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Journal of Financial Economics

journal homepage: www.elsevier.com/locate/jfec



Investor activism and takeovers

Robin Greenwood a,*, Michael Schor b

- ^a Harvard Business School, Boston, MA 02163, USA
- b Morgan Stanley, New York, NY 10036, USA

ARTICLE INFO

Article history:
Received 7 February 2008
Received in revised form
1 May 2008
Accepted 12 May 2008
Available online 13 March 2009

JEL classifications:

G14 G32

G34

Keywords: Investor activism Event studies Hedge funds Corporate control

ABSTRACT

Recent work documents large positive abnormal returns when a hedge fund announces activist intentions regarding a publicly listed firm. We show that these returns are largely explained by the ability of activists to force target firms into a takeover. For a comprehensive sample of 13D filings by portfolio investors between 1993 and 2006, announcement returns and long-term abnormal returns are high for targets that are ultimately acquired, but not detectably different from zero for firms that remain independent. Firms targeted by activists are more likely than control firms to get acquired. Finally, activist investors' portfolios perform poorly during a period in which market wide takeover interest declined.

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1. Introduction

Theory predicts that large shareholders should be effective monitors of the managers of publicly listed firms, reducing the free-rider problem (e.g., Shleifer and Vishny, 1986; Grossman and Hart, 1980). Yet the evidence that large shareholders increase shareholder value is mixed. In two recent surveys, Karpoff (2001) and Romano

(2001) conclude that activism conducted by large institutional shareholders has had little impact on firm performance. Karpoff, Malatesta, and Walkling (1996), Wahal (1996), and Gillan and Starks (2000) report that shareholder proposals have historically done little to improve firms' operations. On the few occasions when investors have attempted to remove managers from their jobs, they generally encountered resistance (Brav, Jiang, Partnoy, and Thomas, 2008) or faced high costs (Black, 1990; Roe, 1994; Bainbridge, 2005; Kahan and Rock, 2006), and as a result were unsuccessful (Black, 1998; Karpoff, 2001; Romano, 2001; Bebchuk, 2007).

Recent research suggests that hedge funds might be up to the task of monitoring management. Brav, Jiang, Partnoy, and Thomas (2008) find that the announcement of hedge fund activism generates abnormal returns of more than 7% in a short window around the announcement. In addition, the authors document modest changes in operating performance around the activism. Klein and Zur (2009) and Clifford (2007) also document significant positive abnormal returns around the announcement of

^{*}We appreciate funding from the Harvard Business School Division of Research and from the Faculty of Arts and Sciences. We are grateful to an anonymous referee and to Daniel Bergstresser, Lucian Bebchuk, Alon Brav, Lauren Cohen, Julian Franks, Mila Getmansky, April Klein, André Perold, Richard Ruback, Stefano Rossi, Andrei Shleifer, Erik Stafford, Emmanuel Zur, and seminar participants at the Bank of England, Harvard Business School, and Harvard Law School for useful comments. We also benefited from the advice of Colin Kingsnorth at Laxey Partners, Daniel Loeb at Third Point, Nick Panos at the Securities and Exchange Commission, and Barry Rosenstein and Scott Olson at JANA Partners. We thank Sonya Lai for research assistance.

Forresponding author.

E-mail address: rgreenwood@hbs.edu (R. Greenwood).

activism.¹ Many of these studies also document positive abnormal returns in a longer period after the initial filing.

What accounts for the returns to hedge fund activism? While the studies listed above go to great lengths to document changes in performance measures following activism, it is still largely unanswered where the announcement premium (and the upward drift in stock prices thereafter, for that matter) comes from. A reasonable starting hypothesis might be that activism creates value by improving the firm as a going concern, either by firing management or by forcing management to institute operational, financial, or governance reforms. Brav, Jiang, Partnoy, and Thomas (2008) and Klein and Zur (2009) document modest increases in leverage and the payout ratio following activism, but have less success finding evidence of other improvements.

In this paper, we suggest and test a simple alternate hypothesis: returns to investor activism are driven by activists' success at getting target firms taken over. Under this hypothesis, the high returns documented around the announcement of activism reflect investors' expectations that target firms will be acquired at a premium to the current stock price. From the perspective of the activist, exiting the position in the stock via a merger or a takeover is doubly beneficial: it generates a high premium, as well as allowing the activist to avoid the price pressure associated with an exit in the public markets (in a merger or acquisition, the activist exits in cash or with stock of a larger, more liquid company).

We construct a comprehensive database of activist filings with the Securities and Exchange Commission (SEC) from 1993 to 2006, focusing on instances where the target is a US firm. Our main result is that activism targets earn high returns primarily when they are eventually taken over. However, the majority of activism targets are not acquired and these firms earn average abnormal returns that are not statistically distinguishable from zero. These findings apply both to announcement returns and to the drift in long-term returns following the initial activist filing. Thus, the returns associated with activism are largely explained by the ability of activists to force target firms into a takeover, thereby collecting a takeover premium. An interesting observation, in our view, is that in many of the events in which we eventually observe a takeover, the initial demands of the activist were quite different. For example, in 15.7% of incidents in which the activist targeted "corporate governance" issues, the final result was a takeover.

Our evidence is consistent with many hedge funds' characterizations of their activism. The activist Robert Chapman, for example, seeks out companies that are "digestible" in the sense that they are easy to market to

bidders as potential takeover targets.² However, our characterization differs markedly from previous research on investor activism, which tends to attribute high announcement returns to improvements in operational performance, increases in the leverage or payout ratio, or reductions in agency costs. The evidence in our paper helps explain why there is no significant correlation between accounting-based measures of operational change and subsequent returns—the most "successful" targets of activism are those that leave the public markets (and hence the Compustat database) soon after the activist becomes involved. Thus, there is a significant selection bias, in that the firms with the largest returns tend to drop out of the sample by way of takeover.

In addition to our hypothesis, we consider a closely related explanation. Suppose that activist investors make no changes, but that the returns associated with their involvement reflect an ability to pick undervalued stocks. Suppose also that these undervalued stocks are probable acquisition targets regardless of activist intervention. Put differently, perhaps the path of the target and its ultimate takeover would have been no different absent the activist intervention. Consistent with this, activist targets tend to be small firms with low valuation ratios and thin analyst coverage, and have underperformed relative to other firms in their industry. These characteristics could all reasonably be associated with a higher probability of takeover. To address this concern, we form a matching portfolio based on industry, size, and pre-activism return. We show that matching firms are less likely to be acquired within the next year, compared with firms that are targets of activism. In our full sample, activists increase the probability of takeover by about 11 percentage points. That is, activists put firms into play.

One implication of our work is that the announcement returns to investor activism should depend on the overall takeover interest in the market. Evidence from the credit crunch period from July to September 2007 confirms this intuition. During this time, private equity interest in debtfinanced buyouts declined dramatically due to changes in credit market conditions. Many activists saw corresponding drops in the value of their holdings of target firms whose stock had been purchased in the hope of a takeover, the probability of which declined when rates increased. In the final section of the paper, we gather data on the positions of all serial activists during the time of the crisis. We show that the value of these activists' largest positions declined sharply during this short period, especially surrounding news of failed takeover attempts. This evidence is consistent with our hypothesis that activism targets were bought in the expectation of a takeover.

The paper proceeds as follows. The next section describes our data. Section 3 relates activism event returns to takeover outcomes and also examines the incidence of takeovers in our sample. Section 4 studies the implications of the credit crisis in mid-2007 for the

¹ Becht, Franks, Mayer, and Rossi (2008) also find that activist investments of the UK pension fund Hermes significantly outperformed benchmarks. Clifford (2007) shows that hedge funds earn a significantly higher return on their activist positions compared to their passive positions, suggesting that hedge funds may use these higher returns to counteract the costs of managing and monitoring an activist holding.

