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Reputation and Investor Activism

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Abstract

We show that an activist's reputation is a critical determinant of the success of their campaigns. We model reputation as target managers' belief about the activist's willingness to initiate a proxy fight. Our model indicates reputation, rather than stake size, induces managers to settle without a proxy fight. We present empirical evidence supporting our model's predictions: target companies more-frequently increase payouts, change management or board composition, engage in a merger or acquisition, or otherwise reorganize in response to high reputation activist campaigns, while target actions are not sensitive to the activist's stake size.

JEL classification: G23, G34, G35

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1. Introduction

Investor activism is an important mechanism by which a company's shareholders can affect corporate decision making. To legally compel corporate managers to change policies, an activist investor must engage in a proxy fight during which they solicit support for their proposals from other shareholders. Proxy fights involve significant costs and therefore are infrequent: 91% of the activist campaigns in our sample do not involve proxy fights.[1] Given the infrequency of proxy fights, a natural intuition is that target managers would rarely concede to activist demands. However, we show that activist campaigns without proxy fights are surprisingly effective. This leads to an important question: how do activist campaigns affect corporate policy despite the infrequency of observed proxy fights?

We argue campaigns by high reputation activists affect corporate policy by threatening, explicitly or implicitly, to initiate a proxy fight. Target managers "settle" with activists when the threat of a proxy fight is sufficiently credible because proxy fights are costly to the firm and its managers. Rather than incur the costs of fighting, managers prefer to settle by increasing dividends, repurchasing shares, changing board composition, engaging in merger or acquisition activity, or enacting other changes to the firm's operational, financial, or governance structure. This mechanism is summarized well by the following quote that describes the most hostile proxy contests during 2014:

> "What is also noteworthy about the 30 or so contests . . . is that with the exception of Trian, none of the biggest shareholder hedge fund activists . . . are involved. For the most part this is because companies settled quickly in the face of attacks by these giants." – *New York Times DealBook 4/21/2015*

[1] Gantchev (2013) estimates proxy fights cost activists an average of $10.7 million, and target firms likely incur similar costs. For example, Sotheby's reported a "special charge" of $24.3 million against earnings directly related to a proxy fight in 2014 (http://goo.gl/RvyQ1h).

For the threat of a proxy fight to be effective, target managers must believe the threat is credible, which we argue is related to the activist's reputation in addition to simple observable characteristics like their size. We model reputation arising due to an information asymmetry in which managers do not know the activist's cost associated with proxy fights (their "type") and must infer it from observed behavior. We formally define reputation as the posterior belief about an activist's type conditional on previous interactions, as first suggested in Kreps and Wilson (1982) and Milgrom and Roberts (1982). The activist's type encompasses the monetary costs, non-monetary costs such as effort, and any offsetting benefits such as enjoyment associated with proxy fights. Consistent with our model, prominent activists often make public statements advertising their low subjective cost of proxy fights:

> "I enjoy the hunt much more than the 'good life' after the victory." – *Carl Icahn*
>
> "We will pay any price, bear any burden, meet any hardship." – *William Ackman, quoting John F. Kennedy when discussing a proxy fight with Target Corp.*

In our model, an activist sequentially engages two management teams. In each engagement, the activist buys a portion of the target firm's shares, and proposes a positive NPV project that would involve a private cost to the manager. The manager then decides whether to settle and incur the private cost to pursue the project, or refuse and risk provoking a proxy fight with the activist. Managers settle with high reputation activists because, conditional on having to do the project, the manager would rather not go through a proxy fight. Managers refuse low reputation activists because if the activist decides not to fight, the manager avoids the costs associated with both the project and the proxy fight.

In addition to showing how reputation affects target managers' decision to settle, our model illustrates how activists build reputation. Managers in the second activist campaign estimate the activist's type based on the outcome of the first campaign. Therefore, activists

without a strong prior reputation can improve their reputation by initiating a proxy fight. Activists with a sufficiently strong prior reputation, by contrast, are settled with by both managers. We therefore predict that activists with a recent track record of initiating proxy fights, or extracting settlements from targets, are more successful in future campaigns.

Activists in our model can also signal their type through the size of the stake they purchase in the target, which is costly because their demand for shares moves prices upwards. However, stake size alone is not a sufficient signal of reputation because if it were, managers would settle upon observing large positions, making the activist's type irrelevant and attracting campaigns from weak as well as strong activists. We therefore predict that the fraction of the target firm the activist purchases is not related to campaign success.

We find strong empirical support for our model's predictions using a sample of 2,199 activist campaigns, each initiated by an activist filing form 13-D with the SEC. Our first main result is that campaigns by high reputation activists are more successful even when they do not feature a proxy fight. To measure campaign success, we analyze corporate 8-K filings using S&P's Capital IQ data and examine the propensity of activist targets to increase payouts, change management, change board composition, engage in a merger or acquisition, or otherwise reorganize. We construct two empirical proxies for activist reputation motivated by our model: a dummy variable indicating the activist recently engaged a different target firm in a proxy fight (*Recent Fight*), and the average success of recent campaigns by the activist that did not feature a proxy fight (*Settle Rate*).

We find campaigns are at least 28% more successful when the activist has a *Recent Fight* and 7% more successful when the activist has a one-standard deviation higher *Settle Rate*. These effects hold regardless of whether the campaign involves a proxy fight, supporting our model's prediction that managers are more likely to settle with high reputation activists.

Our results show that reputation helps explain variation in activist campaign success across different categories of institutional investors. Consistent with the evidence in Gillan and Starks (2007) and Klein and Zur (2009), we find that hedge funds are more prolific and successful activists than those with different institutional structures. Kahan and Rock (2007), Yermack et al. (2010), Gantchev (2013), and others argue that hedge funds are more effective activists because they have fewer conflicts of interest, and because lighter regulation allows for lock-up provisions and greater portfolio concentration.[2] We argue these characteristics make hedge funds more successful activists by allowing them the flexibility to build reputation and the time horizon to benefit from it. We provide empirical evidence supporting this channel by showing hedge funds have higher average *Recent Fight* and *Settle Rate* than other activists.

We also document the surprising result that campaigns in which the activist purchases a larger fraction of the target firm's shares outstanding are no more successful than those in which activists purchase smaller stakes. Theories on large shareholders, for example in Shleifer and Vishny (1986) and Admati, Pfleiderer, and Zechner (1994), predict larger positions make shareholders better able to influence manager behavior. In our model, by contrast, because weak activists imitate the equilibrium quantity of shares purchased by strong activists, we predict larger positions have no influence on manager behavior. Instead, consistent with our empirical evidence, the only way activists successfully improve their reputation and induce managers to settle is by engaging in proxy fights.

Finally, we argue that even the observed 9% frequency of proxy fights in activist campaigns is puzzling in a static setting because more than half occur in campaigns where the activist's position in the target is smaller than $50 million, meaning they would need the

[2]See Starks (1987), Ackermann, McEnally, and Ravenscraft (1999) and Stulz (2007) for outlines of the key differences in SEC regulations relating to hedge funds and mutual funds.

target firm's stock price to rise 21% just to offset the $10.7 million cost that Gantchev (2013) estimates activists incur for proxy contests. Average target stock returns around proxy fights are far below 21%, with estimates ranging from 4% to 8% (see Brav et al. (2008), Brav, Jiang, and Kim (2009), and Gantchev (2013)), suggesting many activists in our sample incur losses when engaging in proxy fights. While puzzling in a static setting, we show that in a dynamic setting activists sometimes initiate proxy fights when expecting a net loss as an investment in reputation that allows them to profit from settling with future targets. Our empirical evidence that campaigns by activists with a recent fight are more successful indicates this investment in reputation pays off.

In our empirical results, we address a natural alternative hypothesis: activists with a track record of proxy fighting, or being settled with, are better at picking stocks that will subsequently institute the changes we measure as campaign success regardless of whether the activist intervenes. Under this hypothesis, high reputation activist investors do not cause their targets to act through activism, but instead predict and profit from these actions as non-activist speculators. We address this possibility directly by estimating and controlling for the expected number of actions the target would take in the absence of the activist.

Another related hypothesis is that there are persistent differences in activist skill unrelated to reputation. This hypothesis would explain the correlation between the success rate of past non-proxy campaigns, *Settle Rate*, and future campaign success. However, this hypothesis would not explain why the propensity to engage in proxy fights, *Recent Fight*, predicts campaign success after controlling for past campaign success and other measures of activist skill. We further address this alternative, and the stock-picking alternative, by showing that within-activist variation in reputation is positively related to within-activist variation in campaign success.

2. Literature Review

Our model draws from seminal theories defining reputation as the posterior belief about an agent's type conditional on previous interactions, as first suggested in Kreps and Wilson (1982) and Milgrom and Roberts (1982). The key feature of these models that differentiates them from the costly signaling framework originating in Spence (1973) is that the weaker types successfully imitate stronger types in a dynamic setting by taking costly reputation-building actions. This reputation concept has been applied to many settings (e.g. debt issuance in Diamond (1989) and investment banking in Chemmanur and Fulghieri (1994)), but to our knowledge we are the first to apply it to investor activism.

Our model adds a unique perspective to the theoretical literature on investor activism, which primarily focuses on activism and monitoring for a single firm by a large shareholder (examples include Burkart, Gromb, and Panunzi (1997), Maug (1998), Aghion, Bolton, and Tirole (2004), and Admati and Pfleiderer (2009)). In these papers, large shareholders are effective monitors and activists because they reduce the free-rider problem associated with activists capturing only a fraction of the value they create. Like in our model, activists in Admati and Pfleiderer (2009) use a credible threat to convince managers to act without a shareholder vote, namely the threat to sell their shares and cause a price decline (the "Wall Street Walk"). Our model differs because we study the threat of a proxy fight and use a repeated game with information asymmetry to endogenize the credibility of the threat.

More-recent work argues large blockholders may be less effective activists because they are non-competitive (Edmans and Manso (2011)) and are often money managers whose concern with their own investors makes the threat of exit non-credible (Dasgupta and Piacentino (2015)). Levit (2014) extends this literature by examining communication and exit as alter-

nate channels to avoid the costs associated with proxy fights, and Corum and Levit (2016) studies the role of activists in facilitating takeovers.

A key ingredient in our model and the discussion of our empirical results is the cost of a proxy fight. Gantchev (2013) estimates the net cost to activists of each stage of a campaign using a system of nested logistic regressions based on a sequential decision model. Because the goal of the Gantchev (2013) model is to estimate these costs, while the goal of our model is to describe the role of reputation in the strategic interaction between managers and activists, the two models are quite different. The Gantchev (2013) model features a single target firm, a more granular negotiation process, and estimates rather than models the decision functions of both parties. In contrast, we model the dynamics of multiple campaigns, collapse the negotiation to one decision by each party, and most importantly endogenize the activist and target firm decisions in a strategic equilibrium framework.

Our empirical analysis supports and extends a rapidly growing literature on investor activism, which is largely focused on hedge funds. Our results suggest activist campaigns, particularly hedge fund campaigns, catalyze significant actions at target firms, consistent with the findings in Brav et al. (2008) and many other papers surveyed in Brav, Jiang, and Kim (2009). Two contemporaneous papers, Krishnan, Partnoy, and Thomas (2016) and Boyson, Ma, and Mooradian (2016), examine activist hedge fund reputation and experience empirically. Krishnan, Partnoy, and Thomas (2016) measures activist reputation by the dollar value of recent activist positions. They find that short-term stock returns and long-term firm performance are both stronger following interventions by high-reputation funds. Boyson, Ma, and Mooradian (2016) measures experience using the number of prior campaigns in their sample initiated by the hedge fund, and shows activists with more experience produce larger announcement CARs in the future as well as better long-term firm performance.

Our paper differs from the contemporaneous empirical papers on the impact of reputation and experience on activism's success in at least four important ways. First, we provide a theoretical framework to define and understand activist reputation. Second, we use unique empirical measures of reputation motivated by our model. Third, we include non-hedge fund activists in our sample and compare them with hedge funds in terms of reputation and campaign success. Fourth, we show our reputation measures remain significant in a horse-race regression for predicting campaign success with alternative measures of reputation, skill, and experience.

3. The Model

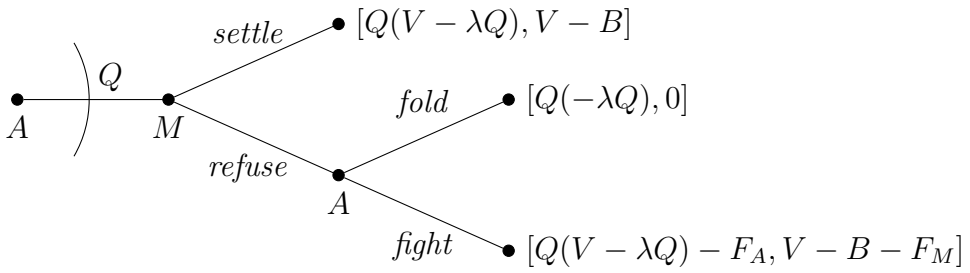
3.1. Description

There are three agents, an activist A and two managers M_1 and M_2, all risk-neutral. Each manager controls a company whose shares outstanding are normalized to one and whose existing asset values are normalized to zero. The managers have access to a project with net present value (NPV) $V > 0$ that they do not take without intervention by A because it entails private cost $B > V$.[3] The activist A approaches the managers sequentially, playing the stage game in Model Figure 1 with M_1 and then with M_2.

