PRIVATE ENVIRONMENTAL ACTIVISM AND THE SELECTION AND RESPONSE OF FIRM TARGETS

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Abstract

Environmental activists are increasingly resorting to private strategies such as boycotts and protests focused on changing individual firms' behavior. In this paper, we examine activists' use of such "private politics" to engender firm compliance with activist objectives. We begin by developing a simple theoretical model of an activist campaign then we develop a series of propositions in response to these questions. We then derive from these propositions a set of empirical hypotheses based on a set of observable features of firms. Finally, we test our hypotheses using a unique dataset of environmental activist campaigns against firms in the United States from 1988-2003. This paper fills an important need in the literature as one of the first empirical attempts to examine the private political strategies of activists and has important implications for the burgeoning literatures on industry self-regulation and the non-market strategies of firms.

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1. Introduction

Environmental activists are increasingly eschewing traditional public strategies such as lobbying legislatures to achieve their objectives and resorting to private strategies focused on changing individual firms' behavior (Baron 2003; Baron and Diermeier 2005). Through boycotts, protests, and civil suits, activists can force firms to "internalize" negative environmental externalities and motivate firms to comply with their demands absent any intervention by the state. Increasingly activists are viewing such "private politics" (Baron 2003) as more effective than dealing with large bureaucratic public institutions.

Activists have a number of tactical weapons in their arsenal. Some tactics, such as civil suits, may impose a direct financial obligation on the firm if successful, not to mention the time and effort necessary defending oneself in court. Others, like protests, boycotts, and letter writing campaigns may impact consumers' willingness to pay for firm products and services. All may be costly to the extent they direct finite managerial attention away from more productive concerns. Overall, these tactics may damage the general reputation of the firm making it more difficult for the firm to secure suppliers and buyers including attracting talented employees who gain utility from working for socially responsible employers.

In this paper, we investigate a number of important questions for both activists and firms concerning private political campaigns: 1) what determines the aggressiveness of a campaign? 2) what increases the likelihood that a firm will be targeted by a campaign? 3) what drives the probability that a firm will comply with an activist's demands? We begin by developing a

simple theoretical model of an activist campaign. From this model, we develop three propositions in response to the three questions posed above. We then derive from these propositions a set of empirical hypotheses based on a set of observable features of firms. Finally, we test our hypotheses using a unique dataset of environmental activist campaigns against firms in the United States from 1988-2003.

This paper fills an important need in the literature as one of the first empirical attempts to examine the private political strategies of activists and the non-market response strategies of firms. The research has important implications, in particular, for the burgeoning literature on industry self-regulation (Maxwell, Lyon, and Hackett 2000; King & Lenox 2000). The private political strategies explored in this paper have been cited as a potentially important lever to encourage firms to regulate their behavior beyond that required by law, i.e., to self-regulate (Arora & Cason 1995; Lenox 2006). This paper provides guidance to understanding when the private politics of activists are likely to be successful and which firms are likely to be subjected to such pressures. As such, it provides guidance on the limits and opportunities for such campaigns to motivate self-regulatory behavior in firms.

2. A Model of Private Environmental Activism

In this section, we develop a model of private activism in the spirit of Baron & Diermeier (2005). Central to our model is that activists stage campaigns against firms. These campaigns consist of a demand/request for action on the firm's part (x_D) and a threat/promise of punishment/rewards for failure to comply/compliance (η). We will assume that the request (x_D) is a pre-determined preference of the activist. Many activist groups are founded with certain issues as their focus. For example, Riverkeeper is an environmental advocacy organization

concerned with pollution of the Hudson River in New York State. Thus, for a specific campaign, we assume that the activist's main decisions are whom to target and what threat/promise to make.

To simplify our model, we will focus on threats of punishment for failure to comply. In some instances, activists may reward firms for compliance by providing positive public relations and commitments not to target the firm in the future. However, our investigation of environmental activist actions in the United States found that at the heart of virtually all actions is a threat of punishment. Punishments include consumer boycotts of firm products, civil lawsuits, and protests as well as more benign actions such as letter writing campaigns and proxy votes in shareholder meetings (Strickland, Wiles, & Zenner 1996).

We propose a three stage model. In the first stage, activists choose a firm for whom to target. Given a request and target, the activist then decides in the second stage on the level of harm/punishment to threaten the firm. In practice, harm is sometimes given at the outset of a campaign, e.g., a request will be made and a boycott will be waged simultaneously. In such cases, it is useful to think of the "threat" as the continuation of harm and the "reward" for compliance as the discontinuation of harm. For example, boycotts and protests can be canceled and lawsuits can be dropped. In the third stage, firms decide whether or not they will comply with the request at the center of the activist's campaign.

We begin with the utility activists gain from waging campaigns. Activists gain utility out of private campaigns against firms depending on whether targeted firms comply to demands or not:

$$U_{activist\ j}(x_D, \eta, i) = p_i u_{x_D i} + (1 - p_i)\left(u_{x_0 i} - c_{ij}(\eta)\right) \quad (1)$$

where p_i is the probability that the targeted firm responds positively to the demands of the activist, $u_{x_D i}$ is the utility the activist gains from firm compliance, $u_{x_0 i}$ is the utility the activist gains from firm non-compliance, and $c_{ij}(\eta)$ is the cost of levying harm on the firm for failing to comply. We allow for the possibility that the activist gains utility from even a non-compliant firm ($u_{x_0 i} > 0$). For example, activist organizations may benefit from failed campaigns if they are perceived as "fighting the good fight". Failure in itself may be used as justification to seek additional funds from donors. However, we assume that the activist gains greater utility out of the targeted firm complying than not complying ($u_{x_D i} > u_{x_0 i}$). Otherwise the activist would have no incentive to deliver rewards or harm (which are costly) and would prefer to make idle threats if that was credible.

A number of factors may impact the utility an activist receives from firm compliance (or non-compliance). Arguably, the more objectionable are the firm's practices, the greater the utility the firm will receive from compliance to its demands. In the environmental arena, the marginal utility of compliance should be greater for more polluting firms than for less polluting firms. In many instances, this reflects a simple calculus. If an activist wishes to curb global warming, a 10% reduction in greenhouse gas emissions by a more polluting firm will lead to a larger absolute reduction as compared with a less polluting firm.

Other factors play a role as well. Activists likely gain utility not only from direct changes to firm behavior but from the ability to attract attention to causes of concern and to raise funds to initiate future private and public campaigns (such as lobbying government).[1] Large, visible firms are attractive targets as campaigns against them are more likely to garner attention from the

[1] It may also be the case that activist organizations suffer from similar agency problems as for-profit firms. Activists may seek personal notoriety and prestige by targeting large, visible firms even at the expense of the organizations larger objectives.

media and the general public. Such attention may increase the utility of a campaign regardless of whether the firm complies or not. Furthermore, the marginal utility of gaining compliance may be greater with large, visible firms even for similar gains in improvement in the underlying performance attribute of concern. A similar reduction in emissions may be more valuable to the activist if undertaken by a large, visible firm who attracts publicity.

