

Hedge Fund Activism

Updated tables and figures

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Contents

| | | |
|----------|---|-----------|
| 1 | Descriptive Statistics | 3 |
| 1.1 | Number of Funds and Activism Events by Year: 1994-2016 | 3 |
| 1.2 | Summary of Events by Hedge Funds' Stated Goals and Tactics | 4 |
| 1.3 | Hedge Funds' Capital Commitment and Investment Horizon | 5 |
| 1.4 | Characteristics of Targeted Firms | 6 |
| 2 | Short-run Market Reaction | 7 |
| 2.1 | Abnormal Return Centered Around the Filing of Schedule 13D with the SEC | 7 |
| 2.2 | Abnormal Return Centered Around the Date that Triggers the Requirement to File the Schedule 13D | 9 |
| 2.3 | Short-run Market Reaction by Year | 11 |
| 2.4 | Abnormal Return Centered Around Activists' Exit | 12 |
| 3 | Longer-term Abnormal Returns | 13 |
| 3.1 | Calendar Time Portfolio Analysis | 13 |
| 4 | 13D Reporting Information | 15 |
| 4.1 | Number of Days between Crossing the 5% Threshold and the Filing of Schedule 13D | 15 |

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The information provided in this file is for educational use only. If you plan to use any information from this document please cite Brav, Jiang, Partnoy, and Thomas (2008) and Brav, Jiang, and Kim (2010), and place the URL in a footnote. Here is a suggested version of the citation:

These results are based on an updated sample [1994-2016] using the same data collection procedure and estimation methods as in Brav, Jiang, Partnoy, and Thomas (2008) and Brav, Jiang, and Kim (2010). For more information please see [Insert the web site URL where this document is located.]

References:

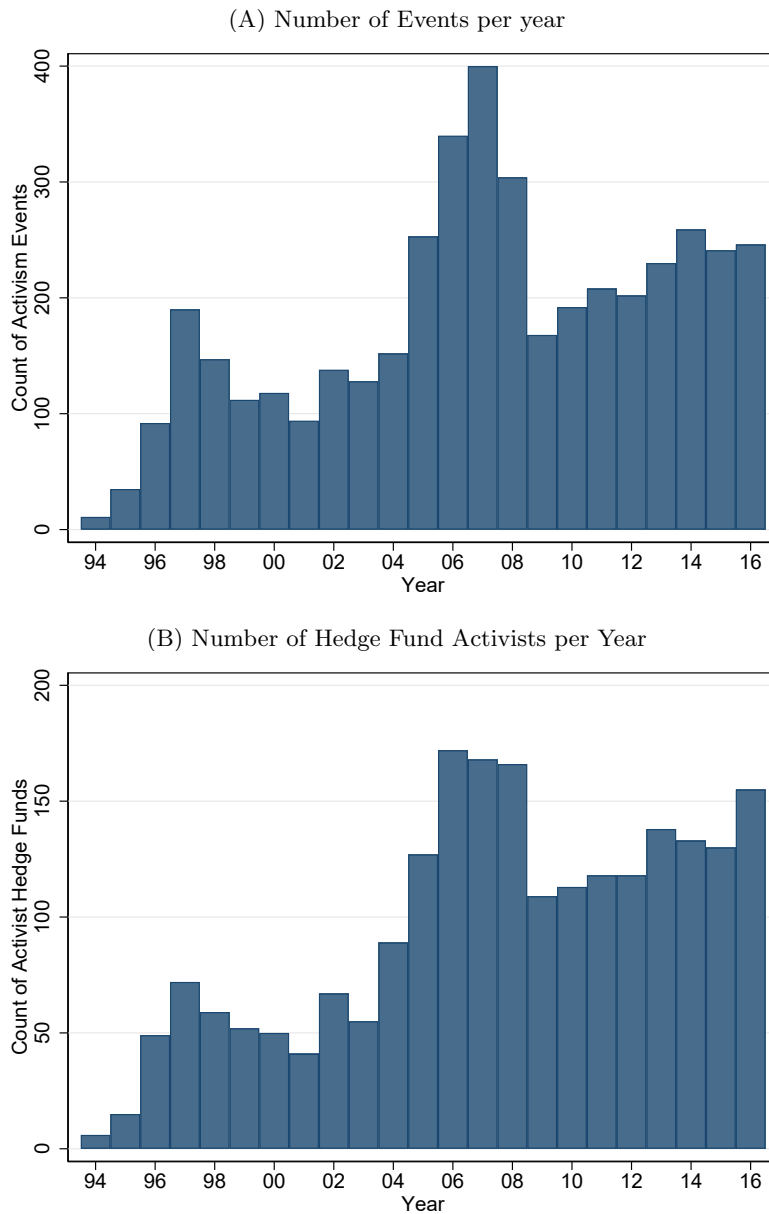
- Brav, Alon, Wei Jiang, Frank Partnoy, and Randall Thomas, 2008, Hedge fund activism, corporate governance, and firm performance, *Journal of Finance*, vol. 63, 1729-1775.
- Brav, Alon, Wei Jiang, and Hyunseob Kim, 2010, Hedge fund activism: A review, *Foundations and Trends in Finance*, vol. 4(3), 1-66.