In each stage game, A moves first and buys Q shares of M_1's company in the secondary market for a per-share price λQ, where $\lambda > 0$ is the stock's illiquidity. Any $Q > 0$ constitutes an implicit threat to engage in a proxy fight if the manager forgoes the project. The manager then decides whether or not to undertake the project (*settle* or *refuse*).

[3]The manager forgoing a positive NPV project because it entails private costs B is a symptom of the agency conflict between shareholders and managers described in Jensen and Meckling (1976).

Model Figure 1: Stage game tree



If the manager settles, they undertake the project and the game ends, making the payoffs:

$$[\Pi_{A,settle}, \Pi_{M,settle}] = [Q\left(V - \lambda Q\right), V - B]\,. \tag{1}$$

We assume for simplicity that the managers internalize the full benefit of the project V, perhaps due to performance-based bonuses, making their net payoff when the project occurs $V - B$. Our equilibrium results are identical up to scaling constants under the alternative assumption that the manager only internalizes a fraction $0 < \phi < 1$ of the benefits, making their net payoff from the project $\phi V - B$.

If the manager refuses, A decides whether to initiate a proxy fight (*fight* or *fold*). For simplicity, we assume proxy fights are always successful and therefore result in firm value increasing by V.[4] However, proxy fights also have private costs for both the activist ($F_A > 0$) and the manager ($F_M > 0$). Therefore, if A decides to fight, the payoffs are:

$$[\Pi_{A,fight}, \Pi_{M,fight}] = [Q\left(V - \lambda Q\right) - F_A, V - B - F_M]\,. \tag{2}$$

If the manager refuses and the activist does not fight (*fold*), the manager ignores the project

[4]Our results are robust to an exogenous probability of success between 0 and 1.

and the payoffs are:

$$[\Pi_{A,fold}, \Pi_{M,fold}] = [Q(-\lambda Q), 0]. \tag{3}$$

All parameters are common knowledge except A's cost of fighting F_A, which we refer to as their "type" and takes one of two values: $F_L < F_H$. Activists with cost F_L are more likely to fight and we therefore refer to them as **aggressive** and activists with cost F_H as **cautious**. Aggressive activists may have lower costs associated with proxy fights because they have the knowledge and experience necessary to more-easily initiate a successful fight. Alternatively, they can be interpreted as "commitment types" (as in Fudenberg and Levine (1992) or Schmidt (1993)) that initiate proxy fights because they intrinsically enjoy the conflict and attention that comes with them.

Our main construct of interest is reputation, which we define as the probability A is aggressive conditional on the outcome of the first game:

$$r_1 \equiv \mathbb{P}(F_A = F_L | \text{ outcome of stage game with } M_1). \tag{4}$$

To compute r_1, the manager also relies on the unconditional probability A is aggressive, $r_0 \equiv \mathbb{P}(F_A = F_L)$, a parameter we refer to as initial reputation.

3.2. Second Stage Equilibria

We solve the model using backward induction, beginning with the second stage game and then turning our attention to the first stage game. There are two second-stage equilibria, the "low reputation equilibrium" that prevails for low r_1 and the "high reputation equilibrium" for high r_1. Theorem 1 describes the low reputation equilibrium.

Theorem 1 (Low reputation equilibrium in second stage)**.** *If* $r_1 < \frac{B-V}{B-V+F_M}$*, the second stage game has the following equilibrium:*

- *Aggressive* A *choose* $Q^* \equiv \frac{V}{2\lambda} + \frac{F_L}{2V}$ *and fight if* M_2 *refuses.*
- *Cautious* A *choose* Q^* *with probability* $q_{A,2} \equiv \frac{F_M}{B-V}\frac{r_1}{1-r_1}$*,* $Q = 0$ *with probability* $1 - q_{A,2}$*, and fold if* M_2 *refuses.*
- M_2 *refuses when* $Q < Q^*$ *or* $Q^* < Q < \frac{F_H}{V}$*, and settles when* $Q \geq \frac{F_H}{V}$*. When* $Q = Q^*$*,* M_2 *settles with probability* $y_2^* = \frac{1}{2} + F_L\frac{\lambda}{2V^2}$*.*

Aggressive A play a simple pure strategy, fighting if M_2 refuses and choosing Q^*, the quantity for which the manager settles with non-zero probability. Cautious A play a mixed strategy, "bluffing" by choosing Q^* with probability $q_{A,2}$ and sitting out by choosing $Q = 0$ with probability $1 - q_{A,2}$. Cautious A are indifferent between these strategies because M_2 also plays a mixed strategy, settling with probability $\frac{1}{2} + F_L\frac{\lambda}{2V^2}$ in response to $Q = Q^*$. If M_2 refuses, the cost F_H is too high and so the cautious types fold. Given these strategies, $Q = 0$ reveals that A is the cautious type and M_2 optimally refuses, while $Q = Q^*$ indicates an aggressive type with probability $\frac{B-V}{B-V+F_M}$, making M_2 indifferent between settling and refusing. Proofs of Theorem 1 and our other equilibrium results are in Appendix A, along with a discussion of M_2's off-equilibrium beliefs.

In the high reputation equilibrium, the probability A is the aggressive type is high enough that M_2 prefers settling if aggressive and cautious types pool at a single quantity of shares. As a result, the high reputation equilibrium is as characterized in Theorem 2.

Theorem 2 (High reputation equilibrium in second stage)**.** *If* $r_1 \geq \frac{B-V}{B-V+F_M}$*, the second stage game has the following equilibrium, parameterized by cautious* A*'s expected utility* Π_H*:*

- *Aggressive A choose $Q^*(\Pi_H)$ and fight if M_2 refuses.*
- *Cautious A choose $Q^*(\Pi_H)$ and fold if M_2 refuses.*
- *M_2 refuses when $Q < Q^*(\Pi_H)$ or $Q^*(\Pi_H) < Q < \frac{F_H}{V}$, and settles when $Q \geq \frac{F_H}{V}$. When $Q = Q^*(\Pi_H)$, M_2 settles with probability $y_2^*(\Pi_H) \geq \frac{1}{2} + F_L\frac{\lambda}{2V^2}$.*[5] *When $r_1 = \frac{B-V}{B-V+F_M}$, any $\Pi_H \in \left[0, \frac{V^2}{4\lambda}\right]$ and corresponding $Q^*(\Pi_H)$ and $y_2^*(\Pi_H)$ are an equilibrium. When $r_1 > \frac{B-V}{B-V+F_M}$, $\Pi_H = \frac{V^2}{4\lambda}$, $Q^* = \frac{V}{2\lambda}$, and $y_2^* = 1$.*

There are two key differences between the high and low reputation equilibria. The first is the cautious type bluffs with probability one in the high reputation equilibrium. The second key difference is, because A is very likely to be aggressive, M_2 weakly prefers settling and does so with a higher probability than in the low reputation equilibrium. If r_1 is strictly greater than the cutoff $\frac{B-V}{B-V+F_M}$, M_2 settles with probability one. If r_1 equals $\frac{B-V}{B-V+F_M}$, we have a set of admissible equilibrium where M_2 settles with probability $y_2^*(\Pi_H) \geq \frac{1}{2} + F_L\frac{\lambda}{2V^2}$ and cautious A receive any expected payoff Π_H between 0 and $\frac{V^2}{4\lambda}$. This flexibility allows us to solve the dynamic model.

3.3. First Stage Equilibria

We now characterize the equilibria in the first stage game between A and M_1. The equilibria are different than the second stage game because A internalizes the impact of their actions on r_1. As detailed in Appendix A, r_1 only affects A's expected payoffs in the second stage to the extent it influences whether the high reputation equilibrium prevails. Therefore, in the first stage game, A considers the extent to which their decisions affect whether r_1 is below, at, or above the high reputation cutoff, $\frac{B-V}{B-V+F_M}$.

[5] Appendix A provides formulas for $y_2^*(\Pi_H)$ and $Q^*(\Pi_H)$ such that the cautious A receives expected payoff Π_H and M_2's beliefs satisfy the D1 refinement from Banks and Sobel (1987).

Like the second stage game, the first stage game has two equilibria, one for low r_0 and one for high r_0. Theorem 3 describes the low initial reputation equilibrium.

Theorem 3 (Low initial reputation equilibrium)**.** *If* $r_0 \leq \left(\frac{B-V}{B-V+F_M}\right)^2$*, the dynamic game has the following equilibrium:*

- *Aggressive A choose* $Q^* \equiv \frac{V}{2\lambda} + \frac{F_L}{2V}$ *and fight if* M_1 *refuses.*
- *Cautious A choose* Q^* *with probability* $q_{A,1} \equiv \frac{r_0}{1-r_0}\frac{F_M}{B-V}\frac{2(B-V)+F_M}{B-V}$ *and* $Q = 0$ *with probability* $1 - q_{A,1}$*, and fold if* M_1 *refuses when* $Q = 0$*. They fight with probability* $q_R \equiv \frac{B-V}{2(B-V)+F_M}$ *if* M_1 *refuses when* $Q = Q^*$*.*
- M_1 *refuses when* $Q < Q^*$ *or* $Q^* < Q < \frac{F_H}{V}$*, and settles when* $Q \geq \frac{F_H}{V}$*. When* $Q = Q^*$*,* M_1 *settles with probability* $y_1^* = \frac{1}{2} + F_L\frac{\lambda}{2V^2}$*.*
- *If* M_1 *settles,* $r_0 < r_1 < \frac{B-V}{B-V+F_M}$ *and the low reputation equilibrium prevails with* M_2*. If* M_1 *refuses and A folds,* $r_1 = 0$ *and the low reputation equilibrium prevails with* M_2*. If* M_1 *refuses and A chooses to fight,* $r_1 = \frac{B-V}{B-V+F_M}$ *and the high reputation equilibrium prevails with* M_2 *where* $\Pi_H = F_H - \frac{v^2}{2\lambda} - \frac{F_L}{2}$*.*

The first stage game between A and M_1 is different from the second stage game in one critical way: cautious A sometimes choose to fight. By fighting, cautious A increase r_1 and benefit from playing the high reputation equilibrium in the second stage game. In equilibrium, cautious A are indifferent between fighting and not in the first stage because the increase in their expected second stage payout and their share of the project's NPV exactly offsets their private cost F_H. Therefore, they play a mixed strategy after choosing $Q = Q^*$ and being refused by M_1, fighting for reputation with probability q_R. As a result of these

strategies, the low reputation equilibrium prevails in the second stage unless M_1 refuses and A chooses to fight.

The high initial reputation equilibrium occurs when r_0 is large enough M_1 prefers to settle when both types always purchase the same quantity, resulting in the pooling equilibrium described in Theorem 4.

Theorem 4 (High initial reputation equilibrium)**.** *If* $r_0 > \left(\frac{B-V}{B-V+F_M}\right)^2$*, the dynamic game has the following equilibrium:*

- *Aggressive A choose* $Q^* \equiv \frac{V}{2\lambda}$ *and fight if* M_1 *refuses.*
- *Cautious A choose* Q^* *and fight with probability* $q_R \equiv \frac{B-V}{2(B-V)+F_M}$ *if* M_1 *refuses.*
- M_1 *refuses when* $Q < Q^*$ *and settles when* $Q \geq Q^*$*.*
- *Reputation* $r_1 = r_0$*, and the corresponding equilibrium prevails in the second stage.*

The key feature of the high reputation equilibrium is that both types of activist always choose Q^*, and M_1 always settles. This equilibrium can be thought of as describing the interaction between managers and activists with pre-existing strong reputations.

3.4. Empirical Predictions

The primary contribution of the model is to formalize our notion of activist reputation, provide a mechanism for its development over time, and show how it makes activism an effective governance tool even in campaigns that do not result in a proxy fight. In our model, the only ways A can achieve a high enough reputation that the manager settles with high probability in the second stage game is by choosing to fight in the first stage game, or by having previously built a strong enough reputation to play the high reputation equilibrium in both games. This leads to the following empirical predictions:

Empirical Prediction 1. *Activists that have initiated a proxy fight in the past will be more likely to succeed in future campaigns.*

An important aspect of Empirical Prediction 1 is that high reputation activists are more successful in future campaigns through two channels. The first is a mechanical channel, that high reputation activists are more likely to initiate proxy fights when refused. The second is an equilibrium channel, that managers are more likely to settle with high reputation activists. We distinguish between these channels in our empirical analysis by controlling for whether a campaign features a proxy fight.

Empirical Prediction 2. *Activists that were settled with in the past will be more likely to succeed in future campaigns.*

In our model, observing a proxy fight with M_1 has an unambiguous interpretation, namely that A had a low initial reputation but increased it enough the high reputation equilibrium prevails in the stage game with M_2. Observing a settlement with M_1, by contrast, has two possible interpretations: either A had low initial reputation and M_1 chose to settle as part of their mixed strategy, or A had high initial reputation and settled as part of their pure strategy. In the first case, Theorem 3 shows that the low reputation equilibrium prevails in the second stage. In the second case, Theorem 4 shows that the high reputation equilibrium prevails in the second stage. Because we cannot measure empirically *why* the settlements occurred, we cannot condition on which of these equilibria prevailed. However, because in one case observing a settlement has no impact on reputation and in the other it indicates a high reputation, Empirical Prediction 2 reflects the unconditional inference that activists who were settled with have a strong reputation.

