.000	-0.002^a
	(0.000)	(0.003)	(0.003)	(0.000)	(0.002)	(0.001)
Stock return	-0.002	-0.074^a	-0.075^a	-0.003	-0.023	-0.010^b
	(0.002)	(0.025)	(0.027)	(0.003)	(0.016)	(0.005)
Firm size	-0.003^b	-0.059^a	-0.066^a	-0.005^a	-0.027^c	-0.008^a
	(0.001)	(0.013)	(0.014)	(0.002)	(0.015)	(0.003)
Inst.l ownership	0.023^a	0.213^a	0.228^a	0.038^a	0.171	0.018^c
	(0.005)	(0.053)	(0.054)	(0.007)	(0.118)	(0.011)
Stock volatility	-0.068	-0.604	-0.697	0.207	1.151	0.315
	(0.105)	(1.195)	(1.229)	(0.161)	(0.941)	(0.251)
Leverage	-0.009	0.138^b	0.128^b	-0.021^a	-0.068	0.017
	(0.006)	(0.059)	(0.060)	(0.008)	(0.075)	(0.013)
Analyst coverage	-0.001^a	0.011^a	0.010^a	-0.001	-0.000	0.002^a
	(0.000)	(0.003)	(0.003)	(0.000)	(0.002)	(0.001)
Sales growth	-0.003	-0.076^a	-0.075^b	-0.005	-0.035	-0.012^c
	(0.002)	(0.029)	(0.031)	(0.004)	(0.024)	(0.006)
Dividend yield	0.154^a	-2.249^a	-2.147^a	0.209^a	0.527	-0.316^a
	(0.054)	(0.563)	(0.600)	(0.071)	(0.706)	(0.092)
HHI	-0.005	0.105^b	0.102^b	-0.006	0.002	0.027^a
	(0.005)	(0.049)	(0.050)	(0.006)	(0.032)	(0.010)
R&D	0.015	-0.540^a	-0.480^a	-0.003	-0.129	-0.119^a
	(0.015)	(0.143)	(0.152)	(0.023)	(0.099)	(0.028)
Board size	0.002^a	0.025^a	0.026^a	0.004^a	0.020	0.004^a
	(0.001)	(0.007)	(0.007)	(0.001)	(0.012)	(0.001)
Indep. directors	0.018	0.567^a	0.548^a	0.042^b	0.283^c	0.112^a
	(0.013)	(0.156)	(0.156)	(0.017)	(0.148)	(0.031)
CEO-chair duality	-0.004^c	-0.039	-0.046^c	-0.007^b	-0.033	-0.005
	(0.002)	(0.027)	(0.027)	(0.003)	(0.026)	(0.005)
CEO age	-0.001^a	0.004^b	0.003^c	-0.001^a	-0.004	0.000
	(0.000)	(0.002)	(0.002)	(0.000)	(0.003)	(0.000)
CEO tenure	-0.001^a	0.000	0.000	-0.001^a	-0.004	0.000
	(0.000)	(0.002)	(0.002)	(0.000)	(0.003)	(0.000)
CEO education	0.003^a	0.011	0.015	0.004^b	0.021	0.004^c
	(0.001)	(0.012)	(0.012)	(0.002)	(0.015)	(0.002)
CEO board experience	0.001^c	0.008^b	0.008^b	0.001^a	0.006^c	0.002^a
	(0.000)	(0.003)	(0.003)	(0.000)	(0.004)	(0.001)
F-statistic	11.46			2.28		
# of observations	22,337	22,337	22,337	13,816	13,816	13,816

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Table I.2.5. Female CEOs in proxy fights: Further tests

This table shows estimates of logistic models with the female CEO dummy as the dependent variable. Columns 1 to 3 cover campaigns with launched proxy fights, while Columns 4 to 6 cover all campaigns. Withdrawn proxy fights are the reference category that complements settled proxy fights before any voting took place and proxy fights that ended in a vote. Standard errors are reported in parentheses. All variables are first winsorized at the 1th and 99th percentiles. They are defined in Appendix 2.B and lagged by one year. ^{a}, ^{b}, and ^{c} indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Launched proxy fights			All campaigns		
Settled	0.59	0.51	0.08	0.53^b	0.57^b	0.36
	(0.49)	(0.56)	(0.64)	(0.26)	(0.27)	(0.33)
Vote	0.26	0.04	-0.38	0.27	0.17	0.02
	(0.54)	(0.63)	(0.75)	(0.32)	(0.35)	(0.43)
CEO age		-0.20			-0.33^a	
		(0.23)			(0.10)	
CEO tenure		-0.53^b			-0.36^a	
		(0.27)			(0.11)	
CEO education		0.55^a			0.44^a	
		(0.19)			(0.09)	
CEO board experience		0.10			0.17^b	
		(0.23)			(0.07)	
Return on assets			-0.20			0.03
			(0.47)			(0.23)
M/B ratio			0.42^c			0.24
			(0.26)			(0.17)
Stock return			-0.17			-0.21
			(0.31)			(0.16)
Firm size			-0.34			-0.04
			(0.53)			(0.22)
Inst. ownership			0.08			-0.02
			(0.41)			(0.18)
Stock volatility			-0.26			-0.23
			(0.52)			(0.20)
Leverage			-0.27			-0.13
			(0.20)			(0.14)
Analyst coverage			0.17			-0.16
			(0.36)			(0.15)
Sales growth			-0.05			0.10
			(0.29)			(0.11)
Dividend yield			-0.22			-0.33
			(0.36)			(0.22)
HHI			0.44			-0.13
			(0.37)			(0.16)
R&D			0.13			0.18
			(0.42)			(0.23)
Board size			0.72			0.40^b
			(0.50)			(0.18)
Indep. directors			0.94^c			0.24
			(0.50)			(0.18)
CEO-chair duality			-1.21^b			-0.45^c
			(0.57)			(0.25)
Constant	-3.68^a	-3.32^a	-2.75^c	-1.82^a	-1.82^a	-2.30^a
	(1.21)	(1.26)	(1.41)	(0.39)	(0.41)	(0.55)
Adjusted R^2	0.09	0.15	0.21	0.05	0.10	0.09
# observations	593	495	340	2,899	2,649	1,895

I5

Table I.2.6. Alternative matching procedure: Basic statistics

This table displays means for firm characteristics of target and matched non-target companies across all matching variables in Panel A; DiD interaction terms $target \times t_{-2}$ and $target \times t_{-1}$ that test for parallel trends in the pre-activism period in Panel B; and parallel-trend univariate tests in Panel C. In all three panels, Columns 1 to 3 cover the female subsample, while Columns 4 to 6 cover the male subsample. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Female subsample			Male subsample		

Panel A: matching summary statistics

	Targets	Controls	Means diff.	Targets	Controls	Means diff.
Return on assets	0.07	0.05	0.022	0.08	0.08	-0.001
Market-to-book ratio	3.06	2.07	0.995	2.52	2.45	0.066
Stock return	-0.05	-0.01	-0.045	-0.01	-0.01	0.003
Firm size	6.65	6.64	0.007	6.42	6.36	0.059
Institutional ownership	0.68	0.71	-0.023	0.65	0.65	0.006
Stock volatility	0.03	0.03	-0.001	0.03	0.03	0.000
Leverage	0.20	0.27	-0.074^{b}	0.22	0.22	0.000
Analyst coverage	7.02	7.84	-0.822	7.17	6.97	0.206
Sales growth	0.15	0.09	0.053	0.12	0.13	-0.010
Dividend yield	0.01	0.01	-0.002	0.01	0.01	0.001^{b}
HHI	0.76	0.78	-0.027	0.79	0.79	0.003
R&D	0.06	0.06	0.001	0.05	0.05	-0.001
Board size	9.04	8.72	0.322	8.33	8.28	0.051
Independent directors	0.85	0.83	0.017	0.83	0.82	0.002
CEO-chair duality	0.27	0.44	-0.178^{b}	0.42	0.40	0.014
Propensity score	0.12	0.12	0.000	0.10	0.10	0.000

Panel B: parallel-trend regression test

	$target \times t_{-2}$	$target \times t_{-1}$		$target \times t_{-2}$	$target \times t_{-1}$
Return on assets	0.092	0.123		-0.004	0.000
	(0.083)	(0.087)		(0.005)	(0.005)
Market-to-book ratio	-1.059	0.631		0.241	0.849^{a}
	(1.102)	(1.407)		(0.297)	(0.301)
Dividend yield	0.002	-0.000		0.000	0.001
	(0.005)	(0.004)		(0.001)	(0.001)
Cash	0.026	0.014		-0.002	-0.000
	(0.021)	(0.021)		(0.004)	(0.004)

Panel C: parallel-trend univariate test

	Targets	Controls	Means diff.	Targets	Controls	Means diff.
Return on assets	0.07	-0.02	0.097	-0.00	-0.00	-0.001
Market-to-book ratio	-0.42	-0.54	0.113	-0.20	-0.92	0.725^{b}
Dividend yield	-0.00	-0.00	-0.001	0.00	-0.00	0.001
Cash	0.00	-0.00	0.004	-0.01	-0.00	-0.001

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Table I.2.7. Long-term outcomes for alternative matching

This table reports results for difference-in-differences model: $Y_{it} = \gamma(target_i \times post_t) + \theta(post_t) + \alpha_i + \beta_t + \epsilon_{it}$, where Y_{it} is an outcome variable for firm i in year t; $target_i$ is a dummy variable equal to one in case the focus firm i is targeted by shareholder activists during our sample period; $post_t$ is a dummy variable equal to one if year t falls into the post-treatment period (event years 1 to 3); α_i is a firm fixed effect; and β_t is a year fixed effect. Panels A and B report the results for female and male subsamples, respectively. Panel C reports results for a full sample that combines both male and female subsamples together using the following specification: $Y_{it} = \gamma(female_i \times target_i \times post_t) + \mu(target_i \times post_t) + \lambda(female_i \times post_t) + \theta(post_t) + \alpha_i + \beta_t + \epsilon_{it}$, with $female$ being a dummy variable that equals to 1 for the female subsample and 0 otherwise. For brevity, Panel C reports only the γ and μ coefficients. All variables are winsorized at the 1th and 99th percentiles and defined in Appendix 2.B. [a], [b], and [c] indicate significance at the 1-, 5-, and 10-percent levels, respectively.

	(1)	(2)	(3)	(4)
	Return on assets	Market-to -book ratio	Dividend yield	Cash
Panel A: female subsample				
$Target \times Post$	-0.003	-1.585[c]	0.006	-0.011
	(0.017)	(0.875)	(0.004)	(0.014)
# observations	1,078	1,078	1,076	1,076
Adjusted R^2	0.680	0.303	0.342	0.808
Mean	0.057	3.350	0.014	0.198
Standard deviation	0.398	7.838	0.032	0.210
Panel B: male subsample				
$Target \times Post$	0.013[a]	-0.139	0.000	0.001
	(0.003)	(0.194)	(0.001)	(0.002)
# observations	23,626	23,664	23,657	23,672
Adjusted R^2	0.765	0.159	0.419	0.845
Mean	0.071	2.515	0.012	0.195
Standard deviation	0.259	7.333	0.028	0.209
Panel C: full matched sample				
$Female \times Target \times Post$	-0.024[a]	-1.750[b]	0.007[b]	-0.011
	(0.008)	(0.856)	(0.003)	(0.012)
$Target \times Post$	0.013[a]	-0.129	0.000	0.000
	(0.003)	(0.193)	(0.001)	(0.002)
# observations	24,704	24,742	24,733	24,748
Adjusted R^2	0.753	0.166	0.414	0.843
Mean	0.070	2.552	0.012	0.195
Standard deviation	0.267	7.358	0.028	0.209

Chapter 3

Shareholder activism: A blessing or affliction for incumbent CEOs?

3.1 Introduction

With regular contact and information exchange CEOs in publicly listed US firms are believed to be adept at cultivating good relationships with their investors (Useem, 1996). This fact does not mean, however, that CEOs enjoy quiet lives. When investors are dissatisfied with a company management or operations they may launch an activism campaign to pressure the management and pursue governance changes. In general, shareholder activism is a channel through which shareholders claim their rights as company owners to influence corporate actions and address agency conflicts in the company with the goal of increasing firm value. Several recent studies show positive corporate governance and performance consequences of such activism (Brav et al., 2008; Klein and Zur, 2009; Gantchev et al., 2019). In this paper we are interested in the question of what do CEOs get out of shareholder activism events in their firms. In particular, we analyze CEO's career consequences arising from the shareholder activism events.

In this paper, we consider two competing hypotheses for how the careers of target CEOs (i.e., those who serve as the CEOs of the targeted companies) are shaped by shareholder activism. Under the Disciplining Hypothesis, shareholder activism reveals to the market negative information about managerial ability and commitment to shareholders' interests. In fact, existing evidence suggests that companies targeted by activist shareholders have poorer stock performance and more takeover defenses (Brav et al., 2008; Clifford, 2008; Del Guercio et al., 2008; Ertimur et al., 2010). Shareholder activism therefore can be perceived as a form of managerial discipline and inform the labor market of target CEOs' incompetence and entrenchment. In this light, shareholder activism should impose a career cost on incumbent CEOs of targeted companies.

Moreover, we extend the Disciplining Hypothesis by considering the level of hostility among activist shareholders and the outcome of their interventions. Given that hostile tactics,

such as proxy fights, are more costly, activists will generally adopt them when less hostile tactics fail or when the potential benefits from employing more confrontational tactics are high (Brav et al., 2008; Gantchev, 2013). Consequently, observing hostile tactics may indicate manager's reluctance to respond to the shareholders' concerns and/or high expected reward from addressing agency conflicts at targeted companies. In the meantime, intervening with hostile tactics may be inimical to the establishment of constructive interaction between activists and the management of targeted firms. Therefore, we conjecture that hostile activism campaigns are more detrimental to the careers of target CEOs.

Campaign outcomes can also matter for the careers of incumbent CEOs. For example, for campaigns where activists call for removal of CEOs, once the activists succeed in attaining their demand, it would impose direct costs on the CEOs. Furthermore, Gantchev (2013) shows that more confrontational activist tactics are typically associated with higher success rates. If this is the case and if (as we expect) hostile campaigns have stronger adverse effects, then other things being equal, we could be seeing a successful campaign resulting in the incumbent CEO suffering greater losses.

Under the Experience Gain Hypothesis, target CEOs gain valuable skills and experience via their interactions with shareholder activists. As Denes et al. (2017) point out in their review paper: "... shareholder activism in the 2000s has become more associated with value improvements than in the 1980s and 1990s." In this context, the appearance of activist investors in a company should be perceived as an opportunity rather than a threat: by engaging with activists and hearing their voice, management of target firms learn about what they could do to create more value for shareholders. Given their valuable skill set stemming from this experience, target CEOs can be viewed positively by the labor market. More to the point, Brav et al. (2008) show that activist hedge funds—the dominant practitioners of shareholder activism in US—are nonconfrontational in most cases. Thus, there is a good chance that target CEOs and activists in their firms could work together constructively.

To provide evidence on these issues, we collect data on shareholder activism against US public companies in the period 2006–2015 from the SharkRepellent database, and identify 1,874 unique CEOs in charge of the companies at the time of activism using the BoardEx database. Of these target CEOs, 4% are female, which is higher than the 3% female CEOs covered by BoardEx for US public companies without activist involvement. Moreover, conditional on the occurrence of an activism campaign, female CEOs are more likely to face multiple campaigns and confrontational tactics. An interesting question is whether the possible career effects of shareholder activism vary with target CEO gender.

For all target CEOs in sample, we obtain from BoardEx data concerning their employment history over the seven-year period from three years before until three years after the activism. Based on these employment records, we construct a set of objective success measures that reflect three different but complementary aspects of CEO careers: executive-level posi-

tions, board memberships, and compensation.[1] Since we attempt to identify the causal effects of shareholder activism on CEO careers, an important issue of concern is whether the activism event can be considered exogenous. As one would expect, and as Brav et al. (2008) show, activist investors do not randomly choose their targets. To mitigate this problem, we employ propensity score matching procedure to find suitable counterfactuals to the target CEOs. The propensity score is estimated for all BoardEx CEO-firm-year observations in the period 2006 to 2015 as a function of firm and CEO characteristics together with year and Fama-French 12-industry fixed effects. The matching procedure yields 2,536 treatment-control pairs.[2]

Using the matched sample, we estimate the average effect of shareholder activism in a difference-in-differences regression framework. Results indicate that incumbent CEOs suffer a loss following activist interventions. Specifically, compared to their otherwise similar control peers, target CEOs on average have 0.04 fewer executive positions, 0.13 fewer board seats, and 19 percent less compensation in the period from the shareholder-activism year through three years following the activism. For executive and board positions, the results are driven by the internal slot at the targeted companies; for compensation, the results are driven by both the equity-based portion and the nonequity-based portion of compensation.

Behind the average effect there is substantial heterogeneity in career outcomes among female and male CEOs. In particular, the careers of female CEOs are largely unaffected by shareholder activism. Although female CEOs tend to lose executive and director positions at the targeted companies, they receive additional appointments in the external market, which offsets their losses in the internal market. Besides, female CEOs show no evidence of suffering any significant compensation loss following the activism. In comparison, the careers of male CEOs are adversely affected by shareholder activism, and display a similar pattern to that of the full sample. Overall, the results suggest that the labor market is skeptical of activism targeting women leaders.

The evidence so far does not provide conclusive identification of a causal effect because matching on observable firm and CEO characteristics mitigates but does not eliminate concerns related to activists' non-random selection of targets. To corroborate our inference, we examine whether the same career changes would have occurred had the activist investors behaved passively after they filed a Schedule 13D. In such cases, the filing of 13D with the SEC reflects an activist's intention to reserve the option of engaging with the target firm in the future. Results indicate that those nominally activism campaigns have no material impact on the careers of incumbent CEOs, inconsistent with the alternative explanation that the career changes associated with the activism are embedded within the selection process and would have taken place without the activism.

The final part of our analysis explores whether the career effects of shareholder ac-

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[1]Note that we rely on ExecuComp for detailed disclosures of compensation for CEOs. Since ExecuComp only covers large public companies, all inferences about compensation in this paper are limited by the sample selection.

[2]This covers 1,525 different target CEOs, approximately 80% of the target sample.

tivism vary with campaign tactics and outcomes. We find that the adverse effect on CEO compensation is stronger when the activist threatens a proxy fight, and the adverse effect on board membership is stronger when the activist wages a proxy fight. Furthermore, the results are driven by male CEOs, as female CEOs do not seem to suffer from more confrontational approaches. When studying whether campaign outcomes matter to the careers of incumbent CEOs, we find that campaigns resulting in the target companies meeting activists' value creation or governance related demands impose a more negative effect on CEO compensation, and campaigns resulting in the activist investors receiving board representation impose a more negative effect on all aspects of CEO careers. Again, the results are significant only for male CEOs.

Overall, the evidence shows that incumbent CEOs, especially men, suffer negative career consequences from shareholder activism in their companies. This finding is particularly important in today's environment when activist shareholders set their sights on larger companies and traditional investors, such as public pension funds and labor union, become more active participants in their corporate holdings. Now that activists have demonstrated that no firm is beyond their reach and they can be influential when they engage with a company, it's crucial for CEOs to approach those investors with wisdom and diplomacy.

This paper belongs to a group of studies that examine the consequences of shareholder activism. By and large, the studies show that shareholder proposals and negotiations are associated with minimal impact (Wahal et al., 1995; Karpoff et al., 1996; Carleton et al., 1998), whereas hedge fund activism and proxy fights are associated with significant improvements in target firms' value and governance (Dodd and Warner, 1983; Brav et al., 2008; Klein and Zur, 2009). This paper contributes to the literature by providing evidence on the relation between shareholder activism and incumbent CEOs' subsequent labor market opportunities. Our study is quite broad in that we include all forms of activism and CEOs' prospects in both targeted and nontargeted companies. To our knowledge, this paper is the first to provide evidence in this regard.

In addition, this paper relates to the body of research on the ex post settling up problem. Fama (1980) in his influential work argues that "Individual participants in the firm, and in particular its managers, face both the discipline and opportunities provided by the markets for their services, both within and outside the firm". Several scholars test and support this assertion. For example, Kaplan and Reishus (1990) find that executives of dividend-cut firms receive less outside directorships. Brickley et al. (1999) show that CEOs' post-retirement opportunities are positively related to the performance of their firms during their final years in office. Our results further lend support to this assertion, establishing that CEOs are disciplined by the disgruntled activist shareholders in their companies.

This paper also adds to the literature regarding women in leadership. The literature has well-documented gender differences between men and women leaders in terms of risk attitudes (Adams and Funk, 2012), leadership styles (Matsa and Miller, 2013), pay levels (Bugeja et al.,

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2012), subordinate judgements (Elsesser and Lever, 2011), and so on. As further evidence, our study shows that female CEOs face more challenges from activist investors than male CEOs, but the labor market perceives that activist's hostile posture towards women leaders is biased, resulting in female CEOs suffer less from shareholder activism in their firms.

The rest of the paper proceeds as follows. Section 3.2 describes the sample selection procedure, our choice of CEO, firm, and campaign characteristics for the analysis, and the empirical framework. Section 3.3 presents the main results and robustness analysis. Section 3.4 concludes.

3.2 Data, variables, and methodology

3.2.1 Data

We start with a comprehensive sample of shareholder activism against US public companies during the period of 2006 to 2018. The sample period is based on the availability of activism data from the SharkRepellent database. Following previous studies, we eliminate cases of merger arbitrage since the motive and consequence of merger arbitrage differ fundamentally from those of regular shareholder activism (Brav et al., 2008). This is done by cross-checking the announcement and completion dates of mergers and acquisitions (M&As) from the SDC database with the activism announcement dates in our sample. Any activism event that takes place after the M&A announcement but before its completion is considered as merger arbitrage and dropped from our sample. We also exclude campaigns initiated solely by religious groups because their campaigns usually pursue improvement in international human rights and/or labor standards rather than change to company management or operations (Proffitt Jr and Spicer, 2006). Detailed information about activist identities is provided in Appendix 3.A.

For the remaining cases, we identify the CEOs in charge of the targeted companies at time of campaign announcement by matching information on targeted companies with information from the BoardEx database. BoardEx provides complete profiles on directors and senior managers of almost every US public company as well as notable private companies. Given that we record changes in CEO careers for three years following the activism events, we further restrict our sample to shareholder activism that happened no later than 2015. The final sample covers 3,081 activism campaigns and 1,874 unique CEOs between January 1, 2006 and December 31, 2015. Table 3.1 reports the descriptive statistics for the full sample (columns 1 and 2) and for the two subsamples partitioned depending on the gender of incumbent CEOs (columns 3 to 6).