Given a request (x_D) and a target (firm *i*), an activist will choose a level of harm (η) such that

$$\max_{\eta} U_{activist\ j}(x_D, \eta, i) \tag{2}$$

Taking the first order conditions and rearranging terms:

$$\frac{\Delta u_{x_D i} + c_{ij}(\eta)}{1 - p_i(\eta)} = \frac{c_{ij}'(\eta)}{p_i'(\eta)} \tag{3}$$

In other words, the activist will choose a level of harm such that the gain in utility to the activist from the firm responding positively plus the cost of delivering harm divided by the probability that the firm does not comply is equal to 1) the marginal cost of delivering that harm, divided by 2) the marginal probability of the firm responding positively to the demand given the threatened level of harm. We consider each of these latter two factors in turn.

The marginal cost of giving harm, $c_{ij}'(\eta)$, is likely driven by the targeted firm's access to financial and human capital. Eesley and Lenox (2006) propose that the ability of an activist to incentivize a firm to comply with demands depends on the power of the activist relative to the targeted firm – power being defined as access to resources such as financial and human capital. On one hand, well-funded activists are better able to develop the infrastructure to initiate and sustain costly actions against firms. On the other hand, resource-rich firms may be better able to resist activist pressure. Firms with large cash reserves or large human capital reserves are able to

support dedicated legal and public relations staff. They may have the resources to repair reputations potentially damaged by stakeholder actions. As a result, the marginal cost to an activist to deliver a certain level of harm to a firm is greater, the greater the firm's financial and human capital. For our model, we will assume that $c_{ij}(\eta) = \alpha\eta^2$ and that $c_{ij}'(\eta) = 2\alpha\eta$.

The marginal probability that a targeted firm responds positively to a promised reward/harm, $p_i'(\eta)$, ultimately depends on whether the benefit of avoiding punishment exceeds the absolute value of the operational loss associated with complying with the request.

$$\eta \geq \left|\Delta\pi_{x_D i}\right| \quad \text{where } \Delta\pi_{x_D i} = \pi_{x_D i} - \pi_{x_0 i} \tag{4}$$

where $\pi_{x_0 i}$ and $\pi_{x_D i}$ are the discounted future stream of profits that would accrue to the firm given the status quo and compliance with the activist's request, respectively. We assume that compliance will lead to an operational loss ($\Delta\pi_{x_D i} = \pi_{x_D i} - \pi_{x_0 i} < 0$), i.e. compliance will lead to lower profits independent of any gain to the firm's reputation (or loss avoidance as captured by η). Otherwise, the firm would have incentives to comply with the activist's request independent of any promised threat or reward and, thus, the activist's request would be unnecessary.

A number of factors may impact the magnitude of operational losses facing the firm. The greater the changes required to comply with the activist's request, the greater the cost to the firm all else being equal. On environmental matters, more polluting firms will likely face greater costs to achieve some absolute environmental performance target than less polluting firms. To meet such targets might require small operational changes for less polluting firms, but wholesale

changes to physical plants (like purchasing new equipment) in order for more polluting firms to comply.[2]

Overall, we assume that there is uncertainty about these operational losses and that the activist does not have full information about them. As such, we adopt a random utility model when specifying the utility of the firm where firms gain both an underlying value from adopting (v_i) and a random component (ε_i). For simplicity, let's assume that if the firm complies with the activist's request, the firm is "rewarded" η, i.e., the firm avoids punishment. The marginal utility received by the firm from complying with a request (x_D) therefore is

$$V_{firm_i}(x_D, \eta) = v_i + \varepsilon_i = \eta + \Delta\pi_{x_D i} + \varepsilon_i \tag{5}$$

where ε_i represents an unobserved utility (or disutility) that the firm receives for complying. Once again, we assume that the marginal change in profits due to compliance will be negative ($\Delta\pi_{x_D i} = \pi_{x_D i} - \pi_{x_0 i} < 0$). Thus, a firm gains utility by complying if the reward given by the activist (or the failure to punish) exceeds the operational losses associated with compliance ($\Delta\pi_{x_D i}$) plus firm specific utility (ε_i). Given our random utility model, the probability, p_i, of a targeted firm responding positively can be given by the multiplicative form,

$$p_i(\eta) = \Pr(x_i = x_D) = \frac{v_i}{v_i + 1} = \frac{\eta + \Delta\pi_{x_D i}}{\eta + \Delta\pi_{x_D i} + 1} \tag{6}$$

The derivative of which with respect to η is,

$$p_i'(\eta) = \frac{1}{(v_i + 1)^2} = \frac{1}{(\Delta\pi_{x_D i} + \eta + 1)^2} \tag{7}$$

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[2] Much has been written in recent years about the prospects for firms to realize cost savings through emissions reductions (see Porter & van der Linde 1995a, 1995b, and Palmer, Oats, & Portney 1995 for an interest debate on the matter.) While recent empirical evidence suggests that such "win-wins" are possible (King & Lenox, 2002), they are uninteresting in this context as they should obviate the need for activists campaigns in the first place.

Substituting our specifications for the marginal cost of delivering harm and the marginal probability that a firm complies with a request into equation (3) and solving for η gives the optimal level of harm for a given target firm:

$$\eta_i^* = \sqrt{\left(1+\Delta\pi_{x_D i}\right)^2 + \frac{\Delta u_{x_D i}}{\alpha}} - \left(\Delta\pi_{x_D i}\right) - 1 \tag{8}$$

Assuming that $\alpha > 0,\ \Delta u_{x_D i} > 0$, and $\Delta\pi_{x_D i} < 0$, we derive the marginal effect of changes in each of these parameters:

$$\frac{\partial \eta_i^*}{\partial \alpha} < 0, \frac{\partial \eta_i^*}{\partial \Delta u_{x_D i}} > 0, \frac{\partial \eta_i^*}{\partial \Delta\pi_{x_D i}} < 0 \tag{9}$$

PROPOSITION 1. The harm given is increasing as the marginal cost of giving that harm (α) decreases, as the utility of gaining compliance ($\Delta u_{x_D i}$) increases, and the operation loss of the firm to comply ($\Delta\pi_{x_D i}$) increases.