² Marcia Vickers, "Companies Beware...It's Shark Season", BusinessWeek, June 10, 2002.

performance of activists' portfolios. The final section concludes.

2. Data

2.1. Constructing the sample

We merge all Schedule 13D and DFAN14A filings from the SEC's EDGAR database for the 13-year period from the third quarter of 1993 through the third quarter of 2006. 13Ds are filed with the SEC within 10 days of an entity attaining 5% or greater share in any class of a company's securities. The filing documents the size of the purchase and summarizes the investors' intentions. Starting in 2000, activists began occasionally attaching a letter to a target firm's management or board in their SEC filing.

13Ds must be filed by institutional money managers and hedge funds, as well as for crossholdings formed when two firms merge or form business alliances. Several papers, starting with Mikkelson and Ruback (1985), note that mergers and takeovers are often preceded by the acquisition of a minority stake in the target. Since our focus is on portfolio investments, we restrict our sample by cross-referencing the 13D filings with a list of investment managers that have filed a Schedule 13F holdings report at some point in their history. We do this so as not to confuse corporate crossholdings with activism from portfolio investors. This restriction limits our data somewhat, because only institutions holding more than \$100 million in US stocks file 13F reports. However, this step is necessary to facilitate the separation of the activist filings from the larger universe of 13D filings—a total of 173,078 for our period of study.

We add to our sample of 13Ds by including all definitive proxy statements filed by non-management (DFAN14As). DFAN14As are filed with the SEC by investors who intend to or are engaged in a proxy fight with a firm's management. A proxy fight can be initiated with a stake in a company's securities that comprises less than 5% of the shares outstanding, although the mean for our sample is 10.8%, implying that these activists usually show up on both filings.

Our initial sample includes 20,771 filings. From these, we exclude targets that are closed-end funds, and firms that are not identifiable on the Center for Research in Security Prices (CRSP) files at the time of the initial filing. To arrive at a list of events, we read the "purpose of transaction" section of each 13D filing to identify whether or not the filer is pursuing an activist strategy. The overwhelming majority of transactions are for the purposes of passive investment only, and we exclude them. However, these non-activist filings serve as a useful control group in some of the tests that follow.³

For each activist—target pair, there are typically multiple filings. These result from small changes in the activist position or from formal communication between the investor and management. We exclude repeat filings for an activist—target pair for which the purpose of the transaction is essentially unchanged—but if there is a meaningful change in the purpose of transaction over the course of several 13D filings for the same target—investor pair, we code these as separate events. Our results are not much affected by whether we throw out these follow—on events, which we do in some tests that require unique activist—target pairings.

Following the process described above, we find a total of 980 activist events covering 811 unique target–activist pairs. We use company Web sites, newspaper articles, and the Center for International Securities and Derivatives Markets (CISDM) hedge fund database to determine whether or not the activist is a hedge fund or another type of investor (i.e., a mutual fund, pension fund, or investment management company). Some of the activists classified as non-hedge funds may indeed have a hedge fund, but the fund is not its main product offering to investors. We classify these as non-hedge funds.⁴

Panel A of Table 1 summarizes the sample. A total of 784 events were initiated by 139 unique hedge funds, and 196 events were initiated by 38 unique non-hedge funds. Over our sample period, almost four times more hedge funds engaged in activism using 13D filings than did other institutional investors. The table also shows that hedgefund filings grow in number, relative to non-hedge fund filings, in later sample years. Most of the non-hedge fund filings can be traced to the Ontario Teachers Pension Plan Board, Franklin Mutual Advisers and Franklin Resources, and Gabelli Asset Management, which each participated in 10 or more events. There are considerably more serial activists among hedge funds. For example, the hedge funds Farallon Capital, Steel Partners, ValueAct Partners, Wynnefield, Blum Capital, Carl Icahn, Chapman Capital, Newcastle Partners, JANA Partners, Third Point, and Pirate Capital constitute more than two-thirds of the sample.

2.2. Classification of activist demands

Every Schedule 13D filing includes a "purpose of transaction" section, in which the filer discloses any plans or proposals that could relate to or result in a significant change at the company, whether this is a call for the election of an independent director or a bid to acquire the target. This section can signal to the market the plan the investor intends to follow with regard to its position. Often, the investor has no activist plans, but files a Schedule 13D to reserve the right to engage in future

³ We also exclude several hundred events from Gabelli Investments in which the 13D states the firm's intention to "engage management". Our reasoning is that Gabelli appears to file identical 13Ds when acquiring large stakes, thus we have no reason to believe that these filings are activist. However, when press releases or further clarifications on the 13D spell out specific activist demands, then we do include the Gabelli event. Our final dataset includes 70 Gabelli events (including

⁽footnote continued)

filings from Gabelli Funds, GAMCO Investors, and Gabelli Asset Manage-

⁴ For example, Gabelli Asset Management is an investment management company that offers mutual funds to retail investors in addition to a number of investment advisory services and products to institutional and high-net worth individual investors. These products include hedge funds.

Table 1Summary statistics: investor activism 1994–2006.

An event is defined as an instance in which an activist files a 13D filing announcing 5% ownership and an intention to influence the management of the company. Events are separated by hedge fund and non-hedge fund activists, where a hedge fund is defined according to CISDM data. Panel A tabulates events by year. Panel B tabulates events based on the activist's initial set of demands. Event classifications are as follows: engage management (the activist intends to engage management or discuss issues with management to increase shareholder value, or makes a general statement that shares are undervalued without including specific proposals); capital structure (the activist requests a recapitalization, stock or debt issuance, restructuring of debt, dividends or a stock repurchase); carporate governance (the activist seeks to declassify the board, remove a poison pill, elect activist-selected directors, fire a company officer or board member, or target other governance issues); business strategy (the activist critiques excess diversification and the level of investment in some business lines or cites poor operating strategy at the target); strategic alternatives (the activist requests that the target pursue various strategic alternatives for the firm, including a spinoff of an underperforming division); asset sale (the activist calls for the target to sell itself or certain assets in order to maximize shareholder value); block merger (the activist tries to block a merger with another firm or seeks to increase the bid made for the target); financing/bankruptcy (the activist provides financing for the target during bankruptcy or financial distress, and may also include an offer to finance the target's growth or acquisition strategies); proxy contest (the activist files under Schedule 14A with intention to solicit proxies from shareholders). Panel C shows sample means for various event characteristics.

	Hedge fund	Non-hedge fund	Full sample
Panel A: events by year			
1994	8	2	10
1995	8	2	10
1996	18	12	30
1997	45	21	66
1998	58	16	74
1999	63	27	90
2000	61	23	84
2001	66	17	83
2002	63	26	89
2003	53	14	67
2004	73	14	87
2005	141	12	153
2006	127	10	137
Total	784	196	980
Panel B: events by type of demand			
Engage management—asset undervalued	357	44	401
Capital structure	79	12	91
Corporate governance	172	95	267
Business strategy	36	12	48
Strategic alternatives	19	10	29
Asset sale	142	26	168
Block merger	44	20	64
Financing/bankruptcy	11	4	15
Proxy contest	71	6	77
Panel C: other descriptive statistics			
Activist assets under management (\$m)	1,775	24,200	6,793
Market value of stake in target (\$m)	59.2	81.7	63.7
Percent of target shares outstanding (%)	9.83	12.97	10.47
Mean size decile of positions	2.71	3.23	2.82
Number of analysts covering target	3.79	3.29	3.69
Target market-to-book ratio	1.54	1.29	1.49
Target 24-month return net of industry return (%)	-13.13	-23.56	-15.12

activism. Any subsequent change in holdings or intention is then reported in an amended 13D filing.⁵ If the filer has no activist intentions, the SEC allows for the filing of a Schedule 13G (instead of a 13D), which indicates that the large shareholder is a passive investor.