Insert Table 3.1 about here

As Panel A illustrates, most CEOs (64%) have experienced shareholder activism only once. When comparing female CEOs to male CEOs, the former are more likely to repeatedly

encounter activist shareholders (44% vs. 36%). Besides, 264 (14%) of the CEOs have involved in three or more campaigns over our time period, which is due largely to the high frequency of proposal campaigns in their companies.[3] Panel B summarizes the use of threatened and launched proxy contests by activists in our sample. We find that 815 (26%) of the campaigns involved a threatened or launched proxy contest. In addition, proxy solicitations are disproportionately represented in the female CEOs subsample, indicating that activists are somewhat more openly hostile to women CEOs.

In terms of campaign outcomes, Panel C shows that demands made by the activist(s) have been followed through in 1,308 (42%) of cases.[4] Also, we observe that activist shareholders achieve a higher rate of success in obtaining their demands when the targeted companies are run by women CEOs. Nevertheless, the difference does not reach a conventional statistical significance level. Further, 668 (22%) of the campaigns resulted in activists getting at least one seat on the target firm's board of directors, and the incidence of activists gaining board representation is slightly higher for the female subsample (24% vs. 22%).

3.2.2 Variables

Who are taking the helm of targeted companies? The first three columns of Table 3.2 report summary statistics for the full sample of target CEOs and for the subsamples of female and male target CEOs. Variables shown in the table are constructed using CEO profile data from BoardEx, accounting data from Compustat, stock data from CRSP, institutional holdings from FactSet, and compensation data from ExecuComp.[5] All variables are reported at the CEO-campaign-year level and retrieved from the year prior to the announcement of campaigns. The potentially unbounded variables are winsorized at the 1% and 99% levels. See Appendix 3.B for variable definitions.

Insert Table 3.2 about here

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[3]The leading example is the one who has faced shareholder activism 16 times in the 2006 to 2015 period: Rex Tillerson. Mr. Tillerson is the CEO of ExxonMobil Corporation (Exxon), the world's largest oil company. Of the 16 campaigns he has gone through, 14 cases are about activists seeking Exxon's shareholder support for their proposals, and the remaining 2 cases are about activists urging other shareholders to vote against management proposals.

[4]We focus on the value creation (e.g., return cash via dividends or buybacks) and/or corporate governance related (e.g., add independent directors) demands made by the activist(s) as we use detailed campaign data from SharkRepellent. An event is classified as activist's demand being followed through if the demand has been fully or partially implemented (e.g., the activist is requesting a $10 million stock repurchase, the company instead authorizes only a $5 million stock repurchase).

[5]Note that in 2006, the FAS 123R changed the reporting requirements of the proxy statements. Under this new reporting regime, individual director compensation has to be disclosed in the Director Compensation Table, which is similar in format to the Summary Compensation Table for named executive officers. In addition to this, companies have to expense stock options based on the fair value on the grant date, which results in significant decrease in prevalence of stock options. For this reason, we restrict the analysis on CEO pay to the period of 2006 to 2018 to ensure the availability of director compensation data and to disentangle the effects of shareholder activism from the effects of FAS 123R. Also note that the ExecuComp universe mainly consists of the S&P 1500 and companies that were once part of the 1500. All inferences about CEO compensation in this paper are therefore limited by the particular time period and sample selection.

To offer an overview of how the target CEOs differ from their non-target peers, we report in column 4 the summary statistics for the non-target CEOs covered by BoardEx, and in column 5 differences in means between target and non-target CEOs, as well as significance levels of these differences. In comparison with non-target CEOs, target CEOs are slightly elder and include disproportionate higher numbers of women. With respect to current executive employment, target CEOs appear to hold fewer executive positions (1.38 vs. 1.47). Besides, when compared to non-target counterparts, target CEOs have about half year shorter tenure over the executive positions held. The average firm in which target CEOs hold executive titles is of larger size with sound operating performance (as indicated by return on assets) but weak stock returns, the latter of which, among other things, is commonly cited by activists as a reason for their intervention. Furthermore, companies where target CEOs obtain executive jobs exhibit higher levels of leverage and institutional holdings.

Target CEOs' existing board service displays a similar pattern to that of their executive employment, which is because the firms where target CEOs hold board positions and covered by the Compustat/CRSP database are largely overlapped with the firms where those CEOs hold executive positions.[6] Looking at the pre-activism compensation levels, we find that target CEOs received considerably higher compensation than did non-target CEOs on average (7,974 vs. 5,281), and the result persists when we look separately at the equity-based and nonequity-based components of compensation, plausibly due to the fact that target CEOs are more prevalent at larger firms[7] or that target CEOs are simply overpaid. Turning to skill and education levels, target CEOs have more general managerial skills and are more likely to receive an MBA and Ivy League education relative to the non-target counterparts.

Insofar as activist shareholders to some extent treat women CEOs differently, we present in column 6 differences in means between female and male target CEOs along with significance levels of these differences. The results suggest that the average female target CEO in our sample is about 2.6 years younger than the male target CEO. The current executive employment of female targets is very similar to that of male targets, except that the tenure of the female is around 2.2 years shorter than that of the male. Focusing on CEOs' current board service, we observe that female targets hold more board appointments, have shorter tenure, and are disproportionately employed in larger firms, compared to male targets.

Female target CEOs also enjoy higher pay than male target CEOs (10,119 vs. 7,861), and the equity-based component of compensation is responsible for the difference. We note, however, the higher remuneration to the female is unlikely to be the potential cause of the observed gender-targeting differences. First, the percentage of events that involve shareholder activists criticizing the company's executive compensation practice is roughly the same (about 10%) between female and male subsamples. Second, the substantial gender pay gap remains qualitatively the same after excluding the compensation-related events from the female sub-

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[6]Note that about 99% of the CEOs in our sample hold board seats in their own companies.

[7]Baranchuk et al. (2011), for example, show that managerial pay increases with firm size.

sample. Concerning managerial skills and educational background, female CEOs tend to have more general human capital (as proxied by the general ability index) and education (as indicated by the number of qualifications hold and Ivy League dummy) than their male cohorts. Overall, the comparisons suggest that the gender-targeting differences are more consistent with a bias rather than other characteristics of women CEOs and the firms they work for.

3.2.3 Methodology

We analyze the career effects of shareholder activism by comparing the career path between target and non-target CEOs, as well as between female and male target CEOs, over a seven-year period: from three years before to three years after the activism. To thoroughly appraise CEO career changes arising from shareholder activism, we explore a set of objective career success measures, ranging from CEOs' executive and board appointments, to the compensation received by CEOs. These career measures have also been further split into several partitions to uncover potential sources of variation in CEO career measurements. Specifically, we separately examine the internal and external career prospects for CEOs, focusing on their employment opportunities at executive and director levels. We also decompose CEO compensation into two components: the equity-based portion and the nonequity-based portion.[8]

Since we attempt to identify the career effect of shareholder activism on incumbent CEOs, an important issue of concern is whether activism events can be considered exogenous. As one would expect, and as Brav et al. (2008) show, activist investors do not randomly choose their targets—that is, some firm characteristics attract activist efforts. To mitigate this problem and to find suitable counterfactuals, we employ propensity score matching procedure and construct a comparable synthetic control group. In particular, we download all CEO-firm-year observations for US firms from BoardEx for the period 2006–2015 and estimate the propensity score as a function of firm and CEO characteristics together with year and Fama-French 12-industry fixed effects. The matching variables are retrieved from the year prior to the activism event and comprise important determinants of activist targeting and individual careers: return on assets, buy-and-hold stock return, firm size, institutional ownership, board size, board independence, CEO age, CEO tenure, CEO outside directorships, and CEO education. All potentially unbounded variables are winsorized at the 1% and 99% levels. For detailed variable definitions and construction, see Appendix 3.B.

Next, we exclude CEOs who experience shareholder activism during the period from 2006 to 2018 from the pool of potential controls to provide a cleaner identification of the shareholder-activism impact. From this set, we perform a 1:1 matching where (i) a target CEO is matched to a non-target peer from the same fiscal year and Fama-French 12-industry category, and (ii) the constructed control sample has the smallest absolute propensity score distance from the target sample. In total, this procedure yields 2,536 treatment-control pairs

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[8]This breakdown accounts for the properties of individual compensation components.

for the period 2006 to 2015. Table 3.3 displays summary statistics for the matched sample.

Insert Table 3.3 about here

Columns 1 (2), 4 (5), and 7 (8) in Panel A summarize the CEO and firm characteristics across all matching variables for all targets (controls), the female targets (controls), and the male targets (controls), respectively. Columns 3, 6, and 9 report the absolute standardized differences in means between a certain target and the corresponding control groups for assessing the validity of the propensity score model. Some propose that an absolute standardized difference of 0.10 or more suggests that matching covariates are imbalanced between treated and untreated groups, which can lead to erroneous inferences about treatment effect made using the propensity score method (see, e.g., Austin, 2009). Clearly, in the full matched sample and the male matched subsample, targets and non-targets have similar distributions of observed characteristics, indicating that the propensity score model has been correctly specified. However, in the female matched subsample, non-targets exhibit some differences to targets. Given that the female subsample is small in size, the small standardized difference, as evidenced by the mean absolute standardized difference of 0.127, are still consistent with the propensity score model having been correctly specified.[9]

Using the matched sample, we estimate the following difference-in-differences (DiD) model:

$$y_{di,t} = \beta_1 \cdot (Target_{di} \times Post_{di,t}) + \beta_2 \cdot Post_{di,t} + \alpha_d + \alpha_t + \epsilon_{di,t}, \tag{3.1}$$

where $y_{di,t}$ is a career success measure for CEO d of campaign i in fiscal year t, $Target_{di}$ is an indicator variable for target CEO, $Post_{di,t}$ is a dummy variable equal to one if the target (matched non-target) CEO observation is within [0, 3] years after the activism event (pseudo event), and α_d and α_t control for CEO and year fixed effects, respectively. Of interest is the coefficient β_1 associated with the DiD interaction term $Target_{di} \times Post_{di,t}$, which represents the differential change in career attainment of target CEOs following the shareholder activism, compared to that of non-target CEOs. In Table 3.3, Panel B, columns 2 (3), 5 (6), and 8 (9), we present the mean (standard deviation) of career success measures for the full matched sample, the female matched subsample, and the male matched subsample, respectively. See Appendix 3.B for variable definitions.

Before proceeding to our DiD estimation results, we empirically examine trends in dependent variables during the pre-activism period for each of the matched groups. If target and matched non-target CEOs exhibit parallel trends in career success measures in the period leading up to the activist intervention, the DiD estimates will plausibly isolate the shareholder-activism effects on the careers of incumbent CEOs. Table 3.4 tabulates results from estimating

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[9]Note that the female subsample has 128 matched pairs. Cohen (1988) claims that 0.2, 0.5, and 0.8 can be used to represent small, medium, and large standardized differences, respectively.

Eq. (3.1) after replacing the *Post* dummy with yearly event-time indicator variables. We leave year t^{-3} (i.e., three years before the shareholder activism) as the reference category and report only the parameter estimates and statistical significant levels for interactions between *Target* and two pre-activism year dummies. The figures provide evidence that the careers of target and matched non-target CEOs follow roughly parallel trends prior to the activism events, except the log equity-based compensation for the male matched subsample.[10]

Insert Table 3.4 about here

3.3 Results

3.3.1 Career prospects in the executive labor market

In Table 3.5, we explore the impact of shareholder activism on CEOs' career prospects in the executive labor market. Panels A, B, and C show the estimated DiD interaction terms from Eq. (3.1) for the full matched sample, the female matched subsample, and the male matched subsample, respectively. As an alternative to compare results from separate DiD regressions on female and male subsamples, we use the full matched sample and re-run Eq. (3.1) with the addition of a female CEO dummy that indicates the female subsample, a double interaction term between *Female* and *Post*, and a triple interaction term between *Female*, *Target*, and *Post*. The main coefficient of interest is the triple interaction term, which captures the differential career effects for female versus male CEOs. Panel D reports the results.

Insert Table 3.5 about here

Columns 1 and 2 focus on the total number of executive positions held by CEOs. The coefficients on $Target{\times}Post$ in Panel A are marginally significant in column 1, and insignificant in column 2, when we include controls for firm size, stock and firm performance, institutional ownership, and tenure on the job, suggesting that shareholder activism has a modest negative influence on CEOs' career prospects in the executive labor market.[11] Looking at the results in Panels B, C, and D, we find that female CEOs' executive jobs are not affected by the activism. In contrast, there is a negative relation between shareholder activism and the executive-level employment opportunities for male CEOs.

Columns 3 and 4 provide evidence on how shareholder activism affects the internal career prospects of incumbent CEOs. Specifically, we augment linear probability regressions to examine the linkage between shareholder activism and retention of incumbent CEOs in the focal firms as executives.[12] The dependent variable in the model is a dummy variable that

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[10]Note that due to their specific construction, 'inside executive positions' and 'inside directorships' are dropped from the test.

[11]The insignificant result in column 2 is because of the reduced sample size due to missing data.

[12]For target CEOs, focal firms are target firms. For non-target CEOs, focal firms are control firms matched to the target firms.

takes on the value of one if the CEO holds an executive position in the focal firm and zero otherwise. Due to focusing on incumbent CEOs at the time of campaigns, this variable has the value of one across all observation in year t^0. Given this property, we set *Post* equal to zero for t^0. Further, to avoid pre-event turnover affecting our results, we assume the CEO holds executive position at focal firm for three years before the campaign.[13] In the first three panels, the estimated DiD coefficients are negative and economically sizable, indicating that CEOs who have been targeted by shareholder activists are less likely to be retained in the firms as executives.[14] In Panel D, the estimated coefficients on the triple interaction term are positive yet insignificant, whereas the double interaction terms are statistically significant, negative, and significantly ($p \leqslant 0.05$) differ from the triple interaction terms. It implies that female CEOs suffer from increased turnover in firms subject to activist intervention, but not more than male CEOs.

Columns 5 and 6 investigate changes in external executive positions held by incumbent CEOs surrounding the activism. In Panel A, the coefficients on $Target \times Post$ suggest that in comparison with matched non-target CEOs, target CEOs hold more external executive positions during the post-activism period (though the difference relatively lacks economic importance). Turning to Panels B, C, and D, we find that the results in Panel A are driven by the male target CEOs. Overall, there is some evidence that shareholder activism has a positive effect on CEOs' career prospects in the external executive labor market.[15]

3.3.2 Career prospects in the director labor market

In Table 3.6, we analyze whether shareholder activism affects CEOs' career prospects in the director labor market. The organization of the table is similar to that of Table 3.5: for each matched group, Table 3.6 gives parameter estimates from regressions that are the same as in Table 3.5 except for the dependent variables. In the first two columns, the dependent variable is the total number of board seats held by CEOs. The coefficients associated with $Target \times Post$ in Panel A are both negative and significant, indicating that shareholder activism imposes a significant adverse effect on incumbent CEOs' subsequent careers in the director labor market.[16]

Insert Table 3.6 about here

The last four columns explore the internal and external board seats held by incumbent CEOs. The dependent variable in columns 3 and 4 is a dummy variable that takes on the value of one if the CEO holds board seat in the focal firm while in columns 5 and 6 is the number of board seats held by the CEO in other (non-focal) firms. The parameter estimates

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[13]Our results do not change when (i) including only CEOs that are with the focal firms since t^{-3}, or (ii) dropping all t^{-3} to t^{-1} observations and treating t^0 as the reference year. The results are not reported.

[14]Results in column 4 are weakened by reduced sample size due to missing data in control variables.

[15]Results in column 6 are due to different samples used.

[16]The result in column 2 is weakened by reduced sample size due to missing data in control variables.

on $Target{\times}Post$ in Panel A, columns 3 to 6, are all negative in sign, but statistically and economically significant only in columns 3 and 4, suggesting that the negative career effect of shareholder activism mainly stems from the internal labor market for directors.

In the last three panels, we test whether the effects of shareholder activism on directorial labor market prospects depend on the gender of incumbent CEOs. We find that the estimated career effects for female CEOs in Panel B differ from those reported in Panel A, whereas the estimated career effects for male CEOs in Panel C are almost identical to those presented in Panel A. Specifically, the overall shareholder-activism effects on female CEOs' service on boards of directors–if any–are positive: although female target CEOs are less likely to retain the board slots with focal firms than their matched non-target counterparts, they on average hold more external directorships after the activism, which fully offsets their losses of internal seats.[17] The positive coefficients on the triple interaction terms in Panel D, columns 1 and 2, further confirm that female target CEOs suffer somewhat less than male target CEOs in the labor market for directors during the post-activism period.

3.3.3 Compensation

In Table 3.7, we study the impact of shareholder activism on CEO compensation, defined as the sum of compensation received by the CEO from all companies where she/he holds executive or director roles. The table format is similar to Table 3.5; however, now we include as dependent variables the natural log of total compensation in columns 1 and 2, the natural log of the equity-based component of compensation in columns 3 and 4, and the natural log of the nonequity-based component of compensation in columns 5 and 6. The coefficient associated with $Target{\times}Post$ in column 1 of Panel A is negative and significant, with a magnitude of -0.21. This corresponds to a 19% decline in the total compensation to target CEOs post activism, relative to matched non-target CEOs.[18] We observe a similar pattern in column 2 of Panel A, where we add director and firm controls.[19]

Insert Table 3.7 about here

In the last four columns, we check which component of compensation is affected by the activism. The coefficient on $Target{\times}Post$ is negative and significant in both columns 3 and 5 of Panel A, but shows a larger magnitude and significance in column 3. The coefficients imply that the decrease in the equity-based portion and the nonequity-based portion of compensation

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[17]It is worth noting that relative to the average number of outside directorships of 1.43 for the female matched subsample (see Table 3.3), the estimated effect of 0.22 in column 5 is numerically substantial, even though it is not statistically significant. Besides, the result in column 6 is weakened by reduced sample size due to missing data in control variables.

[18]The coefficient on $Target{\times}Post$ represents the change in the log compensation for a change in the interaction term from zero to one. The magnitude of the coefficient (-21%) in column 1 of Panel A therefore translates to a discount of exp(-0.21), or a 19% drop.

[19]The result in column 2 of Panel A is weakened by reduced sample size due to missing data in control variables.

for target CEOs is on the order of 24% to 11%, compared to their matched non-target cohorts. The two columns taken together suggest that target CEOs experience large losses in both compensation components following the shareholder activism.[20]

In Panels B and C, we perform a similar analysis for the female and male matched subsamples, respectively. While no statistically negative relation is found between shareholder activism and female CEOs' compensation, the compensation change for male CEOs around shareholder activism displays a very similar pattern to that shown in Panel A. In Panel D, the positive coefficients on the triple interaction terms from pooled regressions further validate that female CEOs suffer less compensation loss after the activism.

3.3.4   Causality

Although results thus far support the view that CEOs–especially men–who are targeted by shareholder activists suffer negative career consequences, due to the selective targeting behavior of activists, it seems too early to draw causal inference about the effects of shareholder activism on careers of incumbent CEOs. A potential concern, for example, is that our propensity-score-matching omits some unobserved factors that influence both the selection of target firms and the subsequent career changes of incumbent CEOs. It is also possible that confounding events occur coincidentally with activist interventions.

To make causal inference as plausible as possible, we consider a subsample of 134 CEOs who had and only had experienced activism events that fall short of an explicit activist agenda. In such events, activists are generally nonconfrontational: they file their 13Ds with the SEC aiming at reserving the option of influencing the management of the company in the future. In this way, the activists behave more like passive investors than like the typical active investors. Hence, the idea is to verify that the career changes would not have taken place, or not to the same extent, had the shareholder activists resembled passive block holders in the target companies.

For the passive subsample (i.e., CEOs involved in 'passive' shareholder activism and their propensity-score-matched control peers), we run regressions following Eq. (3.1) in which we include as dependent variables the total number of executive positions, the total number of directorships, and the natural log of total compensation, successively. Regression results are in Table 3.8, Panel A. In all three columns, being targeted by 'passive' activists is insignificant in explaining the future career changes of incumbent CEOs, confirming our conjecture.

Insert Table 3.8 about here

As an alternative to infer the causal impact of shareholder activism, we conduct analysis on the full sample by including a *Passive* dummy in a triple-difference framework. This means

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[20]Results in columns 4 and 6 of Panel A are weakened by reduced sample size due to missing data in control variables.

that we add to Eq. (3.1) a *Passive* dummy that indicates the passive subsample, a double interaction term $Passive \times Post$, and a triple interaction term $Passive \times Target \times Post$. In this context, the double interaction term $Target \times Post$ measures the career changes for CEOs who had experienced 'active' intervention, while the triple interaction term captures the differential career effect for CEOs involved in 'passive' versus 'active' interventions.

Because we find negative career effects of shareholder activism in the previous analysis, we expect the coefficient on the double interaction term to be negative and statistically significant. Since the same effects are not supposed to occur absent 'active' intervention, the coefficient on the triple interaction term should be positive in sign. Results are reported in Panel B of Table 3.8, and consistent with our prediction. Also, the F-test cannot reject the null hypothesis that the overall impact of 'passive' intervention is zero. In sum, the evidence suggests that the documented shareholder-activism effects are likely to have a causal interpretation.

3.3.5   Event characteristics and CEO career outcomes

In previous sections, we have studied the average career effect of shareholder activism, and we have shown that the effect appears to be heterogeneous, depending on the gender of the incumbent CEOs. In this section, we further probe the heterogeneity in the effect of shareholder activism by incorporating event characteristics into a triple-difference estimator. The triple-difference specification takes the following form:

$$
\begin{aligned}
y_{di,t} =& \beta_1 \cdot (EventChar_i \times Target_{di} \times Post_{di,t}) + \beta_2 \cdot (Target_{di} \times Post_{di,t}) \\
&+ \beta_3 \cdot (EventChar_i \times Post_{di,t}) + \beta_4 \cdot (EventChar_i \times Target_{di}) \\
&+ \beta_5 \cdot EventChar_i + \beta_6 \cdot Post_{di,t} + \alpha_d + \alpha_t + \epsilon_{di,t},
\end{aligned}
\tag{3.2}
$$

where $EventChar_i$ is a nominal variable describing attributes of campaign i. Other variables are defined the same as in Eq. (3.1). The coefficients associated with the triple interaction term $EventChar \times Target \times Post$ measure the differential effect of different types of campaigns in comparison with the designated reference campaigns. Also relevant is the coefficient on $Target \times Post$, which represents the effect of the reference category.