Empirical Prediction 3. *Stake size is unrelated to activist reputation or campaign success.*

Our model also illustrates why aggressive activists cannot credibly signal through the size of the stake they buy in the target. The reason is the cost of the signal, the liquidity premium λQ paid when buying shares, is identical for both types of activists.[6] As a result, the cautious activist always imitates the aggressive activist and deviates from potential separating equilibria in which there is a quantity only the aggressive activist buys and the manager settles upon observing. Our model therefore predicts that, controlling for reputation, position size has no effect on managers' likelihood of settling.

Empirical Prediction 4. *Activists will sometimes spend a larger amount on a proxy fight than they expect to gain in the current campaign.*

A final contribution of the model is to provide an explanation for the puzzling mismatch between activist hedge fund spending on proxy fights, which Gantchev (2013) estimates is \$10.7m, and their median position sizes in these cases, around \$50m. Because equilibrium payoffs are large for high reputation activists, it can be optimal to fight in the first stage game even if the cost F_A is too high for it to be profitable in a static environment.

4. Data and Variable Construction

4.1. Sample of Activist Campaigns

The sample for our main empirical tests consists of 2,199 activist campaigns, each comprised of an activist–target pair, which we assemble using activist 13-D and 13-F filings.[7] We initially identify 133,799 13-D filings between 2000 and 2014 using the Wharton Research Data Services (WRDS) SEC Analytics tool. Of these, we hand–match 5,442 13-D filer Central

[6] In classical signaling models based on the Spence (1973) framework, the cost of the signal varies by type.

[7] The SEC requires that investors file a 'beneficial ownership report' on Form 13-D within ten days of initiating an activist campaign, and that investment managers with more than \$100m in assets file 13-F reports each quarter listing equity positions greater than 10,000 shares or \$200,000 in value.

Index Key (CIK) identifiers with an institutional asset manager from the Thomson Reuters S34 13-F holdings file, and match 18,109 registrant (target) CIK identifiers with a security from the Center for Research in Security Prices (CRSP) monthly file.[8] The intersection of our activist and target matches yields a preliminary sample of 4,647 13-D filings.

In cases where multiple activists file 13-Ds for the same target on the same day, we collapse the multi-activist consortium to a single observation for the purposes of our tests. In some campaigns, other activists initiate follow-on campaigns for the same target within one year. Following Brav, Dasgupta, and Mathews (2016) and the popular press, we refer to these as 'wolf packs' and define the binary variable $Wolf\ Pack_{j,i,t+1}$ to indicate a multi-activist campaign. Multi-activist consortia and wolf packs comprise roughly 11% of the activist campaigns in our sample, and excluding these campaigns does not alter our results.

We exclude 963 13-D filings in which the CRSP classification for the target security is not common equity (CRSP share codes 10 or 11) and exclude 16 13-D filings involving special acquisition companies (SPACs, SIC codes 6770 and 6726). We remove these campaigns because the outcome variables we study (defined below) are not relevant for closed-end mutual funds and SPACs. See Bradley et al. (2010) analysis of activist campaigns of this type. We also exclude 13-D filings in which target companies do not have covariate data in Compustat during the quarter of the activist's 13-D filing. These filters and refinements result in a sample of 2,199 13-D filings involving 367 unique activists and 1,805 unique target firms, summarized in Table 1, which is among the most comprehensive assembled to date.[9]

[8] We match 13-D filer CIKs to Thomson Reuters asset manager *mgrno* by hand using asset manager names. We match 13-D registrant CIKs to CRSP securities using the CIK-permno matching key from WRDS.

[9] See Denes, Karpoff, and McWilliams (2016) for a comparison of how our sources, filtering methods, and number of 13-D filings compare with other samples used in empirical literature on shareholder activism.

4.2. Sample of Activist Proxy Fights

We identify activist campaigns that involve proxy fights by constructing a sample of activist proxy filings using similar procedures to those outlined above for our 13-D sample. Using the WRDS SEC analytics tool we identify 188,160 proxy filings between 2000 and 2015.[10] We apply similar filters as outlined above for our 13-D sample, resulting in a sample of 1,991 proxy filings. We use this sample to compute the binary variable $Proxy_{j,i,t+1}$, which indicates the activist fund j that filed a 13-D with respect to target company i at date t also filed a proxy document with the SEC with respect to company i within the following year.

We find that these 1,991 proxy filings correspond to only 329 unique proxy contests, which implies that activists file over six proxies during the average proxy fight. Proxy contests generally involve multiple proxy filings as the activist and the target respond to one another's analysis and recommendations. We find that 198 (9%) of the 2,199 campaigns in our sample involve proxy contests, which is very close to the fraction in Gantchev (2013).

4.3. Target Variables: Measures of Activist Campaign Success

For each target i in our sample we construct $Action_{i,t+1}$ to measure activist campaign success using target company 8-K filings via the S&P Capital IQ database. Capital IQ classifies 8-K filings into 'key development types' according to the information they contain. We use these classifications to calculate five dummy variables indicating events related to activist campaign success: payout increases ($Payout_{i,t+1}$, key development types 36, 94, 214, and 232), CEO turnover ($CEO_{i,t+1}$, type 101), business reorganizations ($Reorg_{i,t+1}$, type 21), mergers and acquisitions ($M\&A_{i,t+1}$, type 80), and board turnover ($Board_{i,t+1}$, type 172). Each variable indicates target i files at least one event-classified 8-K in the year following

[10]The SEC requires any materials relating to the solicitation of shareholder votes be filed on a proxy statement. Our sample of proxy filings includes definitive proxy statements (form DEF 14A) and proxy statements relating to contested solicitations (forms DFAN 14A, DEFR 14A, DEFC 14A, and DEFN 14A).

date t. We calculate $Action_{i,t+1}$ by summing the five event indicator variables.

We define activism success without regard for the activist's initial demands because negotiations often result in different actions by target firms than those initially demanded by the activist, and ex-ante demands are often not well defined.[11] Table 1 shows summary statistics for $Action_{i,t+1}$, as well as the five sub-category indicator variables outlined above.

We also use $Action_{i,t+1}$ to construct $\widehat{Action}_{i,t+1}$ for each target firm to measure the propensity of each target firm to take the actions we interpret as campaign success without activist intervention. We construct $\widehat{Action}_{i,t+1}$ by estimating the predictive regressions outlined in Equation (5) using the entire Compustat cross-section in each quarter t:

$$Action_{i,t+1} = \alpha + \beta\, X_{i,t} + \epsilon_{i,t}, \tag{5}$$

where $X_{i,t}$ is a vector of the target firm characteristics described in Appendix B.

We define $\widehat{Action}_{i,t+1}$ for each of the activist targets in our sample as the predicted value for $Action_{i,t+1}$ based on estimates of Equation (5) for quarter t using all firms in Compustat. Table 1 shows summary statistics for $\widehat{Action}_{i,t+1}$, as well as the characterstics in $X_{i,t}$.

4.4. Activist Variables: Measures of Reputation and Signaling

We use our model to inform the construction of three variables characterizing the activist's reputation and stake size at the beginning of each campaign. Our first reputation measure, $Recent\ Fight_{j,t}$, captures reputation building in our model by measuring the recent propensity of activist j to engage in a proxy fight with target firms. Our model suggests the ideal measure would be the number of recent proxy fights scaled by the number of times that the

[11] Brav et al. (2008) finds the ex-ante activist demands are vague ("enhance shareholder value", for example) for roughly half of campaigns. The remainder generally relate to higher payouts, changes to capital structure, changes to business strategy, and the sale of the target, which are consistent with $Action_{i,t+1}$.

activist made demands and was refused. However, such a denominator is unobservable. We therefore rely on a simpler measure, defining $Recent\ Fight_{j,t}$ as a dummy variable indicting that activist fund j initiated a proxy fight in the year prior to t. In addition to capturing reputation building in our model, this measure reflects the extensive SEC filings described above which tend to be widely covered in the financial press and are therefore likely to be salient to target management teams.

Our second activist reputation measure, $Settle\ Rate_{j,t}$, captures pre-existing reputation in our model by measuring the activist's success rate in recent campaigns not involving a proxy fight. We define $Settle\ Rate_{j,t}$ as the one-year rolling total $Action_{i,t+1}$ from activist j's non-proxy campaigns divided by the average number of campaigns initiated by activist j in the three years prior to date t.[12] Because we only include actions in campaigns for which activist j has not initiated a proxy fight, we interpret $Settle\ Rate_{j,t}$ as a measure of the frequency with which previous targets of the activist settled without a proxy context.

For campaigns in which an activist is filing a 13-D for the first time in our sample period, we assign the unconditional sample average for both $Settle\ Rate_{j,t}$ and $Recent\ Fight_{j,t}$. This convention is consistent with our model, in which a target firm interacting with an activist in the first period assigns the activist an average reputation (r_0).

An alternative mechanism by which activists can signal their level of seriousness to target managers in our model is the size of the stake in the target firm they purchase. We measure this directly, defining $Target\ Share_{j,i,t}$ as the maximum fraction of the target firm i's shares outstanding activist j owns over the first year of the campaign. Table 1 shows the median $Target\ Share_{j,i,t}$ is 6.8%, which comfortably exceeds the 5% ownership threshold required for activists to file a 13-D. We exclude campaigns in which the activist holds more than 50% of

[12] Our results are robust to alternative look-back intervals and various definitions of both activist fight propensity and settling frequency.

the shares of the target. Our results are robust to dropping the 9% of our sample in which the activist owns more than 20% of the target.

We also classify each activist by their institutional structure: hedge fund, mutual fund, private equity fund, broker-dealer, or "other" by hand-matching institutional asset managers from the Thomson Reuters holdings data with asset managers from the Factset LionsShares holdings data. Our sample includes only six campaigns from pension fund activists, including one campaign involving CalPERS, which we classify as "other."[13] We present summary statistics for all activist variables in Table 1.

5. Results

Table 1 shows that the average value of $\text{Proxy}_{j,i,t+1}$ is 9%, indicating that 91% of the campaigns we study do not feature a proxy fight. Nevertheless, activists are successful in affecting firm behavior far more than 9% of the time, as documented by prior research including Brav et al. (2008) and other papers surveyed in Brav, Jiang, and Kim (2009). In our sample, Table 1 shows that campaigns produce an average $\text{Action}_{i,t+1}$ of 0.707, which is significantly higher than the average $\widehat{Action}_{i,t+1}$ in the full Compustat universe of 0.552. We hypothesize the effectiveness of non-proxy activist campaigns is attributable to targets settling in the face of credible threats by high reputation activists. We test this hypothesis and our model's related empirical predictions using the analysis described in this section.

[13] We attribute the relative lack of pension fund activists in our data to a shift in the 2000s towards a more indirect approach to activism by pension funds, for example by voting in favor of other activists, as examined in Appel, Gormley, and Keim (2016), or outsourcing activism by allocating funds to activist hedge funds, as discussed in Thomas (2008).

5.1. Distinguishing Between Treatment Effects and Selection Effects

Our empirical analyses examine the relation between activist reputation and target manager actions during activist campaigns. Our model predicts activists with a track record of proxy fighting, or being settled with, will enjoy greater activist campaign success as a result of treatment effects: the activist causes the target to institute the changes we measure as campaign success either by initiating a proxy fight or extracting a settlement. However, a natural alternative hypothesis involves a selection effect: high reputation activists are especially skilled at picking, and then passively investing in, companies that subsequently take actions that we measure as campaign success.

We examine the extent to which our measures of activist reputation relate to target selection skill using the regressions presented in Table 2 and outlined in Equation (6). These regressions relate $\widehat{Action}_{i,t+1}$, our measure of the propensity of each target firm to take the actions we interpret as campaign success without interference from activists, to each of our activist reputation measures:

$$\widehat{Action}_{i,t+1} = \beta_0 + \beta_1 \, Recent \; Fight_{j,t} + \beta_2 \, Settle \; Rate_{j,t} + \beta_3 \, Target \; Share_{j,i,t} + \epsilon_{j,i,t}. \quad (6)$$

Columns (1) and (2) of Table 2 show that both $Recent \; Fight_{j,t}$ and $Settle \; Rate_{j,t}$ are positively related to $\widehat{Action}_{i,t+1}$, indicating higher reputation activists select target firms with a greater propensity for subsequent actions. Somewhat surprisingly, Column (3) of Table 2 shows there is a negative relation between $Target \; Share_{j,i,t}$ and $\widehat{Action}_{i,t+1}$, indicating activists take smaller positions in firms likely to make substantial changes without their intervention. Column (4) shows that the relations between $\widehat{Action}_{i,t+1}$ and $Recent \; Fight_{j,t}$, $Settle \; Rate_{j,t}$, and $Target \; Share_{j,i,t}$ all hold incremental to each other, and Column (5) shows they hold

when controlling for whether the campaign results in a proxy fight.

The strong positive relations between $\widehat{Action}_{i,t+1}$ and both *Recent Fight*$_{j,t}$ and *Settle Rate*$_{j,t}$ across all specifications in Table 2 illustrate that the selection alternative could drive a spurious relation between our reputation measures and $Action_{i,t+1}$. We address this concern in our main empirical tests by controlling for $\widehat{Action}_{i,t+1}$. The identifying assumption we make is that $\widehat{Action}_{i,t+1}$ accurately measures the average Action$_{i,t+1}$ that would prevail without activist intervention conditional on observable information at time t.