Substituting equation (8) back into the probability equation (6) and solving gives us the probability that a given firm will respond positively to the activist's request:

$$p_i^* = 1 - \left(\left(1+\Delta\pi_{x_D i}\right)^2 + \frac{\Delta u_{x_D i}}{\alpha} \right)^{-1/2} \tag{10}$$

Assuming once again that $\alpha > 0,\ \Delta u_{x_D i} > 0$, and $\Delta\pi_{x_D i} < 0$, we derive the marginal effect of changes in each of these parameters. (Note that the third condition only holds for $\Delta\pi_{x_D i} < -1$).

$$\frac{\partial p_i^*}{\partial \alpha} < 0, \frac{\partial p_i^*}{\partial \Delta u_{x_D i}} > 0, \frac{\partial p_i^*}{\partial \Delta\pi_{x_D i}} < 0 \tag{11}$$

PROPOSITION 2. The probability that a firm complies to a given request is increasing as the marginal cost of giving that harm (α) decreases, as the utility of gaining compliance ($\Delta u_{x_D i}$) increases, and as the operational loss of the firm to comply ($\Delta\pi_{x_D i}$) increases.

This last finding is rather unintuitive. One may think that the larger the potential operational loss to the firm, the lower the likelihood that the firm would comply. However, the larger the potential operational loss to the firm, the greater the harm necessary to motivate compliance. In our random utility model, activists will adopt increasingly larger harms relative to the potential operational loss. This is due to the uncertainty surrounding the firm's actual operational loss. To gain compliance (and avoid paying the full harm), activists adopt extreme levels of threatened harm when the potential operational loss is large, thus motivating the firm to comply.

Finally, we consider the likelihood that a given firm is targeted by activists. The expected utility of the activist for a campaign against a given firm *i* is given by substituting (8) and (10) into equation (1):

$$U_{activist\ \ j}\left(x_D, \eta^*, i\right) = u_{x_D i} + 2\alpha(1+\Delta\pi_{x_D i}) - 2\alpha\left(\left(1+\Delta\pi_{x_D i}\right)^2 + \frac{\Delta u_{x_D i}}{\alpha}\right)^{1/2} \tag{12}$$

Assuming the activist is constrained in the number of campaigns she can wage at any one time, the activist will likely first seek to wage a campaign, x_D, against the firm that gives her the greatest utility:

$$\max_{choose\ i} U_{activist\ j}\left(x_D\right) \text{ subject to } U^* > 0 \tag{13}$$

From equation (12), one can see that the utility of the activist is increasing, as the marginal cost of harm decreases and the utility of compliance increases. Thus, the probability that a given firm will be targeted should be increasing as the cost of harm decreases and the utility of compliance increases.

$$\frac{\partial \Pr(target = i)}{\partial \alpha} > 0, \frac{\partial \Pr(target = i)}{\partial \Delta u_{x_D i}} > 0 \tag{14}$$

PROPOSITION 3. The likelihood a firm is targeted by an activist is increasing as the marginal cost of giving harm decreases (α) and as the marginal utility of gaining compliance increases ($\Delta u_{x_D i}$).

Note that the relationship between the probability that any given firm will be targeted and the operational loss of the firm to comply ($\Delta\pi_{x_D i}$) is complex. For certain values of α and $\Delta u_{x_D i}$, the relationship is nonlinear, with the probability of being targeted decreasing at first as $\Delta\pi_{x_D i}$ increases, then increasing with $\Delta\pi_{x_D i}$, only to decrease once again as $\Delta\pi_{x_D i}$ increases.

3. Empirical Approach

In our model, we develop three propositions concerning 1) the level of harm an activist will adopt, 2) the probability that a firm will respond positively to a request and a given threatened level of harm, and 3) the probability that a given firm will be targeted by an activist. Our propositions rely on three underlying constructs: the marginal cost of giving harm (α), the utility of gaining compliance ($\Delta u_{x_D i}$), and the cost of the firm to comply ($\Delta\pi_{x_D i}$). Unfortunately, these three underlying constructs are not observable to the econometrician. However, there are a number of observable factors that likely influence these constructs.

As discussed above, the marginal cost of giving harm (α) is likely driven by the targeted firm's access to financial and human capital. The greater a firm's reserves of capital to fight activist actions, the more costly will it be for the activist to deliver a given level of harm. In particular, we propose that the amount of firm cash on hand (*Firm Cash*) is a good indicator of the firm's ability to fight and should be positively correlated with the marginal cost of giving harm.

We proposed earlier that the utility of gaining compliance ($\Delta u_{x_{Di}}$) is driven in part by the size and visibility of the targeted firm and its environmental performance relative to similar firms. In particular, activists should gain greater utility when larger, more visible and more polluting firms comply with requests. To capture firm size and visibility, we measure firms' total assets (*Firm Assets*) and their advertising intensity (*Firm Advertising Intensity*), respectively. While alternative measures of firm size such as firm sales and firm employees are reasonable, these measures are likely highly correlated with firm assets. Similarly, alternative measures of visibility are possible, but advertising intensity arguably reflects the degree a firm's brands are recognizable and has the advantage of being widely available.

Finally, the cost of the firm to comply ($\Delta \pi_{x_{Di}}$) should be increasing in the relative environmental performance of the targeted firm. Arguably, it is more costly for more polluting firms to comply with activists' requests. We propose that the firm's toxic emissions are a good proxy for the firm's overall environmental performance. While firm activity may impact the natural environment in a number of ways beyond toxic emissions, we assert that toxic emissions are likely positively correlated with other sources of environmental impact (King & Lenox, 2002). An interesting question is whether we should be measuring emissions on an absolute or relative basis (i.e., relative to other firms of similar type and size). Arguments can be made for either measure as a major influence on both the marginal cost of the firm to comply and the utility the activist receives from compliance. We leave the question to empirical analysis and construct both absolute and relative measures of toxic emissions (*Firm Absolute Emissions* and *Firm Relative Emissions*, respectively).

With these measures in hand, we can estimate a series of reduced-form specifications based on our model. We propose that the level of harm an activist will adopt is increasing as the

marginal cost of giving that harm decreases, as the utility of gaining compliance increases, and the cost of the firm to comply increases (see Proposition 1). Thus, the greater a targeted firm's emissions, size, and visibility and the lesser the firm's cash reserves, the greater should be the harm adopted by the activist. In other words,

$$\eta_i^* = f\left(Firm\,Emissions, Firm\,Cash, Firm\,Assets, Firm\,Advertising\,Intensity\right) \quad (15)$$

where $\frac{\partial \eta_i^*}{\partial Firm\,Emissions} > 0, \frac{\partial \eta_i^*}{\partial Firm\,Cash} < 0, \frac{\partial \eta_i^*}{\partial Firm\,Assets} > 0, \frac{\partial \eta_i^*}{\partial Firm\,Advertising\,Intensity} > 0$

Similarly, we propose that the probability that a firm complies with an activist's request is increasing as the marginal cost of giving that harm decreases, as the utility of gaining compliance increases, and the cost of the firm to comply increases (see Proposition 2). Thus, the probability that a firm complies with an activist's request should be greater, the greater the firm's size and visibility and the more polluting the firm and the lesser the firm's capital reserves.