We begin by examining the possible heterogeneous effects originating from the threatened and launched proxy contests. We focus on the proxy process because prior studies have demonstrated its effectiveness in bringing about changes in target companies (see, e.g., Bebchuk, 2007; Fos and Tsoutsoura, 2014). To perform the analysis, we use data from the SharkRepellent database to categorize campaigns into three groups on the basis of the use of proxy fights by activists: launched proxy fight, threatened proxy fight, and no proxy fight.[21] Next, we estimate Eq. (3.2) on the full matched sample and both subsamples based on the gender of target CEOs. Results are tabulated in Table 3.9, with columns 1 to 3 reporting the

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[21]In this manner, *EventChar* has three categories.

outcomes for the total number of executive positions, the total number of directorships, and the natural log of total compensation, respectively.

For the full-sample results reported in Panel A, the estimated coefficients on the double and triple interactions are small and insignificant in the first column, indicating no relation between shareholder activism and CEOs' overall career prospects in the executive labor market, regardless of whether activists wage or threaten to wage a proxy fight. In contrast, the coefficients on the double interaction term $Target \times Post$ are negative and significantly different from zero in columns 2 and 3, suggesting that CEOs experience directorship and compensation losses following campaigns that do not involve proxy fights.

Furthermore, looking at the triple interaction terms in columns 2 and 3, we find that the coefficients on $Threatened\ proxy \times Target \times Post$ are negative in both columns, but economically and statistically significant only in column 3, implying that while the mere threat of a proxy fight has limited additional impact on CEOs' board memberships, it can induce a larger reduction in CEO compensation. The coefficients on $Launched\ proxy \times Target \times Post$ are also negative in both columns, with similar magnitude, but statistically different from zero only in column 2. This finding suggests that CEOs who are targeted in real proxy contests are likely to incur additional losses in board appointments and compensation, but the loss is significant only in board appointments.

In Panels B and C, we examine whether the career effect of proxy contests varies with the gender of incumbent CEOs. These subsample regressions show that regardless of the presence or absence of a contest, female CEOs are not tainted by the activism event, as evidenced by the lack of statistically significant results in Panel B. In comparison, male CEOs appear to suffer from shareholder activism, especially when a proxy threat or a proxy fight is observed.

We next study whether the career effects vary with the outcome of the activism campaign. Based on information from SharkRepellent, we classify the activism outcome into three categories: the activist gets the target board/management to acquiesce in whole or in part to its value creation or governance related demands, the activist gains board representation at the target firm, and others. If the outcome falls into the first two categories simultaneously, we group it to the second category to reflect the fact that gaining seats on the target's board allows the activist to continuously and effectively pressure the target to address its demands.[22] We then estimate Eq. (3.2) on the full matched sample and the female and male matched subsamples. Results are presented in Table 3.10, whose format is similar to Table 3.9.

For the full-sample results reported in Panel A, the estimated coefficients on the double interaction term $Target \times Post$ are indistinguishable from zero in columns 1 and 3, and

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[22]Under this definition, *EventChar* has three categories.

marginally significant at the 10% level in column 2. This result indicates that the career effects of shareholder campaigns, in which activists fail their mission, are weak. With respect to the triple interaction term, we notice that the coefficient on $Obtain\ demand\times Target\times Post$ is statistically significant and economically important only in column 3, reflecting that the pre- to post-activism compensation change is significantly more negative for CEOs whose companies concede to the activist's demands. The coefficients on $Gain\ seat\times Target\times Post$ are negative and statistically significant across all columns, suggesting that campaigns resulting in the activist receiving board representation impose a stronger adverse effect on careers of incumbent CEOs.

The evidence in Panels B and C indicates significant difference in the career effects of activism campaigns on female and male CEOs when campaign outcomes are considered. Panel B shows that none of the interaction terms are significant in explaining the labor market prospects of female CEOs. Therefore, activism campaigns, regardless of how they are resolved, have no material impact on the careers of female CEOs. The results in Panel C contrast with the insignificant career changes for female CEOs. Specifically, we find that activism campaigns–even without delivering any change desired by the activist–can cause a deterioration of both the opportunities in the director labor market and the compensation levels for male CEOs. This negative effect appears to be stronger when target companies surrender board seats to activists. Furthermore, campaigns that result in the activists having all or part of their demands met can lead to a higher decrease in compensation for male CEOs, relative to campaigns where the activists are unsuccessful.

3.4 Conclusions

The effectiveness of shareholder activism has been a widely examined topic. There exist a large number of studies that explore the consequences of shareholder activism for target firms, but it is unclear what the consequences for target CEOs could be. Using shareholder activism against US public firms during 2006–2015, this paper documents career consequences for incumbent CEOs of target companies. Our analysis differs from that in prior literature by including all forms of activism and CEOs' external career prospects.

Applying difference-in-differences analysis to sample matched on firm and CEO characteristics, we show that target CEOs fare less well in the labor market compared to their otherwise similar counterparts. Following the activism campaign, target CEOs experience a significant decline not only in the number of executive and board-level appointments, but also in the level of compensation. For executive and board positions, the results are driven by the internal slot at the targeted companies; for compensation, the results are driven by both the equity-based portion and the nonequity-based portion of compensation.

To sharpen the interpretation of our results, we examine the career consequences for a sample of CEOs who had and only had experienced campaigns where shareholder activists

behave like passive investors. The results indicate that relative to their corresponding matched control peers, CEOs experiencing 'passive' activism campaigns do not appear to suffer any significant labor market loss during the post-activism period. This evidence refutes a hypothesis that the career changes would have taken place absent the activist's own effort.

There is also substantial heterogeneity in career outcomes among female and male CEOs. In particular, the careers of female CEOs are largely unaffected by shareholder activism, whereas the careers of male CEOs deteriorate after the activism. Besides, the career effects vary with activist tactics and campaign outcomes. For example, a threatened proxy contest and a launched proxy contest can impose additional adverse effect on CEO compensation and board appointments, respectively. Moreover, in comparison with campaigns where activists fail their mission, campaigns resulting in the target companies meeting activists' value creation or governance related demands can induce a greater decrease in CEO compensation, whereas campaigns resulting in the activists receiving board representation can generate a stronger negative impact on all aspects of CEO careers. Again, these results are significant only for male CEOs.

Appendix 3.A   Activist identities

Activist Identity	Definition
Corporation	Public or private company that is usually in the same industry as the target company of the campaign. A corporation is not typically an activist. This usually occurs when a corporation is attempting to take over another company whether via a proxy fight or hostile tender offer (e.g., Oracle Corporation campaign to takeover PeopleSoft, Inc.).
Hedge fund company	A fund that uses derivative securities and is extremely risky. Typically, these companies are very secretive about their investments. Includes funds that use puts, calls, margins, and shorts, often as "hedges" to reduce risk (e.g., Soros Fund Management). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Individual	The activist is an individual or family.
Investment adviser	If an investment firm does not have the majority of its investments in mutual funds and is not a subsidiary of a bank, brokerage firm, or insurance company, then the firm is considered an Investment Advisor. An Investment Advisor provides investment advice and manages a portfolio of securities (e.g., Franklin Mutual Advisors). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Labor union	The activist is a labor union including labor union pension funds (e.g., The Service Employees International Union).
Mutual fund manager	An investment firm with the majority of its investments in mutual funds. A mutual fund raises money from shareholders and reinvests the money in securities (e.g., BWD Rensburg Unit Trust Managers Ltd). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Public pension funds	A fund established by a state or local government to pay benefits of retired workers (e.g., The California Public Employees Retirement System).
Religious group	The activist is a religious organization (e.g., Interfaith Center on Corporate Responsibility).
Named stockholder group	The name adopted by the activist group for the specific activist campaign (e.g., The Committee for Concerned Cyberonics, Inc. Shareholders).
Other institutions	Other institutional investors not already categorized. Includes Arbitrage, Bank Management Division, Broker, Broker/Investment Bank Asset Management, Fund Distributor, Foundation/Endowment, Holding Company, Insurance Company, Insurance Management Division, Corporate Pension Fund, Private Banking Portfolio, and Venture Capital Firms. Institution types are assigned by FactSet LionShares.
Other stake holders	Other non-individual and non-institutional investor entities such as ESOPs, venture capital, private equity firms and other investment firms not categorized as an institution by FactSet LionShares.

Appendix 3.B Variable definitions

Variable	Definition
Activism characteristics	
Target	A dummy variable equal to 1 if the CEO's firm is targeted by shareholder activist(s) in a given year and 0 otherwise.
Female (male) target	A dummy variable equal to 1 if the targeted firm is run by a female (male) CEO and 0 otherwise.
Proxy fight	A campaign under which an activist or group of activists solicits the proxy or written consent of fellow stockholders in support of a resolution it is advancing. This usually involves the election of dissident nominees to the company's board in opposition to the company's director nominees. Note that threatened proxy fights consist of cases in which activist threatens to begin a proxy solicitation. As soon as the activist publicly discloses it delivered formal notice to the company that it intends to solicit proxies from stockholders, it is considered an actual solicitation.
Obtain demand	A dummy variable equal to 1 if the value creation (e.g., return cash via dividends or buybacks) and/or corporate governance related (e.g., add independent directors) demands made by the activist(s) have been fully or partially implemented (e.g., the activist is requesting a $10 million stock repurchase, the company instead authorizes only a $5 million stock repurchase).
Gain seat	A dummy variable equal to 1 if the activist successfully gains at least one seat on the target's board and 0 otherwise.
Passive activism	A campaign whereby an activist files a Schedule 13D with the SEC but does not publicly disclose any specific activism agenda.
Proxy	A nominal variable with the following three categories: threatened proxy fight, launched proxy fight, and no proxy fight.
Success	A nominal variable with the following three categories: the activist fully or partially attains its value creation or governance related demands, the activist gains at least one seat on the target's board, and others.
Firm and board characteristics	
Firm size	The natural logarithm of the market value of equity.
Return on assets	Earnings before interest, taxes, depreciation, and amortization, divided by lagged total assets.
Stock return	The 12-month buy-and-hold abnormal return in excess of value-weighted market return.
Book leverage	The ratio of the sum of long- and short-term debt to total assets.
Institutional ownership	The sum of the holdings of all institutions in a firm's stock divided by market capitalization at the end of each fiscal year.
Board size	The number of directors on board.
% independent directors	The fraction of independent directors on the company's board.
CEO characteristics	
Age	Age of CEO in years.
Female	A dummy variable equal to 1 if the CEO is female and 0 otherwise.
Non-American	A dummy variable equal to 1 if the CEO is not American and 0 otherwise.
Executive	Executive is defined as one holding the title of CEO, CFO, CIO, COO, president, VP, partner, managing director, treasurer, or having insider status on board (Knyazeva et al., 2013).
# executive positions (directorships)	The total number of executive positions (directorships) held by the CEO in public, private, and nonprofit enterprises.
Inside executive position (directorship)	A dummy variable equal to 1 if the CEO holds executive position (board appointment) in the targeted company.

Variable	Definition
Outside executive positions (directorships)	The number of executive positions (board appointments) held by the CEO outside of the targeted company.
Avg tenure	The average tenure over the executive/director positions held by the CEO.
Avg firm size	The average firm size over the executive/director positions held by the CEO.
Avg stock return	The average stock return over the executive/director positions held by the CEO.
Avg return on assets	The average return on assets over the executive/director positions held by the CEO.
Avg book leverage	The average book leverage over the executive/director positions held by the CEO.
Avg institutional ownership	The average institutional ownership over the executive/director positions held by the CEO.
Total compensation	All individual pay components ($thousands) in a given year. This consists of salary, bonus, value of restricted stock granted, value of options granted, long-term incentive payouts, and other compensation from all executive and director jobs.
Equity-based compensation	The value ($thousands) of all the options and stocks awarded to the CEO in a given year.
Nonequity-based compensation	This is the total compensation to the CEO minus the equity-based compensation.
General ability index	General ability index is defined as the first factor of applying principal components analysis to five proxies of general managerial ability. These proxies are number of positions, number of firms, number of industries, CEO experience dummy, and conglomerate experience dummy (Custódio et al., 2013).
# qualifications	The number of qualifications at undergraduate level and above for the CEO.
MBA	A dummy variable equal to 1 if the CEO has a masters of business administration degree and 0 otherwise.
Ivy League	A dummy variable equal to 1 if the CEO attended an Ivy League school (Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, University of Pennsylvania, and Yale University) at any academic level and 0 otherwise.
CEO tenure	The number of years since the CEO first became director at the target firm.
CEO outside directorships	A CEO's board appointments outside of the target company.
CEO education	The natural logarithm of the number of qualifications.
Propensity score	The estimated probability that a CEO in the BoardEx universe is targeted by activists.

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Table 3.1. Descriptive statistics

This table shows descriptive statistics for the final sample of 1,874 unique target CEOs and 3,081 activist campaigns in the 2006 to 2015 period. Panel A lists the frequencies of being targeted by shareholder activists for the sample CEOs. Panel B lists the use of proxy fights by activists. Panel C lists the activism outcomes. Columns 1 and 2 report the descriptive statistics for the full sample. Columns 3 and 4 report the descriptive statistics for the female CEO subsample, and Columns 5 and 6 for the male CEO subsample.

	(1)	(2)	(3)	(4)	(5)	(6)
	All targets		Female targets		Male targets	
	N	Percent	N	Percent	N	Percent
Panel A: Number of target CEOs						
Number of CEOs experienced:						
1 campaign	1,192	64	45	56	1,147	64
2 campaigns	418	22	21	26	397	22
3 campaigns	140	7	6	8	134	7
4 campaigns	67	4	5	6	62	3
5 campaigns	27	1	2	3	25	1
6 campaigns	15	1	0	0	15	1
7 campaigns	4	0	0	0	4	0
8 campaigns	4	0	0	0	4	0
9 campaigns	2	0	0	0	2	0
10 campaigns	1	0	1	1	0	0
11 campaigns	1	0	0	0	1	0
12 campaigns	1	0	0	0	1	0
13 campaigns	1	0	0	0	1	0
16 campaigns	1	0	0	0	1	0
Panel B: Proxy solicitations						
No proxy fight	2,266	74	92	63	2,174	74
Threatened proxy fight	194	6	15	10	179	6
Launched proxy fight	621	20	38	26	583	20
Panel C: Activism outcomes						
Obtain stated demand(s):						
Yes	1,308	42	71	49	1,237	42
No	1,773	58	74	51	1,699	58
Gain at least one board seat:						
Yes	668	22	35	24	633	22
No	2,413	78	110	76	2,303	78

Table 3.2. CEO and firm characteristics

This table reports mean figures for variables related to the CEOs and their firms in the year prior to shareholder campaigns, for the target CEO sample (columns 1 through 3) and for the non-target sample that has BoardEx coverage (column 4). Column 5 (6) reports differences between columns 1(2) and 4 (3), and contains significance levels of these differences. The target sample contains 3,081 CEO-campaign-years for 1,874 unique CEOs. The non-target sample contains 35,606 CEO-years for 8,748 unique CEOs. All potentially unbounded variables are winsorized at the 1% and 99% levels. See Appendix 3.B for variable definitions. ^{a} significant at the 0.01 level; ^{b} significant at the 0.05 level; ^{c} significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)
	Target CEOs			Non-target CEOs	Differences	
	All (N=3,081)	Female (N=145)	Male (N=2,936)	(N=35,606)	(1)-(4)	(2)-(3)
Demography:						
Age	55.36	52.86	55.48	55.01	0.351^b	-2.628^a
Female	0.05	1.00	0.00	0.03	0.017^a	1.000
Non-American	0.06	0.02	0.06	0.05	0.001	-0.036
Current executive employment:						
# executive positions	1.38	1.32	1.39	1.47	-0.084^a	-0.063
Avg tenure	9.00	6.90	9.11	9.49	-0.486^a	-2.211^a
Avg firm size	6.64	6.93	6.62	6.30	0.342^a	0.308
Avg stock return	-0.02	-0.05	-0.02	0.04	-0.064^a	-0.024
Avg return on assets	0.07	0.07	0.07	0.05	0.015^a	-0.001
Avg book leverage	0.23	0.22	0.23	0.21	0.015^a	-0.013
Avg institutional ownership	0.65	0.67	0.65	0.59	0.063^a	0.023
Current board service:						
# directorships	1.97	2.23	1.95	2.02	-0.053^b	0.274^b
Avg tenure	7.29	4.70	7.41	7.83	-0.549^a	-2.712^a
Avg firm size	6.62	7.17	6.59	6.27	0.348^a	0.579^a
Avg stock return	-0.02	-0.05	-0.01	0.04	-0.059^a	-0.031
Avg return on assets	0.07	0.07	0.07	0.05	0.017^a	0.006
Avg book leverage	0.23	0.22	0.23	0.21	0.013^a	-0.004
Avg institutional ownership	0.64	0.66	0.64	0.59	0.054^a	0.017
Compensation:						
Total compensation	7,974	10,119	7,861	5,281	$2,693^a$	$2,258^b$
Equity-based compensation	4,718	6,528	4,623	2,828	$1,890^a$	$1,904^a$
Nonequity-based compensation	3,185	3,010	3,194	2,442	742^a	-184
Skill and education:						
General ability index	0.15	0.64	0.12	-0.01	0.160^a	0.519^a
# qualifications	1.89	2.28	1.87	1.86	0.029	0.414^a
MBA	0.28	0.31	0.28	0.25	0.024^a	0.029
Ivy League	0.17	0.26	0.16	0.15	0.017^b	0.099^a

Table 3.3. Characteristics of target and matched non-target CEOs along with their firms

This table displays variables related to the target and matched non-target CEOs along with their firms. Panel A presents the firm and CEO features used in the matching process as well as the mean absolute standardized differences of these matching covariates between a certain target and its corresponding matched control groups. The sample contains 2,536 CEO-firm-years for each of the target and non-target groups. The data are during or on the end of the year previous to the activism campaign and winsorized at the 1% and 99% levels. Panel B presents summary statistics on career measures for the matched pairs over a seven-year period: from three years before to three years after the campaign. In Panel A, columns 1 (2), 4 (5), and 7 (8) cover the target (non-target) group, the female targets (controls), and the male targets (controls), respectively. Columns 3, 6, and 9 report the absolute standardized differences between a certain target and the corresponding control groups. The standardized difference is defined as $SD = (\bar{x}_{treatment} - \bar{x}_{control})/\sqrt{\frac{s^2_{treatment}+s^2_{control}}{2}}$, where $\bar{x}_{treatment}$ and $\bar{x}_{control}$ denote the mean of the variable for treatment and control groups, respectively, and $s^2_{treatment}$ and $s^2_{control}$ denote the variance of the variable for treatment and control groups, respectively. In Panel B, columns 2 (3), 5 (6), and 8 (9) report the mean (standard deviation) of the career measures for the respective matched pairs. See Appendix 3.B for variable definitions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full sample			Female subsample			Male subsample		
Panel A: Matching summary statistics									
	Targets	Controls	Abs(SD)	Targets	Controls	Abs(SD)	Targets	Controls	Abs(SD)
CEO age	55.77	55.77	0.001	52.85	55.55	0.392	55.92	55.79	0.018
CEO tenure	8.75	9.13	0.044	5.45	8.36	0.416	8.93	9.18	0.028
CEO outside directorships	3.63	3.32	0.081	4.07	4.17	0.025	3.60	3.27	0.087
CEO education	1.87	1.81	0.060	2.28	1.96	0.319	1.85	1.80	0.047
Return on assets	0.07	0.08	0.018	0.07	0.07	0.010	0.07	0.08	0.019
Stock return	-0.01	-0.02	0.026	-0.03	-0.04	0.020	-0.01	-0.02	0.026
Firm size	6.63	6.60	0.014	6.89	6.76	0.062	6.61	6.59	0.012
Institutional ownership	0.63	0.63	0.011	0.65	0.64	0.040	0.63	0.63	0.014
Board size	8.70	8.67	0.013	9.38	9.26	0.043	8.66	8.64	0.011
% independent directors	0.78	0.78	0.024	0.82	0.82	0.060	0.78	0.78	0.023
Propensity score	0.10	0.10	0.002	0.11	0.11	0.012	0.10	0.10	0.001
Mean Abs(SD)			0.027			0.127			0.026
Panel B: Summary statistics on career outcomes									
		Mean	S.D.		Mean	S.D.		Mean	S.D.
Number of executive positions		1.25	0.83		1.29	0.86		1.25	0.83
Inside executive positions		0.84	0.36		0.87	0.34		0.84	0.36
Outside executive positions		0.40	0.79		0.43	0.83		0.40	0.79
Number of directorships		1.95	1.43		2.30	1.46		1.94	1.42
Inside directorships		0.86	0.34		0.87	0.34		0.86	0.34
Outside directorships		1.09	1.39		1.43	1.44		1.07	1.39
Log(total compensation)		8.18	1.53		8.45	1.26		8.17	1.54
Log(equity-based compensation)		7.57	1.45		7.80	1.46		7.56	1.45

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Full sample			Female subsample			Male subsample	
		Mean	S.D.		Mean	S.D.		Mean	S.D.
Log(nonequity-based compensation)		7.40	1.48		7.56	1.13		7.39	1.50

Table 3.4. Parallel-trend regression test

This table reports the coefficients β_{-2} and β_{-1} from the following regression: $y_{di,t} = \sum_{\tau=-2}^{3} \beta_\tau \cdot (Target_{di} \times t^\tau) + \alpha_d + \alpha_e + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is a career measure for CEO d of campaign i in year t, $Target_{di}$ is an indicator variable for target CEO, t^τ is a dummy variable equal to one if the CEO observation is τ years after (or before, if negative) the activism event, and α_d, α_e, and α_t control for CEO, event year, and year fixed effects, respectively. Year T-3 is the reference category. Standard errors are robust to heteroscedasticity and displayed in parentheses. See Appendix 3.B for variable definitions. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample		Female subsample		Male subsample	
	$Target \times t^{-2}$	$Target \times t^{-1}$	$Target \times t^{-2}$	$Target \times t^{-1}$	$Target \times t^{-2}$	$Target \times t^{-1}$
Number of executive positions	0.01	0.02	-0.05	-0.04	0.02	0.03
	(0.02)	(0.02)	(0.07)	(0.08)	(0.02)	(0.02)
Outside executive positions	-0.00	-0.01	-0.07	-0.09	0.00	-0.01
	(0.01)	(0.02)	(0.06)	(0.10)	(0.02)	(0.02)
Number of directorships	0.03	0.02	0.02	0.27	0.03	0.01
	(0.02)	(0.04)	(0.13)	(0.20)	(0.02)	(0.04)
Outside directorships	0.00	-0.02	-0.02	0.19	0.00	-0.03
	(0.02)	(0.03)	(0.11)	(0.18)	(0.02)	(0.03)
Log(total compensation)	-0.00	-0.07	0.07	0.17	-0.01	-0.08
	(0.05)	(0.06)	(0.23)	(0.29)	(0.05)	(0.06)
Log(equity-based compensation)	-0.07	-0.11	-0.24	0.02	-0.06	-0.11[c]
	(0.06)	(0.06)	(0.20)	(0.23)	(0.06)	(0.07)
Log(nonequity-based compensation)	-0.04	-0.08	0.01	-0.09	-0.05	-0.08
	(0.04)	(0.06)	(0.18)	(0.21)	(0.04)	(0.06)