5.2. Reputation and Activist Campaign Outcomes

Empirical Predictions 1, 2, and 3 state that *Recent Fight* and *Settle Rate*, but not *Target Share*, are positively related to activist campaign success. We empirically examine each of these predictions using variants of the pooled OLS regression outlined in Equation (7):

$$Action_{i,t+1} = \beta_0 + \beta_1\, Recent\ Fight_{j,t} + \beta_2\, Settle\ Rate_{j,t} + \beta_3\, Target\ Share_{j,i,t} + \epsilon_{j,i,t}. \quad (7)$$

The results in Columns (1) and (2) of Table 3 show that campaigns featuring activists with stronger reputations, as measured by *Recent Fight*$_{j,t}$ and *Settle Rate*$_{j,t}$, are more successful.[14] As an illustration of economic significance, the coefficient estimate of 50.06 on *Recent Fight*$_{j,t}$ in Column (1) suggests that a *Recent Fight* correlates with an increase of 0.5006 in $Action_{i,t+1}$, 71% of the unconditional average (0.707, see Table 1). Similarly, the coefficient estimate of 12.43 on *Settle Rate*$_{j,t}$ in Column (2) suggests that a one standard deviation increase in *Settle Rate*$_{j,t}$ correlates with an increase of 0.1243 in $Action_{i,t+1}$, 18% of the unconditional average.

Column (3) of Table 3, by contrast, shows that campaigns where activists purchase larger fractions of their targets are no more successful, consistent with Empirical Prediction

[14] To improve the readability of coefficients, we demean the non-binary independent variables and scale them by their standard deviations, and scale dependent variables by 100.

3. This result is surprising because models of activism involving threat of exit, such as Admati and Pfleiderer (2009), predict that campaigns by larger shareholders are more likely to succeed, and theories of large shareholders, such as Shleifer and Vishny (1986), predict larger shareholders will have a greater impact on corporate governance. Our results suggest that, in the context of shareholder activism, the signaling value of stake size is minimal.

There are two potential channels through which high reputation activists are more successful, both occurring in our model. The first is a direct effect of persistence in proxy fighting behavior. If activists with a track record of proxy fights or settlements are more likely to initiate proxy fights in the future, a pattern we confirm in later tests, they will mechanically have more-successful campaigns because they initiate more proxy contests. The second channel for the success of campaigns by high reputation activists is the equilibrium effect driven by target managers settling with them more frequently. We separate these channels empirically by controlling for whether the campaign results in a proxy contest.

Column (5) of Table 3 shows that campaigns involving proxy fights are substantially more successful, resulting in an average of 0.85 additional actions by target firms. More importantly for our thesis, controlling for this direct effect slightly reduces but does not eliminate the relation between reputation and campaign success. Together, these patterns imply that high reputation activists are more successful primarily because they are more likely to extract settlements but also because they are more likely to fight if refused.

Finally, in Column (6) of Table 3, we address the selection effects discussed above by including $\widehat{Action}_{i,t}$ as a control variable.[15] The coefficients for $Recent\ Fight_{j,t}$ and $Settle\ Rate_{j,t}$ are smaller in Column (6) relative to Column (5), reflecting the fact that activists with a $Recent\ Fight_{j,t}$ or high $Settle\ Rate_{j,t}$ select targets with a higher $\widehat{Action}_{i,t}$, as documented in

[15]The coefficient on $\widehat{Action}_{i,t}$ is not exactly equal to one because $\widehat{Action}_{i,t}$ is the fitted value from a regression on the full Compustat sample, rather than the sample of activist campaigns used for Table 3.

Table 2. However, the coefficients for both *Recent Fight*$_{j,t}$ and *Settle Rate*$_{j,t}$ remain statistically and economically significant when controlling for activist skill at selecting targets and for the direct effect of proxy fights, indicating high reputation activists are better able to extract settlements from targets, as predicted by our model.

We further rule out the alternative stock selection hypothesis by showing that within-activist variations in reputation predict within-activist variation in campaign success. To do so, Table 4 repeats the analysis in Table 3 but with activist fixed effects.[16] Across all columns of Table 4, we find a positive coefficient on *Recent Fight*$_{j,t}$ with significance fluctuating due to each activist in our sample pursuing an average of only six campaigns, limiting our statistical power. These results suggest that, assuming activist stock selection skill is constant through time, reputation effects are separate and distinct from activist's ability to pick stocks that will have high subsequent *Action*$_{i,t}$ even without activist intervention.

5.3. Reputation Across and Within Institutional Investor Structures

Table 5 illustrates how our measures of reputation and campaign success vary across different activist institutional structures. Hedge fund activists are the most prevalent in our sample, comprising nearly two thirds of observed campaigns, and are different in many ways from other categories of activists. The first differences are in our measures for reputation, *Recent Fight*$_{j,t}$ and *Settle Rate*$_{j,t}$, which are strikingly higher for hedge funds relative to other institutional structures. *Target Share*$_{j,i,t}$, by contrast, is similar among hedge fund campaigns and the full sample of campaigns. Despite purchasing similar fractions of their targets as other types of activists, hedge fund campaigns are far more effective, as measured by average *Action*$_{i,t+1}$. Together, these differences across institutional structure illustrate

[16]The intercept we present in Table 4, and throughout the paper in regressions with fixed effects, is the average value of the fixed effect, as computed using "areg" in STATA.

that hedge funds' ability to build and utilize reputation despite managing significantly less capital than other activists makes them especially effective, and prolific, activists.

Prior research, for example Yermack et al. (2010), argues hedge funds are more effective activists because lighter regulation allows hedge funds to hold more concentrated portfolios and employ longer-term investment strategies. These regulatory advantages also make hedge funds particularly well suited to initiate costly proxy fights as long-term investments in reputation and take concentrated portfolio positions to profit from reputation. The evidence in Table 5 that hedge fund activists have stronger reputation and allocate larger fractions of their portfolios to activism is consistent with reputation being the channel through which hedge funds are more successful activists than other institutional structures.

The differences across institutional structure in reputation and campaign success raise the question of whether our pooled evidence in Tables 3 and 4 is driven by variation across institutional structure alone. We show that variation within institutional structure is also predictive using the regressions presented in Table 6, which include fixed effects for each category of activist. The large and highly significant coefficient for $Hedge\ Fund_{i,t}$ in Table 6 indicates that hedge funds are significantly more effective activists relative to the other categories, reflecting the across-structure variation shown in Table 5. By contrast, the negative coefficient for $Mutual\ Fund_{i,t}$ indicates that mutual funds are less effective activists. Importantly, $Recent\ Fight_{i,t}$ is significant across all columns of Table 6, indicating that within-structure variation in activist reputation has a significant bearing on activist campaign success. $Settle\ Rate_{i,t}$ also positively predicts campaign success across all specifications, though the statistical significance is more marginal.

5.4. Other Measures of Activist Reputation, Skill, and Experience

In Table 7, we compare our measures of activist reputation to other activist characteristics and alternative measures of activist reputation, skill, and experience. Column (1) of Table 7 shows the results of a regression similar to Equation (7) but with *Active Rate*$_{j,t}$, the number of activist j's recent activist campaigns scaled by the activist's number of positions as the independent variable. Consistent with the evidence in Boyson, Ma, and Mooradian (2016) that experienced activists are more successful, we find *Active Rate*$_{j,t}$ positively predicts campaign success. However, this effect vanishes in Column (6) after incorporating additional controls including our reputation measures.

Column (2) of Table 7 examines another potential measure of activist reputation, *Return Avg*$_{j,t}$, the average market reaction to prior campaign initiations.[17] We find that past market reactions have a positive but statistically insignificant bearing on campaign success. This indicates *Return Avg*$_{j,t}$ is a noisier measures of reputation than *Recent Fight*$_{j,t}$ and *Settle Rate*$_{j,t}$, perhaps because announcement returns reflect the specifics of the target's situation and activist demands in addition to reputation.[18] The results in Column (3) of Table 7 show that the activist's recent investment performance, as measured by *Perf*$_{j,t}$, is not significantly related to campaign success. This result suggests that skills relating to investment performance are distinct from skills relating to activist effectiveness.

We find an additional notable result from Table 7: campaigns that attract follow-on activists are extremely effective. Specifically, Column (4) of Table 7 shows a strong positive relation between *Wolf Pack*$_{j,i,t+1}$, which indicates follow-on activists join the campaign, and

[17] Abnormal three-day announcement returns average 2.3% for all of the activist campaign initiation announcement 13-D filings in our sample.

[18] In untabulated tests, we find both our reputation measures positively predict three-day returns around campaign initiations.

campaign success. This relation supports the theory outlined in Brav, Dasgupta, and Mathews (2016), which argues that the presence of additional follow-on activists has a significant impact on activist campaign success.

The results in Column (5) suggest that *Portfolio Size*$_{j,t}$ has no bearing on campaign success. While on the surface this is somewhat surprising, these results support both Table 5 and Table 6 which show that hedge funds are much more effective activists than activists with other institutional structures despite managing much smaller portfolios. On the other hand, Column (5) also shows that portfolio position count (*Positions*$_{j,t}$) and churn rate (*Churn Rate*$_{j,t}$) are negatively and positively associated with greater campaign success, respectively. These patterns are largely driven by hedge funds having more-concentrated and higher-turnover portfolios relative to other activists.

Most importantly, Column (6) of Table 7 shows that our measures of reputation, *Recent Fight*$_{j,t}$ and *Settle Rate*$_{j,t}$, predict campaign success incrementally to all of the above alternative measures of activist reputation, skill, and experience.

5.5. Other Measures of Campaign Outcomes

In Table 8 we examine the impact of our measures of activist reputation on the different responses by target firms we include in our *Action*$_{i,t+1}$ measure. Specifically, Table 8 presents regressions similar to those in Equation (7) but with dependent variables for each of the five sub-categories of Action: *Payout*$_{i,t+1}$, *CEO*$_{i,t+1}$, *Reorg*$_{i,t+1}$, *M&A*$_{i,t+1}$, and *Board*$_{i,t+1}$. Columns (2) through (6) of Table 8 shows that both *Recent Fight*$_{j,t}$ and *Settle Rate*$_{j,t}$ are positively related to each type of target action, with statistical significance that fluctuates due to each individual outcome being less frequent.

5.6. Stake Size and Reputation

Next, we provide further evidence to support Empirical Prediction 3, that both aggressive and cautious activists purchase similar stake sizes, and as a result that campaign success is not sensitive to stake size. We assess the determinants of activists' choice of stake size using the regressions of the form:

$$Target\ Share_{i,t+1} = \beta_0 + \beta_1\ Recent\ Fight_{j,t} + \beta_2\ Settle\ Rate_{j,t} + \beta_3 Proxy_{j,i,t+1} + \epsilon_{j,i,t}. \quad (8)$$

To the extent that activists who are more likely to fight purchase larger stake sizes, we would expect $Target\ Share_{j,i,t}$ to be increasing in $Recent\ Rate_{j,t}$, $Settle\ Rate_{j,t}$, or $Proxy_{j,i,t+1}$. Table 9 shows that this is not the case. Across all specifications, our reputation measures and future proxy behavior have either a negative an insignificant relation with $Target\ Share_{j,i,t}$, which is consistent with our model's prediction that cautious activists imitate the position sizes of aggressive activists and as a result 'jam' the signal represented by stake size.

A related question from target management's perspective is which variables are useful in predicting whether an activist campaign results in a proxy fight. This question is an important aspect of managers' decision whether or not to settle with the activist. Our model predicts that activists with strong reputations are more likely to fight if refused. However, as discussed above, Empirical Prediction 3 states that propensity to fight is unrelated to stake size. We test these two predictions using regressions of the form:

$$Proxy_{j,i,t+1} = \beta_0 + \beta_1\ Recent\ Fight_{j,t} + \beta_2\ Settle\ Rate_{j,t} + \beta_3\ Target\ Share_{j,i,t} + \epsilon_{j,i,t}. \quad (9)$$

Table 10 shows that $Recent\ Fight_{j,t}$ is a significantly positive predictor of future proxy fights, consistent with propensity to fight being a persistent characteristic. In univariate

analysis, we find a significant relation between *Settle Rate*$_{j,t}$ and future proxy fights, however this relation becomes insignificant when controlling for $\widehat{Action}_{i,t+1}$. This is the result of two offsetting effects. On one hand, activists with a strong enough reputation that they are frequently settled with are more likely to fight if refused, predicting a positive relation between *Settle Rate*$_{j,t}$ and *Proxy*$_{j,i,t+1}$. On the other hand, activists with a strong enough reputation that they are frequently settled with often get what they want without a proxy fight, predicting a negative relation between *Settle Rate*$_{j,t}$ and *Proxy*$_{j,i,t+1}$.

Finally, Table 10 provides additional support for Empirical Prediction 3, as we find no relation between *Target Share*$_{j,i,t}$ and future proxy fighting behavior.

5.7. Activist Position Sizes

Figure 1 shows a histogram of the dollar value of the activist's position size in our sample of 198 campaigns featuring a proxy fight, and indicates that half of the proxy fights in our sample occur in campaigns where the activist position is smaller than $50 million. As a point of comparison, Gantchev (2013) estimates the average cost of a proxy fight for an activist is $10.7 million. Survey evidence from the 1980s and recent anecdotal evidence from activist hedge funds estimate this cost is at least $5 million in today's dollars.[19] Based on the Gantchev (2013) estimate, an activist initiating a proxy fight with median position size would need the target firm's stock to appreciate 21% just to offset the cost of the proxy campaign. Therefore, the fact that we observe proxy fights in this subsample is consistent with Empirical Prediction 4 from our model, which states that activists will sometimes engage in proxy fights at a short-term loss as an investment in their reputation.