1 Descriptive Statistics

1.1 Number of Funds and Activism Events by Year: 1994-2016

Figure 1: Number of Funds and Activism Events by Year: 1994-2016

The sample consists of all Schedule 13D filings over the period 1994-2016 narrowed down to those made by hedge fund managers based on the names and descriptions of the filer type listed in the Schedule's Item 2 ("Identity and Background") combined with Internet/news searches of the filers. We exclude filings that involve risk arbitrage, distress financing, non-regular corporations such as closed-end funds, and firms with non-common share codes (those that differ from 10 or 11) as identified from information from the Center for Research in Security Prices (CRSP). We include in the sample events in which the hedge fund maintained an activist position in a large public company but owned less than 5% of the company's stock (and thus, were not required to file a Schedule 13D). For these events we set the event date to the first public announcement of the activist's intervention. The final sample consists of 4260 fund-target firm pairs. See [Brav et al. \(2010\)](#) for additional details on the formation of the sample. The top figure plots the time series of the number of events per year while the bottom figure plots the number of hedge funds filing in a given year.



1.2 Summary of Events by Hedge Funds’ Stated Goals and Tactics

Table 1: Summary of Events by Hedge Funds’ Stated Goals and Tactics

The sample includes 4260 events. Panel A reports the summary of activism events sorted by the hedge funds’ stated objective. The “General undervaluation” objective includes events in which the hedge fund believes that the company is undervalued and/or that the fund can help the manager maximize shareholder value. All events in this objective category involve either the stated intent for passive engagement or communication with the management. The “Capital structure” category includes activism targeting firms’ payout policy and capital structure in which the hedge fund proposes changes geared toward the reduction of excess cash, an increase in firm leverage, or higher payout to shareholders. It also involves issuance of securities by the target companies, such as modifying seasoned equity offerings or proposing debt restructuring. The “Business strategy” objective includes activism targeting issues related to operational efficiency, business restructuring, mergers and acquisitions, and growth strategies. The “Sale of target company” category involves activism in which hedge funds attempt either to force a sale of the target company to a third party, or, in a small minority of the cases, to acquire the company themselves. The “Governance” category includes events in which hedge funds attempt to rescind takeover defenses, to oust the CEO or chairman, to challenge board independence and fair representation, to demand more information disclosure and question potential fraud, and to challenge the level or the pay-for-performance sensitivity of executive compensation. Percentages sum up to more than 100% since one event can have multiple objectives. However, the first category and the other four categories are mutually exclusive. We report the fraction of events that had begun hostile (“Initially Hostile”) and the fraction of events that had turned hostile (“Ex-post Hostile”) within each category. Panel B provides information on the tactics undertaken by hedge funds, sorted from the least to most aggressive, and the percent of events in each category relative to the full sample. The first tactic category includes events in which the hedge fund states that it intends to remain passive or to communicate with the board/management on a regular basis with the goal of enhancing shareholder value. The second tactic category includes events in which the hedge fund seeks board representation without a proxy contest or confrontation with the existing management/board. The third tactic category includes cases where the hedge fund makes formal shareholder proposals, or publicly criticizes the management and demands change. The fourth category includes events in which the hedge fund threatens to wage a proxy fight in order to gain board representation, or to sue the management for breach of duty. The fifth category includes events in which the hedge fund launches a proxy contest in order to replace the board. The remaining two tactic groups include events in which the hedge fund sues the company with the intention to take control of the company. Activist events can fall within more than one category.