$$p_i^* = f\left(Firm\,Emissions, Firm\,Cash, Firm\,Assets, Firm\,Advertising\,Intensity\right) \quad (16)$$

where $\frac{\partial p_i^*}{\partial Firm\,Emissions} > 0, \frac{\partial p_i^*}{\partial Firm\,Cash} < 0, \frac{\partial p_i^*}{\partial Firm\,Assets} > 0, \frac{\partial p_i^*}{\partial Firm\,Advertising\,Intensity} > 0$

Finally, we propose that the probability that a firm is targeted is increasing as the marginal cost of giving that harm decreases, as the utility of gaining compliance increases, and the cost of the firm to comply increases (see Proposition 3). Thus, the probability that a firm is targeted should be greater, the greater the firm's size and visibility and the more polluting the firm and the lesser the firm's capital reserves.

$$\Pr(target = i) = f\left(Firm\,Emissions, Firm\,Cash, Firm\,Assets, Firm\,Advertising\,Intensity\right) \quad (17)$$

where $\frac{\partial \Pr(target = i)}{\partial Firm\,Emissions} > 0, \frac{\partial \Pr(target = i)}{\partial Firm\,Cash} < 0, \frac{\partial \Pr(target = i)}{\partial Firm\,Assets} > 0, \frac{\partial \Pr(target = i)}{\partial Firm\,Advertising\,Intensity} > 0$

4. Data & Measurement

To estimate our empirical models, we constructed a database of private environmental

activist campaigns directed against firms in the United States during the period 1988-2003.[3] Data on activist campaigns were gathered through an exhaustive search of U.S. newspaper articles and legal actions as recorded in LexisNexis records and was bolstered with additional data from the Investor Responsibility Research Center.[4] We identified 552 activist campaigns involving 273 firms and 267 unique activist groups in the U.S. during this period. The subject of the campaigns varied from requests to report emissions of global greenhouse gases to requests to eliminate the discharge of toxic chemicals. Table 1 includes a summary of the requested actions and issues included in our sample.

Insert Table 1 about here

4.1 Dependent Variables

Five broad classes of tactics to induce harm are included in our sample: lawsuits, protests, boycotts, letter writing campaigns, and proxy votes[5]. While we do not directly

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[3] We initially collected data back to 1971. We limit our analysis to the 16-year window between 1988-2003 to increase our confidence that we were able to identify the population of major activist actions in any given year. We found that as we searched back further than twenty years, we could identify significantly fewer activist campaigns. While this may reflect some general time trend, we were concerned that we were beginning to miss important campaigns.

[4] Data on protests, boycotts, and letter writing campaigns were collected from the LexisNexis Academic database of U.S. newspaper articles ranging from February 10, 1971 to November 25, 2003 (LexisNexis, 2003). We searched using keywords including: stakeholder, environmental group, NGO, firm, environment, and company. Proxy vote data were collected from the Investor Responsibility Research Center (IRRC). Data on civil lawsuits were collected through the LexisNexis Legal Research database of Federal and State civil law suits pertaining to environmental issues. We searched using keywords including: stakeholder, environmental group, NGO, firm, and company. Records were retained when we could identify the activist group, the firm, and the request. This information was available in virtually all records identified. The database contains federal and state case law on environment-related civil suits, including U.S. Supreme Court, U.S. Courts of Appeals, Federal District Courts and state courts. Additional data were collected from stakeholder groups' annual reports and websites and by contacting officials from the group when necessary.

[5] Proxy votes are included because they are often initiated by activists who specifically buy enough shares to initiate a proxy vote (Strickland, Wiles, & Zenner 1996). This was reinforced by comments via email from a nun in one of the religious groups who wished to remain anonymous yet noted that the Sisters usually try to purchase a few more shares than the minimum required to file a proxy vote.

observe the specific threatened level of harm in a given campaign, we submit that these broad classes serve as a sufficient proxy to discern different levels of harm. Arguably, campaigns vary from more benign modes of civil unrest such as letter writing campaigns to company officials to more confrontational activities such as protests and civil lawsuits. We may surmise that civil suits, for example, pose the greatest potential harm due to the direct risk of financial losses imposed by a credible third party (the judiciary).[6] Boycotts, on the other hand, are likely to be less effective unless they are of sufficient size that they can make a significant impact on the sales of the targeted firm. Receiving even several thousand letters during a successful letter writing campaign appears less likely to impose an economic burden to a firm than a protest or boycott.

We construct a measure of the level of harm threatened by the activist by assigning to a campaign a value from one to five depending on the adopted tactic. In particular, a campaign utilizing a proxy vote is assigned a level of harm of 1. Letter writing campaigns were assigned a value of 2 and boycotts, protests, and lawsuits were assigned values of 3, 4, and 5 respectively. To estimate our level of harm model, we adopt an ordered probit specification where an underlying score is estimated as a linear function of the independent variables and a set of cut points:

$$\Pr(\eta = n) = \Pr(\kappa_{n-1} < \boldsymbol{\beta}'\boldsymbol{x} < \kappa_n) \tag{18}$$

where $\boldsymbol{x}$ represents a vector consisting of our independent variables and controls and κ_n represents a cut point. The ordered probit specification has the advantage of assuming ordinality but not cardinality in our ranking.

[6] In fact, environmental suits by activists result in greater wealth loss for firm defendants than any other kind of lawsuits (Bhagat, et al., 1998).

For each campaign, we identified whether the targeted firm complied with the activist's request. A firm's compliance to a request is coded as a one if the targeted firm positively responded to activist demands within five-years of initiation and zero otherwise.[7] If there were multiple actions within this window, they were all coded as a one if the firm responded.[8] Data for coding the likelihood of compliance was gathered from a search, by company and activist names, of articles referencing the campaign using the LexisNexis Academic database of newspaper articles. In the case of civil suits, the LexisNexis Federal and State Civil Suit database was searched and compliance was coded according to the final disposition of the suit (e.g., the nature of the settlement).[9] Given the binary nature of our compliance variable, we adopt a simple probit specification when estimating the probability that a firm complies:

$$p_i^* = \Phi(\boldsymbol{\beta}'\boldsymbol{x}) \tag{19}$$

where $\boldsymbol{x}$ represents a vector consisting of our independent variables and controls and $\Phi()$ represents the standard normal distribution.

To capture the likelihood that a firm is targeted, we counted the number of times a given firm was the target of an activist campaign in a given year. Since we have a count variable, we

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[7] A timeframe of this length was chosen in order to give time for the action to take effect (since the date recorded was when the action started or was announced) and then to give time for the firm to respond. If the firm made a change beyond this time frame we concluded that it is too tenuous to attribute that change to the initial activist action. On average, firms responded within 11 months of an activist action. Only in three instances did we find firms acting in congruence with activists requests in a timeframe greater than 5 years. Including these three instances does not have a significant impact on our results. As a robustness check, we also estimated models using time to action as the dependent variable and found similar results.