Table 3.5. Executive employment changes around shareholder activism

This table reports estimates from the following specification: $y_{di,t} = \beta_1 \cdot (Target_{di} \times Post_{di,t}) + \beta_2 \cdot Post_{di,t} + \gamma \cdot Control_{d,t} + \alpha_d + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is the executive employment status of CEO d of campaign i during year t, $Target_{di}$ is an indicator variable for target CEO, $Post_{di,t}$ is a dummy variable equal to one if the CEO is in the year of activism event or within 3 years following the event, $Control_{d,t}$ is a vector of CEO level controls, and α_d and α_t control for CEO and year fixed effects, respectively. Note that in columns 3 and 4, we set $Post$ equal to zero for event year t^0. Further, to avoid pre-event turnover affecting our results, we assume the CEO holds executive position at focal firm for three years before the campaign. The vector of CEO-level controls includes average firm size, average ROA, average institutional ownership, average annual stock return, and average tenure. All control variables are calculated based on the executive positions held by the CEO. Panel A reports the results for the full sample. Panels B and C report estimates separately for female and male subsamples. In Panel D, we re-run the regression for the full sample with the addition of a female CEO dummy that indicates the female subsample, a double interaction term between $Female$ and $Post$, and a triple interaction term between $Female$, $Target$, and $Post$. All variables are defined in Appendix 3.B. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)
	Executive positions					
	Total	Total	Inside	Inside	Outside	Outside
Panel A: Full sample						
Target × Post	-0.04^c	0.00	-0.16^a	-0.02^a	0.05^b	0.01
	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
N	35,504	27,988	35,504	27,988	35,504	27,988
Adjusted R^2	0.65	0.83	0.40	0.33	0.69	0.82
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Panel B: Female subsample						
Target × Post	-0.00	0.10	-0.11^b	-0.02	0.04	0.12^c
	(0.09)	(0.06)	(0.05)	(0.02)	(0.09)	(0.07)
N	1,792	1,448	1,792	1,448	1,792	1,448
Adjusted R^2	0.72	0.88	0.32	0.36	0.75	0.88
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Panel C: Male subsample						
Target × Post	-0.04^c	-0.00	-0.16^a	-0.02^a	0.05^b	0.01
	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
N	33,712	26,540	33,712	26,540	33,712	26,540
Adjusted R^2	0.65	0.82	0.40	0.33	0.69	0.81
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Panel D: Full sample						
Female × Target × Post	0.04	0.10	0.06	0.00	-0.01	0.09
	(0.09)	(0.06)	(0.06)	(0.02)	(0.09)	(0.07)
Target × Post	-0.04^c	-0.00	-0.16^a	-0.02^a	0.05^b	0.01
	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
N	35,504	27,988	35,504	27,988	35,504	27,988
Adjusted R^2	0.65	0.83	0.40	0.33	0.69	0.82
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes

Table 3.6. Board service changes around shareholder activism

This table adopts a similar specification as in Table 3.5 but the dependent variable is the board service of CEO d of campaign i during year t, and all control variables are calculated based on the board seats held by the CEO. Panel A reports the results for the full sample. Panels B and C report estimates separately for female and male subsamples. In Panel D, we re-run the regression for the full sample with the addition of a female CEO dummy that indicates the female subsample, a double interaction term between *Female* and *Post*, and a triple interaction term between *Female*, *Target*, and *Post*. All variables are defined in Appendix 3.B. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)
	Directorships					
	Total	Total	Inside	Inside	Outside	Outside
	*Panel A: Full sample*					
Target × Post	-0.13^a	-0.07^b	-0.16^a	-0.06^a	-0.02	-0.03
	(0.04)	(0.03)	(0.01)	(0.01)	(0.04)	(0.03)
N	35,504	29,982	35,504	29,982	35,504	29,982
Adjusted R^2	0.73	0.83	0.38	0.32	0.75	0.83
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
	*Panel B: Female subsample*					
Target × Post	0.18	0.04	-0.14^a	-0.10^b	0.22	0.07
	(0.21)	(0.18)	(0.05)	(0.04)	(0.21)	(0.19)
N	1,792	1,588	1,792	1,588	1,792	1,588
Adjusted R^2	0.68	0.76	0.30	0.34	0.70	0.77
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
	*Panel C: Male subsample*					
Target × Post	-0.14^a	-0.07^b	-0.16^a	-0.06^a	-0.03	-0.04
	(0.04)	(0.03)	(0.01)	(0.01)	(0.04)	(0.03)
N	33,712	28,394	33,712	28,394	33,712	28,394
Adjusted R^2	0.73	0.83	0.38	0.32	0.75	0.84
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
	*Panel D: Full sample*					
Female × Target × Post	0.32	0.11	0.02	-0.05	0.26	0.12
	(0.21)	(0.18)	(0.05)	(0.04)	(0.21)	(0.19)
Target × Post	-0.14^a	-0.07^b	-0.16^a	-0.06^a	-0.03	-0.04
	(0.04)	(0.03)	(0.01)	(0.01)	(0.04)	(0.03)
N	35,504	29,982	35,504	29,982	35,504	29,982
Adjusted R^2	0.73	0.83	0.38	0.32	0.75	0.83
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes

Table 3.7. Compensation changes around shareholder activism
This table adopts a similar specification as in Table 3.5 but the dependent variable is the natural log of compensation of CEO d of campaign i during year t, and control variables are calculated based on the executive and board positions held by the CEO. Panel A reports the results for the full sample. Panels B and C report estimates separately for female and male subsamples. In Panel D, we re-run the regression for the full sample with the addition of a female CEO dummy that indicates the female subsample, a double interaction term between *Female* and *Post*, and a triple interaction term between *Female*, *Target*, and *Post*. All variables are defined in Appendix 3.B. Standard errors are robust to heteroscedasticity and displayed in parentheses. ^{a} significant at the 0.01 level; ^{b} significant at the 0.05 level; ^{c} significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)
			Log(compensation)			
	Total	Total	Equity-based	Equity-based	Nonequity-based	Nonequity-based
			Panel A: Full sample			
Target × Post	-0.21^a	-0.07^c	-0.28^a	-0.12^a	-0.12^b	-0.02
	(0.05)	(0.04)	(0.06)	(0.04)	(0.05)	(0.04)
N	17,058	14,475	15,567	13,325	17,034	14,462
Adjusted R^2	0.67	0.77	0.60	0.75	0.68	0.79
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
			Panel B: Female subsample			
Target × Post	-0.12	0.09	-0.13	0.07	0.03	0.28^b
	(0.23)	(0.09)	(0.20)	(0.11)	(0.23)	(0.11)
N	939	779	901	752	939	779
Adjusted R^2	0.50	0.84	0.60	0.81	0.44	0.76
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
			Panel C: Male subsample			
Target × Post	-0.22^a	-0.09^b	-0.28^a	-0.13^a	-0.13^b	-0.04
	(0.05)	(0.04)	(0.06)	(0.04)	(0.05)	(0.04)
N	16,119	13,696	14,666	12,573	16,095	13,683
Adjusted R^2	0.67	0.77	0.61	0.75	0.68	0.79
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
			Panel D: Full sample			
Female × Target × Post	0.09	0.25^b	0.11	0.29^b	0.14	0.38^a
	(0.24)	(0.11)	(0.23)	(0.14)	(0.24)	(0.14)
Target × Post	-0.22^a	-0.09^b	-0.28^a	-0.13^a	-0.13^b	-0.04
	(0.05)	(0.04)	(0.06)	(0.04)	(0.05)	(0.04)
N	17,058	14,475	15,567	13,325	17,034	14,462
Adjusted R^2	0.67	0.77	0.60	0.75	0.68	0.79
CEO and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes

Table 3.8. CEO career changes around 'passive' shareholder activism

This table documents CEO career changes around 'passive' shareholder activism where an activist files a Schedule 13D with the SEC but the filing does not publicly disclose any specific campaign agenda. Columns 1 through 3 in Panel A report estimates from the following specification: $y_{di,t} = \beta_1 \cdot (Target_{di} \times Post_{di,t}) + \beta_2 \cdot Post_{di,t} + \alpha_d + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is a CEO's total executive positions, total directorships, and total compensation in natural log form, respectively. Other variables are defined the same as in Table 3.5. The sample in Panel A consists of the 'passive' activism targets and their matched peers. Panel B covers the full sample and reports results using the same specification, except that we add a passive activism dummy that indicates the passive subsample, a double interaction term between $Passive$ and $Post$, and a triple interaction term between $Passive$, $Target$, and $Post$. All dependent variables are defined in Appendix 3.B. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)
	Total executive positions	Total directorships	Log(total compensation)
Panel A: Passive sample			
Target × Post	0.00	-0.03	-0.17
	(0.06)	(0.09)	(0.17)
N	1,876	1,876	705
Adjusted R^2	0.68	0.81	0.46
CEO and year fixed effects	Yes	Yes	Yes
Panel B: Full sample			
Passive × Target × Post	0.04	0.10	0.12
	(0.06)	(0.10)	(0.17)
Target × Post	-0.04[c]	-0.13[a]	-0.22[a]
	(0.02)	(0.04)	(0.05)
F–test	0.00	0.11	0.37
N	35,504	35,504	17,058
Adjusted R^2	0.65	0.73	0.67
CEO and year fixed effects	Yes	Yes	Yes

Table 3.9. Proxy fights and CEO career changes

This table adopts the following specification: $y_{di,t} = \beta_1 \cdot (Proxy_i \times Target_{di} \times Post_{di,t}) + \beta_2 \cdot (Target_{di} \times Post_{di,t}) + \beta_3 \cdot (Proxy_i \times Post_{di,t}) + \beta_4 \cdot (Proxy_i \times Target_{di}) + \beta_5 \cdot Proxy_i + \beta_6 \cdot Post_{di,t} + \alpha_d + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is a career measure of CEO d of campaign i during year t and $Proxy_i$ is a nominal variable with the following three categories: threatened proxy fight, launched proxy fight, and no proxy fight. Other variables are defined the same as in Table 3.5. All dependent variables are defined in Appendix 3.B. Panel A reports results for the full sample. Panels B and C report results for female and male subsamples, respectively. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)
	Total executive positions	Total directorships	Log(total compensation)
Panel A: Full sample			
Threatened proxy × Target × Post	0.06	-0.02	-0.57[b]
	(0.08)	(0.12)	(0.24)
Launched proxy × Target × Post	0.00	-0.15[b]	-0.15
	(0.04)	(0.07)	(0.13)
Target × Post	-0.04	-0.09[b]	-0.16[a]
	(0.03)	(0.04)	(0.05)
N	35,504	35,504	17,058
Adjusted R^2	0.65	0.73	0.67
CEO and year fixed effects	Yes	Yes	Yes
Panel B: Female subsample			
Threatened proxy × Target × Post	-0.12	0.14	-0.42
	(0.23)	(0.47)	(0.36)
Launched proxy × Target × Post	0.07	0.11	0.12
	(0.15)	(0.24)	(0.42)
Target × Post	-0.01	0.13	-0.14
	(0.10)	(0.23)	(0.27)
N	1,792	1,792	939
Adjusted R^2	0.72	0.69	0.50
CEO and year fixed effects	Yes	Yes	Yes
Panel C: Male subsample			
Threatened proxy × Target × Post	0.08	-0.04	-0.58[b]
	(0.09)	(0.13)	(0.25)
Launched proxy × Target × Post	-0.01	-0.18[b]	-0.17
	(0.04)	(0.07)	(0.14)
Target × Post	-0.04	-0.10[b]	-0.16[a]
	(0.03)	(0.04)	(0.05)
N	33,712	33,712	16,119
Adjusted R^2	0.65	0.73	0.67
CEO and year fixed effects	Yes	Yes	Yes

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Table 3.10. Activism outcomes and CEO career changes

This table adopts the following specification: $y_{di,t} = \beta_1 \cdot (Success_i \times Target_{di} \times Post_{di,t}) + \beta_2 \cdot (Target_{di} \times Post_{di,t}) + \beta_3 \cdot (Success_i \times Post_{di,t}) + \beta_4 \cdot (Success_i \times Target_{di}) + \beta_5 \cdot Success_i + \beta_6 \cdot Post_{di,t} + \alpha_d + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is a career measure of CEO d of campaign i during year t and $Success_i$ is a nominal variable with the following three categories: the activist attains its value creation or governance related demands, the activist gains at least one seat on the target's board, and others. Note that if the outcome falls into the first two categories simultaneously, we group it to the second category. Other variables are defined the same as in Table 3.5. All dependent variables are defined in Appendix 3.B. Panel A reports results for the full sample. Panels B and C report results for female and male subsamples, respectively. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)
	Total executive positions	Total directorships	Log(total compensation)
Panel A: Full sample			
Obtain demand × Target × Post	-0.01	0.02	-0.25[b]
	(0.04)	(0.07)	(0.11)
Gain seat × Target × Post	-0.08[c]	-0.19[a]	-0.29[b]
	(0.04)	(0.07)	(0.12)
Target × Post	-0.02	-0.09[c]	-0.11
	(0.03)	(0.05)	(0.07)
N	35,504	35,504	17,058
Adjusted R^2	0.65	0.73	0.67
CEO and year fixed effects	Yes	Yes	Yes
Panel B: Female subsample			
Obtain demand × Target × Post	0.16	-0.08	-0.35
	(0.15)	(0.28)	(0.41)
Gain seat × Target × Post	-0.25	-0.30	-0.56
	(0.16)	(0.36)	(0.35)
Target × Post	0.02	0.27	0.09
	(0.12)	(0.22)	(0.29)
N	1,792	1,792	939
Adjusted R^2	0.72	0.68	0.50
CEO and year fixed effects	Yes	Yes	Yes
Panel C: Male subsample			
Obtain demand × Target × Post	-0.02	0.02	-0.25[b]
	(0.04)	(0.07)	(0.12)
Gain seat × Target × Post	-0.07	-0.19[a]	-0.27[b]
	(0.04)	(0.07)	(0.12)
Target × Post	-0.02	-0.10[b]	-0.12[c]
	(0.03)	(0.05)	(0.07)
N	33,712	33,712	16,119
Adjusted R^2	0.65	0.73	0.67
CEO and year fixed effects	Yes	Yes	Yes

Chapter 4

Does the market reward monitors?

4.1 Introduction

Large modern corporations are helmed by managers whose interests are not identical to those of shareholders. To protect shareholders' interests in corporations, boards of directors are elected by the shareholders to discipline managers. Those corporate monitors, as several studies have shown, are in their turn disciplined by the markets for their services. For example, directors of better performing firms and firms that reject antitakeover provisions are rewarded with additional future directorships (Ferris et al., 2003; Coles and Hoi, 2003), while directors of poorly governed firms and firms that default on their debt are punished with fewer future directorships (Gilson, 1990; Wu, 2004). In this paper, I use U.S. shareholder activism to investigate the operation of the labor market for directors, focusing on the attributes and careers of activist directors.

The finance literature provides some evidence that in the absence of shareholder activism, directors are generally chosen through a process that is largely orchestrated by management (Gilson and Kraakman, 1991; Coles and Hoi, 2003). Given this selection process, candidates predisposed to serve the interests of management are more likely to be appointed. As such, directors chosen in the usual way are inclined to prioritize the interests of managers over those of shareholders, leading to ineffective board oversight.

Activist directors are different. The majority of them are selected expressly by activist investors from outside the management slate of directors. Activist directors obtain board seats through shareholder activism, such as settlement negotiations and proxy contests. Therefore, they are not likely to be captured by management. Besides, activist directors can effectively counterbalance managerial power because they enjoy the backing and resources of the activist shareholders that nominated them. Overall, activist directors appear more willing and able to monitor management on behalf of shareholders than other regular directors. Indeed, several studies find significant shareholder wealth gains following the appointment of activist directors (Dodd and Warner, 1983; DeAngelo and DeAngelo, 1989).

Naturally a question arises: what common characteristics describe activist directors? To address this question, I hand-collect data on all activist directors who are appointed to the target boards through activism campaigns conducted between 2006 and 2017. Examining the biography, professional experience, and educational background of directors, I find distinct disparities between activist directors and other directors in the BoardEx universe. Specifically, in comparison to target directors who are disfavored by activist investors, activist directors are significantly younger and less likely to be women. Although they do not possess as much corporate board experience as target directors, the firms where the activist directors serve exhibit market performance superior to that of firms where the target directors hold board appointments. Activist directors also have shorter tenures and less network ties with CEOs in these companies. Apart from this, more than half of the activist directors hold executive positions in the year before they are nominated, though they have less prior executive experience compared to target directors. Furthermore, activist directors are more likely to receive an MBA and Ivy League education than target directors.

When comparing activist directors to other non-target directors, I observe that activist directors are younger and less diverse, with women and non-Americans making up a significantly smaller fraction of the activist director sample. In addition, even though activist directors typically have less tenure on boards, they have more management and board experience in general relative to the non-target directors. Moreover, in comparison with non-target peers, activist directors are more prevalent at smaller firms and firms with higher leverage and institutional holdings. At the same time, I find that activist directors share less network connections with CEOs and have more education, compared to non-target directors.

There is also considerable heterogeneity in characteristics across activist directors. First, I identify activist employees (i.e., directors who are employed by the activists) and compare them to the rest of the activist director sample (i.e., non-activist employees). The evidence indicates that activist employees are significantly younger and less likely to be women. Current board services are quite similar for the two groups, although activist employees tend to hold seats in smaller and better-performing firms. Besides, activist employees possess less board and management experience than non-employee counterparts. On the educational background side, activist employees have less academic qualifications, are less likely to hold MBA degrees, but more likely to attend Ivy League schools.

Second, I compare repeat players (i.e., individuals who have previously been appointed by activist investors to target boards during other campaigns) and one-shotters (i.e., individuals who have been appointed by activists only once). The results suggest that repeat players are slightly younger and less diverse. Except that they have shorter board tenures, repeat players seem to have substantially more director experience than one-shotters. Looking at the characteristics of firms where directors hold board appointments, I notice that repeat players are more prevalent in firms of smaller size and lower leverage. Additionally, they are less likely to have network connections to the CEOs in these firms. Further, no significant differences

in executive experience are found between the two groups. Regarding educational attainment, repeat players hold less academic qualifications, but are more likely to receive an Ivy League education.

Thus far, I have illustrated the characteristics of activist directors. A question that follows is: does the labor market reward them for their active monitoring efforts? There is a theoretical argument for career outcomes to be positive or negative for these directors. On the one hand, shareholders possess the ultimate authority to elect and remove directors. Ceteris paribus, they would prefer director candidates who have built reputations as good monitors by virtue of their behaviors on prior boards. In this light, activist directors, who have demonstrated their willingness and ability to perform monitoring functions, would be rewarded with greater employment opportunities in the labor market.

On the other hand, shareholder franchise in modern public corporations is largely nominal, as management often wields substantial influence over the director selection process. Under such circumstance, directors inclined to restrain managerial discretion (e.g., through active monitoring) seem less likely to be put forward by the management. For this reason, there exists the possibility of observing no or even negative career consequences for activist directors. In sum, it remains unclear whether activist directors fare better in the directorial labor market.

To provide evidence on this issue, I follow convention and use the total number of directorships (excluding those in target companies) as a proxy for the overall career success. The internal seats on boards of target companies are not the focuses of this paper since activist directors usually leave target boards after their nominators liquidate the positions in target companies. Also, given the nonrandom selection of activist directors, simple comparison of board service between activist directors and non-activist directors in the BoardEx universe might yield biased estimates of career impact. To distinguish this impact from confounding factors, I apply a difference-in-differences research design and compare the career changes of activist directors to those of non-activist directors who serve on the same board at the announcement date of activism campaigns.[1] By conducting analysis based on within-board variation in deciding whether to join an activist's coalition and serve on the target board, this paper overcomes the potential endogenous matching between directors and firms/boards.

To perform the analysis, I track the board service of activist directors and their non-activist colleagues over the three-year period before and after the announcement of activism. At year T+3, the market should have observed the appointments of activist directors and have had time to reward or penalize them. The careers of non-activist directors serve as benchmarks against which to evaluate the labor market consequences for activist directors. If the labor market provides directors with significant incentives to monitor managers, activist directors should have greater employment opportunities relative to their control cohorts. My primary results support this hypothesis.

Following the activism campaigns, activist directors hold more directorships than non-

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[1]In Section 4.4, I show a detailed example of how to construct the sample of non-activist directors.

activist directors. Three years after the activism, activist directors hold an average of 0.52 more seats (or about 20% of the total seats held by an average director), compared to non-activist peers. The positive career effects do not vary with the identity of activist directors. Specifically, activist employees and non-activist employees, as well as one-shotters and repeat players, hold a similar number of seats after the activism.

Given that post-activism changes in directorships may be a result of activist directors replacing the lost seats with new appointments, I then separately analyze directors' continued services on current boards and their prospects for winning new board positions. The results indicate that being an activist director not only increases the director's likelihood of remaining on the current board, but also favors access to more employment opportunities in the directorial labor market, resulting in activist director receives higher number of new board appointments. Interestingly, I observe that although activist employees and repeat players are more likely to leave the current boards following campaigns, they tend to gain a larger number of new board seats, relative to their respective complementary samples of activist directors.

The uniqueness of this paper versus other papers examining the ex post settling-up in the directorial labor market is that while prior studies are generally conducted at the firm/board level and relate the labor market prospects of directors to the variation in firm attributes or board decisions (see e.g., Ferris et al., 2003; Coles and Hoi, 2003; Wu, 2004), I study the labor market discipline effects using heterogeneity in the actual behavior of individual directors (i.e., whether to team up with activist investors and serve on the target boards). Hence, most previous studies, even those that carefully address endogeneity, provide only indirect evidence of the ex post settling, if any, in the directorial labor market. My study instead observes the actions of individual directors and draws inferences on this basis.

This paper also contributes to the growing literature on shareholder activism. Brav et al. (2008), Klein and Zur (2009), and Becht et al. (2017) demonstrate the benefit from shareholder activism. Specifically, they show that shareholder activism, especially hedge fund activism, is associated with improvements in corporate governance and shareholder value. Furthermore, Gantchev et al. (2019) suggest that the threat of activism could have positive spillover effects on the performance of non-targeted companies. However, one cannot celebrate the achievements of shareholder activism and at the same time knowing nothing about the consequences for an important player in the activism: the activist director. My study therefore complements the evidence on US shareholder activism in this regard.