In addition to the information contained in the "purpose of transaction" section, the SEC allows investors to file additional materials as exhibits. These materials, along with the formal remarks in the 13D, provide the market with detailed explanations of the course of action the activist wants the firm to take. Our reading of the 13D

statements suggests that activist demands fall into approximately nine well-defined categories: (1) intention to "engage" with management because the stock is undervalued, (2) capital structure issues, (3) corporate governance issues, (4) business strategy issues, (5) "strategic alternatives", (6) explicitly calling for the sale of all or part of the target, (7) blocking a proposed merger or acquisition because of unfavorable pricing, (8) financing for a firm in distress or other bankruptcy-related issues, and (9) the intention to engage in a proxy contest. In recent years, "strategic alternatives" appears to be synonymous with a spinoff or acquisition. Note that activist classifications are based on what is stated in the 13D filing, and not on the target company response. Additionally, we avoid classifying events as either hostile or friendly because potentially friendly investments may

⁵ If the filer has no activist intentions, the SEC allows for the filing of a Schedule 13G (instead of a 13D), which indicates that the large shareholder is a passive investor.

become hostile when management resists activist demands. An event can be assigned to multiple categories; however, most events have unique classifications.

Panel B of Table 1 categorizes events according to the activist demands. Because the categories are non-exclusive, the number of events in each category sums to more than 980. The table reveals important differences in the demands of hedge funds and non-hedge fund investors. Aside from making general "undervalued" statements or expressing an intention to engage with management, hedge fund activists frequently demand that the target sell off all or part of its assets. In practice, activists that declare the target to be undervalued often try to locate a buyer for the firm, creating some overlap between the two demand categories of calling for an asset sale and making a general "undervalued" statement about a target. Governance-related activism is also fairly common and targets policies relating to poison pills, confidential voting, or board structure.

2.3. Activist and target characteristics

We collect detailed information on the activist portfolio, summarized in Panel C of Table 1. CDA/Spectrum makes available quarterly holdings information for institutional investors compiled from their 13F filings with the SEC. These filings include all holdings of domestic equities for funds that manage \$100 million or more. We aggregate reported long positions to get a measure of the assets under management at the time of the event. The table shows that hedge funds tend to manage smaller portfolios than non-hedge funds. Yet the market value of the stake in the target is similar across the two types of institutions, implying that hedge funds tend to take more concentrated positions.

Panel C also highlights a few other important characteristics of activism targets: they tend to be small stocks (in the second or third size decile) with low market-to-book ratios and little or no analyst coverage, and have underperformed their industry over the previous 24 months. Both hedge funds and non-hedge funds target small firms, although hedge fund targets are even smaller than non-hedge-fund targets. Finally, we observe a fair amount of industry concentration of these events (not tabulated).

2.4. Abnormal returns classified according to activist demand

Abnormal returns around the announcement of the 13D filing are measured by the difference between the return on the target stock and the return on a matching portfolio:

$$AR_{it} = R_{it}^{\text{Target}} - R_t^{\text{Match}} \tag{1}$$

Ideally, we would identify matching stocks for each target based on size, industry, and book-to-market ratio. Compustat accounting data are not available for all firms in our sample, however. We consider cutting the sample down to include only Compustat firms, but this would

result in the removal of smaller activism targets. Therefore, we form a surrogate matched portfolio as follows. We start with 100 days of returns in the interval [t-110, t-10], where t denotes the date of the initial 13D filing, and we estimate loadings of target firm returns on the Fama and French (1993) HML, SMB, and market return factors:

$$R_{it}^{\text{Target}} - R_t^F = a_i + b_i HML_t + c_i SMB_t + d(R_t^M - R_t^M) + u_{it}$$
 (2)

Our matching portfolio return in *t*+1 is then the factor loading weighted return on the HML, SMB, and market portfolios:

$$R_{it+1}^{\text{Match}} - R_{t+1}^F = \hat{b}_i HML_{t+1} + \hat{c}_i SMB_{t+1} + \hat{d}(R_{t+1}^M - R_{t+1}^M)$$
 (3)

where \hat{b}, \hat{c} , and \hat{d} are the estimates from the first-stage regression in Eq. (1). On the few occasions where there is insufficient pre-event return data to estimate factor loadings, we substitute the CRSP value-weighted portfolio for the match portfolio.⁶

The final step is to cumulate abnormal returns from Eq. (3). These results are shown for the complete sample, as well as by type, in Panel A of Table 2. The table reveals that immediate returns to activism are large—approximately 3.5% over the 15-day event window. Note that announcement returns accrue starting a few days before the filing date, which we attribute to the 10-day window during which investors are required to file the 13D. Returns are positive when the activist indicates a desire to "engage management", when the activist requests an asset sale or tries to block a merger, and when the activist wages a proxy fight. In contrast, returns are not significantly different from zero when the activist targets capital structure issues, corporate governance, or corporate strategy, or proposes a spinoff. These results are broadly consistent with our hypothesis that activists generate significantly positive returns only when they effectively put a company in play; other activist demands do not seem to garner the same favorable market reaction.

Monthly abnormal returns surrounding investor activism are computed following the same methodology. We start with 24 months of returns in the interval [t-25, t-1]where t denotes the month of the initial 13D filing, and estimate loadings of target firm returns on the Fama-French (1993) HML, SMB, and market return factors. Our matching monthly return is the factor loading weighted monthly return on the HML, SMB, and market portfolios. Cumulative abnormal monthly returns for the period starting one month before the activism and ending 18 months later are shown in Panel B of Table 2. For the full sample of events, abnormal returns for the 18-month period are significant and just over 10%. A large portion of these returns accrue in the [+3 months, +18 months] window. In other words, only a modest portion comes from the period around announcement, suggesting that the market underreacts, on average, to the announcement of activism. Another possibility is that the long-term

⁶ One drawback of our procedure is that it is inappropriate if factor exposures are changing quickly over time (a problem that does not arise if we assign matched firms to each stock). We are less concerned with this because we track performance for a fairly short window after the event.

Table 2Returns by activism type.

Panel A shows cumulative daily abnormal returns; Panel B shows cumulative monthly abnormal returns, estimated as follows. We form a matching portfolio as the factor-loading weighted return on the HML, SMB, and market portfolios. Abnormal returns are the difference between the daily or monthly return and the return on the matching portfolio. Cumulative averages are shown for the full sample and for the various types of activism, classified at time of the 13D filing. These event classifications are defined as follows: engage management (the activist intends to engage management or discuss issues with management to increase shareholder value, or makes a general statement that shares are undervalued without including specific proposals); capital structure (the activist requests a recapitalization, stock or debt issuance, restructuring of debt, dividends or a stock repurchase); corporate governance (the activist seeks to declassify the board, remove a poison pill, elect activist-selected directors, fire a company officer or board member, or target other governance issues); business strategy (the activist critiques excess diversification and the level of investment in some business lines or cites poor operating strategy at the target); strategic alternatives (the activist requests that the target pursue various strategic alternatives for the firm, including a spinoff of an underperforming division); asset sale (the activist calls for the target to sell itself or certain assets in order to maximize shareholder value); block merger (the activist tries to block a merger with another firm or seeks to increase the idmade for the target); financing/bankruptcy (the activist files under Schedule 14A with intention to solicit proxies from shareholders). t-Statistics are in brackets.