[8] We leave to further analysis of the effects of multiple activist actions to future work. We do attempt to control for these situations in our analysis.

[9] There were a small number of outcomes that could not be found in LexisNexis. In these cases, a search was performed to find a record of the outcome of the action on the firm's or stakeholder groups' websites and annual reports. Only if one of these sources directly addressed the outcome of the exact concern raised by the stakeholder action was the outcome coded positively. Compliance was not coded if these searches yielded nothing. The one exception to this rule was for proxy votes. If a proxy vote was resubmitted the following year, then we felt confident that the company had not made the requested change. In order to verify the coding of this variable, we had two research assistants independently code compliance following the same protocol. The coding from these efforts was correlated at 95.21%.

adopted a negative binomial specification.[10] The expected number of times targeted given a set of independent variables may be given by,

$$E[\textit{Times Targeted}_{it} \mid \boldsymbol{x_{it}}] = \lambda_{it} = \exp(\boldsymbol{\beta' x_{it}} + \varepsilon_{it} + \nu_i) \quad (20)$$

where $\boldsymbol{\beta}$ is the coefficient vector, $\boldsymbol{x_{it}}$ represents our set of time-variant firm characteristics, and ν_i and ε_{it} are independent random variables.

To have a control sample of firms never targeted by activists, we reconstituted our database using all public firms in the United States in sectors where at least one firm was the target of a stakeholder action between 1988-2003. Firms were culled from the Compustat Annual Dataset using the 4-digit Standard Industrial Classification code to distinguish sectors. Thus, we analyze two datasets. The first represents campaign data where each observation represents a specific request by an activist group of a specific firm. The resulting dataset contains 1,092 unique activist-firm-campaign triplets.[11] These data are used to estimate our models of level of harm and the probability of complying. The second dataset contains firm data were each observation represents a firm-year observation. The resulting panel dataset includes 33,213 observations of 3,338 firms. These data are used to estimate the frequency that a given firm is targeted by environmental activists.

4.2 Independent Variables

A number of firm level data were gathered from Standard & Poor's Compustat Annual Dataset that is based on the Securities and Exchange Commission (SEC) filings of U.S. public

[10] The negative binomial model is commonly used for over-dispersed count data like ours (Griliches et al, 1987). The negative binomial model is a generalized form of a Poisson model where an individual, unobserved effect is introduced in the conditional mean (Greene, 2000). We do not adopt a Poisson model because the assumption of constant dispersion appear violated, i.e. the mean and variance of the event count are not proportional.

[11] Note that the number of observations exceeds the number of campaigns since more than one firm or more than one activist group may be involved in any given campaign. To allay concerns of overconfidence in our model estimates, we present robust standard errors based on clustering on the campaign.

firms.[12] A firm's cash position (*Firm Cash*) was recorded during the time an action was initiated against the firm. Similarly, we measure firm size using the firm's total assets during the time an action was initiated against the firm (*Firm Assets*). Alternative measures such as firm sales and firm employees were highly correlated with firm assets and had minimal effects on our estimates when used in place of *Firm Assets*. We take the natural logarithm of both of these measures to account for skew. Finally, *Firm Advertising Intensity* was measured as the ratio of firm advertising expenditures to firm assets for the year an action was taken.[13]

To capture the environmental emissions of the firm, we use data on facility emissions of toxic chemicals as collected in the Toxic Release Inventory (TRI) by the U.S. Environmental Protection Agency. Since 1987, the EPA has required all manufacturing facilities with greater than 10 employees to report emissions of over 250 toxic chemicals.[14] To construct our measure of absolute performance (*Firm Absolute Emissions*), we calculate the log of a firm's total annual emissions (in lbs.) by calculating the toxicity-weighted sum of all core chemicals released into the environment, treated onsite, and transferred offsite for each manufacturing facility of each firm in our sample.[15] To calculate relative performance (*Firm Relative Emissions*), we estimate a quadratic function between facility size and total emissions for each 4-digit Standard Industry Classification (SIC) code within each year using standard OLS regression.

$$W_{it} = e^{\alpha jt} s_{it}^{\beta 1jt} s_{it}^{ln(s)^* \beta 2jt} e^{\varepsilon_{jt}} \quad (18)$$

[12] Virtually all the firms identified as targets of activist campaigns were publicly traded.

[13] There were a number of observations that were missing for this variable. So as to not restrict our sample, we substituted the average advertising intensity in a firm's 4-digit SIC code when data were missing.

[14] The list of reportable chemicals has been amended a number of times over the last fifteen years. To ensure comparability, we focus on the 246 "core" chemicals that have consistently been required to be reported. Facilities only need to report emissions of chemicals if they emit more the 25,000 lbs or use 10,000 lbs. of that chemical.

[15] Chemical vary greatly in their toxicity. Smaller releases of more toxic chemicals can jave greater environmental impacts than larger releases of more benign chemicals. To measure the relative toxicity of emissions, we weighted each chemical by the inverse of the EPA's Reportable Quantity toxicity scale.

where W_{it} is aggregate emissions for facility i in year t, s_{it} is facility size, α_{jt} ,β_{1jt}, and β_{2jt} are the estimated coefficients for sector j in year t, and ε_{jt} is the residual. We use the estimated function to predict the emissions of each facility given its size, industry, and year. Then we use the residual to measure the relative emissions of each facility.

$$W^*_{it} = e^{\alpha jt} s_{it}^{\beta 1jt} s_{it}^{ln(s)^* \beta 2jt}$$
$$RW_{it} = e^{\varepsilon_{jt}/\sigma_{\varepsilon jt}} \quad (19)$$

where W^*_{it} is predicted emissions for facility *i* in year *t*, RW_{it} is the standardized relative emissions for facility *i* in year *t*, and $\sigma_{\varepsilon jt}$ is the standard error of the residual for the SIC and year pair. To create a firm-level measure of relative emissions, we calculate the mean relative performance of each of the firm's facilities for each year.[16]

4.3 Controls

We include a number of controls for potential sources of unobserved heterogeneity in our samples. For our estimates based on the campaign dataset, we include industry-sector and year dummy variables. Recall, that our sample constitutes unique firm-activist-campaign triplets. We are able to leverage the fact that most activists wage more than one campaign and many firms are the target of more than one campaign and include firm and activist dummy variables for all firms and activists who are targeted or initiate more than one campaign. For our estimates based on the firm sample, we have a more traditional panel and include year fixed-effects and firm random effects. Firm random-effects are adopted rather than fixed-effects due to the large number of firms who are never targets and thus would have been removed from our sample given our negative binomial specification.

[16] This measure has been used by a number of papers in the literature as a measure of environmental performance and is highly correlated with other indicators such as spills, accidents, and hazardous waste sites (King & Lenox, 2002).