In addition, this paper significantly differs from Kang et al. (2022) who focus on the value-enhancing impact of independent directors nominated by activists. Kang et al. (2022) compile a sample of independent director appointments during 2006 to 2015, containing 699 activist-appointed directors. My study is more general in scope in that I construct the most comprehensive set of observations of activist directors to date. By including all types of directors nominated by activists during 2006 to 2017, I show that the group of activist directors is diverse. Specifically, there are 1,938 activist director appointments in my sample, and activist

employees (repeat players) account for approximately fifty (twenty) percent of all appointments. Further to the differences in sample selection, Kang et al. (2022) do not examine the labor market outcomes in any detail, and they claim that relative to other independent directors, directors nominated by activists during 2006 to 2013 on average do not receive more independent directorships two years after their appointments to the focal firms. My study offers the first thorough analysis of career consequences for activist directors. Using a difference-in-differences framework, I find that activist directors are eventually rewarded by the directorial labor market during the three years following the activism campaigns.

The paper proceeds as follows. Section 4.2 describes the sample selection criteria and contains descriptive statistics of the data. Section 4.3 examines the characteristics of activist directors. Section 4.4 presents the empirical results of the career consequences for activist directors. Section 4.5 concludes.

4.2 Sample selection and data description

4.2.1 Selection criteria

I initially retrieve U.S. shareholder activism data from the SharkRepellent database.[2] SharkRepellent covers all shareholder activism against U.S. incorporated companies announced since January 1, 2006. I gather all observations of U.S. shareholder activism from the beginning of 2006 through the end of 2017.[3] There are a total of 6,113 activism events during the whole sample period, including 1,114 events resulted in the activist gaining at least one seat on the target's board of directors.

Table 4.1 reports the descriptive statistics for the full sample of activism events (columns 1 and 2) and for the two subsamples partitioned depending on whether activists attain seats (columns 3 to 6). Variables shown in the table are constructed using activism data from SharkRepellent, accounting data from Compustat, stock data from CRSP, institutional holdings from FactSet, analyst forecasts from IBES, and board data from BoardEx. All potentially unbounded variables are winsorized at the 1% and 99% levels. The last column presents the differences in means of the two subsamples and significance levels for tests for the differences.

Insert Table 4.1 about here

When compared with the events where activists do not obtain board representation, the evidence (in Panel A) indicates that events resulted in one or more board seats appear to involve a larger number of engaging activists and blocks. Of these cases, campaigns are closing faster (as indicated by campaign duration) and are more likely to end in activists seeking

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[2]SharkRepellent collects information regarding shareholder activism from company filings, dissident filings, press releases, financial news, company websites, and financial trade publications.

[3]The sample ends in 2017 because I track director career paths for 3 years after activism and I have that information up to 2020.

reimbursement for the expenses incurred in connection with the engagement. These patterns seem sensible given that the larger ownership stakes provide activists with stronger incentives and adequate power to gain board representation in order to bolster corporate governance and create shareholder value. In addition, holding significant stakes can help the activists reach early resolution with the target companies and to obtain a negotiated award of reimbursement for contest-related expenses.

Panels B and C of Table 4.1 report the properties of the target firms for the year before they are targeted. The summary statistics on firm size suggest that activists tend to attain board representation in smaller firms. This result, combined with the fact that board seat gains are associated with larger percentage ownership stakes, is consistent with the view that activists are less likely to acquire sizeable stakes (and hence directorship) in larger companies since that might introduce excessive idiosyncratic risk (Brav et al., 2008).

In terms of firm performance, both return on assets (ROA) and stock return are significantly lower in the seat-won sample, indicating that weaker pre-targeting performance of the targets raises the odds of activist success in marching into the boardroom (potentially because of the support from other dissatisfied shareholders). On the company policy side, I find that firms surrendering seats (to the activists) have higher research and development (R&D) expenditures, and lower dividend payout (measured by dividend yield) and leverage, relative to their complements (the rest of the shareholder activism sample). This finding is not surprising in that activists are most likely knocking on boardroom doors when the firms exhibit signs of greater agency problems.

The analyst coverage is also significantly different between the two subsamples: the average number of analysts making earnings forecasts per firm for the seat-won sample is about 2.85 less than that for the remaining sample. Given that the seat-won sample consists of smaller firms with worse performance, the lower analyst coverage for this sample is consistent with Lang and Lundholm (1996) and Ajinkya et al. (2005), who show that analysts are less likely to follow smaller and less profitable firms (since the demand for, and benefit of, information acquisition is lower for those firms).

With respect to governance characteristics, firms subject to activist engagements that resulted in activists garnering board seats have higher incidence of poison pill plans in place prior to the engagements (23% vs. 20%) and are more likely to adopt "morning-after" poison pills in response to the engagements (6% vs. 3%). This outcome makes sense as smaller firms with subpar pre-event stock performance dominate the seat-won sample. To the extent that small capitalization firms and poorer performing firms are more vulnerable to takeovers attempts, poison pills might act as a substitute for firm size and performance. Except for pills, firms that concede board seats to activists implement stronger governance mechanisms as measured by board size, board independence, director busyness, and CEO-chair duality. This evidence might be best interpreted as an equilibrium outcome reflecting that conditional on targeting particular firms, activists are prone to achieve board representation at well-governed

firms whose boards are generally more responsive to shareholders (Ertimur et al., 2010). Moreover, when compared to their associated complements, firms surrendering seats tend to have a smaller proportion of female directors on boards, but the difference is relatively small economically (10% vs. 11%).

Because I am interested in studying activist directors, I then focus on the 1,114 campaigns in which shareholder activists successfully gain board representation on the target companies. From this set I observe 2,023 activist directors going on the target boards, as reported in SharkRepellent. Table 4.2 describes the composition of the sample campaigns (columns 1 and 2) and board seats won by activists in the campaigns (columns 3 and 4). As Panel A illustrates, both the campaigns and board seats won by activists are roughly evenly distributed across all calendar years, suggesting a mature activist investing market in the US.

Insert Table 4.2 about here

Panel B shows that shareholder activists are succeeding in securing board representation in all Fama-French 12 industries, with business equipment being the industry where activists net the highest number of board seats (465). Turning to the identity of the activist investors in Panel C,[4] hedge funds stand out as the dominant practitioners with 1,392 board seats obtained through 784 campaigns, which comprises 69% of seats won and 70% of campaigns. The high frequency of hedge funds gaining access to the corporate boardroom dovetails with Brav et al. (2008) assertion that hedge funds are more flexible, incentivized, and better positioned to act as informed monitors than traditional institutional investors.

Concerning trading venue, Panel D shows that shareholder activists gain board representation in firms trading in various markets, with the majority (54%) quoted in Nasdaq. Also note that in each panel, the number of seats won (column 3) is commensurate with the number of campaigns (column 1). Therefore, it seems unlikely that board seats won by activists are concentrated among a small number of campaigns.

Finally, I hand-collect information about the name of each activist director being added to the target board and whether the director is an employee of the activist who nominated it, from the SharkRepellent database, SEC's Edgar database, and news articles. Using director names and target names (from SharkRepellent), I manually match information on activist directors and target companies with information from the BoardEx database. This process succeeds in matching 1,079 (97%) campaigns and 1,938 (96%) activist directors. The distribution of the final sample is presented in Table 4.2, columns 5 through 8. Note that no systematic difference exists between the full sample and the final sample in terms of data distribution.

Table I.4.1 in the Internet Appendix provides descriptive statistics for the 1,079 activism campaigns resulted in activist gaining seats that have BoardEx coverage (columns 1 and 2) and for the two subsamples partitioned by time period (columns 3 to 6). The last column

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[4]See Appendix 4.A for detailed information about activist identities.

reports the differences in mean values between the subsamples and the significance levels of these differences. Two conclusions emerge from the data. First, activist investors have been increasingly effective in securing board representation, with shorter campaign durations and smaller activist groups become the hallmarks of recent campaigns. Second, activist investors continue to capture seats in larger companies and thus afford their nominees opportunities to join more prestigious boards in the more recent years.

4.2.2 Descriptive data

Table 4.3 reports summary statistics for the main sample of the paper. As Panel A shows, the sample consists of 857 unique target firms, the preponderant majority of which–about 80%–concede board seats to activists only once during the sample period. In examining the activism outcomes, I find that 92% of the campaigns result in the appointment of fewer than four activist directors to the target boards. Given that the number of directors on the target board is around eight on average (see Table 4.1), this result indicates that shareholder activists, even if successful, normally do not control the board. This character distinguishes them from the corporate raiders in the 1980s who sought to acquire outright control in the boardroom.

Insert Table 4.3 about here

Regarding the activist directors in my sample, 1,194 (or 83%) of them are one-time players, that is, they have been appointed by activist investors to target boards no more than once. Of this group, as Panel B shows (in parentheses), 37% are employed by the activists and 63% are not. In contrast, of the 244 repeat players, 67% are employed by the activists, whereas 33% are not. Thus, shareholder activists are more apt to repeatedly put forward their own employees.

Table I.4.2 in the Internet Appendix displays the distribution of the 1,938 activist director appointments that have BoardEx coverage by industry and by activist type for the subsamples of appointments partitioned according to activist director's identity. In general, there are no director appointments disproportionately concentrated in certain industries, except that repeat players are to some extent more prevalent in business equipment industry and less prevalent in healthcare, medical equipment, and drugs industry. In terms of activist identity, individual investors are more likely to appoint their employees to target boards, which in part, is because those investors often nominate themselves as director candidates.[5] Furthermore, individual investors and corporations tend to designate one-shotters, whereas hedge funds appear to favor repeat players.

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[5]Here is an example: On May 5, 2016, Harold Brierley reported an ownership stake of 802,210 shares (12.1%) in Blue Calypso, Inc., and disclosed that he entered into a securities purchase agreement with the company on April 22, 2016, which granted Mr. Brierley the right to submit the name of one individual for nomination to the company's board of directors. Mr. Brierley submitted his own name for consideration, which was unanimously approved by the board of directors. He was appointed as Chairman of the board.

Table I.4.3 in the Internet Appendix presents characteristics of campaigns and target firms on whose boards the activist directors serve, separating employee and non-employee directors, as well as repeat and one-time directors. Focusing on employee and non-employee directors, I find that the appointment of activist employees exhibits greater activist commitments, as reflected by the larger activist group and higher percentage stake. However, these appointments are less likely to end up with activists controlling the corporate board or seeking reimbursement. Besides, activist employees are more likely to be placed on the board of smaller and lower growth firms. Their tenures on target boards are also significantly shorter than their non-employee counterparts'. When comparing repeat and one-time directors, I observe that campaigns with repeat directors added to the boards are closing faster and less likely to be accompanied by activists gaining board control or seeking reimbursement. Moreover, repeat directors typically go onto the board of firms with lower growth rate in sales, lower levels of leverage, less takeover defenses, and higher percentage of directors with relevant industry experience.

4.3   Characteristics of activist directors

What type of activist nominees are placed on the target boards? To address this question, I examine the characteristics of activist directors and make two comparisons. First, I compare the activist directors to directors being targeted in campaigns with a goal of changing board composition. This provides evidence on how the activist directors differ from those who are disfavored by activist investors. Second, I compare the activist directors to directors never being the targets of such campaigns. This facilitates the understanding of the criteria used by activist investors in selecting director nominees.

To do so, I create a unique longitudinal panel data set that includes all U.S. corporate directors covered by BoardEx. For each director in this set, I search BoardEx for employment history and combine it with campaign information in order to determine if the individual is an activist director, a target director, or neither of the two in a given year. I then eliminate director-year observations in which directors have experience as both activist directors and target directors. For the remaining directors, I extract biographical information from BoardEx, financial information from Compustat, stock information from CRSP, and ownership information from FactSet. Based upon this I construct a historical profile for each director, detailing his/her key attributes, professional experience, and educational background. This yields a total of 1,747,922 director-year observations over the 2006–2017 period.

The first three columns of Table 4.4 report summary characteristics separately for the sample of individuals identified as activist directors, target directors, and non-target directors. All variables are gauged in the year preceding the activism event and winsorized at the 1th and 99th percentiles. See Appendix 4.B for variable definitions. The last two columns present mean differences across the three groups of directors as well as significance levels for tests for

the differences.

Specifically, in column 4, I compare activist directors with target directors and observe significant differences between the two groups. In comparison with target directors, activist directors are considerably younger and less diverse: activist directors on average are 50 years old, and 5% of them are women; target directors on average are 60 years old, and 12% of them are women. In terms of current board service, activist directors tend to hold a smaller number of directorships and have shorter tenures, relative to target directors. The average activist director holds 1.83 seats, whereas the average target director holds 2.53 seats. After decomposing the total directorships into those held in public companies, private companies, and other organizations, I find that the difference in total directorships largely stems from the difference in directorships held in public companies. Besides, the average tenure of activist directors on all types of boards is 3 years shorter than that of target directors, which is mainly driven by activist directors' significantly shorter tenures on public company boards.

Regarding the characteristics of firms where the directors in my sample hold board appointments, the most reliable pattern is that compared with target directors, activist directors are more prevalent at smaller firms and better-performing firms, the latter of which provides a compelling justification for the addition of activist directors to target boards, especially when considering that target firms appear to suffer from poor stock-market performance in the pre-event year. Further, activist directors tend to have significantly less network ties with CEOs, compared to target directors. Though merely suggestive, this evidence implies that it might not be so difficult for activist directors to position themselves comfortably in the targets' boardrooms, given their experience of having worked with management with whom they don't share network ties.

In examining the previous board experience, I find that activist directors have had less directorships than target directors (3.95 vs. 4.87)—mostly due to their less frequent appointments in public and private companies. Harmonious with this observation, 57% (63%) of activist directors have the experience of serving on public (private) company boards compared to 91% (75%) for target directors. More to the point, activist directors are less likely to possess related industry knowledge and major committee memberships (i.e., membership in the nominating, compensation, audit, and corporate governance committees), relative to target directors.

Despite the fact that activist directors have less board seats than target directors, the proportion of activist directors who hold executive positions is significantly higher than that of target directors (55% vs. 50%). By separating executive positions into two subgroups according to organization types (public vs. private), I find evidence that activist directors are less (more) likely to be current executives of public (private) companies, compared with target directors. Further, activist directors do not possess as much executive experience as target

directors, which is due largely to the lack of such experience in public companies. Consistent with this finding, activist directors appear to have less managerial skills—a measure of the generality of human capital based on past work experience in public companies—relative to target directors. With respect to educational characteristics, activist directors, in comparison with target directors, are more likely to hold MBA degrees (29% vs. 25%) and attend Ivy League institutions (25% vs. 20%).

In column 5 of Table 4.4, I compare activist directors with non-target directors to investigate the possible director selection criteria adopted by activist investors. The results suggest that relative to non-target directors, activist directors are younger and less diverse, as women and non-Americans make up a significantly smaller fraction of the activist director sample. In terms of current board service, activist directors have on average about 0.22 more board seats and 2.52 years shorter tenure than non-target directors. After decomposing the total directorships into those held in public companies, private companies, and other organizations, I find that activist directors tend to hold a greater (smaller) number of directorships in public (private and other) companies, compared to non-target directors. Besides, the average tenure of activist directors is shorter than that of non-target directors across all organization types.

Looking at the results concerning the attributes of firms on whose boards the directors serve, I observe that compared with non-target directors, activist directors tend to come from firms of smaller size and higher leverage. In addition, activist directors appear to have more exposure to institutional shareholders and CEOs with whom they lack connections, relative to non-target directors. Hence, it is reasonable to expect that activist directors should have better knowledge of dealing with such investors and management, which would improve their odds of obtaining the nomination from activist investors and winning the support from institutional shareholders and management of target companies. Moreover, the percentage of activist directors who go through a delisting is much higher than that of non-target directors (7% vs. 2%). This can most likely be attributed to the fact that activist directors disproportionately serve on public boards when compared to non-target directors.

Regarding previous board experience, activist directors have had more directorships than non-target directors, and this is the case for directorships across all organization types. Also, activist directors seem to have a more diverse boardroom experience: 57% (63%) of them have the experience of serving on public (private) company boards compared to 38% (73%) for non-target directors. Furthermore, activist directors are more likely to possess relevant industry experience and major committee memberships, relative to non-target directors.

Turning to work experience as executives, it appears that the current executive services of activist directors are statistically indistinguishable from that of non-target directors. However, activist directors have more prior executive experience compared to non-target directors, with 44% (75%) of activist directors having held executive roles in public (private) companies, compared to 31% (67%) of non-target directors. Apart from this, activist directors exhibit higher levels of general human capital than non-target directors (0.72 vs. -0.01). With respect

to educational background, activist directors, in comparison with non-target directors, hold more academic qualifications (2.06 vs. 1.98), and are more likely to receive an MBA (29% vs. 20%) and Ivy League (25% vs. 13%) education.

So far I have explored the differences between activist and non-activist directors, I then examine the heterogeneity in characteristics across activist directors. First, I identify activist employees and compare them to the rest of the activist director sample (i.e., non-activist employees). The results are tabulated in the first three columns in Table 4.5. Compared to non-activist employees, activist employees are significantly younger and less likely to be women. The average gap between the two groups in age is about 9 years. Women account for 1% of the activist employee sample, and 8% of its complement. Concerning professional attributes, I find that current board services are quite similar for the two groups, although activist employees tend to hold seats in smaller and better-performing firms. In addition, activist employees possess less board and management experience than non-employee peers. On the educational background side, activist employees have less academic qualifications, are less likely to hold MBA degrees, but more likely to attend Ivy League schools, relative to non-activist employees.

Insert Table 4.5 about here

In the last three columns in Table 4.5, I investigate the differences between repeat players and one-shotters. The results suggest that repeat players are slightly younger and significantly more likely to be men and American, compared to one-shotters. Except that repeat players have shorter board tenure, they seem to have substantially more director experience than one-shotters. Looking at the characteristics of firms where directors hold board appointments, I observe that repeat players are more prevalent in firms of smaller size and lower leverage. Additionally, they are less likely to have network connections to the CEOs in these firms. Moreover, the percentage of repeat players who go through a delisting is much higher than that of one-time players (15% vs. 5%), which can most likely be attributed to the fact that repeat players hold more public board seats than one-shotters. Further, no significant differences in executive experience are found between the two groups. In terms of educational attainment, repeat players hold less academic qualifications, but are more likely to receive an Ivy League education.

To summarize, this section's results suggest that the group of activist directors primarily consists of young men who are one-time players in the activism game. Although they generally have less board and executive experience than target board members, activist directors are more experienced and better educated than other individuals in the director labor pool. This evidence implies that activist shareholders are capable of hunting talent in the labor market.

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4.4 Career outcomes for activist directors

4.4.1 Total number of directorships

In this section, I analyze the career outcomes for activist directors. To quantify the overall career success, I follow convention and use the total number of board seats held by directors (Coles and Hoi, 2003; Yermack, 2004). Given the nonrandom selection of activist directors, simple comparison of board service between activist directors and non-activist directors in the BoardEx universe might yield biased estimates of activism impact. To distinguish this impact from confounding factors, I apply a difference-in-differences research design and compare the career changes of activist directors to those of their director colleagues from other nontargeted companies, over the three-year period before and after the announcement of activism.

To give an example, on December 5, 2012, ValueAct Capital Management LP (ValueAct), an activist hedge fund, announced that it entered into a Nomination and Standstill Agreement with Adobe Systems Inc. (Adobe). Following the execution of this Agreement, Adobe appointed Kelly Barlow, a ValueAct partner, to its board of directors. Mr. Barlow is an activist director according to my definition. In order to construct a control sample of non-activist directors for Mr. Barlow, I examine his board service at the time that his appointment at Adobe became publicly known (i.e., December 5, 2012), using the BoardEx data.

It turns out that on December 5, 2012, Mr. Barlow was a director of KAR Auction Services Inc. (KAR). As of that date, there were other twelve directors serving on KAR's board, namely, David Ament, Robert Finlayson, Peter Formanek, Michael Goldberg, Church Moore, Jonathan Ward, Brian Clingen, James Hallett, Sanjeev Mehra, Thomas Carella, Gregory Spivy, and Thomas O'Brien. To isolate the effect of being an activist director, Messrs. Spivy and O'Brien are excluded as control members because they had previously been activist directors via other campaigns. Hence, the remaining ten directors form the control sample for Mr. Barlow.

Overall, this process generates a total of 7,427 director-campaign-year observations for the activist director group, and 74,095 for their control group.[6] Panel A of Table 4.6 compares characteristics of activist directors and their non-activist counterparts during the 3-year window leading up to the event. The evidence indicates that relative to non-activist directors, activist directors are younger (50.5 vs. 56.9) and hold slightly less directorships (2.5 vs. 2.6).

Insert Table 4.6 about here

Formally, to perform the career change analysis, I estimate the following fixed effects

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[6]Note that this design results in finding control directors for about 55% of the 1,938 activist campaign-director observations in my sample. In the future, I will explore alternative approaches to construct the control group.

ordinary least squares (OLS) panel data model:

$$y_{di,t} = \beta_1 \cdot (Activist_{di} \times Post_{di,t}) + \beta_2 \cdot Activist_{di} + \beta_3 \cdot Post_{di,t}$$
$$+ \gamma \cdot Control_{d,t} + \alpha_d + \alpha_i + \alpha_t + \epsilon_{di,t}, \tag{4.1}$$

where $y_{di,t}$ is the total number of seats (excluding those on targeted boards) director d of campaign i holds during year t, $Activist_{di}$ is an indicator variable for activist director, $Post_{di,t}$ is a dummy variable equal to one if the director observation is in the year of activism event or within three years following the event, $Control_{d,t}$ is a vector of director level controls, and α_d, α_i, and α_t control for director, campaign, and year fixed effects, respectively. The coefficient of interest is thus β_1, which represents the differential change in directorships for activist directors post activism, compared to those for their corresponding non-activist colleagues. Key results are reported in Panel B of Table 4.6.

Results in column 1, in which only director and year fixed effects are included, provide evidence that, on average, activist directors are rewarded by the market: They hold an average of 0.32 more seats following the event, compared to non-activist directors on the same board. This effect is statistically significant and economically important, especially when considering that the average activist directors in my sample hold 2.45 seats (see Panel A). In column 2, I add campaign fixed effects, which, by construction, implies that the estimated activism effect is derived essentially from within-campaign comparisons between activist and non-activist directors. The main results hold in this restrictive specification.

Along similar lines, column 3 shows estimates from specification that further includes controls for director-level time-varying characteristics such as average firm size, average ROA, average institutional ownership, average annual stock return, average book leverage, an indicator of serving on a delisting company's board, average network ties to the CEOs, and the natural logarithm of the number of qualifications.[7] Using this specification, the estimated coefficient on the key independent variable, $Activist_{di} \times Post_{di,t}$, shows the same pattern of results but is weakened by reduced sample size due to missing data. Taken together, I find consistent evidence that activist directors tend to fare better on the director market relative to their non-activist peers post activism.