[19] See Bainbridge Comment on the SEC Shareholder Access Proposal and Relational Investors Comment on Facilitating Shareholder Director Nominations.

6. Conclusion

We present a theory of an activist hedge fund's reputation, how it is developed, and how it impacts activist campaigns. In our model, reputation is managers' belief about the willingness of the activist to initiate proxy fights, which evolves as the activist engages two targets sequentially. In equilibrium, some activists incur the cost of proxy fights despite minimal short-term benefits as an investment in their reputation. A strong reputation is valuable to these activists because, unlike their position size in the target, a reputation as a proxy fighter allows them to convince future managers to settle without a proxy fight.

We find extensive empirical support for our model's predictions. Campaigns by high reputation activists result in abnormal payout increases, CEO and board changes, reorganizations, and M&A activity. The fraction of targets' shares purchased by activists is independent of their reputation, does not predict the likelihood of a proxy fights, and has no bearing on the success of the campaign. Combined, our theory and evidence indicate reputation plays a central role in the strategic dynamics and effectiveness of activist campaigns.

Appendix A. Proofs

We make the following parametric assumptions:

1. $F_L \leq \frac{V^2}{\lambda} \Leftrightarrow$ Aggressive A are willing to fight for all equilibrium quantities.
2. $F_H \geq \frac{V^2}{\lambda} \Leftrightarrow$ Cautious A's payoff is negative when choosing quantity $Q = \frac{F_H}{V}$ that commits them to fighting.
3. $F_H - \frac{F_L}{2} \leq \frac{3V^2}{4\lambda} \Leftrightarrow$ Cautious A are willing to fight M_1 at the equilibrium $Q = Q^*$ if it guarantees payoff $\Pi_H = \frac{V^2}{4\lambda}$ in the second stage.

For each equilibrium in each stage, we show it is a subgame perfect Nash equilibrium given the manager's off-equilibrium beliefs, and that these beliefs satisfy the D1 refinement from Banks and Sobel (1987).

Theorem 1 (Low reputation equilibrium in second stage)**.** *If* $r_1 < \frac{B-V}{B-V+F_M}$*, the second stage game has the following equilibrium:*

- *Aggressive A choose* $Q^* \equiv \frac{V}{2\lambda} + \frac{F_L}{2V}$ *and fight if* M_2 *refuses.*
- *Cautious A choose* Q^* *with probability* $q_{A,2} \equiv \frac{F_M}{B-V}\frac{r_1}{1-r_1}$*,* $Q = 0$ *with probability* $1 - q_{A,2}$*, and fold if* M_2 *refuses.*
- M_2 *refuses for* $Q < Q^*$ *and* $Q^* < Q < \frac{F_H}{V}$*, and settles for* $Q \geq \frac{F_H}{V}$*. For* $Q = Q^*$*,* M_2 *settles with probability* $y_2^* = \frac{1}{2} + F_L\frac{\lambda}{2V^2}$*.*
- *For any* $Q < Q^*$ *or* $Q^* < Q < \frac{F_H}{V}$*,* M_1 *believes A is the cautious type.*

Proof. We show this is a subgame perfect Nash equilibrium by establishing each agent's strategy is optimal given the other agent's strategy and rational beliefs.

Aggressive A optimality: In the subgame, aggressive A fights given stake Q^* by parameteric assumption 1.

Given M_2's strategy, aggressive A has three ranges of initial quantities to choose among:

- $Q = Q^* = \frac{V}{2\lambda} + \frac{F_L}{2V}$, which results in $y_2^* = \frac{1}{2} + F_L\frac{\lambda}{2V^2}$ and therefore expected payoff $\frac{V^2}{4\lambda} + \left(\frac{\lambda}{4V^2}F_L - \frac{1}{2}\right)F_L$, which is positive by parametric assumption 1.

- $Q \geq \frac{F_H}{V}$, which results in M_2 settling and payoff $QV - Q^2\lambda$. By parametric assumption 2, this payoff is negative for all $Q \geq \frac{F_H}{V}$.
- $Q < \frac{F_H}{V}$ and $Q \neq Q^*$, which results in M_2 refusing and payoff $QV - Q^2\lambda - F_L$ if A fights and $-Q^2\lambda$ if they do not fight. The former has maximum payoff of $\frac{V^2}{4\lambda} - F_L$ when $Q = \frac{V^2}{2\lambda}$, and the latter has maximum payoff of 0 when $Q = 0$. Both are less than the expected payoff from $Q = Q^*$.

Their equilibrium choice is therefore $Q = Q^*$.

Cautious A optimality: In the subgame, cautious A do not fight given stake Q^* by parameteric assumption 2.

Given M_2's strategy, cautious A has three ranges of initial quantities to choose among:

- $Q = Q^* = \frac{V}{2\lambda} + \frac{F_L}{2V}$, which results in $y_2^* = \frac{1}{2} + F_L\frac{\lambda}{2V^2}$ and therefore expected payoff of 0.
- $Q \geq \frac{F_H}{V}$, which results in M_2 settling and payoff $QV - Q^2\lambda$. By parametric assumption 2, this payoff is negative for all $Q \geq \frac{F_H}{V}$.
- $Q < \frac{F_H}{V}$ and $Q \neq Q^*$, which results in M_2 refusing and payoff $QV - Q^2\lambda - F_H$ if A fights and $-Q^2\lambda$ if they do not fight. The former has maximum payoff of $\frac{V^2}{4\lambda} - F_H < 0$ when $Q = \frac{V^2}{2\lambda}$, and the latter has maximum payoff of 0 when $Q = 0$.

Cautious A are therefore indifferent between choosing $Q = Q^*$ and $Q = 0$, making them free to follow the mixed strategy we describe.

M_2 optimality: Given A's choice of Q, M_2 chooses to settle iff:

$$V - B \geq \mathbb{P}(A \text{ fights } |Q)(V - B - F_M) \tag{10}$$

$$\Leftrightarrow \mathbb{P}(A \text{ fights } |Q) \geq \frac{B - V}{B - V + F_M}. \tag{11}$$

Given A's equilibrium strategy, and the fact that neither type will fight in the subgame

when $Q < \frac{F_L}{V}$ and both types will fight when $Q > \frac{F_H}{V}$, we have:

$$\mathbb{P}(A \text{ fights } |Q) = \begin{cases} 0 & \text{if } Q < Q^* \text{ or } Q^* < Q < \frac{F_H}{V} \\ 1 & \text{if } Q \geq \frac{F_H}{V} \\ \frac{r_1}{r_1+(1-r_1)q_{A,2}} = \frac{B-V}{B-V+F_M} & \text{if } Q = Q^*. \end{cases} \tag{12}$$

Therefore, M_2 refuses in the first range, settles in the second range, and is indifferent between settling and refusing for $Q = Q^*$, making them free to follow the mixed strategy we describe.

Finally, we show that M_2's off-equilibrium beliefs, that any $Q \in \left[\frac{F_L}{V}, \frac{F_H}{V}\right], Q \neq Q^*$ indicates the activist is the cautious type, satisfy the D1 refinement. We first note that for any Q in this range and any $y \in [0, 1]$, there exists beliefs for which the best response by M_2 is to settle with probability y. The D1 refinement therefore requires that M_2 believes an off-equilibrium quantity Q indicates whichever type of A would profit from deviating to Q for a larger range of y.

Because both types payoffs are increasing in y, each type profits from deviating to Q for any y greater than some threshold $D(Q, F_A)$. The deviation thresholds satisfy:

$$D(Q, F_H) = y_2^* + \frac{\lambda}{V}(Q - Q^*) \tag{13}$$

$$D(Q, F_L) = y_2^* + \frac{1}{F_L}\left(\lambda\left(Q^2 - Q^{*2}\right) - V(Q - Q^*)\right). \tag{14}$$

These two thresholds are equal for $Q = Q^*$, and Q^* is chosen so that the functions $D(Q, F_L)$ and $D(Q, F_H)$ have equal slopes at Q^*:

$$\left.\frac{\partial D(Q, F_L)}{\partial Q}\right|_{Q=Q^*} = \left.\frac{\partial D(Q, F_H)}{\partial Q}\right|_{Q=Q^*} = \frac{\lambda}{V}. \tag{15}$$

Furthermore, the threshold for the aggressive activist $D(Q, F_L)$ is convex in Q. Put together, these properties imply that:

$$D(Q, F_L) > D(Q, F_H) \; \forall \; Q \neq Q^*, \tag{16}$$

meaning the cautious type activist deviates for a wider range of best responses to all off-equilibrium Q, supporting M_2's belief that these Q represent the cautious type. □

Theorem 2 (High reputation equilibrium in second stage)**.** *For a given expected payoff of cautious A* Π_H*, let* $Q^*(\Pi_H)$ *and* $y_2^*(\Pi_H)$ *satisfy:*

$$\frac{1}{F_L}\left(2Q^*(\Pi_H)\lambda - V\right) = \frac{Q^*(\Pi_H)^2\lambda - \Pi_H}{Q^*(\Pi_H)^2 V} \tag{17}$$

$$y_2^*(\Pi_H) = \frac{\Pi_H + Q^*(\Pi_H)^2\lambda}{Q^*(\Pi_H)V}. \tag{18}$$

If $r_1 \geq \frac{B-V}{B-V+F_M}$*, the second stage game has the following equilibrium:*

- *Aggressive A choose* $Q^*(\Pi_H)$ *and fight if* M_2 *refuses.*
- *Cautious A choose* $Q^*(\Pi_H)$ *and fold if* M_2 *refuses.*
- M_2 *refuses when* $Q < Q^*(\Pi_H)$ *or* $Q^*(\Pi_H) < Q < \frac{F_H}{V}$*, and settles when* $Q \geq \frac{F_H}{V}$*. When* $Q = Q^*(\Pi_H)$*,* M_2 *settles with probability* $y_2^*(\Pi_H) \geq \frac{1}{2} + F_L\frac{\lambda}{2V^2}$*. When* $r_1 = \frac{B-V}{B-V+F_M}$*, any* $\Pi_H \in \left[0, \frac{V^2}{4\lambda}\right]$ *and corresponding* $Q^*(\Pi_H)$ *and* $y_2^*(\Pi_H)$ *are an equilibrium. When* $r_1 > \frac{B-V}{B-V+F_M}$*,* $\Pi_H = \frac{V^2}{4\lambda}$*,* $Q^* = \frac{V}{2\lambda}$*, and* $y_2^* = 1$*.*
- *For any* $Q < Q^*$ *or* $Q^* < Q < \frac{F_H}{V}$*,* M_1 *believes A is the cautious type.*

Proof. We begin by showing that for any $\Pi_H \in \left[0, \frac{V^2}{4\lambda}\right]$, there exists $Q^*(\Pi_H) \in \left[\frac{V}{2\lambda}, \frac{V}{2\lambda} + \frac{F_L}{2V}\right]$ and $y_2^*(\Pi_H) \in \left[\frac{1}{2} + F_L\frac{\lambda}{2V^2}, 1\right]$ satisfying Equations (17) and (18), and resulting in expected payoff for the cautious A of Π_H.

First, note that rearranging Equation (18) directly implies that cautious activist's expected payoff is satisfied at $y_2^*(\Pi_H)$ and $Q^*(\Pi_H)$:

$$y_2^*(\Pi_H)Q^*(\Pi_H)V - Q^*(\Pi_H)^2\lambda = \Pi_H \tag{19}$$

For $\Pi_H = 0$, the low-reputation equilibrium values $Q^* = \frac{V}{2\lambda} + \frac{F_L}{2V}$ and $y_2^* = \frac{1}{2} + F_L\frac{\lambda}{2V^2}$ satisfy Equations (17) and (18).

For $\Pi_H = \frac{V^2}{4\lambda}$, $Q^* = \frac{V}{2\lambda}$ and $y_2^* = 1$ satisfy Equations (17) and (18).

For values of Π_H between 0 and $\frac{V^2}{4\lambda}$, note that Equation (17) implies:

$$\frac{1}{F_L}\left(2Q^*(\Pi_H)^3\lambda V - Q^*(\Pi_H)^2V^2\right) = Q^*(\Pi_H)^2\frac{\lambda}{V} - \Pi_H. \tag{20}$$

Differentiating both sides and rearranging yields:

$$\frac{\partial Q^*(\Pi_H)}{\partial \Pi_H} = \frac{1}{\left(\frac{2V^2}{F_L} + 2\lambda\right) Q^*(\Pi_H) - \frac{6\lambda V}{F_L} Q^*(\Pi_H)^2}, \tag{21}$$

which is continuous and negative for all $Q \geq \frac{V}{3\lambda} + \frac{F_L}{3V}$. This implies that $Q^*(\Pi_H)$ exists and is between $\frac{V}{2\lambda}$ and $\frac{V}{2\lambda} + \frac{F_L}{2V}$ for all $\Pi_H \in \left[0, \frac{V^2}{4\lambda}\right]$. Substituting into Equation (18), we also have that $y_2^* \in \left[\frac{1}{2} + F_L \frac{\lambda}{2V^2}, 1\right]$.

Aggressive A optimality: By the argument in the proof of Theorem 1, we only need to check that choosing quantity $Q = Q^*(\Pi_H)$ and fighting results in positive expected payoffs. Expected payoffs satisfy:

$$Q^*(\Pi_H)V - Q^*(\Pi_H)^2\lambda - (1 - y_2^*(\Pi_H))F_L, \tag{22}$$

which is increasing in y_2^* and decreasing in the range of potential Q^*. Therefore, its minimum value is at the minimum of y_2^* and maximum of Q^* in the range of equilibria. At these extremes, expected payoffs in Equation (22) are positive.