| Panel A: Summary of Hedge Funds’ Stated Objectives | | | | |
|--|------------------------|-------------|----------------------|-------------------|
| | Full Sample Statistics | | Subsample Statistics | |
| | Number of Events | % of Sample | % Initially Hostile | % Ex-post Hostile |
| General undervaluation | 2107 | 49.46 | NaN | NaN |
| Capital structure | 574 | 13.47 | 17.94 | 39.55 |
| Business strategy | 806 | 18.92 | 18.49 | 44.67 |
| Sale of target company | 799 | 18.76 | 25.03 | 53.57 |
| Governance | 1493 | 35.05 | 22.51 | 50.64 |

| Panel B: Summary of Hedge Funds’ Tactics | |
|--|-------------|
| Tactic categories | % of Events |
| 1. The stake is for investment purposes. Alternatively, the intent is to communicate with the board/management to enhance shareholder value. | 37.25 |
| 2. The hedge fund seeks board representation without a proxy contest or confrontation with the existing management/board. | 15.98 |
| 3. The hedge fund makes formal shareholder proposals, or publicly criticizes the company and demands change. | 27.33 |
| 4. The hedge fund threatens to wage a proxy fight in order to gain board representation, or to sue the company for breach of fiduciary duty etc. | 6.13 |
| 5. The hedge fund launches a proxy contest in order to replace the board. | 8.11 |
| 6. The hedge fund sues the company. | 2.63 |
| 7. The hedge fund intends to take control of the company, for example, with a takeover bid. | 2.57 |

1.3 Hedge Funds' Capital Commitment and Investment Horizon

Table 2: Hedge Funds' Capital Commitment and Investment Horizon

Panel A provides the size of the hedge funds' stakes both in terms of dollar values (at cost, in 2016 millions of dollars), and as a percentage of the outstanding shares of the target companies. We report the 5th, 25th, 50th (median), 75th, and 95th percentiles of the sample. The "Initial" columns report the stake that hedge funds take at their initial 13D filing. The "Max" columns report the maximum reported stakes that the funds accumulated in the targets as revealed from subsequent 13D/A filings. Panel B lists the length of holding period (in number of days) at different percentiles of the sample for the subsample that has exit information. Exit date is determined as the date in which there has been a resolution of the activist's demands. If this date is missing we look for the date in which the fund's stake in the target declined to below 5%. We report both the number of completed events, as well as those that are still ongoing or the date of exit cannot be firmly determined. In each panel, the statistics for the full sample and the subsample of initially hostile events are reported separately.