Since I primarily rely on a difference-in-differences framework, the crucial identifying assumption is that in the absence of being appointed to target boards, activist directors would have experienced changes in careers similar to non-activist directors on the same board. To test this assumption, I begin with the same specification as in Eq. (4.1), but replace the *Post* dummy with event-year dummies. I leave year T-1 as the reference group and plot the estimated coefficients on the interactions of event-year dummies and activist director dummy in Fig. 4.1. The graphical evidence provides little support for divergence in board seats held in the years prior to the activism, which helps rule out the possibility that the inferences drawn thus far are

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[7]See Appendix 4.B for variable definitions.

driven by different pre-event trends between activist and non-activist directors in my sample.

To understand how activist and non-activist directors' careers diverge following activism campaigns, the OLS model estimated is:

$$y_{di,t} = \sum_{\tau=0}^{3} \beta_\tau \cdot (Activist_{di} \times Post_{di,t}^\tau) + \beta_4 \cdot Activist_{di} + \gamma \cdot Control_{d,t}$$
$$+ \alpha_d + \alpha_i + \alpha_e + \alpha_t + \epsilon_{di,t}, \tag{4.2}$$

where $Post_{di,t}^\tau$ is a dummy variable equal to one if director d of campaign i is in year τ following the activism event, and α_e controls for event year fixed effects. All other variables are the same as in Eq. (4.1). The coefficients of interest are β_τ: they indicate the career differences between activist and non-activist directors, τ years after the event. Key results are provided in Panel C of Table 4.6.

The coefficients in column 1 show that activist directors on average hold 0.14 more directorships than their non-activist counterparts in the year of activism, and by the third year after the activism they hold 0.52 more (or about 20% of the total seats held by an average director). The pattern persists after adding campaign fixed effects in column 2, and director-level controls in column 3. The overall message from this table is that the experience of being an activist director favors access to more employment opportunities in the directorial labor market, resulting in growing differences in directorships between activist and non-activist directors over time.

Finally, I consider whether the positive career effects documented above vary with the identity of the activist directors, distinguishing between activist employees and non-activist employees, as well as one-shotters and repeat players. To empirically assess such hetero-geneity, I re-run Eq. (4.1) with the addition of an interaction term, $Identity_{di} \times Post_{di,t}$, and an indicator for the activist director's identity, $Identity_{di}$. Of interest is the coefficient on $Identity_{di} \times Post_{di,t}$, which captures differences in career trajectories among activist directors post activism. The main results are reported in Table 4.7.

The first two columns analyze the differences in career consequences for activist employees and non-activist employees, while the last two columns are for one-shotters and repeat players. The estimated coefficients on the interactions between *Identity* and *Post* suggest that activist employees and repeat players tend to hold less directorships following the event, compared to their respective complementary samples of activist directors. Given that the repeat player sample comprises primarily of directors employed by the activists, I conduct an untabulated robustness test and confirm that the repeat player estimates remain qualitatively

unchanged after accounting for the relationship between activist directors and activists. In short, there is little evidence that the director labor market is responding to the identity of activist directors.

4.4.2 Retention and recruitment of activist directors

In this section, I undertake further analysis focusing on activist directors' continued services on current boards, as well as their opportunities for additional directorships. I separately measure board seats retained and gained so that I can determine the possible sources of variation in the total number of directorships. Panel A of Table 4.8 reports no difference in the number of directorships between activist and non-activist directors at the time of announcement of activism. As activist and non-activist directors serve on the same board, the similarity in their board appointments echoes the endogenous nature of board composition (Hermalin and Weisbach, 1998; Adams et al., 2010).

Insert Table 4.8 about here

To examine the linkage between being activist directors and retention of directors on their own boards, I adopt the following linear probability model:

$$
\begin{aligned}
y_{dij,t} =& \beta_1 \cdot (Identity_{di} \times Post_{di,t}) + \beta_2 \cdot (Activist_{di} \times Post_{di,t}) + \beta_3 \cdot Identity_{di} \\
& + \beta_4 \cdot Activist_{di} + \beta_5 \cdot Post_{di,t} + \alpha_d + \alpha_i + \alpha_{dj} + \alpha_t + \epsilon_{dij,t},
\end{aligned} \tag{4.3}
$$

where $y_{dij,t}$ is a dummy variable equal to one if director d of campaign i still holds her seat in firm j during year t, $Identity_{di}$ is an indicator denoting activist employee or repeat player, $Post_{di,t}$ is a dummy variable equal to one if the director observation is within 3 years following the activism event, and α_{dj} controls for director-firm fixed effects. All other variables are the same as in Eq. (4.1). Panel B of Table 4.8 tabulates the regression results.

Results in column 1, in which only director and year fixed effects are included, provide evidence of four percentage points increase in the likelihood of remaining on current boards for activist directors in the post-event years. The inferences remain unchanged even after including campaign fixed effects (column 2) and director-firm fixed effects (column 3), the latter of which allows for identification from variation within the same director and firm match.

Columns 4 and 5 show how the probability of director retention is associated with the identity of the activist director. Compared to their corresponding complements (the rest of the activist director sample), activist employees and repeat players are more likely to leave the board following the event, as indicated by the negative and statistically significant coefficients on $Employee{\times}Post$ and $Repeat{\times}Post$ in columns 4 and 5, respectively. Nevertheless, untabulated F-tests reveal that the net effect of being an activist director is to increase the likelihood that a director remains on the board.

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Next, I explore the relation between being activist directors and the number of new board seats gained. As Panel A of Table 4.9 illustrates, there are statistically significant differences, in terms of the number of new seats obtained over the period from event year T+0 to T+3, between activist directors and their non-activist colleagues on the same boards. In particular, I find that activist directors acquire higher numbers of new directorships than non-activist peers during the subsequent years.

Insert Table 4.9 about here

To more carefully evaluate the effect of being activist directors on directors' subsequent career opportunities in the labor market, I estimate the following OLS model:

$$
\begin{aligned}
y_{di,t} =& \beta_1 \cdot (Identity_{di} \times Post_{di,t}) + \beta_2 \cdot (Activist_{di} \times Post_{di,t}) + \beta_3 \cdot Identity_{di} \\
& + \beta_4 \cdot Activist_{di} + \beta_5 \cdot Post_{di,t} + \alpha_d + \alpha_i + \alpha_t + \epsilon_{di,t},
\end{aligned} \tag{4.4}
$$

where $y_{di,t}$ is the total number of new board seats director d of campaign i holds during year t, and $Identity_{di}$ is an indicator denoting activist employee or repeat player. All other variables are the same as in Eq. (4.1). Panel B of Table 4.9 reports the results.

The estimates in column 1 suggest that, controlling for director and year fixed effects, activist directors acquire an average of 0.66 more new seats following the activism event, compared to non-activist directors on the same board. The results hold after adding campaign fixed effects in column 2. Columns 3 and 4 examine whether the post-activism increases in new directorships depend on the identity of the activist directors. The coefficients on $Employee \times Post$ (column 3) and $Repeat \times Post$ (column 4) are positive and significant at the one percent level, suggesting that activist employees and repeat players gain a larger number of new board seats following the event, relative to their respective complementary samples of activist directors.

Though my evidence thus far has been derived from directors' board appointments outside of the target companies, it is important to note that I repeat the analysis for career outcomes using directorship measures that include seats in target companies (untabulated), and observe results consistent with the main results reported in Tables 4.6–4.9.

4.5   Summary and conclusions

Using a large hand-collected data set from 2006 to 2017, I conduct the first study analyzing the characteristics and career prospects of activist directors. The study presents three key takeaways. First, activist directors differ significantly from other directors in the labor market. Specifically, activist directors are younger and more likely to be men and American. The directorships they hold are skewed toward smaller and more highly leveraged firms where they share less network ties with the CEOs. Although activist directors do not possess as much corporate board experience as directors targeted by activist investors, the firms on whose boards

the activist directors serve exhibit market performance superior to that of firms where the target directors hold board appointments. When compared with non-target directors, activist directors are found to have substantially more executive and director experience. Further, activist directors hold more academic qualifications and are more likely to receive an MBA and Ivy League education than other directors.

Second, there is heterogeneity in characteristics across activist directors. Particularly, activist employees and repeat players are younger and less diverse relative to their corresponding complements. Looking at professional attributes, the current board services are quite similar for activist employees and non-activist employees, but the former possesses less board and management experience. Repeat players seem to have substantially more director experience than one-shotters, except that they have shorter board tenures. In addition, no significant differences in executive experience are found between repeat and one-time players. Regarding educational attainment, activist employees and repeat players have less academic qualifications, but are more likely to attend Ivy League schools.

Third, activist directors are rewarded with directorships in the directorial labor market. In comparison with non-activist directors serving on the same board, activist directors hold an average of 0.52 more seats (or about 20% of the total seats held by an average director) three years after campaigns. The positive career effects do not vary with the identity of activist directors. That is, activist employees and non-activist employees, as well as one-time and repeat players, hold a similar number of board appointments post activism. By separately measuring directorship retention and acquisition, I show that being an activist director not only increases the director's likelihood of remaining on the current board, but also creates greater opportunity for offers of additional board memberships. Moreover, though activist employees and repeat players are more likely to leave the current boards following campaigns, they tend to receive more new board appointments, relative to their respective complementary samples of activist directors.

Appendix 4.A   Activist identities

Activist Identity	Definition
Corporation	Public or private company that is usually in the same industry as the target company of the campaign. A corporation is not typically an activist. This usually occurs when a corporation is attempting to take over another company whether via a proxy fight or hostile tender offer (e.g., Oracle Corporation campaign to takeover PeopleSoft, Inc.).
Hedge fund company	A fund that uses derivative securities and is extremely risky. Typically, these companies are very secretive about their investments. Includes funds that use puts, calls, margins, and shorts, often as "hedges" to reduce risk (e.g., Soros Fund Management). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Individual	The activist is an individual or family.
Investment adviser	If an investment firm does not have the majority of its investments in mutual funds and is not a subsidiary of a bank, brokerage firm, or insurance company, then the firm is considered an Investment Advisor. An Investment Advisor provides investment advice and manages a portfolio of securities (e.g., Franklin Mutual Advisors). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Labor union	The activist is a labor union including labor union pension funds (e.g., The Service Employees International Union).
Mutual fund manager	An investment firm with the majority of its investments in mutual funds. A mutual fund raises money from shareholders and reinvests the money in securities (e.g., BWD Rensburg Unit Trust Managers Ltd). Institution types (i.e., Hedge Fund Company, Investment Adviser, Mutual Fund Manager, and Other Institutions) are assigned by FactSet LionShares.
Public pension funds	A fund established by a state or local government to pay benefits of retired workers (e.g., The California Public Employees Retirement System).
Religious group	The activist is a religious organization (e.g., Interfaith Center on Corporate Responsibility).
Named stockholder group	The name adopted by the activist group for the specific activist campaign (e.g., The Committee for Concerned Cyberonics, Inc. Shareholders).
Other institutions	Other institutional investors not already categorized. Includes Arbitrage, Bank Management Division, Broker, Broker/Investment Bank Asset Management, Fund Distributor, Foundation/Endowment, Holding Company, Insurance Company, Insurance Management Division, Corporate Pension Fund, Private Banking Portfolio, and Venture Capital Firms. Institution types are assigned by FactSet LionShares.
Other stake holders	Other non-individual and non-institutional investor entities such as ESOPs, venture capital, private equity firms and other investment firms not categorized as an institution by FactSet LionShares.

Appendix 4.B   Variable definitions

Variable	Definition
Activism characteristics	
Number of activists	The number of activists in a dissident group. We count all entities under one institution or one family as one member.
Activist group ownership	The total ownership stake held by the activist group.
Campaign duration	The length of campaign period (in number of days) from the first announcement of activism, which is usually the date of an activist press release, Schedule 13D or other SEC filing announcing the activist has engaged the company, to the date when a proxy fight went to a vote or ended if it did not go the distance to a vote or for a non-proxy fight activist campaign the date there was a logical conclusion.
Activist seeks reimbursement	A dummy variable equal to 1 if the activist intends to seek reimbursement from the target company for its expenses in connection with the campaign and 0 otherwise.
Activist board seats won	The number of board seats won by the activist(s) in the campaign.
Activist gains full control	A dummy variable equal to 1 if dissident shareholders obtain a majority of board seats and 0 otherwise.
Activist director tenure	Number of days activist director has served on the board of the target company.
Firm characteristics	
Firm size	The natural logarithm of the market value of equity.
Market-to-book ratio	The ratio of the sum of market value of equity plus the book value of debt to total assets.
Sales growth	The change in sales scaled by lagged sales.
Return on assets	Earnings before interest, taxes, depreciation, and amortization, divided by lagged total assets.
Stock return	The 12-month buy-and-hold abnormal return in excess of value-weighted market return.
Return volatility	The standard deviation of daily stock returns over the fiscal year.
Capital expenditures	The firm's capital expenditures normalized by beginning-of-year book assets.
R&D expenditures	The firm's R&D expenses normalized by beginning-of-year book assets.
Dividend yield	The ratio of a company's total annual dividend payments to its market capitalization.
Book leverage	The ratio of the sum of long- and short-term debt to total assets.
Institutional ownership	The sum of the holdings of all institutions in a firm's stock divided by market capitalization at the end of each fiscal year.
Analyst coverage	The number of analysts who made forecasts about firm's earnings in each fiscal year.
HHI	The Herfindahl-Hirschman index of sales in different business segments.
Poison pill before activism	A dummy variable equal to 1 if the company had a shareholder rights plan in place at the time the campaign was announced and 0 otherwise.
Poison pill after activism	A dummy variable equal to 1 if the company adopted a shareholder rights plan in response to the activist campaign and 0 otherwise.
Board characteristics	
Board size	The number of directors on board.
% Independent directors	The fraction of independent directors on the company's board.
% Busy directors	The ratio of the number of directors who hold at least three directorships to the total number of directors on the board.

Variable	Definition
Classified board	A dummy variable equal to 1 if the company's board is divided into classes with a different class of director up for re-election each year and 0 otherwise.
Mean board tenure	The average tenure (in years) of directors on board.
Attrition rate	The ratio of the number of directors who have left a role to the total number of directors on board for the preceding year.
% Directors with ind expertise	The ratio of the number of directors with previous work experience in the firm's industry as a top manager to the total number of directors on the board. Top management positions/roles include CEO, CFO, COO, chairman, president, division CEO, division CFO, division chairman, division COO, division president, head of division, regional CEO, regional CFO, and regional president (Custódio and Metzger, 2013).
CEO duality	A dummy variable equal to 1 when a firm's CEO is also the chairman of the board.
% Directors with ties to the CEO	The ratio of the number of directors who have external network connections with the CEO to the total number of directors on the board. The network ties could occur through employment, education, and social activities. That is, directors who were employed by the same company as the CEO (excluding the focal company), directors who attended the same educational institutions as the CEO, and directors who shared memberships in nonprofessional organizations with the CEO are qualified as connected. Note that connections formed through social activities require both the director and the CEO be officers or directors in the nonprofessional organization (Fracassi and Tate, 2012).
% Female directors	The fraction of female directors on the company's board.
Mean director age	The average age (in years) of directors on board.

Director characteristics

Variable	Definition
Activist	This variable indicates a director who is an activist director appointed by activist investors to target boards.
Non-activist	This variable indicates a director who is not an activist director.
Activist employee	This variable indicates an activist director who is an employee of the activist shareholder.
Non-activist employee	This variable indicates an activist director who is not an employee of the activist shareholder.
Target	A dummy variable equal to 1 if the director's firm is targeted by shareholder activists in a given year and 0 otherwise.
Non-target	A dummy variable equal to 1 if the director's firm is not targeted by shareholder activists in a given year and 0 otherwise.
Repeat player	This variable indicates a director who has served as an activist director more than once.
One-time player	This variable indicates a director who has been an activist director only once.
Age	Age of director in years.
Female	A dummy variable equal to 1 if the director is female and 0 otherwise.
Non-American	A dummy variable equal to 1 if the director is not American and 0 otherwise.
Avg tenure over all boards	The average tenure over the board seats held by the director.
Avg tenure over listed boards	The average tenure over the board seats held by the director in publicly listed companies.
Avg tenure over unlisted boards	The average tenure over the board seats held by the director in private companies.
Avg tenure over other boards	The average tenure over the board seats held by the director in organizations other than publicly listed or private companies.

Variable	Definition
Current directorships	The total number of boards that the director serves on.
# listed boards sitting on	The number of boards of publicly listed companies that the director serves on.
# unlisted boards sitting on	The number of boards of private companies that the director serves on.
# other boards sitting on	The number of boards for organizations other than publicly listed or private companies that the director serves on.
Total directorships	The total number of boards that the director has served on.
# listed boards sat on	The number of boards of publicly listed companies that the director has served on.
# unlisted boards sat on	The number of boards of private companies that the director has served on.
# other boards sat on	The number of boards for organizations other than publicly listed or private companies that the director has served on.
Avg firm size	The average firm size over the board seats held by the director.
Avg stock return	The average stock return over the board seats held by the director.
Avg return on assets	The average return on assets over the board seats held by the director.
Avg book leverage	The average book leverage over the board seats held by the director.
Avg institutional ownership	The average institutional ownership over the board seats held by the director.
Delisting	A dummy variable equal to 1 if the director serves on a delisting company's board in a given fiscal year and 0 otherwise.
Network ties to the CEO	The average network ties to the CEO over the board seats held by the director.
Exp as director of listed firm	A dummy variable equal to 1 if the director has served on the board of a publicly listed company based on past work experience and 0 otherwise.
Exp as director of unlisted firm	A dummy variable equal to 1 if the director has served on the board of a private company based on past work experience and 0 otherwise.
Related industry exp	The average industry experience dummy over the board seats held by the director.
Nominating cmte exp	A dummy variable equal to 1 if the director has served on a nominating committee based on past work experience and 0 otherwise.
Compensation cmte exp	A dummy variable equal to 1 if the director has served on a compensation committee based on past work experience and 0 otherwise.
Audit cmte exp	A dummy variable equal to 1 if the director has served on an audit committee based on past work experience and 0 otherwise.
Governance cmte exp	A dummy variable equal to 1 if the director has served on a governance committee based on past work experience and 0 otherwise.
Executive	This variable indicates a director who is an executive in a public or private company. Executive is defined as one holding the title of CEO, CFO, CIO, COO, president, VP, partner, managing director, treasurer, or having insider status on board (Knyazeva et al., 2013).
Executive of listed firm	This variable indicates a director who is an executive in a public company.
Executive of unlisted firm	This variable indicates a director who is an executive in a private company.
Exp as executive	This variable indicates a director who has worked as an executive in a public or private company.
Exp as executive of listed firm	This variable indicates a director who has worked as an executive in a public company.
Exp as executive of unlisted firm	This variable indicates a director who has worked as an executive in a private company.

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Variable	Definition
General ability index	General ability index is defined as the first factor of applying principal components analysis to five proxies of general managerial ability. These proxies are number of positions, number of firms, number of industries, CEO experience dummy and Conglomerate experience dummy (Custódio et al., 2013).
# qualifications	The number of qualifications at undergraduate level and above for the director.
MBA	A dummy variable equal to 1 if the director has a masters of business administration degree and 0 otherwise.
Ivy League	A dummy variable equal to 1 if the director attended an Ivy League school (Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, University of Pennsylvania, and Yale University) at any academic level and 0 otherwise.