	All ev	ents	Enga manage	-	Capital s	tructure	Corpo govern		Corpo strate		Asset	sale	Block m	erger	Finan relate bankri	d to	Strate alterna	_	Proxy co	ontest
% Acquired	26.1	1%	23.7	7%	20.9	9%	15.7	7%	20.8	3%	35.	7%	78.1	%	26.	7%	31.0	0%	18.2	!%
	CAR (%)	[t]	CAR (%)	[t]	CAR (%)	[<i>t</i>]	CAR (%)	[t]	CAR (%)	[t]	CAR (%)	[<i>t</i>]	CAR (%)	[<i>t</i>]	CAR (%)	[t]	CAR (%)	[t]	CAR (%)	[t]
Panel A: cumul	lative daily	abnorma	l returns																	
-10 days	-0.08	[-0.3]	0.43	[1.1]	-1.95	[-2.2]	-1.14	[-2.1]	-1.48	[-0.9]	-0.21	[-0.4]	2.80	[1.8]	4.68	[0.6]	-1.71	[-1.5]	0.55	[0.8]
-5 days	0.10	[0.2]	0.73	[1.1]	-2.34	[-1.7]	-0.24	[-0.3]	-2.82	[-1.0]	-0.13	[-0.2]	2.67	[1.5]	-1.75	[-0.5]	-1.90	[-1.6]	1.77	[1.4]
-4 days	0.29	[0.7]	1.01	[1.5]	-2.17	[-1.6]	-0.42	[-0.5]	-2.08	[-0.7]	0.10	[0.1]	2.67	[1.5]	-2.71	[-0.7]	-0.94	[-0.5]	2.42	[1.7]
-3 days	0.44	[0.9]	1.24	[1.7]	-2.21	[-1.4]	-0.50	[-0.6]	-2.55	[-0.9]	-0.05	[-0.1]	3.27	[1.6]	-1.89	[-0.5]	-0.18	[-0.1]	3.05	[2.0]
-2 days	0.67	[1.4]	1.18	[1.6]	-1.68	[-1.1]	-0.10	[-0.1]	-2.43	[-0.8]	1.01	[1.1]	3.17	[1.4]	1.29	[0.3]	-0.78	[-0.4]	3.00	[2.0]
−1 day	1.27	[2.5]	1.40	[1.9]	-0.63	[-0.4]	0.98	[1.0]	-2.25	[-0.7]	2.09	[2.0]	3.16	[1.3]	5.87	[0.8]	-0.10	[-0.0]	3.24	[2.2]
Filing date	2.41	[4.5]	2.28	[3.0]	-0.51	[-0.3]	1.48	[1.4]	-1.26	[-0.4]	5.21	[4.8]	4.54	[1.7]	8.37	[1.2]	1.40	[0.7]	3.98	[2.5]
+1 day	3.22	[6.1]	3.34	[4.6]	0.72	[0.4]	2.12	[2.1]	-1.49	[-0.4]	6.00	[5.4]	4.69	[1.8]	9.08	[1.4]	0.99	[0.5]	4.81	[2.9]
+5 days	3.61	[6.2]	4.18	[5.0]	1.68	[1.0]	2.30	[2.1]	-2.32	[-0.5]	6.83	[5.7]	5.91	[2.4]	2.31	[0.4]	1.73	[0.8]	4.56	[2.8]
Panel B: cumul	ative mont	hly abnor	mal returns	;																
−1 month	-0.59	[-1.2]	-0.90	[-1.2]	-1.03	[-0.7]	0.18	[0.2]	-3.07	[-1.3]	-1.23	[-1.2]	3.39	[1.6]	-9.34	[-1.6]	0.99	[0.5]	2.09	[1.3]
Filing month	3.84	[5.3]	2.25	[2.0]	1.30	[0.6]	4.85	[3.4]	-2.67	[-0.8]	5.34	[3.6]	10.62	[4.0]	-9.38	[-1.2]	3.11	[0.9]	8.82	[3.7]
+1 month	4.20	[4.5]	2.26	[1.6]	-0.95	[-0.3]	5.75	[2.9]	-4.62	[-1.0]	7.63	[4.2]	11.02	[4.1]	-17.85	[-1.7]	0.11	[0.0]	10.74	[3.3]
+6 months	5.32	[3.0]	4.08	[1.6]	-0.62	[-0.1]	6.39	[1.6]	-0.46	[-0.1]	6.04	[1.6]	14.42	[4.0]	5.13	[0.3]	-1.44	[-0.2]	8.41	[1.2]
+12 months	7.78	[2.9]	6.15	[1.9]	4.59	[0.6]	7.40	[1.0]	12.96	[1.5]	10.10	[2.2]	16.60	[3.7]	13.91	[0.5]	7.41	[0.5]	15.94	[1.7]
+18 months	10.26	[3.4]	5.90	[1.6]	7.24	[0.8]	13.75	[1.6]	12.56	[1.2]	11.04	[2.2]	21.02	[3.8]	16.52	[0.6]	8.11	[0.5]	14.93	[1.5]

abnormal positive returns reflect general undervaluation of the target, which reverts to fundamentals over the subsequent months. The remaining columns break down returns by activism category. Firms targeted for a sale or for which the activist tries to block a merger earn the largest abnormal returns. For the remaining categories, abnormal returns are positive but insignificant.

3. Analysis

In this section, we document the results of investor activism, focusing on both qualitative accounts based on press articles as well as more formal quantitative accounts based on Compustat accounting data. Our objective is to identify a correlation between the result of the activism and stock market performance. We are most interested in the correlation between an eventual takeover and stock market performance. However, we also check whether hedge fund activists: (a) make operating or governance changes that are reflected in shareholder value even when the target remains independent or (b) simply pick undervalued stocks that are more likely to be acquired regardless of activist intervention. In other words, we try to shed light on the question of whether the activist investor causes the takeover or is simply effective at picking a stock that was likely to be taken over in the first place.

3.1. Outcomes

To understand the actions that the target firm takes in response to an activist's requests, we collect data on what happened after each event by reading the subsequent 13D filings and communications between management and the activist, as well as by searching the newswires for information on the outcome. To identify whether the firm merged or was acquired in the year after activism, we look at the CRSP delisting code and delisting date and check whether it falls within 18 months of the initial complaint filing. We classify a target as merged if its delisting date falls within 18 months of the initial filing, where the CRSP delisting code has a first digit of 2 (Mergers) or 3 (Exchanges).

Table 3 shows the results of this classification. We classify the outcomes into four broad outcomes comprising 16 subcategories. The four broad outcomes include: asset sales and spinoffs, capital structure, corporate governance, and other. We cutoff our searches 18 months after the first filing. Classifications are non-exclusive: for example, if a target repurchases shares and gives board seats to the activist, this event will be categorized with two outcomes. Table 3 gives the number of exclusive classifications (i.e., where no other outcome was recorded) in parentheses to the right of the non-exclusive outcome number.

For nearly half of the activist events, we find no additional news following the first filing. Not surprisingly, these events tend to be concentrated among smaller targets. This raises the concern that these firms are less newsworthy than larger firms, generating fewer search

Table 3 Outcomes of activism

Outcomes apply to news announced no later than 18 months after the initial 13D activist filing. Each event can have more than one classification; uniquely classified outcomes are in parentheses. The sample is restricted to initial activist filings.