We also introduce a number of variables to control for the unique nature of a campaign. As illustrated in Table 1, activists may request a number of different actions from firms. In some instances, they may request that firms adopt principles or sign pledges. For example, the Coalition for Responsible Economies (CERES) has requested a number of firms to adopt a set of principles outlining a commitment to the environmental sustainability of their business operations. In other instances, activist groups request that firms provide information about their operations often in the form of either product labels or detailed reports. Activists may request a whole host of operational changes from firms from increasing the use of recycled materials to the reduction of toxic effluents. The requested actions within our database fall into one of four categories: adopt principles or pledges, label products or processes, report on operations, and make operational changes. To control for the requested action, we include dummy variables for each of these categories.

In addition to the requested action, campaigns vary on the requested issue. Our database includes four major categories of environmental issues: pollution, industrial recycling, land use / habitat destruction, and greenhouse gas emissions (global warming concerns). Arguably, the soundness of the science and the individual risk assessment of each of these issues vary significantly. While the environmental consequences of habitat destruction and pollution are often well understood, there has been less perceived agreement among the general public (though not among scientists) about the global warming consequences of emitting greenhouse gases or the health effects of consuming genetically modified organisms. To control for variance across these issues, we include dummy variables indicating the requested issue at the center of a campaign.

Finally, there are many different types of activist groups represented in our sample

including traditional environmental advocacy organizations, individual activists, religious groups, and other non-governmental organizations where environmental issues are not their sole focus. These types of groups differ in the degree to which they are, at least perceived, to be legitimate arbitrators of environmental issues (Fineman and Clarke, 1996; Harvey and Schaefer, 2001). One could imagine that certain types of groups may favor specific campaign tactics and disavow others. Table 2 presents a summary of the type of tactic chosen by each activist category. To control for variance introduced by activist type, we include dummy variables for each of the major activist types in our sample (environmental advocacy organizations, individual activists, religious groups, and other non-governmental organizations).

Insert Table 2 about here

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5. Analysis & Results

Tables 3 and 4 present the descriptive statistics and pair-wise correlations, respectively, from our two samples. Please note that *Firm Absolute Emissions*, *Firm Cash*, and *Firm Assets* are expressed in natural logs.[17] Of note, approximately 44% of the firms in our sample complied with the activist's request (see *Firm Compliance to Request*). On average, very few firms were targeted by activists (see *Times Firm Targeted in a Year*). However, at the extreme, some firms were targeted upwards of 10 times in a given year. As for the correlation table, of note is the high correlation between *Firm Compliance to Request* and *Level of Harm Adopted by Activist*.

[17] Some firms' aggregate, toxicity weighted emissions were zero. To avoid losing those observations, we added one to each firms' absolute emissions before taking the natural log.

As predicted in equation (6), the higher the level of harm threatened, the greater the likelihood that the targeted firm will comply with the request.

Insert Tables 3 & 4 about here

Table 5 presents our estimates for both the level of harm adopted by the activist and the likelihood a targeted firm complies to a request given a campaign. Models 1 through 3 present estimates for our specification of the level of harm adopted. In Model 1, we use our measure of absolute emissions (*Firm Absolute Emissions*) and control for fixed sector, year, firm, and activist effects. The model is statistically significant and explains approximately 46% of the variance. As predicted, we estimate positive coefficients for *Firm Absolute Emissions* and *Firm Assets* and a negative coefficient for *Firm Cash*. Surprisingly, we estimate a negative coefficient on *Firm Advertising Intensity* though we are not confident that our estimate is different than zero (t-stat = -1.03).

Insert Table 5 about here

While we are confident ($p < 0.001$) in our estimates of *Firm Assets* and *Firm Cash*, we are not confident in our estimate of *Firm Absolute Emissions* (t-stat = 0.62). One possibility is that our measure of absolute emissions does not fully capture the decision logic of activists. Perhaps, activists gain utility from firm improvements relative to other firms within the firm's sector rather than absolute improvements. In Model 2, we replace *Firm Absolute Emissions* with our relative measure of emissions. The model remains statistically significant and explains exactly

the same amount of variance. We find a positive, but not significant, coefficient on *Firm Relative Emissions*. All other coefficient estimates are similar to the previous estimates presented in Model 1.

Another possibility for the lack of significance on the firm emissions coefficient is that the impact of emissions on the level of harm adopted is influenced by the type of request and activist. For example, it seems reasonable that different activist groups favor different levels of harm. In Model 3, we re-estimate Model 2 controlling this time for the requested action, requested issue, and the activist type. The model is statistically significant and now explains 56% of the variance. Our estimates for *Firm Cash*, *Firm Assets*, and *Firm Advertising Intensity* are similar to previous models. Our estimate for *Firm Relative Emissions*, however, increases over seven-fold. While the estimate is still not significant at the $p < 0.01$ level, we are 95% confident the estimate is greater than zero if we do not adjust our standard errors due to clustering on the campaign (Greene 2003).

In Models 4 through 6, we turn our attention to estimates of our model predicting the likelihood that a firm will comply to a request. In Model 4, we use our measure of absolute emissions (*Firm Absolute Emissions*) and control for fixed sector, year, firm, and activist effects. The model is statistically significant and explains approximately 36% of the variance. As predicted, we estimate a negative coefficient for *Firm Cash* with a confidence of 99%. Surprisingly, we estimate negative coefficients on *Firm Absolute Emissions*, *Firm Assets* and *Firm Advertising Intensity* though we are not confident that our estimates are different than zero.

In Model 5, we re-estimate our model substituting *Firm Relative Emissions* for *Firm Absolute Emissions*. Once again, the model is statistically significant and we estimate a significant, negative coefficient for *Firm Cash* ($p < 0.001$). We continue to estimate a negative

coefficient on firm emissions, however, using *Firm Relative Emissions*, we are now confident that the coefficient is less than zero. As a further confirmation, we re-estimate Model 5 including controls for the requested action, requested issue, and the activist type. In Model 6, we continue to find a significant, negative coefficient on firm emissions. The model remains statistically significant and all other coefficient estimates are similar to previous models. The model explains approximately 46% of the variance. We speculate why we estimate a negative coefficient on firm emissions in the discussion section.

Finally, we turn our attention to the likelihood that a firm is targeted. Table 6 presents our estimates of models of the number of times a firm is targeted by activists in a year. Recall, our sample includes all public firms in industry sectors where at least one firm was targeted by activist campaigns during the 1988-2003 period. We adopt a negative binomial specification and include year fixed-effects and firm random-effects in all models presented. In Model 7, we estimate a targeting model using *Firm Absolute Emissions* as our measure of environmental performance. As hypothesized, we estimate positive coefficients for *Firm Absolute Emissions*, *Firm Assets*, and *Firm Advertising Intensity* and a negative coefficient for *Firm Cash*. All coefficient estimates are significant at the $p<0.001$ level. In Model 8, we re-estimate Model 7 substituting *Firm Relative Emissions*. The model continues to be statistically significant and we once again estimate positive, significant coefficients for *Firm Absolute Emissions*, *Firm Assets*, and *Firm Advertising Intensity* and a negative, significant coefficient for *Firm Cash*.