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Table 4.1. Characteristics of target firms

This table summarizes characteristics of firms targeted by shareholder activists, for the full sample (columns 1 and 2) and for two subsamples (columns 3 to 6). The full sample consists of 6,113 events for the period 2006 to 2017. The first subsample includes 1,114 events where activists gain at least one seat on the boards of directors, and the second subsample includes 4,999 events where activists do not receive board seat. Column 7 contains differences in means between the subsample of campaigns where activists gain seats versus the subsample where they do not gain seats, and the significance levels for tests for the differences. The data for firm and board characteristics are in the year previous to the announcement of the campaign. All potentially unbounded variables are winsorized at the 1% and 99% levels. See Appendix 4.B for variable definitions. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	All events		Activists gain seats		Activists do not gain seats		Differences
	Mean	# obs.	Mean	# obs.	Mean	# obs.	(3)-(5)
Panel A: Campaign characteristics							
Number of activists	1.19	6,113	1.30	1,114	1.16	4,999	0.134[a]
Activist group ownership	9.38	5,015	10.98	1,077	8.95	3,938	2.029[a]
Campaign duration	168.19	5,299	141.11	1,068	175.02	4,231	-33.909[a]
Activist seeks reimbursement	0.09	6,113	0.23	1,114	0.05	4,999	0.178[a]
Panel B: Firm characteristics							
Firm size	6.41	4,393	5.79	862	6.57	3,531	-0.772[a]
Market-to-book ratio	1.68	4,320	1.63	856	1.69	3,464	-0.064
Sales growth	0.08	4,299	0.07	854	0.08	3,445	-0.012
Return on assets	0.06	4,271	0.03	848	0.06	3,423	-0.032[a]
Stock return	-0.06	4,317	-0.10	854	-0.05	3,463	-0.057[a]
Return volatility	0.03	4,179	0.03	814	0.03	3,365	0.001[c]
Capital expenditures	0.05	4,344	0.05	862	0.05	3,482	0.000
R&D expenditures	0.04	4,363	0.05	863	0.04	3,500	0.013[a]
Dividend yield	0.01	4,109	0.01	824	0.02	3,285	-0.004[a]
Book leverage	0.24	4,348	0.22	856	0.24	3,492	-0.021[b]
Institutional ownership	0.66	3,810	0.67	755	0.66	3,055	0.011
Analyst coverage	9.18	3,450	6.88	660	9.73	2,790	-2.852[a]
HHI	0.79	3,627	0.81	742	0.79	2,885	0.014
Poison pill before activism	0.21	6,113	0.23	1,114	0.20	4,999	0.030[b]
Poison pill after activism	0.04	6,113	0.06	1,114	0.03	4,999	0.022[a]
Panel C: Board characteristics							
Board size	8.56	3,932	8.12	795	8.67	3,137	-0.557[a]
% Independent directors	0.78	3,938	0.79	796	0.78	3,142	0.013[a]
% Busy directors	0.45	3,938	0.43	796	0.46	3,142	-0.031[a]
Classified board	0.39	6,113	0.40	1,114	0.39	4,999	0.013
Mean board tenure	7.53	3,938	7.46	796	7.55	3,142	-0.084
Attrition rate	0.06	2,121	0.06	442	0.06	1,679	-0.001

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	All events		Activists gain seats		Activists do not gain seats		Differences
	Mean	# obs.	Mean	# obs.	Mean	# obs.	(3)-(5)
Panel C: Board characteristics							
% Directors with ind expertise	0.29	3,938	0.29	796	0.29	3,142	0.003
CEO duality	0.42	3,938	0.38	796	0.43	3,142	-0.055^a
% Directors with ties to the CEO	0.21	3,938	0.20	796	0.21	3,142	-0.003
% Female directors	0.11	3,932	0.10	795	0.11	3,137	-0.012^a
Mean director age	61.96	3,938	61.91	796	61.98	3,142	-0.071

Table 4.2. Sample distributions by year, industry, activist identity, and exchange

This table reports summary statistics for the full sample of 1,114 events where activists attain seats on the target firm's board of directors (columns 1 to 4) and for the 1,079 events that are covered by BoardEx and comprise the main sample of the paper (columns 5 to 8). Columns 1 and 5 summarize the number of shareholder activism events. Columns 2 and 6 summarize the proportion (in %) of all events. Columns 3 and 7 summarize the number of seats on the target's board of directors obtained by the activists. Columns 4 and 8 summarize the proportion (in %) of all board seats gained. Detailed information about activist identities is provided in Appendix 4.A.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Full sample				BoardEx sample			
	Campaigns		Board seats won		Campaigns		Activist directors	
	N	Percent	N	Percent	N	Percent	N	Percent
Panel A: By year								
2006	91	8	167	8	89	8	163	8
2007	86	8	159	8	83	8	152	8
2008	106	10	206	10	106	10	202	10
2009	53	5	94	5	49	5	89	5
2010	69	6	119	6	66	6	115	6
2011	61	5	98	5	58	5	91	5
2012	81	7	157	8	77	7	147	8
2013	94	8	195	10	93	9	186	10
2014	113	10	244	12	111	10	237	12
2015	145	13	234	12	139	13	224	12
2016	107	10	162	8	105	10	157	8
2017	108	10	188	9	103	10	175	9
Total	1,114	100	2,023	100	1,079	100	1,938	100
Panel B: By industry								
Consumer nondurables	50	4	83	4	45	4	76	4
Consumer durables	23	2	34	2	23	2	34	2
Manufacturing	65	6	121	6	64	6	114	6
Oil, gas, and coal extrac. & products	45	4	91	4	45	4	91	5
Chemicals and allied products	21	2	39	2	21	2	39	2
Business equipment	252	23	465	23	243	23	444	23
Telephone and television transmission	28	3	46	2	28	3	46	2
Utilities	13	1	25	1	12	1	22	1
Wholesale, retail, and some services	133	12	251	12	132	12	250	13
Healthcare, med. equipment & drugs	125	11	233	12	123	11	229	12
Finance	187	17	292	14	178	16	270	14
Other	172	15	343	17	165	15	323	17
Total	1,114	100	2,023	100	1,079	100	1,938	100
Panel C: By activist identity (not mutually exclusive)								
Hedge fund	784	70	1,392	69	771	71	1,361	70

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Full sample				BoardEx sample			
	Campaigns		Board seats won		Campaigns		Activist directors	
	N	Percent	N	Percent	N	Percent	N	Percent
Panel C: By activist identity (not mutually exclusive)								
Investment adviser	94	8	161	8	91	8	151	8
Individual	151	14	318	16	138	13	281	14
Pension fund	4	0	5	0	4	0	5	0
Corporation	21	2	45	2	18	2	41	2
Named stockholder group	29	3	81	4	29	3	81	4
Other institutions	25	2	62	3	24	2	60	3
Mutual fund	1	0	2	0	1	0	2	0
Other stake holders	156	14	319	16	147	14	302	16
Panel D: By exchange or market								
New York Stock Exchange	351	32	640	32	346	32	631	33
NYSE American	49	4	96	5	47	4	93	5
Nasdaq	575	52	1,026	51	564	52	1,000	52
Nasdaq capital market	19	2	25	1	17	2	22	1
OTC bulletin	92	8	184	9	78	7	149	8
Pink sheets	28	3	52	3	27	3	43	2
Total	1,114	100	2,023	100	1,079	100	1,938	100

Table 4.3. Descriptive statistics

This table provides descriptive statistics for the final sample of 1,079 shareholder activism events along with 1,938 activist director appointments through the events. Panel A reports the number and fraction (in %) of target firms and board seats secured by activists, as well as activist director appointment frequencies. Panel B reports activist director characteristics at the campaign-director level. See Appendix 4.B for variable definitions.

Panel A: Attributes of the sample		
	N	Percent
Number of firms experienced:		
1 campaign	687	80
2 campaigns	127	15
3 campaigns	34	4
4 campaigns	9	1
Number of campaigns where activists gain:		
1 seat	591	55
2 seats	280	26
3 seats	127	12
4 seats	41	4
5 seats	18	2
6 seats	12	1
7 seats	6	1
8 seats	1	0
9 seats	2	0
12 seats	1	0
Number of directors appointed to:		
1 targeted board	1,194	83
2 targeted boards	137	10
3 targeted boards	46	3
4 targeted boards	26	2
5 targeted boards	16	1
6 targeted boards	5	0
7 targeted boards	6	0
8 targeted boards	3	0
9 targeted boards	3	0
12 targeted boards	1	0
13 targeted boards	1	0

Panel B: Attributes of activist directors
(data collapsed at the director level are presented in parentheses)

	Repeat player		One-time player	
	N	Percent	N	Percent
Activist employee	333	66	596	42
	(164)	(67)	(442)	(37)
Non-activist employee	170	34	839	58
	(80)	(33)	(752)	(63)

Table 4.4. Characteristics of activist and non-activist directors

This table presents characteristics of activist directors (column 1) and non-activist directors that overlap with BoardEx (columns 2 and 3). I separate target directors (column 2), i.e., directors of companies targeted by shareholder activists, from non-target directors (column 3). Column 4 shows the differences between the means between activist and target directors and significance levels for tests for the average differences between these two samples. Column 5 shows the differences between the means between activist and non-target directors and significance levels for tests for the average differences between these two samples. All data are in the year previous to the announcement of the campaign, and winsorized at the 1% and 99% levels. See Appendix 4.B for variable definitions. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)
	Activist	Non-activist		Differences	
	All (N=1,833)	Target (N=9,682)	Non-target (N=1,736,407)	(1)-(2)	(1)-(3)
Age	50.25	60.05	55.20	-9.805^a	-4.957^a
Female	0.05	0.12	0.13	-0.069^a	-0.081^a
Non-American	0.06	0.05	0.31	0.008	-0.246^a
Current directorships	1.83	2.53	1.60	-0.705^a	0.224^a
# listed boards sitting on	0.89	1.60	0.46	-0.707^a	0.433^a
# unlisted boards sitting on	0.85	0.87	1.05	-0.016	-0.198^a
# other boards sitting on	0.06	0.04	0.08	0.020^a	-0.013^b
Avg tenure over all boards	3.82	7.14	6.34	-3.318^a	-2.524^a
Avg tenure over listed boards	3.22	6.91	6.26	-3.687^a	-3.040^a
Avg tenure over unlisted boards	4.17	6.88	6.28	-2.710^a	-2.106^a
Avg tenure over other boards	5.61	7.74	7.38	-2.128^a	-1.770^b
Avg firm size	5.98	6.23	6.13	-0.246^a	-0.148^b
Avg stock return	0.02	-0.04	0.02	0.054^a	-0.002
Avg return on assets	0.04	0.06	0.03	-0.018^b	0.015
Avg book leverage	0.25	0.23	0.23	0.020^b	0.022^a
Avg institutional ownership	0.66	0.67	0.57	-0.009	0.084^a
Network ties to the CEO	0.13	0.18	0.21	-0.051^a	-0.076^a
Delisting	0.07	0.06	0.02	0.011^c	0.058^a
Total directorships	3.95	4.87	2.64	-0.925^a	1.304^a
# listed boards sat on	1.87	2.61	0.83	-0.741^a	1.042^a
# unlisted boards sat on	1.94	2.14	1.69	-0.200^a	0.255^a
# other boards sat on	0.11	0.09	0.10	0.022^a	0.013^c
Exp as director of listed firm	0.57	0.91	0.38	-0.344^a	0.185^a
Exp as director of unlisted firm	0.63	0.75	0.73	-0.121^a	-0.107^a
Related industry exp	0.17	0.21	0.03	-0.036^a	0.138^a
Nominating cmte exp	0.25	0.52	0.12	-0.267^a	0.127^a
Compensation cmte exp	0.30	0.56	0.14	-0.264^a	0.152^a
Audit cmte exp	0.28	0.57	0.15	-0.294^a	0.126^a
Governance cmte exp	0.25	0.50	0.12	-0.248^a	0.128^a
Executive	0.55	0.50	0.56	0.049^a	-0.004
Executive of listed firm	0.15	0.25	0.14	-0.094^a	0.012
Executive of unlisted firm	0.46	0.33	0.47	0.138^a	-0.006
Exp as executive	0.80	0.86	0.74	-0.062^a	0.057^a
Exp as executive of listed firm	0.44	0.58	0.31	-0.141^a	0.125^a
Exp as executive of unlisted firm	0.75	0.73	0.67	0.016	0.072^a
General ability index	0.72	1.31	-0.01	-0.590^a	0.728^a
# qualifications	2.06	2.06	1.98	0.007	0.088^b
MBA	0.29	0.25	0.20	0.041^a	0.094^a
Ivy League	0.25	0.20	0.13	0.053^a	0.119^a

Table 4.5. Characteristics of activist directors

This table reports the characteristics of activist directors, separating employee (column 1) and non-employee (column 2) directors, as well as repeat (column 4) and one-time (column 5) directors. The variables are at the campaign-director level and retrieved from the year prior to the campaign announcement year. Column 3 reports the average differences between the employee and non-employee activist directors and significance levels for tests for the differences in means between the two subsamples. Column 6 reports the average differences between the repeat and one-time activist directors and significance levels for tests for the differences in means between the two subsamples. All data are winsorized at the 1% and 99% levels and defined in Appendix 4.B. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)
	Activist EMPL (N=861)	Non-activist EMPL (N=972)	Differences (1)-(2)	Repeat players (N=438)	One-time players (N=1,395)	Differences (4)-(5)
Age	45.54	54.41	-8.863^a	48.45	50.82	-2.372^a
Female	0.01	0.08	-0.061^a	0.02	0.06	-0.040^a
Non-American	0.05	0.07	-0.017	0.01	0.08	-0.078^a
Current directorships	1.88	1.78	0.107	3.07	1.43	1.635^a
# listed boards sitting on	0.93	0.86	0.066	1.80	0.60	1.195^a
# unlisted boards sitting on	0.82	0.88	-0.057	1.13	0.77	0.358^a
# other boards sitting on	0.09	0.04	0.057^a	0.10	0.05	0.049^a
Avg tenure over all boards	3.99	3.68	0.306	2.68	4.38	-1.700^a
Avg tenure over listed boards	2.92	3.48	-0.567^b	2.08	4.05	-1.965^a
Avg tenure over unlisted boards	4.47	3.94	0.532	3.64	4.39	-0.756^b
Avg tenure over other boards	6.65	3.31	3.331^a	6.41	5.10	1.309
Total directorships	3.90	3.99	-0.083	6.63	3.09	3.534^a
# listed boards sat on	1.91	1.84	0.074	3.68	1.29	2.383^a
# unlisted boards sat on	1.81	2.06	-0.244^b	2.76	1.68	1.074^a
# other boards sat on	0.14	0.08	0.062^a	0.19	0.09	0.106^a
Avg firm size	5.67	6.27	-0.598^a	5.72	6.20	-0.479^a
Avg stock return	0.04	0.00	0.034	0.00	0.03	-0.026
Avg return on assets	0.06	0.03	0.030^c	0.05	0.03	0.016
Avg book leverage	0.25	0.25	0.004	0.22	0.27	-0.046^a
Avg institutional ownership	0.63	0.68	-0.044^b	0.66	0.65	0.014
Delisting	0.07	0.08	-0.005	0.15	0.05	0.100^a
Network ties to the CEO	0.12	0.14	-0.021	0.09	0.16	-0.062^a
Exp as director of listed firm	0.54	0.59	-0.045^c	0.87	0.47	0.391^a
Exp as director of unlisted firm	0.58	0.67	-0.086^a	0.74	0.59	0.148^a
Related industry exp	0.16	0.19	-0.030^c	0.27	0.12	0.154^a
Nominating cmte exp	0.24	0.26	-0.025	0.49	0.18	0.312^a
Compensation cmte exp	0.29	0.30	-0.018	0.55	0.21	0.341^a
Audit cmte exp	0.23	0.33	-0.099^a	0.47	0.22	0.258^a
Governance cmte exp	0.23	0.27	-0.040^b	0.47	0.18	0.297^a
Executive	0.48	0.61	-0.130^a	0.53	0.56	-0.024
Executive of listed firm	0.10	0.20	-0.106^a	0.15	0.15	-0.006
Executive of unlisted firm	0.44	0.48	-0.044^c	0.47	0.46	0.013

continued on next page

	(1)	(2)	(3)	(4)	(5)	(6)
	Activist EMPL (N=861)	Non-activist EMPL (N=972)	Differences (1)-(2)	Repeat players (N=438)	One-time players (N=1,395)	Differences (4)-(5)
Exp as executive	0.70	0.89	-0.189^a	0.81	0.80	0.010
Exp as executive of listed firm	0.26	0.59	-0.328^a	0.45	0.43	0.021
Exp as executive of unlisted firm	0.66	0.82	-0.152^a	0.73	0.75	-0.016
General ability index	0.44	0.96	-0.518^a	1.52	0.46	1.059^a
# qualifications	1.84	2.25	-0.410^a	1.97	2.13	-0.159^b
MBA	0.26	0.32	-0.061^a	0.30	0.29	0.009
Ivy League	0.29	0.22	0.077^a	0.31	0.23	0.075^a

Table 4.6. Total number of directorships

The sample consists of activist directors and their control-director cohorts from the same boards. Panel A describes differences in characteristics of activist directors and their control sample. Panel B reports estimates of the following specification: $y_{di,t} = \beta_1 \cdot (Activist_{di} \times Post_{di,t}) + \beta_2 \cdot Activist_{di} + \beta_3 \cdot Post_{di,t} + \gamma \cdot Control_{d,t} + \alpha_d + \alpha_i + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is the total number of seats (excluding those on targeted boards) director d of campaign i holds during year t, $Activist_{di}$ is an indicator variable for activist director, $Post_{di,t}$ is a dummy variable equal to one if the director is in the year of activism event or within 3 years following the event, $Control_{d,t}$ is a vector of director level controls, and α_d, α_i, and α_t control for director, campaign, and year fixed effects, respectively. Panel C reports estimates of the following specification: $y_{di,t} = \sum_{\tau=0}^{3} \beta_\tau \cdot (Activist_{di} \times Post_{di,t}^{\tau}) + \beta_4 \cdot Activist_{di} + \gamma \cdot Control_{d,t} + \alpha_d + \alpha_i + \alpha_e + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is the total number of seats (excluding those on targeted boards) director d of campaign i holds during year t, $Activist_{di}$ is an indicator variable for activist director, $Post_{di,t}^{\tau}$ is a dummy variable equal to one if the director is in year τ following the activism event, $Control_{d,t}$ is a vector of director level controls, and α_d, α_i, α_e, and α_t control for director, campaign, event year, and year fixed effects, respectively. The vector of director-level controls in Panels B and C includes average firm size, average ROA, average institutional ownership, average annual stock return, average book leverage, an indicator of serving on a delisting company's board, average network ties to the CEOs, and the natural logarithm of the number of qualifications. All control variables are defined in Appendix 4.B. Standard errors are robust to heteroscedasticity and displayed in parentheses. ^{a} significant at the 0.01 level; ^{b} significant at the 0.05 level; ^{c} significant at the 0.10 level.

	(1)		(2)		(3)
Panel A: Characteristics of directors					
	Activist		Non-activist		
	Mean	# obs.	Mean	# obs.	Differences
Age	50.45	3,171	56.93	30,198	-6.480^a
Number of directorships	2.45	3,183	2.60	31,755	-0.147^a
Panel B: Regression analysis					
	Total number of directorships				
Activist $\times$ Post	0.32^a		0.32^a		0.12^b
	(0.03)		(0.03)		(0.05)
N	81,522		81,522		43,183
Adjusted R^2	0.80		0.80		0.84
Director and year fixed effects	Yes		Yes		Yes
Campaign fixed effects	No		Yes		Yes
Controls	No		No		Yes
Panel C: Regression analysis (year-by-year results)					
Activist $\times$ Post(T+0)	0.14^a		0.14^a		0.06
	(0.04)		(0.04)		(0.06)
Activist $\times$ Post(T+1)	0.26^a		0.26^a		0.10
	(0.05)		(0.04)		(0.06)
Activist $\times$ Post(T+2)	0.35^a		0.35^a		0.12^c
	(0.05)		(0.05)		(0.06)
Activist $\times$ Post(T+3)	0.52^a		0.52^a		0.21^a
	(0.05)		(0.05)		(0.07)
N	81,522		81,522		43,183
Adjusted R^2	0.80		0.81		0.84
Director and year fixed effects	Yes		Yes		Yes
Campaign fixed effects	No		Yes		Yes
Controls	No		No		Yes

Table 4.7. Total number of directorships and director identities

This table shows differences in career consequences for employee and non-employee directors, as well as for repeat and one-time directors. I estimate the following regression: $y_{di,t} = \beta_1 \cdot (Identity_{di} \times Post_{di,t}) + \beta_2 \cdot (Activist_{di} \times Post_{di,t}) + \beta_3 \cdot Identity_{di} + \beta_4 \cdot Activist_{di} + \beta_5 \cdot Post_{di,t} + \alpha_d + \alpha_i + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is the total number of seats (excluding those on targeted boards) director d of campaign i holds during year t, $Identity_{di}$ is an indicator denoting employee/repeat activist director, $Activist_{di}$ is an indicator variable for activist director, $Post_{di,t}$ is a dummy variable equal to one if the director is in the year of activism event or within 3 years following the event, and α_d, α_i, and α_t control for director, campaign, and year fixed effects, respectively. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)
	Total number of directorships			
Employee × Post	-0.09	-0.09		
	(0.06)	(0.06)		
Repeat × Post			-0.08	-0.08
			(0.07)	(0.06)
Activist × Post	0.36[a]	0.36[a]	0.35[a]	0.35[a]
	(0.04)	(0.04)	(0.04)	(0.04)
N	81,522	81,522	81,522	81,522
Adjusted R^2	0.80	0.80	0.80	0.80
Director and year fixed effects	Yes	Yes	Yes	Yes
Campaign fixed effects	No	Yes	No	Yes

Table 4.8. Probability of a director staying on the current board

This table reports estimates of the effect of being an activist director on the probability that the director will remain as a director on the current board. Panel A presents the average number of board seats (excluding those on targeted boards) held by activist directors and the control sample during the activism event year. Panel B adopts the following specification: $y_{dij,t} = \beta_1 \cdot (Identity_{di} \times Post_{di,t}) + \beta_2 \cdot (Activist_{di} \times Post_{di,t}) + \beta_3 \cdot Identity_{di} + \beta_4 \cdot Activist_{di} + \beta_5 \cdot Post_{di,t} + \alpha_d + \alpha_i + \alpha_{dj} + \alpha_t + \epsilon_{dij,t}$, where $y_{dij,t}$ is a dummy variable equal to one if director d of campaign i remains as a director in firm j during year t, $Identity_{di}$ is an indicator denoting employee/repeat activist director, $Activist_{di}$ is an indicator variable for activist director, $Post_{di,t}$ is a dummy variable equal to one if the director is within 3 years following the activism event, and α_d, α_i, α_{dj}, and α_t control for director, campaign, director-firm, and year fixed effects, respectively. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

|	(1)	(2)	(3)	(4)	(5)
Panel A: Number of directorships at time of campaign					
	Activist		Non-activist		
	Mean	# obs.	Mean	# obs.	Differences
Number of directorships	2.49	1,182	2.58	10,688	-0.089
Panel B: Regression analysis					
	Remaining on current board				
Activist × Post	0.04[a]	0.04[a]	0.04[a]	0.06[a]	0.05[a]
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Employee × Post				-0.04[a]	
				(0.01)	
Repeat × Post					-0.03[b]
					(0.01)
N	213,857	213,857	213,857	213,857	213,857
Adjusted R^2	0.13	0.14	0.22	0.22	0.22
Director and year fixed effects	Yes	Yes	Yes	Yes	Yes
Campaign fixed effects	No	Yes	Yes	Yes	Yes
Director × firm fixed effects	No	No	Yes	Yes	Yes

Table 4.9. Gain of new directorships following the activism event

This table shows the effect of being an activist director on the number of new board seats obtained in subsequent years. Panel A reports the average number of new directorships (excluding those on targeted boards) held by activist directors and the control sample during the activism event year and the three-year period after the event. Panel B reports estimates of the following regression: $y_{di,t} = \beta_1 \cdot (Identity_{di} \times Post_{di,t}) + \beta_2 \cdot (Activist_{di} \times Post_{di,t}) + \beta_3 \cdot Identity_{di} + \beta_4 \cdot Activist_{di} + \beta_5 \cdot Post_{di,t} + \alpha_d + \alpha_i + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is the total number of new board seats director d of campaign i holds during year t, $Identity_{di}$ is an indicator denoting employee/repeat activist director, $Activist_{di}$ is an indicator variable for activist director, $Post_{di,t}$ is a dummy variable equal to one if the director is in the year of activism event or within 3 years following the event, and α_d, α_i, and α_t control for director, campaign, and year fixed effects, respectively. Standard errors are robust to heteroscedasticity and displayed in parentheses. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)
Panel A: Number of board seats gained following campaign					
	Activist		Non-activist		
Year around event	Mean	# obs.	Mean	# obs.	Differences
Event year	0.37	1,061	0.13	10,585	0.240[a]
T+1	1.02	1,061	0.39	10,585	0.632[a]
T+2	1.42	1,061	0.59	10,585	0.828[a]
T+3	1.68	1,061	0.73	10,585	0.951[a]
Panel B: Regression analysis					
	Number of board seats gained				
Activist × Post	0.66[a]	0.66[a]	0.56[a]	0.43[a]	
	(0.02)	(0.02)	(0.03)	(0.03)	
Employee × Post			0.21[a]		
			(0.05)		
Repeat × Post				0.57[a]	
				(0.05)	
N	81,522	81,522	81,522	81,522	
Adjusted R^2	0.37	0.40	0.40	0.40	
Director and year fixed effects	Yes	Yes	Yes	Yes	
Campaign fixed effects	No	Yes	Yes	Yes	

Figure 4.1. Directorship dynamics around shareholder activism

This figure plots the coefficients β_τ from the following regression: $y_{di,t} = \sum_{\tau=-3}^{3} \beta_\tau \cdot (Activist_{di} \times Event_{di,t}^\tau) + \gamma \cdot Activist_{di} + \alpha_d + \alpha_i + \alpha_e + \alpha_t + \epsilon_{di,t}$, where $y_{di,t}$ is the total number of seats (excluding those on targeted boards) director d of campaign i holds during year t, $Activist_{di}$ is an indicator variable for activist director, $Event_{di,t}^\tau$ is a dummy variable equal to one if the director observation is τ years from the activism event, and α_d, α_i, α_e, and α_t control for director, campaign, event year, and year fixed effects, respectively. Year T-1 is the reference category, and the vertical lines through the square indicate the 95% confidence interval. Standard errors are robust to heteroscedasticity.
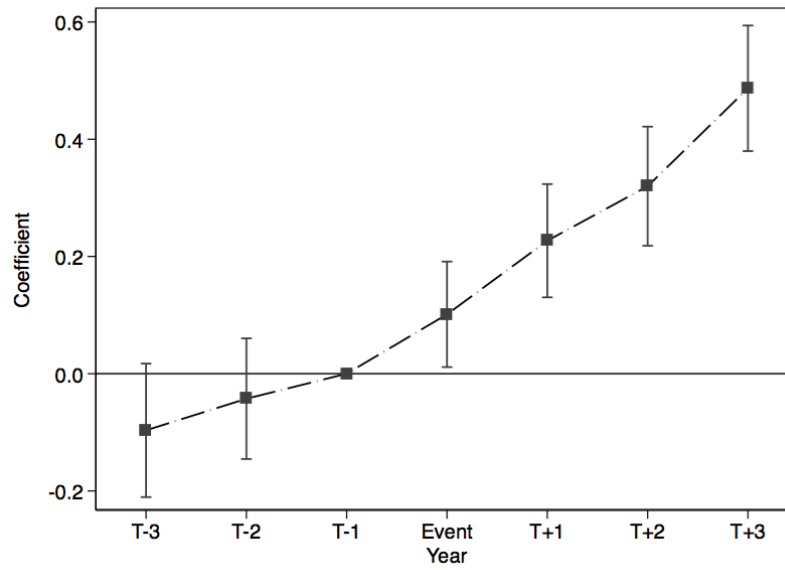
Internet appendix to

"Does the market reward monitors? "

(not for publication)

This appendix presents supplementary results not included in the main body of the paper.