Outcome	Number (uniquely classified)
No news	379 (379)
News	
Asset sale related	
Merger or asset sale completed	178 (178)
Merger or asset sale announced	48 (25)
Merger called off or bid increased	12 (8)
Spinoff completed or announced	7 (2)
Activist takes over target	7 (0)
Target hires IB or begins auction	14 (5)
Capital structure (non asset sale related)	
Shares repurchased/Special Dividend	23 (9)
Greenmail	4 (3)
Corporate governance	
Removal of poison pill	15 (10)
Resignation of CEO/CFO/Chairman	25 (5)
Board seats granted to activist	96 (69)
Proxy defeated	14 (10)
Other	
Activist cuts position below 5%	35 (31)
Financing/bankruptcy agreement	17 (10)

results from the newswires. However, in the 18 months subsequent to filing, these events earn average abnormal returns close to zero.

The first group of outcomes for which we find news comprises events in which an asset sale or spinoff is announced or completed. In 178 cases, the target is acquired. In 48 cases, a merger or asset sale is announced. The other outcomes in this category include completion of a spinoff (seven events), the activist taking over the target entirely (seven events), and the target hiring an investment bank to solicit potential buyers (14 events).

Our main question is whether the returns to activism depend on whether the target is eventually acquired or not. These results are shown in Table 4 and plotted in Fig. 1. The left-hand columns show average returns following the initial 13D filing for the 226 events for which an acquisition was announced or completed within 18 months of the initial 13D filing. The table shows that these events earn abnormal announcement returns of more than 5%. The rest of the table sorts the remaining non-takeover events by outcome. The average announcement return, over all of these events, is 2.36%, about half of that earned by firms that are eventually taken over. The right-hand columns further separate these events into categories based on the outcome. Events that result in changes to the board or a share repurchase do not cause significant positive returns. Events that result in a spinoff earn significantly positive announcement returns of 6.4%.

The results in Panel B are more interesting because they show the long-term returns to activism, conditional on the outcome. Events in which an acquisition was announced or completed earn post-filing abnormal monthly returns of 25.85%, reflecting the takeover

Table 4Daily and monthly abnormal returns by outcome.

Daily and monthly cumulative abnormal returns for activism targets, grouped according to the outcome. Abnormal returns are the difference between the daily or monthly return and the daily or monthly return on the matching portfolio. Outcomes are defined as follows: *acquisition announced/completed* (the target completed or announced a merger or sale of either all or part of its assets); *no news* (indicates no news of an outcome); *board or resignations* (indicates the announcement of resignations by the target's CEO and/or CFO and/or chairman of the board and/or the announcement that the activist gains seats on the target's board of directors, either through a proxy contest or a deal with the target); *reduces stake to* <5% (indicates that the activist reduced its stake in the target to below 5% of the shares outstanding, thereby ending its 13D filing requirements). Outcomes apply to news announced no later than 18 months after the initial 13D activist filing. *t*-Statistics are in brackets.

	Events in which acquired within months of initia	18					Events in v	which target	remains inde	pendent:				
			Al	1	No n	ews	Board/resi	gnations	Spinoff		Share repu	chase	Activist red stake < 5%	luces
	CAR (%)	[<i>t</i>]	CAR (%)	[t]	CAR (%)	[t]	CAR (%)	[t]	CAR (%)	[t]	CAR (%)	[t]	CAR (%)	[<i>t</i>]
Panel A: daily returns														
-10	1.29	[1.7]	-0.56	[-1.7]	-0.23	[-0.6]	-0.78	[-1.0]	0.36	[0.4]	-0.67	[-0.6]	-0.28	[-0.2]
-5	0.87	[1.0]	-0.37	[-0.7]	-0.01	[-0.0]	-0.83	[-0.8]	3.27	[1.0]	-1.54	[-0.7]	-0.55	[-0.2]
-4	1.23	[1.4]	-0.20	[-0.4]	0.10	[0.2]	-1.17	[-0.9]	2.96	[1.0]	-1.13	[-0.5]	1.50	[0.5]
-3	1.69	[1.7]	-0.19	[-0.3]	0.25	[0.4]	-1.48	[-1.1]	3.36	[1.1]	0.17	[0.1]	-0.13	[-0.0]
-2	2.00	[1.9]	-0.10	[-0.2]	0.13	[0.2]	-1.15	[-0.7]	3.73	[1.5]	-0.26	[-0.1]	1.97	[0.5]
-1	2.78	[2.5]	0.34	[0.5]	0.47	[0.6]	-0.32	[-0.2]	5.01	[4.0]	-0.36	[-0.1]	1.63	[0.4]
Filing	4.14	[3.6]	1.41	[2.1]	1.36	[1.8]	0.57	[0.3]	4.50	[2.4]	0.20	[0.1]	4.02	[1.1]
+1	4.75	[4.2]	2.12	[3.1]	2.02	[2.7]	1.24	[0.8]	5.56	[2.8]	0.08	[0.0]	5.56	[1.5]
+5	5.72	[4.9]	2.36	[3.0]	2.51	[2.9]	1.34	[0.8]	6.40	[4.5]	1.36	[0.5]	4.75	[1.2]
Panel B: monthly return	rns													
-1	1.39	[1.3]	-1.69	[-2.9]	-2.25	[-3.4]	-0.67	[-0.6]	-6.52	[-1.1]	3.34	[0.9]	1.35	[0.5]
Filing	7.88	[5.7]	1.78	[1.8]	0.86	[0.8]	4.71	[2.2]	8.76	[2.6]	5.95	[1.0]	-1.32	[-0.4]
+1	8.85	[5.4]	1.81	[1.4]	0.45	[0.3]	5.46	[2.1]	8.29	[1.0]	8.01	[1.0]	-0.59	[-0.1]
+6	16.84	[6.1]	0.64	[0.3]	-1.15	[-0.4]	-0.57	[-0.1]	12.20	[1.7]	18.53	[1.0]	-3.41	[-0.3]
+12	22.40	[6.8]	1.50	[0.4]	-2.63	[-0.5]	-0.93	[-0.1]	8.34	[0.4]	30.50	[0.9]	-1.64	[-0.1]
+18	25.85	[7.9]	2.85	[0.6]	0.00	[0.0]	-5.62	[-0.7]	-3.41	[-0.1]	29.97	[0.8]	-2.83	[-0.2]

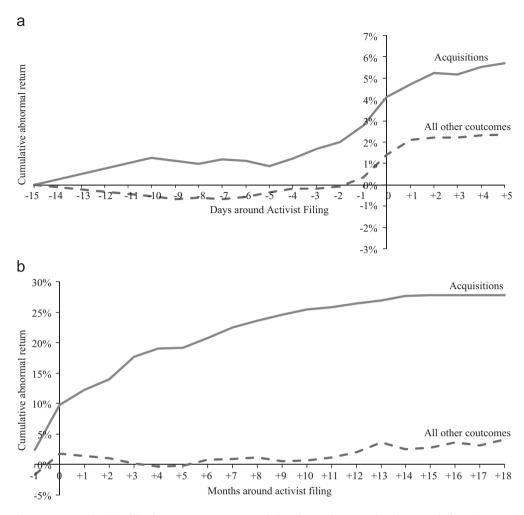


Fig. 1. Abnormal returns around activist filing by outcome. Average cumulative abnormal returns plotted separately for activism targets that were acquired and for activism targets that remained independent 18 months after the first filing of the 13D. We first estimate factor loadings on HML, SMB, and the market excess return using 100 days of returns prior to the first filing of the 13D. The matching portfolio is the factor-loading weighted return on the HML, SMB, and market portfolios. Abnormal returns are the difference between the target return and the return on the matching portfolio. Panel A shows cumulative daily abnormal returns during a 20-day interval around the announcement of activism. Panel B shows cumulative monthly abnormal returns during a 19-month interval around the announcement of activism. Panel A: short-term cumulative abnormal returns and Panel B: long-term cumulative abnormal returns.

premium paid by the acquirer. For the full set of events that do not end in acquisition, post-13D filing returns are not significantly different from zero. These returns do not seem to depend on what actually happened—events for which there is no news do not have significantly different monthly returns than events for which good news is announced (i.e., board resignations or a spinoff). The possible exception is the few events in which the firm agrees to repurchase shares. Monthly returns here are positive but not significant.