Cautious A optimality: By the argument in the proof of Theorem 1, other available strategies yield negative or zero expected payoffs, making playing Q^* with probability one and getting payoff $\Pi_H > 0$ the unique optimal strategy.

M_2 optimality: Given A's equilibrium strategy,

$$\mathbb{P}(A \text{ fights } |Q) = r_1, \tag{23}$$

meaning if $r_1 = \frac{B-V}{B-V+F_M}$, M_2 is free to follow the mixed strategy we describe and settle with probability y_2^*. Furthermore, when $r_1 > \frac{B-V}{B-V+F_M}$ it is optimal to settle.

Equation (17) assures that a similar derivation to the one in the proof of Theorem 1 shows that the deviation threshold functions $D(Q, F_L)$ and $D(Q, F_H)$ are equal and tangent at Q^*. This in turn implies that M_2's off-equilibrium beliefs survive the D1 refinement. □

To validate the equilibrium strategies in the first stage game, we first need to compute expected payoffs in the second stage game as a function of r_1 for both types of A.

Lemma 1 (Activist expected payoffs in second stage)**.** *Activists' expected payoff in the second stage game satisfy:*

$$\mathbb{E}\left(\textit{Cautious } A\ \Pi\right) = \begin{cases} 0 & \textit{If } r_1 < \frac{B-V}{B-V+F_M} \\ \Pi_H \equiv y_2^*(\Pi_H)Q^*(\Pi_H)V - Q^*(\Pi_H)^2\lambda & \textit{If } r_1 \geq \frac{B-V}{B-V+F_M} \end{cases} \tag{24}$$

$$\mathbb{E}\left(\textit{Aggressive } A\ \Pi\right) = \begin{cases} \frac{V^2}{4\lambda} + \left(\frac{\lambda}{4V^2}F_L - \frac{1}{2}\right)F_L & \textit{If } r_1 < \frac{B-V}{B-V+F_M} \\ Q^*(\Pi_H)V - Q^*(\Pi_H)^2\lambda - (1-y_2^*(\Pi_H))F_L & \textit{If } r_1 \geq \frac{B-V}{B-V+F_M} \end{cases} \tag{25}$$

Proof. Follows directly from Theorems 1 and 2. □

Theorem 3 (Low initial reputation equilibrium)**.** *If* $r_0 \leq \left(\frac{B-V}{B-V+F_M}\right)^2$*, the dynamic game has the following equilibrium:*

- *Aggressive A choose* $Q^* \equiv \frac{V}{2\lambda} + \frac{F_L}{2V}$ *and fight if* M_1 *refuses.*
- *Cautious A choose* Q^* *with probability* $q_{A,1} \equiv \frac{r_0}{1-r_0}\frac{F_M}{B-V}\frac{2(B-V)+F_M}{B-V}$ *and* $Q = 0$ *with probability* $1 - q_{A,1}$*, and fold if* M_1 *refuses when* $Q = 0$*. They fight with probability* $q_R \equiv \frac{B-V}{2(B-V)+F_M}$ *if* M_1 *refuses when* $Q = Q^*$*.*
- M_1 *refuses when* $Q < Q^*$ *or* $Q^* < Q < \frac{F_H}{V}$*, and settles when* $Q \geq \frac{F_H}{V}$*. When* $Q = Q^*$*,* M_1 *settles with probability* $y_1^* = \frac{1}{2} + F_L\frac{\lambda}{2V^2}$*.*
- *If* M_1 *settles,* $r_0 < r_1 < \frac{B-V}{B-V+F_M}$ *and the low reputation equilibrium prevails in the second stage game.*
- *If* M_1 *refuses and A folds,* $r_1 = 0$ *and the low reputation equilibrium prevails in the second stage game.*
- *If* M_1 *refuses and A chooses to fight,* $r_1 = \frac{B-V}{B-V+F_M}$ *and the high reputation equilibrium prevails in the second stage game with* $\Pi_H = F_H - \frac{v^2}{2\lambda} - \frac{F_L}{2}$*.*

Proof. Reputation r_1: We begin by verifying the posterior estimates of activist type r_1. Conditional on A's equilibrium strategy and an observed proxy fight, r_1 satisfies:

$$r_1 = \frac{r_0}{r_0 + (1-r_0)q_{A,1}q_R} = \frac{B-V}{B-V+F_M}. \tag{26}$$

Because $r_1 = \frac{B-V}{B-V+F_M}$, the second stage game is an equilibrium for any Π_H, including $\Pi_H = F_H - \frac{v^2}{2\lambda} - \frac{F_L}{2}$. Parametric assumptions 1, 2, and 3 assure that Π_H satisfies

$$0 \leq \Pi_H \leq \frac{V^2}{4\lambda} \Leftrightarrow \frac{V^2}{2\lambda} \leq F_H - \frac{F_L}{2} \leq \frac{3V^2}{4}. \tag{27}$$

Conditional on A's equilibrium strategy and M_1 settling, r_1 satisfies:

$$r_1 = \frac{r_0}{r_0 + (1-r_0)q_{A,1}} < \frac{B-V}{B-V+F_M}, \tag{28}$$

where the inequality follows from a comparison to Equation (26) and $q_R < 1$.

Finally, conditional on A's equilibrium strategy and their decision not to fight in the subgame, we have:

$$r_1 = 0 < \frac{B-V}{B-V+F_M}. \tag{29}$$

Next, we show this is a subgame perfect Nash equilibrium by establishing each agent's strategy is optimal given the other agent's strategy.

Aggressive A optimality: Follows from the argument in the proof of Theorem 1.

Cautious A optimality: We show cautious A are indifferent between $Q = 0$, $Q = Q^*$ and not fighting the subgame, and choosing $Q = Q^*$ and fighting the subgame. As argued in the proof of Theorem 1, the first two options yield an expected payoff of 0. Choosing $Q = Q^*$ and fighting therefore also yields expected payoff of 0 because Π_H is chosen so that cautious A are indifferent between fighting and folding after being refused.

M_1 optimality: Given A's equilibrium strategy, and the fact that neither type will fight in the subgame when $Q < \frac{F_L}{V}$ and both types will fight when $Q > \frac{F_H}{V}$, we have:

$$\mathbb{P}(A \text{ fights } |Q) = \begin{cases} 0 & \text{if } Q < Q^* \text{ or } Q^* < Q < \frac{F_H}{V} \\ 1 & \text{if } Q \geq \frac{F_H}{V} \\ \frac{r_0+(1-r_0)q_{A,1}q_R}{r_0+(1-r_0)q_{A,1}} = \frac{B-V}{B-V+F_M} & \text{if } Q = Q^*, \end{cases} \tag{30}$$

where the final equality follows from:

$$\frac{r_0 + (1-r_0)q_{A,1}q_R}{r_0 + (1-r_0)q_{A,1}} = \frac{\frac{B-V+F_M}{B-V}}{\left(\frac{(B-V)^2+2(B-V)F_M+F_M^2}{(B-V)^2}\right)} = \frac{\frac{B-V+F_M}{B-V}}{\left(\frac{B-V+F_M}{B-V}\right)^2} = \frac{B-V}{B-V+F_M}. \tag{31}$$

Therefore, M_2 refuses in the first range, settles in the second range, and is indifferent between settling and refusing for $Q = Q^*$, making them free to follow the mixed strategy we describe. □

Theorem 4 (High initial reputation equilibrium)**.** *If* $r_0 > \left(\frac{B-V}{B-V+F_M}\right)^2$*, the dynamic game has the following equilibrium:*

- *Aggressive A choose* $Q^* \equiv \frac{V}{2\lambda}$ *and fight if* M_1 *refuses.*
- *Cautious A choose* Q^* *and fight with probability* $q_R \equiv \frac{B-V}{2(B-V)+F_M}$ *if* M_1 *refuses.*
- M_1 *refuses when* $Q < Q^*$ *and settles when* $Q \geq Q^*$*.*
- *Reputation* $r_1 = r_0$*, and the corresponding equilibrium prevails in the second stage.*

Proof. A and M's strategies follow from the same reasoning as in the proof of Theorem 2 but with the addition of q_R. Because both types use $Q = Q^*$ and M_1 settles with probability one, the outcome of the first stage is uninformative and $r_1 = r_0$. □

Appendix B. Variables Definitions

2.1. Activist Variables

$\text{Recent Fight}_{j,t}$ = Dummy variable indicating activist j initiated a proxy fight within the year prior to t.

$\text{Settle Rate}_{j,t}$ = The total $Action_{i,t+1}$ from activist j's non-proxy campaigns in the prior year divided by the average number of campaigns initiated by j in the prior three years.

$\text{Target Share}_{j,i,t}$ = The max percent of target i's shares outstanding that activist j acquires during the activist campaign.

$\text{Portfolio Size}_{j,t}$ = Value, in $ millions, of activist j's equity holdings positions from form 13-F.

$\text{Number of Positions}_{j,t}$ = The number of activist j's equity holdings positions from form 13-F.

$\text{Churn Rate}_{j,t}$ = Quarterly turnover of activist j's portfolio as defined in Gaspar, Massa, and Matos (2005).

$\text{Proxy}_{j,i,t+1}$ = Dummy variable indicating activist j initiatiates a proxy fight with target i in the year following the activist j's campaign initiation.

$\text{Position Size}_{j,i,t}$ = The size, in $ millions, of the position taken by activist j in company i's stock.

$\text{Perf}_{j,t}$ = Activist j's prior 3-year average portfolio performance as implied by quarterly equity holdings filings.

$\text{Active Rate}_{j,t}$ = The number of campaigns initiated by activst j in the year prior to t divided by $\text{Number of Positions}_{j,t}$.

$\text{Return Avg}_{j,t}$ = The average abnormal three-day return surrounding the announcement of the initiation of activist j's campaigns over the year prior to t.

$\text{Wolf Pack}_{j,i,t+1}$ = Dummy variable indicating at least one activist other than j files a 13-D for target i in year following t.

2.2. Target Variables

$\text{Size}_{i,t}$ = The natural log of i's CRSP market capitalization.

$\text{Book-to-Market}_{i,t}$ = The equity book-to-market ratio: book equity from Compustat divided by CRSP market capitalization.

$\text{ROA}_{i,t}$ = Operating income (prior year) divided by total assets from Compustat.

$\text{Capex/Assets}_{i,t}$ = Additions to PP&E from the prior year's cash flow statement divided by total assets from Compustat.

$\text{Net Leverage}_{i,t}$ = Debt minus cash divided by total assets from Compustat.

$\text{Illiquidity}_{i,t}$ = The quarterly illiquidity measure from Amihud (2002) using daily data.

$\text{Inst Ownership}_{i,t}$ = The percent of shares held by all 13-F filing institutions.

$\widehat{\text{Action}}_{i,t+1}$ = The predicted value for $\text{Action}_{i,t+1}$, as defined in Section 4.3.

2.3. Campaign Outcome Variables

$\text{Action}_{i,t+1}$ = The sum of $\text{Payout}_{i,t+1}$, $\text{CEO Change}_{i,t+1}$, $\text{Board Change}_{i,t+1}$, $\text{Reoganization}_{i,t+1}$, and $\text{M\&A}_{i,t+1}$.

$\text{Payout}_{i,t+1}$ = Dummy variable indicating a dividend initiation, dividend increase, special dividend, stock repurchase program initiation, or stock repurchase program increase within the year following t, measured using 8-K filings with Capital IQ key development type codes 36, 94, 214, and 232.

$\text{CEO Change}_{i,t+1}$ = A dummy variable indicating CEO turnover within the year following t, code 101.

$\text{Board Change}_{i,t+1}$ = A dummy variable indicating board of directors turnover, or a new director appointment, within the year following t, code 172.

$\text{Reoganization}_{i,t+1}$ = The announcement of a reorganization within the year following t, code 21.

$\text{M\&A}_{i,t+1}$ = The announcement of a merger or acquisition within the year following t, code 80.

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Figure 1: Size of Positions Resulting In Proxy Fights

This figure presents a histogram of the dollar value of the activist's position in the target for campaigns resulting in a proxy fight. We define an activist campaign resulting in a proxy fight based on proxy filings with the SEC by both activist and target, as described in Section 4. Of the 2,199 activist campaigns in our sample, 198 result in proxy fights. The data include activist campaigns initiated between 2000-2014.