Table I.4.1. Summary statistics for the final shareholder activism sample
This table reports descriptive statistics for the 1,079 shareholder activism events resulted in activist gaining board seats in the years 2006-2017 (columns 1 and 2) and for the two subsamples partitioned by time period (columns 3 to 6). Column 7 reports the differences in mean values between the subsamples and the significance levels for tests for the differences. The firm and board characteristics are measured as of the year prior to the announcement of activist intervention. All data are winsorized at the 1% and 99% levels and defined in Appendix 4.B. ^{a} significant at the 0.01 level; ^{b} significant at the 0.05 level; ^{c} significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full sample		Subsamples by time period				
	(BoardEx coverage)		2006–2011		2012–2017		Diff.
	Mean	# obs.	Mean	# obs.	Mean	# obs.	(5)-(3)
Panel A: Campaign characteristics							
Number of activists	1.31	1,079	1.40	451	1.24	628	-0.162^a
Activist group ownership	10.88	1,044	11.20	445	10.63	599	-0.573
Campaign duration	137.78	1,035	168.22	432	115.97	603	-52.253^a
Activist board seats won	1.80	1,079	1.81	451	1.79	628	-0.017
Activist gains full control	0.08	1,079	0.07	451	0.08	628	0.012
Activist seeks reimbursement	0.23	1,079	0.25	451	0.22	628	-0.038
Panel B: Firm characteristics							
Firm size	5.81	930	5.54	387	6.01	543	0.471^a
Market-to-book ratio	1.58	924	1.54	384	1.61	540	0.066
Sales growth	0.07	922	0.06	384	0.07	538	0.009
Return on assets	0.04	912	0.05	381	0.04	531	-0.011
Stock return	-0.10	921	-0.11	387	-0.10	534	0.011
Return volatility	0.03	900	0.03	370	0.03	530	-0.005^a
Capital expenditures	0.05	930	0.05	387	0.05	543	0.001
R&D expenditures	0.05	932	0.05	388	0.05	544	-0.004
Dividend yield	0.01	889	0.01	372	0.01	517	0.003^c
Book leverage	0.23	926	0.19	385	0.25	541	0.054^a
Institutional ownership	0.66	818	0.64	328	0.68	490	0.033^c
Analyst coverage	6.77	732	6.16	274	7.14	458	0.983^c
HHI	0.81	811	0.81	344	0.80	467	-0.012
Poison pill before activism	0.24	1,079	0.35	451	0.15	628	-0.196^a
Poison pill after activism	0.06	1,079	0.06	451	0.06	628	-0.002
Panel C: Board characteristics							
Board size	7.95	943	8.05	375	7.89	568	-0.168
% Independent directors	0.79	944	0.78	375	0.79	569	0.012^c
% Busy directors	0.42	944	0.42	375	0.41	569	-0.009
Classified board	0.41	1,079	0.46	451	0.37	628	-0.097^a
Mean board tenure	7.30	944	7.52	375	7.15	569	-0.375
Attrition rate	0.06	515	0.05	203	0.07	312	0.017^a
% Directors with ind expertise	0.27	944	0.24	375	0.30	569	0.057^a
CEO duality	0.38	944	0.43	375	0.34	569	-0.089^a
% Directors with ties to the CEO	0.20	944	0.15	375	0.23	569	0.076^a

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full sample		Subsamples by time period				Diff.
	(BoardEx coverage)		2006–2011		2012–2017		
	Mean	# obs.	Mean	# obs.	Mean	# obs.	(5)-(3)
Panel C: Board characteristics							
% Female directors	0.10	943	0.09	375	0.11	568	0.021^a
Mean director age	61.75	944	61.06	375	62.20	569	1.145^a

A2

Table I.4.2. Sample distributions for activist directors

This table provides summary statistics for the 1,938 activist directors appointed to the target boards through shareholder activism events. In the first four columns, I partition the full sample in two subsamples by activist directors' employment status (i.e., employed or not employed by their nominating shareholders). In the last four columns, I partition the full sample in two subsamples by activist directors' activism experience (i.e., being an activist director only once vs. being an activist director more than once). Panel A summarizes the different industries of the activist director appointments. Panel B summarizes the identity of activist director nominators. Detailed information about activist identities is provided in Appendix 4.A.

	Activist employees		Non-activist employees		Repeat players		One-time players	
	N	Percent	N	Percent	N	Percent	N	Percent
Panel A: By industry								
Consumer nondurables	38	4	38	4	17	3	59	4
Consumer durables	18	2	16	2	6	1	28	2
Manufacturing	50	5	64	6	31	6	83	6
Oil, gas, and coal extrac. & products	49	5	42	4	17	3	74	5
Chemicals and allied products	14	2	25	2	11	2	28	2
Business equipment	204	22	240	24	143	28	301	21
Telephone and television transmission	22	2	24	2	12	2	34	2
Utilities	12	1	10	1	3	1	19	1
Wholesale, retail, and some services	132	14	118	12	67	13	183	13
Healthcare, med. equipment & drugs	100	11	129	13	46	9	183	13
Finance	136	15	134	13	70	14	200	14
Other	154	17	169	17	80	16	243	17
Total	929	100	1,009	100	503	100	1,435	100
Panel B: By activist identity (not mutually exclusive)								
Hedge fund	642	69	719	71	419	83	942	66
Investment adviser	77	8	74	7	40	8	111	8
Individual	160	17	121	12	52	10	229	16
Pension fund	1	0	4	0	1	0	4	0
Corporation	17	2	24	2	7	1	34	2
Named stockholder group	58	6	23	2	21	4	60	4
Other institutions	21	2	39	4	9	2	51	4
Mutual fund	0	0	2	0	1	0	1	0
Other stake holders	176	19	126	12	52	10	250	17

Table I.4.3. Characteristics of campaigns and target firms by activist director identities
This table provides characteristics of campaigns and target firms where activist directors serve, separating employee (column 1) and non-employee (column 2) directors, as well as repeat (column 4) and one-time (column 5) directors. The variables are at the campaign-director level and measured during the pre-event year. Column 3 reports the average differences between the employee and non-employee subsamples and significance levels for tests for the differences in means between the subsamples. Column 6 reports the average differences between the repeat and one-time subsamples and significance levels for tests for the differences in means between the subsamples. All data are winsorized at the 1% and 99% levels and defined in Appendix 4.B. [a] significant at the 0.01 level; [b] significant at the 0.05 level; [c] significant at the 0.10 level.

	(1)	(2)	(3)	(4)	(5)	(6)
	Activist EMPL (N=929)	Non-activist EMPL (N=1,009)	Differences (1)-(2)	Repeat players (N=503)	One-time players (N=1,435)	Differences (4)-(5)
Panel A: Campaign characteristics						
Number of activists	1.57	1.28	0.294^a	1.35	1.44	-0.089
Activist group ownership	11.82	10.61	1.209^a	10.64	11.39	-0.745
Campaign duration	133.45	133.78	-0.330	121.20	137.96	-16.753^b
Activist gains full control	0.15	0.22	-0.073^a	0.11	0.22	-0.107^a
Activist seeks reimbursement	0.27	0.36	-0.096^a	0.29	0.33	-0.040^c
Panel B: Firm characteristics						
Firm size	5.74	5.93	-0.189^c	5.97	5.80	0.172
Market-to-book ratio	1.56	1.64	-0.078	1.54	1.63	-0.084
Sales growth	0.04	0.08	-0.036^b	0.02	0.07	-0.052^a
Return on assets	0.05	0.04	0.008	0.04	0.04	0.000
Stock return	-0.14	-0.12	-0.016	-0.13	-0.13	0.002
Return volatility	0.03	0.03	0.000	0.03	0.03	-0.002^b
Capital expenditures	0.05	0.05	-0.003	0.05	0.05	-0.006
R&D expenditures	0.05	0.06	-0.014^a	0.06	0.05	0.009^c
Dividend yield	0.01	0.01	0.000	0.01	0.01	-0.001
Book leverage	0.23	0.22	0.018	0.20	0.23	-0.032^b
Institutional ownership	0.65	0.67	-0.025^c	0.68	0.65	0.031^c
Analyst coverage	6.88	7.11	-0.233	7.27	6.91	0.358
HHI	0.81	0.82	-0.008	0.80	0.82	-0.018
Poison pill before activism	0.24	0.27	-0.030	0.23	0.27	-0.042^c
Poison pill after activism	0.07	0.08	-0.007	0.08	0.07	0.001
Panel C: Board characteristics						
Activist director tenure	1068.42	1162.62	-94.194^b	1102.77	1122.45	-19.676
Board size	7.94	8.02	-0.077	8.08	7.95	0.134
% Independent directors	0.79	0.79	-0.006	0.81	0.78	0.032^a
% Busy directors	0.42	0.42	0.001	0.44	0.42	0.028^b
Classified board	0.35	0.37	-0.019	0.34	0.37	-0.031
Mean board tenure	7.20	7.57	-0.371^c	7.33	7.42	-0.083
Attrition rate	0.06	0.06	0.002	0.07	0.06	0.004
% Directors with ind expertise	0.26	0.28	-0.025^b	0.32	0.25	0.068^a

	(1)	(2)	(3)	(4)	(5)	(6)
	Activist EMPL (N=929)	Non-activist EMPL (N=1,009)	Differences (1)-(2)	Repeat players (N=503)	One-time players (N=1,435)	Differences (4)-(5)
CEO duality	0.41	0.37	0.037	0.38	0.39	-0.007
% Directors with ties to the CEO	0.20	0.17	0.022	0.17	0.19	-0.013
% Female directors	0.11	0.11	-0.003	0.11	0.11	0.000
Mean director age	61.49	61.97	-0.478[b]	61.93	61.68	0.253

Bibliography

Adams, R. B. and P. Funk (2012). Beyond the glass ceiling: Does gender matter? *Management science 58*(2), 219–235.

Adams, R. B., B. E. Hermalin, and M. S. Weisbach (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of economic literature 48*(1), 58–107.

Ai, C. and E. C. Norton (2003). Interaction terms in logit and probit models. *Economics Letters 80*, 123–129.

Ajinkya, B., S. Bhojraj, and P. Sengupta (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of accounting research 43*(3), 343–376.

Angrist, J. and J.-S. Pischke (2009). *Mostly Harmless Econometrics.* Princeton University Press.

Austin, P. C. (2009). Balance diagnostics for comparing the distribution of baseline covariates between treatment groups in propensity-score matched samples. *Statistics in medicine 28*(25), 3083–3107.

Baranchuk, N., G. MacDonald, and J. Yang (2011). The economics of super managers. *The Review of Financial Studies 24*(10), 3321–3368.

Bebchuk, L. A. (2007). The myth of the shareholder franchise. *Va. L. Rev. 93*, 675.

Becht, M., J. Franks, J. Grant, and H. F. Wagner (2017). Returns to hedge fund activism: An international study. *The Review of Financial Studies 30*(9), 2933–2971.

Brav, A., W. Jiang, F. Partnoy, and R. Thomas (2008). Hedge fund activism, corporate governance, and firm performance. *The Journal of Finance 63*(4), 1729–1775.

Brickley, J. A., J. S. Linck, and J. L. Coles (1999). What happens to ceos after they retire? new evidence on career concerns, horizon problems, and ceo incentives. *Journal of Financial Economics 52*(3), 341–377.

Bugeja, M., Z. P. Matolcsy, and H. Spiropoulos (2012). Is there a gender gap in CEO compensation? *Journal of Corporate Finance 18*(4), 849–859.

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. *The journal of finance 53*(4), 1335–1362.

Clifford, C. P. (2008). Value creation or destruction? Hedge funds as shareholder activists. *Journal of Corporate Finance 14*(4), 323–336.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. lawrence erlbaum associates. *Hillsdale, NJ*, 20–26.

Cohen, L. E., J. P. Broschak, and H. A. Haveman (1998). And then there were more? the effect of organizational sex composition on the hiring and promotion of managers. *American Sociological Review 63*(5), 711–727.

Coles, J. L. and C.-K. Hoi (2003). New evidence on the market for directors: Board membership and pennsylvania senate bill 1310. *The Journal of Finance 58*(1), 197–230.

Cook, A. and C. Glass (2011). Leadership change and shareholder value: How markets react to the appointments of women. *Human Resource Management 50*(4), 501–519.

Custodio, C., M. Ferreira, and P. Matos (2010). Generalists vs. specialists: Lifetime work experience and ceo pay. *Journal of Financial Economics 107*(2), 291–296.

Custódio, C., M. A. Ferreira, and P. Matos (2013). Generalists versus specialists: Lifetime work experience and chief executive officer pay. *Journal of Financial Economics 108*(2), 471–492.

Custódio, C. and D. Metzger (2013). How do ceos matter? the effect of industry expertise on acquisition returns. *The Review of Financial Studies 26*(8), 2008–2047.

DeAngelo, H. and L. DeAngelo (1989). Proxy contests and the governance of publicly held corporations. *Journal of Financial Economics 23*(1), 29–59.

Del Guercio, D., L. Seery, and T. Woidtke (2008). Do boards pay attention when institutional investor activists "just vote no"? *Journal of Financial Economics 90*(1), 84–103.

Denes, M. R., J. M. Karpoff, and V. B. McWilliams (2017). Thirty years of shareholder activism: A survey of empirical research. *Journal of Corporate Finance 44*, 405–424.

Dodd, P. and J. B. Warner (1983). On corporate governance: A study of proxy contests. *Journal of financial Economics 11*(1-4), 401–438.

Elsaid, E. and N. D. Ursel (2011). CEO succession, gender and risk taking. *Gender in Management: An International Journal 26*(7), 499–512.

Elsesser, K. M. and J. Lever (2011). Does gender bias against female leaders persist? quantitative and qualitative data from a large-scale survey. *Human relations 64*(12), 1555–1578.

Ertimur, Y., F. Ferri, and V. Muslu (2010). Shareholder activism and CEO pay. *The Review of Financial Studies 24*(2), 535–592.

Ertimur, Y., F. Ferri, and S. R. Stubben (2010). Board of directors' responsiveness to shareholders: Evidence from shareholder proposals. *Journal of corporate finance 16*(1), 53–72.

Ewens, M. and R. Townsend (2020). Are early stage investors biased against women? *Journal of Financial Economics 135*(3), 653–677.

Faccio, M., M.-T. Marchica, and R. Mura (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *Journal of Corporate Finance 39*, 193–209.

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy 88*(2), 288–307.

Ferris, S. P., M. Jagannathan, and A. C. Pritchard (2003). Too busy to mind the business? monitoring by directors with multiple board appointments. *The Journal of finance 58*(3), 1087–1111.

Fos, V. and M. Tsoutsoura (2014). Shareholder democracy in play: Career consequences of proxy contests. *Journal of Financial Economics 114*(2), 316–340.

Fracassi, C. and G. Tate (2012). External networking and internal firm governance. *The Journal of finance 67*(1), 153–194.

Francis, B. B., I. Hasan, Y. Shen, and Q. Wu (2021). Do activist hedge funds target female CEOs? The role of CEO gender in hedge fund activism. *Journal of Financial Economics 141*, 372–393.

Gantchev, N. (2013). The costs of shareholder activism: Evidence from a sequential decision model. *Journal of Financial Economics 107*(3), 610–631.

Gantchev, N., O. R. Gredil, and C. Jotikasthira (2019). Governance under the gun: Spillover effects of hedge fund activism. *Review of Finance 23*(6), 1031–1068.

Gilson, R. J. and R. Kraakman (1991). Reinventing the outside director: An agenda for institutional investors. *Stanford Law Review*, 863–906.

Gilson, S. C. (1990). Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default. *Journal of financial economics 27*(2), 355–387.

Gompers, P. A. and S. Q. Wang (2017). And the children shall lead: Gender diversity and performance in venture capital. NBER Working Paper No. 23454.

Greenwood, R. and M. Schor (2009). Investor activism and takeovers. *Journal of Financial Economics 92*, 362?375.

Gupta, V. K., S. Han, S. C. Mortal, S. D. Silveri, and D. B. Turban (2018). Do women CEOs face greater threat of shareholder activism compared to male CEOs? A role congruity perspective. *Journal of Applied Psychology 103*(2), 228.

Hausman, J. (2001). Mismeasured variables in econometric analysis: Problems from the right and problems from the left. *Journal of Economic Perspectives 15*(4), 57–67.

Hebert, C. (2020). Gender stereotypes and entrepreneur financing. Working Paper.

Hermalin, B. E. and M. S. Weisbach (1998). Endogenously chosen boards of directors and their monitoring of the ceo. *American Economic Review*, 96–118.

Hill, A. D., A. D. Upadhyay, and R. I. Beekun (2015). Do female and ethnically diverse executives endure inequity in the CEO position or do they benefit from their minority status? An empirical examination. *Strategic Management Journal 36*, 1115–1134.

Huberman, G. (2001). Familiarity breeds investment. *The Review of Financial Studies 14*(3), 659–680.

Kang, J.-K., H. Kim, J. Kim, and A. Low (2022). Activist-appointed directors. *Journal of Financial and Quantitative Analysis 57*(4), 1343–1376.

Kaplan, S. N. and D. Reishus (1990). Outside directorships and corporate performance. *Journal of financial Economics 27*(2), 389–410.

Karpoff, J. M., P. H. Malatesta, and R. A. Walkling (1996). Corporate governance and shareholder initiatives: Empirical evidence. *Journal of financial economics 42*(3), 365–395.

Khan, W. A. and J. P. Vieito (2013). CEO gender and firm performance. *Journal of Economics and Business 67*, 55–66.

Klein, A. and E. Zur (2009). Entrepreneurial shareholder activism: Hedge funds and other private investors. *The Journal of Finance 64*(1), 187–229.

Knyazeva, A., D. Knyazeva, and R. W. Masulis (2013). The supply of corporate directors and board independence. *The Review of Financial Studies 26*(6), 1561–1605.

Lam, K. C., P. B. McGuinness, and J. P. Vieito (2013). CEO gender, executive compensation and firm performance in chinese-listed enterprises. *Pacific-Basin Finance Journal 21*(1), 1136–1159.

Lang, M. H. and R. J. Lundholm (1996). Corporate disclosure policy and analyst behavior. *Accounting review*, 467–492.

Matsa, D. A. and A. R. Miller (2013). A female style in corporate leadership? evidence from quotas. *American Economic Journal: Applied Economics 5*(3), 136–69.

Mohan, N. and J. Ruggiero (2003). Compensation differences between male and female CEOs for publicly traded firms: A nonparametric analysis. *Journal of the Operational Research Society 54*(12), 1242–1248.

Niessen-Ruenzi, A. and S. Ruenzi (2018). Sex matters: Gender bias in the mutual fund industry. *Management Science 65*(7), 3001–3025.

Norton, E. C., H. Wang, and C. Ai (2004). Computing interaction effects and standard errors in logit and probit models. *The Stata Journal 4*(2), 154–167.

Park, C. W. and V. P. Lessig (1981). Familiarity and its impact on consumer decision biases and heuristics. *Journal of consumer research 8*(2), 223–230.

Proffitt Jr, W. T. and A. Spicer (2006). Shaping the shareholder activism agenda: Institutional investors and global social issues. *Strategic Organization 4*(2), 165–190.

Seasholes, M. S. and N. Zhu (2010). Individual investors and local bias. *The Journal of Finance 65*(5), 1987–2010.

Useem, M. (1996). *Investor capitalism: How money managers are changing the face of corporate America.* Basic Books (AZ).

Wahal, S., K. W. Wiles, and M. Zenner (1995). Who opts out of state antitakeover protection?: The case of pennsylvania's sb 1310. *Financial Management*, 22–39.

Wang, M. and E. Kelan (2013). The gender quota and female leadership: Effects of the Norwegian gender quota on board chairs and CEOs. *Journal of business ethics 117*(3), 449–466.

Wu, Y. (2004). The impact of public opinion on board structure changes, director career progression, and ceo turnover: Evidence from calpers'corporate governance program. *Journal of Corporate Finance 10*(1), 199–227.

Yermack, D. (2004). Remuneration, retention, and reputation incentives for outside directors. *The Journal of Finance 59*(5), 2281–2308.