To summarize, classifications of activism based on the outcome reveal that a takeover is one of the most likely events. Both announcement returns and long-term returns in the event of a takeover are high. For the remaining outcomes, long-term abnormal returns can be positive but are not significantly different from zero.

3.2. Do targets that remain independent experience any improvement?

Another way to track the performance of firms post-activism is to study accounting measures before and after the activist request (see e.g., Brav, Jian, Partnoy, and Thomas, 2008; Klein and Zur, 2009). This is potentially problematic for a few reasons. First, the most significant outcome for a target firm is a takeover, in which case it is dropped from Compustat. Second, a few of the firms in our sample do not supply Compustat data even before the event, making a before-versus-after comparison impossible. These caveats notwithstanding, the left-hand column of Table 5 shows changes in accounting-based measures of operating performance following activist filings for the subset of targets that remain independent. In our discussion, we focus primarily on measures over

Table 5

Operating changes following activist filings for non-acquired targets

Descriptive statistics of changes in accounting-based measures of financial policy and performance between the fiscal year prior to the initial filing of an activist Schedule 13D and the fiscal year following the initial filing. The accounting variables are constructed from Compustat as follows: *leverage* is the sum of long-term debt (item 9) and current liabilities (item 34) divided by the sum of long-term debt, current liabilities, and the book value of common equity (item 60); *capital expenditures* is capital expenditures (item 128) divided by lagged net property, plant, and equipment (item 8); *dividends/earnings* is the ratio of the sum of common dividends (item 21) and preferred dividends (item 19) to earnings before depreciation, interest, and tax (item 13); *change in assets* is equal to the percentage change in assets for the year after activism (item 6) and the year prior to activism; *change in shares* is equal to the percentage change in shares outstanding (from CRSP) four quarters after activism and four quarters before activism; *return on assets* is the ratio of EBITDA (item 18) to lagged total assets (item 6); and *operating return on assets* is the ratio of operating cash flow (item 308) to lagged total assets (item 6). All accounting variables are winsorized at the 1% and 99% levels to reduce the influence of outliers. Long-term abnormal returns are calculated 18 months after the activist filing, *t*-Statistics and *p*-values are in brackets.

	All non-acqu	ired targets	Correlation with long-term a	bnormal return
	$\Delta_{-1,1}$	[t]	ρ	[p-Value]
Leverage	0.408	[2.69]	-0.031	[0.58]
Capital expenditures	-0.144	[-4.11]	-0.053	[0.34]
Dividends/Earnings	0.019	[1.31]	-0.067	[0.25]
$\Delta A/A_{t-1}$	0.079	[0.59]	0.022	[0.67]
$\Delta S/S_{t-1}$	-0.203	[-1.06]	0.051	[0.24]
Return on assets	-0.001	[-0.15]	0.165	[0.00]
Operating ROA	0.010	[0.70]	0.018	[0.74]

which management has the most control, such as leverage, share repurchases, and payout policy. For example, a finding that activist targets with positive earnings shocks experience high returns would not necessarily teach us anything about the success of the activist as these shocks could be independent of the activist demands.

Performance changes are measured by the difference between the fiscal year after the 13D filing and the fiscal year before the filing. The accounting variables are constructed as follows: capital expenditures is capital expenditures (Compustat item 128) over lagged net property, plant, and equipment (item 8): dividends/earnings is the ratio of the sum of common dividends (item 21) and preferred dividends (item 19) to earnings before depreciation, interest, and tax (item 13); leverage is the sum of long-term debt (item 9) and current liabilities (item 34) divided by the sum of long-term debt, current liabilities, and the book value of common equity (item 60); operating return on assets is operating cash flow (item 308) lagged total assets (item 6); return on assets is the ratio of EBITDA (item 18) to lagged total assets; and $\Delta A/A_{t-1}$ denotes the percentage change in balance sheet assets; $\Delta S/S_{t-1}$ denotes the percentage change in adjusted shares outstanding. All scaled variables are winsorized at the 1% and 99% levels to reduce the influence of outliers.

The left-hand column of Table 5 shows that for the full sample of events, there is no significant change in ROA, operating ROA, the payout ratio, asset growth, or share growth. We do find, however, that firms reduce investment levels—capital expenditures scaled by property, plant, and equipment falls from 36.5% to 22.1% for the average firm in the sample. The table also shows that surviving firms increase their leverage ratio by nearly 40 percentage points. This effect is far more pronounced when the activist initially targets "capital structure" issues in its initial 13D filing. In these instances, targets more than double their leverage ratios from the year before the activist filing to the year after.

The more important question is whether any of these operating changes are associated with high stock returns. Our objective is to find evidence of stock price appreciation for targets that execute operational or financing changes demanded by activists yet ultimately remain independent. These correlations, and their associated p-values, are shown in the right-hand column of Table 5. Any changes in operating ROA, leverage, capital expenditures, dividends, assets, and shares outstanding seem to have no significant correlation with returns, consistent with our hypothesis that activists have few levers in creating shareholder value over the long term other than a takeover. Return on assets is the only operational change that has a significant correlation with long-term abnormal returns, but it is not obvious that this has any relation to the demands raised by the activist.

3.3. Do activists increase the probability that firms are taken over?

While the evidence thus far is consistent with our hypothesis that activists create value by bringing about an acquisition of the target, it is also consistent with another explanation: the returns associated with activists' involvement reflect their ability to pick undervalued stocks that are inherently more likely to be acquired (with or without an activist intervention). And to the extent that the activists ask target firms to make operating changes, these are changes that were apt to happen anyway. Consistent with this alternate hypothesis, activist targets tend to have similar characteristics: they are small stocks with little or no analyst coverage and low market-to-book ratios, and have underperformed relative to other firms in their industry.

We compare the probability that target firms are acquired with the counterfactual probability that they would have been acquired in the absence of activism. We obtain a counterfactual probability by matching each

Table 6Delisting outcomes for targets and other companies.

Statistics on the delisting of the target companies for all activist filings made between 1994 and 2006, hedge fund activist filings only, other companies in an industry, size, and prior-return matched sample, targets of non-activist 13D filings excluding those that delisted within two months of the filing, and the universe of all small CRSP stocks. Delisting information is from CRSP. Delisting data for "all small stocks" are based on an event date of December 31, 2004 for firms in the CRSP NYSE third size decile or less.

	All activist events	Hedge fund activist events	Industry-size- return matched sample	Non-activist 13D filings	All small stocks
Panel A: within 12 months of	first 13D filing				
Still in sample on CRSP	77.4%	77.1%	89.4%	84.6%	92.6%
Delisted	22.6%	22.8%	10.6%	15.4%	7.4%
Acquired	18.1%	18.6%	7.2%	12.6%	4.7%
Other	4.4%	4.3%	3.5%	2.8%	2.6%
Panel B: Within 18 months of	first 13D filing				
Still in sample on CRSP	72.5%	72.6%	85.7%	80.4%	89.2%
Delisted	27.5%	27.4%	14.3%	19.6%	10.8%
Acquired	21.9%	21.9%	9.1%	16.1%	7.2%
Other	5.5%	5.5%	5.2%	3.4%	3.6%

activism target with a firm in the same industry that is of similar size and has experienced similar past returns. The premise of our matching procedure is that the matched firm is also a candidate for investor activism. We then track each of these firms for a period of one year (or 18 months) following the initial activist filing, keeping track of whether the firm is delisted, acquired, or still trading at the end of this window.