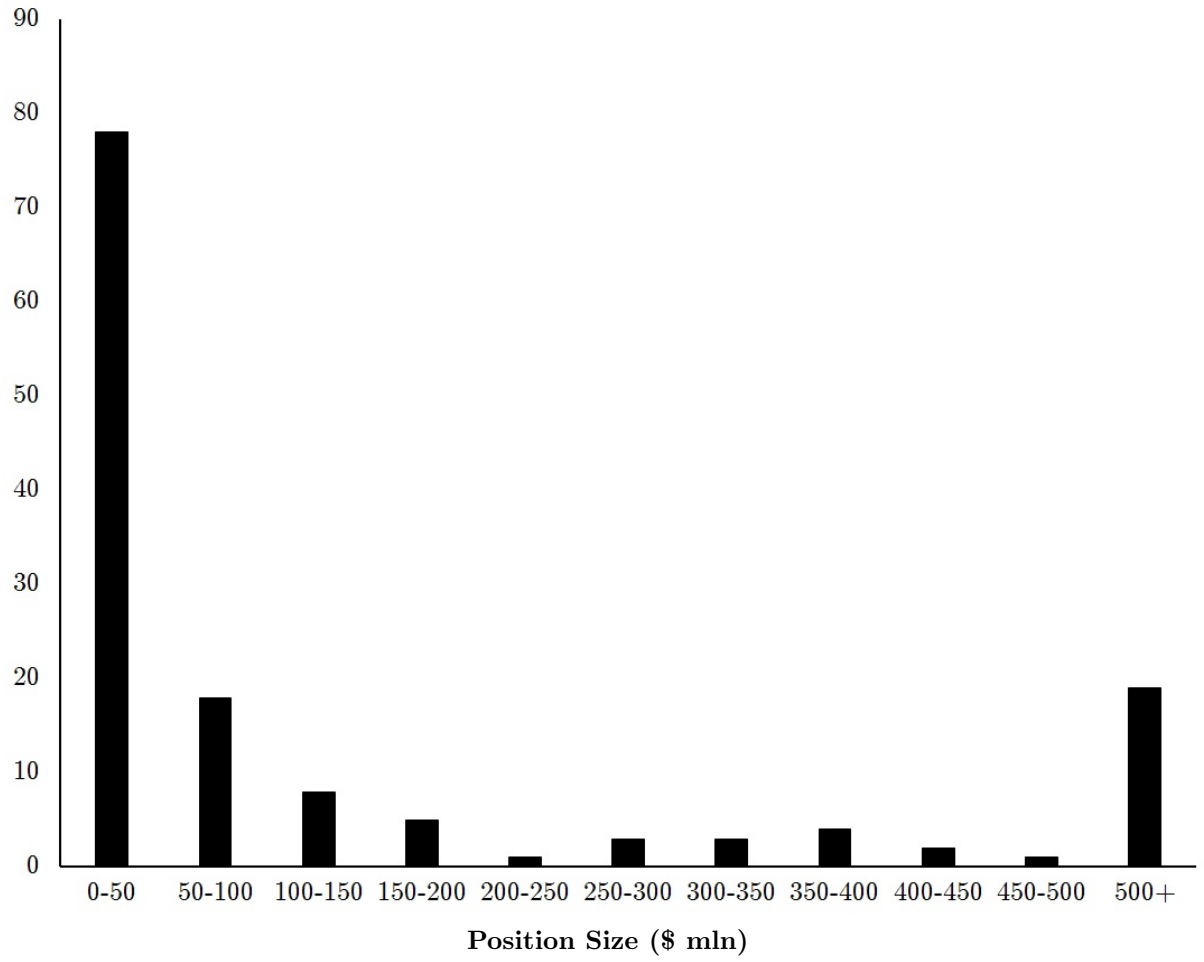

Table 1: Activist Campaign Summary Statistics

This table shows summary statistics for our sample of activist campaigns. We summarize activist j characteristics, target company i characteristics, and campaign outcomes. All variables are described in Appendix B. The data include 2,199 activist campaigns initiated during 2000-2014.

	Mean	Median	Std Dev	Min	Max
Activists					
Recent Fight$_{j,t}$	0.12	0.00	0.31	0.0	1.0
Settle Rate$_{j,t}$	54.0%	39.0%	65.5%	0.0%	500.0%
Target Share$_{j,i,t}$	8.4%	6.8%	6.3%	0.0%	49.5%
Proxy$_{j,i,t+1}$	0.09	0.00	0.29	0.0	1.0
Portfolio Size$_{j,t}$ ($ mln)	$8,507	$1,689	$23,898	$3	$596,961
Number of Positions$_{j,t}$	425	75	746	1	4,895
Churn Rate$_{j,t}$	52.8%	36.3%	44.9%	0.0%	282.4%
Position Size$_{j,i,t}$ ($ mln)	$88	$19	$265	$0	$5,307
Perf$_{j,t}$	0.7%	0.0%	5.2%	-13.9%	18.9%
Active Rate$_{j,t}$	5.5%	2.4%	8.4%	0.0%	100.0%
Return Avg$_{j,t}$	1.9%	1.4%	3.3%	-6.9%	15.9%
Wolf Pack$_{j,t}$	0.11	0.00	0.31	0.0	1.0
Targets					
Size$_{i,t}$ ($ mln)	$1,567	$258	$10,810	$1	$428,700
Book-to-Market$_{i,t}$	1.4	0.6	6.0	0	100
ROA$_{i,t}$	-0.8%	5.0%	23.7%	-193%	80%
Capex/Assets$_{i,t}$	4.6%	2.7%	6.5%	0%	75%
Net Leverage$_{i,t}$	1.4%	5.3%	38.6%	-100%	200%
Illiquidity$_{i,t}$	1.1	0.0	6.5	0.0	118.4
Inst Ownership$_{i,t}$	61%	66%	28%	0%	100%
$\widehat{\text{Action}}_{i,t+1}$	55.2	53.9	23.8	0.0	167.9
Campaign Outcomes					
Action$_{i,t+1}$	70.7	0.0	86.4	0.0	400.0
Payout$_{i,t+1}$	16.5	0.0	37.1	0.0	100.0
CEO change$_{i,t+1}$	19.6	0.0	39.7	0.0	100.0
Board change$_{i,t+1}$	7.1	0.0	25.8	0.0	100.0
Reorganization$_{i,t+1}$	15.9	0.0	36.6	0.0	100.0
M&A$_{i,t+1}$	11.5	0.0	31.9	0.0	100.0

Table 2: Activist Reputation and Target Selection

Table presents pooled OLS regressions assessing the relation between activist reputation and the ex-ante propensity of targets to take actions we interpret as campaign success without activist intervention. The dependent variable is $\widehat{Action}_{i,t+1}$, the fitted value in a cross-sectional regression among all Compustat firms in quarter t of $Action_{i,t+1}$ on a vector of firm characteristics $X_{i,t}$ described in Appendix B, multiplied by 100. The independent variables are: *Recent Fight*$_{j,t}$, a dummy variable indicating activist j initiated a proxy fight in the prior year; *Settle Rate*$_{j,t}$, the total $Action_{i,t+1}$ from activist j's non-proxy campaigns divided in the prior year divided by the average number of campaigns initiated by j in the prior three years; *Target Share*$_{j,i,t}$, the peak percent of target i's shares outstanding that activist j acquires during the activist campaign; and $Proxy_{j,t,t+1}$, an indicator for whether the campaign results in activist j initiating a proxy fight. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include 2,199 activist campaigns initiated during 2000-2014. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) $\widehat{Action}_{i,t+1}$	(2) $\widehat{Action}_{i,t+1}$	(3) $\widehat{Action}_{i,t+1}$	(4) $\widehat{Action}_{i,t+1}$	(5) $\widehat{Action}_{i,t+1}$
Recent Fight$_{j,t}$	8.92***			6.36***	3.69*
	(3.70)			(2.82)	(1.80)
Settle Rate$_{j,t}$		4.43***		4.16***	4.03***
		(4.45)		(4.42)	(4.34)
Target Share$_{j,i,t}$			-2.54***	-2.47***	-2.50***
			(-4.44)	(-4.40)	(-4.49)
Proxy$_{j,i,t+1}$					10.53***
					(5.34)
Intercept	54.14***	55.25***	55.14***	54.47***	53.83***
	(28.21)	(31.20)	(29.59)	(30.80)	(29.71)
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	2,199	2,199	2,199	2,199	2,199
F-Statistic	13.66	19.80	19.70	12.74	15.30
R^2	0.013	0.034	0.011	0.051	0.066

Table 3: Activist Reputation and Campaign Outcomes

This table presents pooled OLS regressions assessing how measures of activist reputation relate to activist campaign effectiveness. The dependent variable is $Action_{i,t+1}$, the number of significant actions (defined in Section 4.3) that occur in the year following the start of the activist campaign, multiplied by 100. The primary independent variables of interest are: *Recent Fight*$_{j,t}$, a dummy variable indicating activist j initiated a proxy fight in the prior year; *Settle Rate*$_{j,t}$, the total $Action_{i,t+1}$ from activist j's non-proxy campaigns in the prior year divided by the average number of campaigns initiated by j in the prior three years; and *Target Share*$_{j,i,t}$, the peak percent of target i's shares outstanding that activist j acquires during the activist campaign. Other variables are defined in Appendix B. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include 2,199 activist campaigns initiated during 2000-2014. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) Action$_{i,t+1}$	(2) Action$_{i,t+1}$	(3) Action$_{i,t+1}$	(4) Action$_{i,t+1}$	(5) Action$_{i,t+1}$	(6) Action$_{i,t+1}$
Recent Fight$_{j,t}$	50.06***			45.01***	23.63***	19.85***
	(6.44)			(5.52)	(3.61)	(3.44)
Settle Rate$_{j,t}$		12.43***		10.29***	9.18***	5.06***
		(5.78)		(4.60)	(4.44)	(2.75)
Target Share$_{j,i,t}$			-0.80	-0.01	-0.22	2.34
			(-0.46)	(-0.01)	(-0.14)	(1.57)
Proxy$_{j,i,t+1}$					84.57***	73.76***
					(9.11)	(8.14)
$\widehat{Action}_{i,t+1}$						1.03***
						(13.89)
Intercept	64.89***	70.91***	70.70***	65.64***	60.49***	5.29
	(22.66)	(24.12)	(22.50)	(24.60)	(23.19)	(1.30)
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	2,199	2,199	2,199	2,199	2,199	2,199
F-Statistic	41.53	33.40	0.211	21.59	34.98	118.3
R^2	0.032	0.020	0.000	0.045	0.117	0.192

Table 4: Activist Reputation and Campaign Outcomes Within Activist

This table presents OLS regressions assessing how measures of activist reputation relate to activist campaign effectiveness when including activist fixed effects. The dependent variable is $Action_{i,t+1}$, the number of significant actions (defined in Section 4.3) that occur in the year following the start of the activist campaign, multiplied by 100. The primary independent variables of interest are: *Recent Fight*$_{j,t}$, a dummy variable indicating activist j initiated a proxy fight in the prior year; *Settle Rate*$_{j,t}$, the total $Action_{i,t+1}$ from activist j's non-proxy campaigns divided in the prior year divided by the average number of campaigns initiated by j in the prior three years, and *Target Share*$_{j,i,t}$, the peak percent of target i's shares outstanding that activist j acquires during the activist campaign. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include the subset of the 2,199 activist campaigns initiated between 2000-2014 which involve activists that have initiated more than two campaigns. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) Action$_{i,t+1}$	(2) Action$_{i,t+1}$	(3) Action$_{i,t+1}$	(4) Action$_{i,t+1}$	(5) Action$_{i,t+1}$	(6) Action$_{i,t+1}$
Fight Rate$_{j,t}$	15.68*			16.12*	12.60	9.21
	(1.86)			(1.92)	(1.63)	(1.33)
Settle Rate$_{j,t}$		-1.48		-1.80	-2.73	-3.66
		(-0.58)		(-0.71)	(-1.17)	(-1.39)
Target Share$_{j,i,t}$			-3.35	-3.22	-3.80	-0.90
			(-1.31)	(-1.24)	(-1.62)	(-0.40)
Proxy$_{j,i,t+1}$					73.20***	63.54***
					(6.68)	(6.18)
$\widehat{Action}_{i,t+1}$						0.99***
						(15.45)
Intercept	68.28***	70.34***	70.19***	68.06***	62.29***	8.74**
	(25.78)	(28.77)	(28.95)	(26.06)	(23.74)	(2.30)
Fixed Effects	Activist$_j$	Activist$_j$	Activist$_j$	Activist$_j$	Activist$_j$	Activist$_j$
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	1,889	1,889	1,889	1,889	1,889	1,889
F-Statistic	3.471	0.340	1.728	2.140	16.23	75.41
R^2	0.238	0.236	0.237	0.239	0.278	0.328

Table 5: Campaign Summary Statistics By Activist Institutional Structure

This table shows averages of the relevant variables summarizing our sample of activist campaigns grouped according to the activist's institutional structure. We summarize activist j characteristics, target company i characteristics, and campaign outcomes. All variables are described in Appendix B. The data include 2,199 activist campaigns initiated during 2000-2014.