Insert Table 6 about here

One potential concern is that the distribution of our dependent variable, *Times Firm Targeted in a Year*, is heavily skewed toward zero. Only 8% of the firms in our sample ever have had an activist campaign directed at them during the time period of our study. Potentially there is some unobserved feature of firms that determines whether or not they are ever targeted. To increase our confidence in the previous estimates, we reduce the sample to only firms who are targeted and re-estimate Model 8. In essence, this model captures the extent to which a firm is targeted given that it is targeted. In Model 9, we continue to estimate positive coefficients for *Firm Relative Emissions*, *Firm Assets*, and *Firm Advertising Intensity* and a negative coefficient for *Firm Cash*. The magnitude of each coefficient is smaller than estimated in Model 8 and we are no longer confident that *Firm Relative Emissions* and *Firm Advertising Intensity* are greater than zero. This is not surprising given the reduced sample size and the stringency of the test.

6. Discussion

Consistent with our hypotheses, we find that the level of harm threatened by activists is increasing as firm emissions increase, firm cash decreases, and firm assets increase (though the evidence with respect to firm emissions is weak). Furthermore, we find that the probability of firm compliance with a request is positively and significantly decreasing with increasing firm cash. Finally, we find that the likelihood of a firm being targeted by an activist is increasing with firm emissions, firm assets, and firm advertising intensity and decreasing with firm cash. Each of these latter estimates was significantly different from zero.

Inconsistent with our hypotheses, we found that *Firm Relative Emissions* had a significant, negative impact on the probability of a firm responding positively to a request. While this result is intuitive on the surface, we had proposed that activists would have incentives

to raise the level of harm, the more polluting a firm, increasing the likelihood the firm would respond positively. One can imagine a number of reasons why this underlying logic may not hold. For one, if activists face a budget constraint they may be unable to credibly threaten extreme amounts of harm. Thus, we may observe that moderately polluting firms are more likely to comply than less polluting firms but that activists are unable to impose the necessary harm to motivate extremely polluting firms. Alternatively, the fact that a firm has high relative emissions may reflect that a firm's managers have a preference for resistance and have been resistant to stakeholder demands in the past and continue to hold a preference for resistance.

Surprisingly, we estimate negative coefficients for the marginal impact of *Firm Advertising Intensity* on both the level of harm adopted and the likelihood that firm will comply with a request. While we are not confident that any of these coefficient estimates were significantly different from zero, it is worthwhile to consider why we consistently estimated negative coefficients. One possibility is that advertising intensity does not capture the underlying construct of firm visibility. Survey responses of consumer familiarity with a firm's brands is one alternative measurement strategy (King & Lenox, 2000). Another possibility is that advertising intensity may represent a source of strength rather than a liability for firms when it comes to activist campaigns. Similarly to capital reserves, firms with strong marketing capabilities may be able to push back and resist activist demands engaging in public relations and refuting the claims of activists. Such firms can raise the cost of delivering harm for the activist and are less likely to comply with a request.

Our results are robust to a number of specifications. Across all our models, we include year dummies to control for heterogeneity over time. In our models of harm adopted and compliance, we include dummies for sector, firm, and activist to control for unobserved

heterogeneity across each group. In addition, we include controls for the nature of action requested, the issue requested, and the activist type. In our model of targeting behavior, we control for stable sources of unobserved heterogeneity between firms by making full use of our panel and including firm random-effects.

One potential concern with our analysis is that our database might not include all activist campaigns. If these unobserved campaigns are randomly distributed across the population, the failure to include them will not bias our results and their exclusion would simply make it harder to find significant coefficients. There is reason for concern, however, if our database missed campaigns in a systematic way related to our variables of interests. This seems unlikely though. If there is a bias, most likely it is that more major or important campaigns are more likely to appear in our dataset. Nonetheless, while campaigns that were minor enough to have not been reported in even local newspapers could have been missed, our database does contain some very small campaigns limited to one local area. Even if our dataset is biased towards well publicized activist campaigns, since these have the biggest impact on firms, they should be the ones we are most concerned about. However, we remain cautious that well publicized activist campaigns may be those where more harm is threatened or inflicted and thus the ones that firms are more likely to respond to.

There are a number of opportunities to advance both the theoretical model and empirical analysis presented in this paper. Previous work has found that there may be significant differences across activists that influence the likelihood that they would adopt a certain level of harm and the likelihood that they would target certain firms (Eesley & Lenox, 2005; Eesley & Lenox, 2006). Activists are motivated by a mix of factors including focused objectives such as bringing about change in targeted firms, but also broader objectives such as attracting attention

to issues, securing resources for the organization, and garnering individual recognition and respect. Some activists are unwilling or, at least unlikely, to accept more aggressive form of unrest. For example, in our sample, religious organizations such as nunneries are far less likely to engage in protests and civil suits (see Table 2). Activist preferences such as these have interesting implications for the structure of campaigns and the selection of targets.

We assume in our theoretical model that the topic of the campaign is an exogenous preference of the activist. An interesting extension would be to model this as a strategic choice. Activists likely have some discretion in the specific issues they campaign and the demands they make. One could imagine a whole host of strategic considerations that may influence which issues and actions best advance larger activist objectives. These may be exacerbated by other more personal goals of the activist such as individual and organizational growth and advancement. Complicating matters further is that campaigns may not be independent and that firms and activists may be playing a multi-stage dynamic game across time and campaigns. Furthermore, as the number of activist groups is not fixed, new activist groups may enter or there may be syndication of efforts which would reduce the cost to inflict a level of harm. Baron & Diermeier (2005) consider a number of these extensions in their theoretical model. We leave empirical analysis of such factors to future work.

7. Conclusion

In this paper, we examine activists' use of private politics to engender firm compliance with activist objectives. Based on our model, we propose that the greater the utility of compliance for the activist, the greater the operational loss for the firm, and the lesser the marginal cost of delivering harm by the activist, the greater the level of harm threatened and the

greater the probability of firm compliance with an activist's request. Furthermore, we propose that a firm is more likely to be targeted by activists, the greater the utility of the activist of compliance by the firm and the lesser the marginal cost to the activist of delivering harm to the firm.

Empirically, we propose that the marginal cost of delivering harm should be driven in large part by a targeted firm's reserves of capital that could be utilized to fight activist actions. We propose that the marginal utility to the activist of gaining compliance should be greater the larger, more visible, and more polluting a firm. We propose that the operational loss to the firm from complying with activist demands should be increasing the more polluting the firm. Extending these propositions to our theoretical model, we hypothesize that the harm threatened by the activist, the likelihood that firm complies with a request, and the likelihood that a firm is targeted by activists should all be increasing the larger, more visible, and more polluting a firm and decreasing the larger a firm's cash reserves.