Table 6 shows these results. In our sample, 22.6% of firms are delisted within a year of the first filing. Of these, 18.1% are acquired by another firm and stop trading. In the matched sample, only 10.6% of firms are delisted within a year and only 7.2% are acquired. Thus, activists increase the probability of takeover by about 11 percentage points.

One drawback of our matching procedure is the potential omitted variable bias: perhaps activists select targets on the basis of unobserved characteristics that do not enter our match. Put differently, we cannot control for some heterogeneity between the firms that the activist actually targeted and the firms that, albeit similar, are not ultimately targeted. While there is no way to fully rule out the importance of unobserved characteristics, we try another matched sample that is based on 13D filings in which no activist intentions are stated. Thus, this sample comprises a group of firms that also represent large positions in the activist investors' portfolios but about which no formal issues were raised. The table shows that for this sample, 15.4% of firms are delisted and 12.6% are subsequently acquired within a year of the first activism complaint filing. Finally, we calculate the probability that stocks in the same size cohort as the target stocks are delisted. The table shows that only 7.4% of these stocks are delisted in a given year, with 4.7% of these being acquired.

An interesting exercise is to see whether the increase in takeover probability can be related to the abnormal returns on announcement of activism. A back-of-the-envelope calculation suggests that it is: activists increase the probability of takeover by about 11 percentage points. Multiplied by an expected takeover premium of 30% (e.g., Cremers, Nair, and John, 2007) yields 3.3% abnormal

returns on announcement, commensurate with what we observe in the data.

To sum up, based on a variety of control samples, activists increase the probability that a firm will be acquired. Panel B shows similar results but extends the window in which we track the target firm and its control firm to 18 months.

In addition to the matched sample analysis, there are other reasons to think that activists increase the probability that firms are acquired. First, announcement returns are related to the specific concerns of the activist. As we showed earlier, announcement returns are particularly high when the activist requests that the target look into the sale of all or some of the business. Since presumably all activist positions are motivated by undervaluation of the target, it would follow that those positions that specifically call for the sale of the target should see higher announcement returns only if the market believes that the activist will be able to follow through on its demands. Thus, the market rationally bids up the price of the target stock in anticipation of a takeover premium.

Finally, there is revealing evidence in the statements made by third-party buyers of activist targets. As Thomas H. Lee, a private equity fund manager, acknowledged in a speech in 2007, "I'd like to thank my friends Carl Icahn, Nelson Peltz, Jana Partners, Third Point ... for teeing up deals because ... many times [activist targets] are being driven into some form of auction".

4. Implications: the credit crisis of mid-2007

One implication of our findings is that returns to investor activism should depend on overall takeover interest in the market. Shocks to financing availability resulting from credit market turmoil from July through

⁷ Andrew Ross Sorkin, "Will Credit Crisis End the Activists' Run?" *New York Times*, August 27, 2007.

September 2007 provide an opportunity to confirm or reject this hypothesis.

After a series of defaults by hedge funds and lenders on subprime-related investments, credit spreads widened during the late summer of 2007. The spread between the yield on a Moody's AAA bond and the yield on the 10-year Treasury bond increased from approximately 11 basis points in early June 2007 to over 60 basis points in September 2007. The Merrill Lynch aggregate credit market option adjusted spread over Treasuries increased from 94 basis points to 150 basis points over the same window; widening also occurred in the CDX and syndicated loan markets. Brunnermeier (2009) provides an overview of market conditions during this time.

From the perspective of a strategic buyer or private equity firm attempting to complete a debt-financed acquisition, the widening of spreads was an exogenous shock to the cost of funding. This shock was soon reflected in the withdrawal of large buyouts. On July 26, 2007, Alliance Boots and Chrysler both announced that buyers had been unable to secure financing for more than \$20 billion of debt. The next day, Cadbury announced that it would delay the sale of its US drinks division, blaming turmoil in the credit markets. News accounts in July provide additional color—the New York Times reports in late July that many bankers and private equity firms were "trying to figure out what to do with dozens of pending deals that are now faced with the higher cost of debt".8 News reports also confirmed that the stock prices of firms that were being considered as takeover targets were adversely affected.

What are the implications of this for activism? If activists are primarily focused on operating and governance improvements, the shocks to credit conditions should not affect the value of their positions. On the other hand, if activists' main objective is to foster an acquisition, we predict negative abnormal portfolio returns around the time of the credit crisis.

We assemble evidence on the performance of activist positions during this time to check whether activist investments are disproportionately affected by the credit market shocks. We isolate all activists that have been involved in 10 incidents or more, additionally requiring each activist to have been involved in at least one incident in 2005 or 2006. Each of these activists must file quarterly 13F reports on their holdings. We study reported positions at the end of June 2007. For each of these activists, we collect the 10 largest positions under the reasoning that these positions are most likely subject to activism. A few of the targets have already been delisted by early July and are thus not available on CRSP. Our final sample includes 144 target companies owned by 16 activist investors. This sample is a conservative place to start, since the

We analyze returns over four periods of interest: (1) the pre-crisis period, (2) the week during which credit spreads first spiked and Chrysler and Boots fail to find adequate funds to secure buyouts, (3) the week during which Home Depot slashed its price in a buyout, and (4) the full "crisis" period covering July and August.

We weight returns in two ways, with our baseline results equal-weighted. We also show the returns to the portfolio in which positions are first value-weighted within each activist portfolio and then equal-weighted across activists. This more elaborate procedure ensures that activists that manage more assets do not receive more weight, but places more focus on the activists' most important positions. (A simpler value weighting produces nearly identical results, but overweights activists with more assets under management.) Table 7 shows that stocks in activist portfolios lost an average of approximately 5% during the week of July 25.

While the raw abnormal returns are suggestive, they are confounded by volatility in both market returns and abnormal returns accruing to value-growth and momentum-based strategies during this time (e.g., Khandani and Lo, 2007; Brunnermeier, 2009). Both value and momentum stocks underperformed growth stocks in July, August, and September. Identifying the benchmark is particularly important in this exercise because of the overlapping nature of the event returns. We take a non-parametric approach to matching, following Daniel, Grinblatt, Titman, and Wermers (1997) and form 125 value-weighted matching characteristic portfolios based on size, marketto-book equity, and momentum. 10 Abnormal returns for each target stock are measured by the excess over the returns on the matched portfolio. Fig. 2 confirms that activism targets perform poorly during this time relative to their style-adjusted benchmarks. From mid-July to the end of September, the activist portfolio underperforms by more than 3 percentage points.

Somewhat more formally, Table 7 presents the abnormal returns over several periods of interest along with the corresponding *t*-statistics. Abnormal returns are not significantly different from zero during the "pre-crisis" period. However, the portfolio significantly underperforms during the week in which Chrysler and Boots fail to secure funding for their buyouts. We also find weak evidence of underperformance during the week in which Home Depot announced that it would cut its price in a proposed buyout. The bottom lines of the table consider the full "crisis" period, from the end of July to the end of August, and confirm that the underperformance shown in Fig. 2 is statistically significant.

investors had surely not taken an activist role in all of these positions.