	Hedge Fund	Mutual Fund	Private Equity	Broker Dealer	Other	All
# Campaigns	1,379	485	70	69	196	2,199
# Unique Activists	266	35	12	19	35	367
Activists						
Recent Fight$_{j,t}$	0.16	0.06	0.06	0.00	0.03	0.12
Settle Rate$_{j,t}$	64.3%	35.0%	25.8%	35.7%	45.5%	54.0%
Target Share$_{j,i,t}$	8.6%	6.2%	11.4%	10.8%	10.6%	8.4%
Proxy$_{j,i,t+1}$	0.12	0.02	0.06	0.03	0.05	0.09
Portfolio Size$_{j,t}$ ($ mln)	$2,598	$22,292	$1,687	$50,444	$3,647	$8,507
Number of Positions$_{j,t}$	200	925	41	2,503	172	425
Churn Rate$_{j,t}$	65.6%	24.4%	23.4%	61.1%	40.3%	52.8%
Position Size$_{j,i,t}$ ($ mln)	$94	$82	$44	$55	$86	$88
Perf$_{j,t}$	1.0%	0.5%	-1.5%	0.2%	0.0%	0.7%
Active Rate$_{j,t}$	7.3%	2.5%	7.1%	0.3%	2.0%	5.5%
Return Avg$_{j,t}$	2.4%	1.1%	0.9%	0.8%	1.3%	229.2%
Wolf Pack$_{j,t}$	0.12	0.09	0.04	0.07	0.08	0.11
Targets						
Size$_{i,t}$ ($ mln)	$1,725	$1,130	$539	$3,274	$1,306	$1,567
Book-to-Market$_{i,t}$	1.3	1.5	2.2	1.1	1.7	1.4
ROA$_{i,t}$	-0.9%	4.8%	-24.6%	-10.0%	-1.9%	-0.8%
Capex/Assets$_{i,t}$	4.4%	4.9%	4.3%	7.4%	4.4%	4.6%
Net Leverage$_{i,t}$	-0.2%	6.8%	-20.3%	2.1%	6.5%	1.4%
Illiquidity$_{i,t}$	1.0	1.0	2.1	0.6	2.2	1.1
Inst Ownership$_{i,t}$	62%	65%	44%	49%	57%	61%
$\widehat{\text{Action}}_{i,t+1}$	57.4	52.2	45.7	50.6	51.7	55.2
Campaign Outcomes						
Action$_{i,t+1}$	85.4	40.4	44.3	53.6	57.7	70.7
Payout$_{i,t+1}$	20.5	9.3	5.7	7.2	13.3	16.5
CEO change$_{i,t+1}$	22.6	13.2	17.1	18.8	16.3	19.6
Board change$_{i,t+1}$	9.6	2.3	4.3	4.3	3.6	7.1
Reorganization$_{i,t+1}$	18.6	8.9	11.4	17.4	15.3	15.9
M&A$_{i,t+1}$	14.1	6.8	5.7	5.8	9.2	11.5

Table 6: Activist Reputation and Campaign Outcomes by Activist Category

This table presents OLS regressions assessing how measures of activist reputation relate to activist campaign effectiveness within activist institutional structure. The dependent variable is $Action_{i,t+1}$, the number of significant actions (defined in Section 4.3) that occur in the year following the start of the activist campaign, multiplied by 100. $Hedge\ Fund_{j,t}$, $Mutual\ Fund_{j,t}$, $Private\ Equity_{j,t}$, and $Broker\ Dealer_{j,t}$ are indicator variables for activist j's institutional structure. Other variables are described in Appendix B. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include 2,199 activist campaigns initiated during 2000-2014. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) $Action_{i,t+1}$	(2) $Action_{i,t+1}$	(3) $Action_{i,t+1}$	(4) $Action_{i,t+1}$	(5) $Action_{i,t+1}$	(6) $Action_{i,t+1}$
Fight Rate$_{j,t}$	41.01***			37.76***	18.84***	15.79***
	(6.01)			(5.22)	(3.17)	(2.91)
Settle Rate$_{j,t}$		8.70***		7.26***	6.66***	2.99
		(4.12)		(3.33)	(3.27)	(1.61)
Target Share$_{j,i,t}$			-2.64	-1.81	-1.74	0.76
			(-1.49)	(-1.04)	(-1.08)	(0.49)
Proxy$_{j,i,t+1}$					79.31***	69.44***
					(8.61)	(7.67)
$\widehat{Action}_{i,t+1}$						0.99***
						(13.19)
Hedge Fund$_{j,t}$	22.69***	25.64***	27.29***	20.52***	17.01***	14.23***
	(4.19)	(4.58)	(4.76)	(3.80)	(3.13)	(2.75)
Mutual Fund$_{j,t}$	-18.17***	-15.39***	-18.59***	-18.13***	-15.86***	-15.47***
	(-3.17)	(-2.78)	(-3.04)	(-3.13)	(-2.89)	(-3.16)
Private Equity$_{j,t}$	-14.38	-10.45	-12.74	-11.90	-12.36	-7.64
	(-1.50)	(-1.10)	(-1.32)	(-1.26)	(-1.27)	(-0.90)
Broker Dealer$_{j,t}$	-2.51	-2.19	-3.35	-1.44	-0.65	-0.53
	(-0.25)	(-0.22)	(-0.33)	(-0.14)	(-0.07)	(-0.06)
Intercept	56.27***	58.57***	58.19***	57.97***	54.71***	2.73
	(9.59)	(10.33)	(9.64)	(10.10)	(9.94)	(0.47)
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	2,199	2,199	2,199	2,199	2,199	2,199
F-Statistic	31.97	29.32	27.33	23.85	27.80	73.29
R^2	0.072	0.061	0.052	0.079	0.142	0.211

Table 7: Other Reputation Measures and Campaign Outcomes

This table presents OLS regressions assessing how alternative measures of activist reputation relate to activist campaign effectiveness. $\text{Action}_{i,t+1}$ and the independent variables are defined in Appendix B. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include 2,199 activist campaigns initiated during 2000-2014. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) $\text{Action}_{i,t+1}$	(2) $\text{Action}_{i,t+1}$	(3) $\text{Action}_{i,t+1}$	(4) $\text{Action}_{i,t+1}$	(5) $\text{Action}_{i,t+1}$	(6) $\text{Action}_{i,t+1}$
$\text{Active Rate}_{j,t}$	4.77**					1.77
	(2.81)					(0.94)
$\text{Return Avg}_{j,t}$		2.94				-0.16
		(1.07)				(-0.06)
$\text{Perf}_{j,t}$			1.05			0.85
			(0.57)			(0.47)
$\text{Wolf Pack}_{j,i,t+1}$				20.11**		18.19**
				(2.84)		(2.69)
$\text{Port Size}_{j,t}$					1.26	0.29
					(1.02)	(0.24)
$\text{Positions}_{j,t}$					-10.22***	-7.82***
					(-5.19)	(-3.41)
$\text{Churn Rate}_{j,t}$					6.62***	6.02***
					(3.34)	(3.25)
$\text{Recent Fight}_{j,t}$						41.26***
						(4.56)
$\text{Settle Rate}_{j,t}$						3.26*
						(2.00)
$\text{Target Share}_{j,i,t}$						1.16
						(1.25)
$\text{Proxy}_{j,i,t+1}$	79.41***	79.59***	80.46***	76.65***	76.04***	66.15***
	(9.98)	(9.86)	(9.71)	(8.78)	(9.27)	(8.18)
$\widehat{Action}_{i,t+1}$	1.05***	1.06***	1.08***	1.06***	1.03***	0.98***
	(13.25)	(14.17)	(13.87)	(14.11)	(15.32)	(13.09)
Intercept	5.75	5.05	4.06	3.05	6.88*	7.07
	(1.29)	(1.22)	(0.91)	(0.70)	(1.85)	(1.55)
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	2,199	2,199	2,199	2,199	2,199	2,199
F-Statistic	329.6	394.6	338.9	301.8	311.1	229.8
R^2	0.186	0.184	0.183	0.188	0.200	0.215

Table 8: Different Campaign Outcomes

This table presents OLS regressions assessing how activist characteristics relate to different activist campaign outcomes. The dependent variables are $Action_{i,t+1}$, the number of significant actions (defined in Section 4.3) that occur in the year following the start of the activist campaign, as well as each different type comprising $Action_{i,t+1}$: $Payout_{i,t+1}$, indicating the target announces a significant increase in payout; $CEO_{i,t+1}$, indicating the target changes CEO; $Reorg_{i,t+1}$, indicating the target announces a significant reorganization; $M\&A_{i,t+1}$, indicating the target is acquired; and $Board_{i,t+1}$ indicating the target announces of a new member of the board of directors. Each dependent variable is multiplied by 100. Independent variables are defined in Appendix B. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include 2,199 activist campaigns initiated during 2000-2014. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) Action$_{i,t+1}$	(2) Payout$_{i,t+1}$	(3) CEO$_{i,t+1}$	(4) Reorg$_{i,t+1}$	(5) M&A$_{i,t+1}$	(6) Board$_{i,t+1}$
Recent Rate$_{j,t}$	19.85***	1.11	1.98	7.52**	1.30	7.61***
	(3.44)	(0.41)	(0.68)	(2.39)	(0.51)	(3.67)
Settle Rate$_{j,t}$	5.06***	1.57*	0.90	1.35	1.29*	-0.20
	(2.75)	(1.86)	(0.97)	(1.60)	(1.97)	(-0.33)
Target Share$_{j,i,t}$	2.34	0.35	0.88	0.63	-0.07	-0.14
	(1.57)	(0.57)	(1.06)	(0.82)	(-0.11)	(-0.36)
Proxy$_{j,i,t+1}$	73.76***	7.20**	13.12***	6.73*	10.68***	35.12***
	(8.14)	(2.37)	(3.52)	(1.90)	(3.03)	(9.40)
$\widehat{Action}_{i,t+1}$	1.03***	0.91***	1.13***	1.02***	1.23***	2.60***
	(13.89)	(12.89)	(12.30)	(14.13)	(6.22)	(5.22)
Intercept	5.29	-0.38	1.31	-0.35	1.45	-0.53
	(1.30)	(-0.31)	(1.01)	(-0.39)	(1.21)	(-0.92)
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	2,199	2,199	2,199	2,199	2,199	2,199
F-Statistic	118.3	44.14	38.57	61.15	14.24	30.30
R^2	0.192	0.100	0.058	0.144	0.039	0.254

Table 9: Size of Stakes Purchased by Activists in Target Companies

This table presents OLS regressions relating the proportion of the target purchased by an activist hedge fund to our measures of activist reputation. The dependent variable is *Target Share*$_{j,i,t}$, the peak percent of target i's shares outstanding that activist j acquires during the activist campaign. The primary independent variables of interest are: *Recent Fight*$_{j,t}$, a dummy variable indicating activist j initiated a proxy fight in the prior year; and *Settle Rate*$_{j,t}$, the total *Action*$_{i,t+1}$ from activist j's non-proxy campaigns divided in the prior year divided by the average number of campaigns initiated by j in the prior three years. Other controls variables are defined in Appendix B. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include 2,199 activist campaigns initiated during 2000-2014. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) Tgt Shr$_{j,i,t}$	(2) Tgt Shr$_{j,i,t}$	(3) Tgt Shr$_{j,i,t}$	(4) Tgt Shr$_{j,i,t}$	(5) Tgt Shr$_{j,i,t}$
Recent Fight$_{j,t}$	-1.39**		-1.48***	-1.53**	-1.64**
	(-2.88)		(-3.04)	(-2.70)	(-2.85)
Settle Rate$_{j,t}$		0.10	0.17	0.17	0.17
		(0.89)	(1.44)	(1.40)	(1.60)
Proxy$_{j,i,t+1}$				0.20	0.26
				(0.35)	(0.46)
$\widehat{Action}_{i,t+1}$					-0.10
					(-1.01)
Port Size$_{j,t}$					-0.03***
					(-4.76)
Positions$_{j,t}$					0.25
					(1.64)
Churn Rate$_{j,t}$					-1.04***
					(-4.44)
Intercept	8.56***	8.40***	8.57***	8.56***	10.21***
	(35.79)	(37.73)	(35.83)	(38.91)	(26.59)
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	2,199	2,199	2,199	2,199	2,199
F-Statistic	8.286	0.788	5.222	3.768	14.33
R^2	0.005	0.000	0.005	0.005	0.038

Table 10: Proxy Fights by Activists

This table presents OLS regressions relating the frequency of proxy fights to our measures of activist reputation. The dependent variable is $Proxy_{j,t,t+1}$, an indicator for whether the campaign resulted in activist j initiating a proxy fight. The primary independent variables of interest are: $Recent\ Fight_{j,t}$, a dummy variable indicating activist j initiated a proxy fight in the prior year; $Settle\ Rate_{j,t}$, the total $Action_{i,t+1}$ from activist j's non-proxy campaigns divided in the prior year divided by the average number of campaigns initiated by j in the prior three years; and $Target\ Share_{j,i,t}$, the peak percent of target i's shares outstanding that activist j acquires during the activist campaign. Other controls variables are defined in Appendix B. All continuous independent variables are de-meaned and scaled by their standard deviation. The data include 2,199 activist campaigns initiated during 2000-2014. T-statistics are presented in parenthesis, *** indicates significance at 1% level, ** indicates 5%, and * indicates 10%.

	(1) Proxy$_{j,t+1}$	(2) Proxy$_{j,t+1}$	(3) Proxy$_{j,t+1}$	(4) Proxy$_{j,t+1}$	(5) Proxy$_{j,t+1}$
Recent Fight$_{j,t}$	25.87***			25.28***	23.61***
	(6.77)			(6.63)	(6.58)
Settle Rate$_{j,t}$		2.51***		1.31*	0.31
		(3.41)		(1.90)	(0.43)
Target Share$_{j,i,t}$			-0.26	0.25	0.33
			(-0.42)	(0.40)	(0.51)
$\widehat{Action}_{i,t+1}$					1.27**
					(2.08)
Port Size$_{j,t}$					0.14***
					(5.40)
Positions$_{j,t}$					1.00*
					(1.68)
Churn Rate$_{j,t}$					-2.58***
					(-5.37)
Intercept	5.99***	9.04***	9.00***	6.09***	-1.44
	(9.92)	(12.06)	(11.67)	(10.06)	(-1.06)
Cluster SE	Quarter	Quarter	Quarter	Quarter	Quarter
Obs	2,199	2,199	2,199	2,199	2,199
F-Statistic	45.79	11.62	0.176	15.90	18.69
R^2	0.077	0.008	0.000	0.079	0.100