Using a sample of environmental activist campaigns against U.S. firms during the period 1988-2003, we find evidence consistent with many of our hypotheses. We find that larger, advertising intensive firms who pollute more both absolutely and relative to other firms in their sector are more likely to be targeted by activists while firms with large cash reserves are less likely to be targeted. We find that activists adopt more aggressive campaigns the larger and more polluting a firm but the smaller the firm's cash reserves. Finally, we find that firms are more likely to acquiesce to activists' demands, the smaller their cash reserves and the worse their environmental performance.

We believe this paper makes a valuable contribution in developing the empirical literature on the private politics of activists, in particular, and of non-market strategy, more

generally. By building a unique dataset of activist campaigns, we are able to test and verify some of the insights of previous theoretical models. These findings have important implications for both activists and firms in their management and strategizing with respect to these types of campaigns. In addition, to the extent that private politics of activists motivate firms to self-regulate, they have important implications for the design of public policy. We hope this research serves as a starting point for future theoretical and empirical development in this area.

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Table 1. Campaigns by requested action and issue

Requested Action	change operations	report impact	label products	adopt principles	Total
Requested Issue					
pollution	308	56	0	0	364
land use/ habitat destruction	266	19	0	0	285
industrial recycling	15	34	74	0	123
greenhouse gas emissions	11	57	19	0	87
other	62	94	0	77	233
total	662	260	93	77	1,092*

* Note that multiple activists may collaborate on a single action against multiple firms

Table 2. Campaign tactics by activist group type

Campaign Tactic	civil suits	protests	boycotts	letter writing	proxy votes	total
Activist Type						
environmental NGO	266	101	59	9	33	468
non-environmental NGO	16	11	16	2	7	52
religious group	6	0	0	0	224	230
activist individual	55	2	0	0	50	107
other	0	1	1	0	233	235
total	343	115	76	11	547	1,092*

* Note that multiple activists may collaborate on a single campaign against multiple firms

Table 3. Descriptive statistics

	Campaign Sample (n = 1092)				Firm Sample (n = 33213)			
	Mean	Std	Min	Max	Mean	Std	Min	Max
Times Firm Targeted in a Year					0.013	0.210	0	10
Level of Harm Adopted by Activist	3.177	1.356	1	5				
Firm Compliance to Request	0.447	0.497	0	1				
Firm Absolute Emissions	0.201	0.407	0	6.851	0.044	0.160	0	1.068
Firm Relative Emissions	-0.009	0.151	-0.859	0.881	0.003	0.122	-1.397	1.631
Firm Cash	4.736	2.031	0.079	10.917	2.890	2.094	0	11.064
Firm Assets	9.249	1.097	0.418	13.423	5.409	2.704	0.049	13.423
Firm Advertising Intensity	0.217	0.201	0	0.767	0.012	0.038	0	0.767

Table 4. Pair-wise correlations

	1 [a]	2	3	4	5	6	7	8
1. Times Firm Targeted in a Year	1.00							
2. Level of Harm Adopted by Activist		1.00						
3. Firm Compliance to Request		0.59 *	1.00					
4. Firm Absolute Emissions	0.07 *	-0.06 *	-0.07 *	1.00				
5. Firm Relative Emissions	0.02 *	-0.08 *	-0.11 *	-0.13 *	1.00			
6. Firm Cash	0.08 *	-0.44 *	-0.34 *	0.23 *	-0.07 *	1.00		
7. Firm Assets	0.08 *	-0.12 *	-0.14 *	0.06	0.07 *	0.39 *	1.00	
8. Firm Advertising Intensity	0.01 *	-0.11 *	-0.11 *	0.05	0.16 *	0.10 *	0.03	1.00

* $p < 0.05$

[a] Column 1 is based on the firm sample. All other reported correlations are based on the campaign sample.

Table 5. Harm and response given an activist's (j) campaign (x_D) against a firm (i)

Dependent Variable	**Level of Harm Adopted by Activist**			**Firm Compliance to Request**		
Specification	Ordered Probit			Probit		
Model	1	2	3	4	5	6
Firm Absolute Emissions	0.086			-0.088		
	(0.137)			(0.179)		
Firm Relative Emissions		0.122	0.908 +		-1.770 **	-1.919 *
		(0.661)	(0.847)		(0.616)	(0.873)
Firm Cash	-0.399 ***	-0.394 ***	-0.346 ***	-0.215 **	-0.235 ***	-0.212 ***
	(0.061)	(0.060)	(0.061)	(0.071)	(0.068)	(0.064)
Firm Assets	0.233 ***	0.237 ***	0.308 ***	-0.050	-0.044	-0.045
	(0.061)	(0.061)	(0.060)	(0.073)	(0.073)	(0.073)
Firm Advertising Intensity	-0.552	-0.600	-0.411	-0.720	-0.497	-0.236
	(0.535)	(0.530)	(0.664)	(0.476)	(0.470)	(0.553)
Sector Effects Controls	included	included	included	included	included	included
Year Effects Controls	included	included	included	included	included	included
Firm Effects Controls	included	included	included	included	included	included
Activist Effects Controls	included	included	included	included	included	included
Requested Action Controls			included			included
Requested Issue Controls			included			included
Activist Type Controls			included			included
Observations	1092	1092	1092	1092	1092	1092
χ^2 statistic	1192.95 ***	1193.53 ***	1441.96 ***	541.16 ***	554.98 ***	688.28 ***
Pseudo R^2	0.463	0.463	0.560	0.360	0.370	0.458

Robust standard errors are in parentheses (clustered on campaign)
+ $p < 0.05$ (non-robust standard errors), ** $p < 0.01$, *** $p < 0.001$

Table 6. Likelihood that a firm (i) is targeted by activist campaigns

Dependent Variable	**Times Firms Targeted in a Year**		
Specification	Negative Binomial		
Model	7	8	9 [a]
Firm Absolute Emissions	1.374 ***		
	(0.392)		
Firm Relative Emissions		1.114 *	0.494
		(0.596)	(0.322)
Firm Cash	-0.313 ***	-0.313 ***	-0.119 *
	(0.079)	(0.082)	(0.063)
Firm Assets	0.837 ***	0.870 ***	0.231 ***
	(0.085)	(0.087)	(0.072)
Firm Advertising Intensity	9.032 ***	9.472 ***	1.802
	(2.070)	(2.204)	(1.832)
Year Effects Controls	included	included	included
Firm Effects Controls	included	included	included
Observations	33213	33213	2987
Firms	3338	3338	274 [a]
χ^2 statistic	333.94 ***	327.61 ***	218.00 ***

Standard errors are in parentheses (* $p < 0.1$, ** $p < 0.01$, *** $p < 0.001$)

[a] Sample limited to only those firms targeted by activists from 1988-2003.