⁸ Vikas Bajaj and Eric Dash, "Monday on Wall Street: A Day Filled with Jitters Rather than Mergers", New York Times, July 30, 2007.

⁹ The funds include Blum Capital Partners, Cannell Capital, Farallon Capital, Franklin Resources, Gamco Investors, Jeffrey Halis, Icahn & Company, JANA Partners, Newcastle Capital, Nierenberg Investment Management, Oracle Investment Management, Pirate Capital, Soros Fund Management, Steel Partners, Third Point, and ValueAct Capital.

¹⁰ It is possible that we *over control* for value and momentum exposure, in which case the results shown in Fig. 2 and reported in Table 7 are attenuated. This is because many market participants claimed that the underperformance of value stocks was precisely because many of these stocks had been considered as takeover targets. In this case, we simply want to de-mean cumulative returns by the market return, yielding slightly stronger results (not tabulated).

Table 7The stock market performance of activism targets during the 2007 credit crisis.

Cumulative abnormal returns on the portfolio of stocks held by the 16 most active activist investors between June and September 2007, as reported in their 13F disclosures in June 2007. The portfolio contains the top 10 positions of these activists, 144 stocks in total. We consider four periods over which to calculate event returns: (1) the pre-crisis period between June 1 and July 25; (2) the week during which Chrysler and Boots failed to secure funding for \$20 billion of buyouts; (3) the week during which Home Depot agreed to slash its price during a buyout; and (4) the period encompassing (2) and (3). The table shows both equal- and value-weighted results. In the value-weighted results, stocks are first value-weighted according to position size within activist portfolios, then equal-weighted across activists. In each panel, the left-hand columns show the average cumulative return (CR); the right-hand columns show the cumulative abnormal return (CAR), which is the average cumulative return minus the return on the corresponding Daniel, Grinblatt, Titman, and Wermers (1997) characteristic portfolio. The 125 characteristic portfolios are based on lagged size, book-to-market equity, and momentum.

	Equa	al-weighted	V	alue-weighted
	CR (%)	CAR (%)	CR (%)	CAR (%)
June 1-July 24, 2007	-1.05	-0.21	-0.14	0.24
(pre-crisis period)	[-1.17]	[-0.25]	[-0.15]	[0.28]
July 25-July 31, 2007	-4.71	-1.01	-4.67	-1.13
(Chrysler and Boots fail to secure buyout funds)	[-11.30]	[-2.51]	[-14.15]	[-3.39]
August 25-August 29, 2007	-0.40	-0.40	-0.35	-0.46
(Home Depot slashes price in buyout)	[-1.26]	[-1.20]	[-1.31]	[-1.62]
July 25-August 29, 2007	-4.83	-2.04	-5.57	-2.97
(Extended period of credit spread widening)	[-6.25]	[-2.72]	[-7.79]	[-4.32]

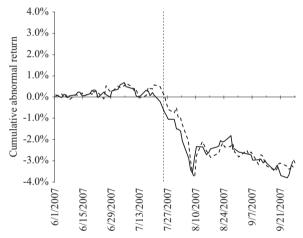


Fig. 2. The performance of activism targets during the July–August 2007 credit crisis. Equal- and value-weighted Daniel, Grinblatt, Titman, and Wermers (1997) adjusted abnormal returns on the portfolio of stocks held by the most active activists between June and September 2007. Matching portfolios are formed based on size, market-to-book equity, and momentum. The portfolio includes the 10 largest holdings for each activist. In the value-weighted results, stocks are first value-weighted within activist portfolios, then equal weighted across activists. The dashed line at the end of July 2007 marks the public announcement that Chrysler and Boots failed to get adequate financing for their respective buyouts (solid—equal-weighted abnormal returns and dashed—value-weighted abnormal returns).

To summarize, many activists saw drops in the value of their portfolios during a period when market-wide takeover interest fell, consistent with the idea that their portfolio firms had been purchased in the hope of securing a takeover.

5. Conclusions

In their survey of shareholder activism, Gillan and Starks (1998) define an activist as an investor who tries to

"change the status quo through 'voice', without a change in control of the firm". While activist investors do not take controlling stakes in firms, we show that—ironically, from the perspective of value creation—activists are most successful at creating value when they are able to effect a change in control. In addition, we show that activism measurably increases the likelihood that an undervalued target is ultimately taken over. Hedge funds' success at effecting a takeover accounts for the high returns to shareholder activism that have been documented in recent work. Events in credit markets in July and August 2007 provide additional support.

One implication of our work is that the scope for hedge fund activism to have pervasive effects on corporate governance is limited. In our view, hedge funds invest in small, undervalued companies with the ultimate goal of seeing those targets bought out. With the returns highest for targets that are acquired within 18 months of the activist filing, it follows that the activists are less interested in making corporate governance changes that might improve the firm but leave it independent.

An important question, which we do not answer here, is whether the shareholder activism associated with takeovers creates long-term value for acquiring company shareholders. In principle, activists could create value by identifying assets whose value is not being maximized by current management. In this case, the takeover premium represents the present value of having the assets managed more efficiently by another party. Another possibility, however, is that activists are good at identifying firms for which potential acquirers might overpay. A long tradition of papers in corporate finance, starting with Roll (1986) and including Shleifer and Vishny (2003) and Moeller, Schlingemann, and Stulz (2005), argues that firms overpay, on average, for public market acquisitions. In this case, the function of the activist is primarily to market the stock rather than to identify acquirers with true synergies. Given enough data on the future performance of the takeovers in our sample, it should be straightforward to distinguish between these possibilities.

Appendix A. Classification of activist events based on initial demands

Engage management: The activist intends to engage management or to discuss issues with management to increase shareholder value, or makes a general statement that shares are "undervalued" without including any specific plans or proposals. This is the least aggressive form of activism (45.54% of hedge fund sample and 22.45% of non-hedge fund sample).

Capital structure: This type of activism relates to a recapitalization, stock or debt issuance, restructuring of debt, dividends, or a stock buyback (10.08% of hedge-fund sample and 6.12% of non-hedge fund sample).

Corporate governance: This type of activism can include a call to declassify the board, remove a poison pill, elect activist-selected directors, or fire a company officer or board member. The corporate governance classification also applies to activism that targets issues of board or executive compensation, corporate fraud, and lack of transparency (21.94% of the hedge fund sample and 48.47% of the non-hedge fund sample).

Business strategy: The activist critiques excess diversification and the level of investment in some business lines or cites poor operating strategy at the target (4.59% of the hedge-fund sample and 6.12% of the non-hedge fund sample).

Asset sale: The activist calls for the target to sell itself or certain of its assets in order to maximize shareholder value. This classification can also represent an offer by the activist to take over the target (18.11% of the hedge-fund sample and 13.27% of the non-hedge fund sample).

Block merger: The activist blocks a proposed merger, usually because it deems the terms of the deal to be unfavorable to target shareholders. Often, the activist will demand a higher price (5.61% of the hedge fund sample and 10.20% of the non-hedge-fund sample).

Financing/Bankruptcy: The activist provides financing for a target in bankruptcy or financial distress (1.40% of the hedge fund sample and 2.04% of the non-hedge fund sample).

Strategic alternatives: The activist requests that the target pursue various strategic alternatives for the firm, including a spinoff of an underperforming division (2.42% of the hedge fund sample and 5.10% of the non-hedge fund sample).

Proxy: The activist files under Schedule 14A with the SEC, signaling an intention to solicit proxies from shareholders either to elect its own proposed director(s) or to adopt a shareholder proposal that the activist has submitted or plans on submitting (9.06% of the hedge fund sample and 3.06% of the non-hedge fund sample).

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