| Panel A: Hedge Funds' Invested Capital | | | | | | | | |
|--|-------------------------|-------------------|-------------------------|-------------------|-------------------------|-------------------|-------------------------|--------|
| Full Sample | | | | | Hostile Subsample | | | |
| Initial | | Max | | | Initial | | Max | |
| Percent Ownership | Invested Cap' (in \$1m) | Percent Ownership | Invested Cap' (in \$1m) | Percent Ownership | Invested Cap' (in \$1m) | Percent Ownership | Invested Cap' (in \$1m) | |
| 5th | 5 | 1.28 | 5.1 | 1.66 | 3.1 | 1.53 | 5.04 | 2.21 |
| 25th | 5.4 | 4.74 | 6.7 | 6.14 | 5.4 | 4.86 | 7.5 | 6.8 |
| Median | 6.5 | 12.91 | 9.38 | 17.25 | 6.61 | 14.38 | 9.82 | 19.9 |
| 75th | 9.6 | 46.69 | 13.89 | 64.83 | 9.5 | 47 | 14.8 | 71.37 |
| 95th | 22.4 | 302.77 | 31.3 | 415.09 | 19 | 401.64 | 34.45 | 544.91 |
| Average | 9.12 | 75.18 | 12.6 | 92.39 | 8.41 | 86.8 | 13.76 | 110.37 |
| N | 3845 | 3401 | 3588 | 3184 | 828 | 766 | 740 | 668 |

| Panel B: Hedge Funds' Investment Horizon (in days) | | |
|--|-------------|-------------------|
| | Full Sample | Hostile Subsample |
| 5th | 20 | 21 |
| 25th | 95 | 84 |
| Median | 253 | 195 |
| 75th | 584 | 437 |
| 95th | 1823 | 1358 |
| Average | 497 | 369 |
| Not completed or no data on completion | 529 | 63 |
| Total number of completed events | 3731 | 894 |

Synopsis of Table 2: Hedge fund activism does not generally involve controlling blocks. The median initial (maximum) percentage stake that a hedge fund takes in the target is 6.5 (9.38)%. Instead, to facilitate value-enhancing changes as minority shareholders, activists must work with and win support from other shareholders, especially on issues that require shareholder voting. These features distinguish the activist hedge funds from the corporate raiders in the 1980s who sought to obtain full control to internalize all the benefits from their intervention. Moreover, the fact that the median (average) duration of completed interventions is 253 (497) days implies that hedge fund activists are not short-term investors.

1.4 Characteristics of Targeted Firms

Table 3: Characteristics of Target Companies

Columns 1-7 columns display summary statistics of target firm characteristics. All potentially unbounded variables are winsorized at 1% and 99% extremes. Columns 8-12 show the proportion of target firms that fall into each of the quintile groups formed by the universe of firms in Compustat, CRSP, or Thomson-Reuters. Quintile breakpoints are re-computed yearly. All variables are retrieved from the year prior to the event year (and from the event year if the data item from the year before is missing; or from two years prior to the event year if the first two data items are missing). *MV* is market capitalization in millions of dollars; *BM* is the book-to-market ratio defined as (book value of equity/market value of equity); *Q* is defined as (book value of debt + market value of equity)/(book value of debt + book value of equity); *GROWTH* is the growth rate of sales over the previous year; *ROA* is return on assets, defined as EBITDA/lagged assets; *CF* is cash flow, defined as (net income + depreciation and amortization)/lagged assets; *STKRET* is the buy-and-hold return during the 12 months before the announced activism; *LEV* is the book leverage ratio defined as debt/(debt + book value of equity); *CASH* is defined as (cash + cash equivalent)/assets; *DIVYLD* is dividend yield, defined as (common dividend)/*MV*; *PAYOUT* is the total payout ratio, defined as (sum of common dividend payments and share repurchases)/*MV*; *RND* is R&D (missing values are imputed as zeros) scaled by lagged assets; *HHI* is the Herfindahl-Hirschman index of sales within 2-digit SIC industries; *INST* is the proportion of shares held by institutions; *AMIHUD* is the Amihud (2002) illiquidity measure, defined as the yearly average (using daily data) of $1000\sqrt{|\text{Return}|/(\text{Dollar Trading Volume})}$. 74% of firm-years in the sample of target firms do not pay a dividend, 50% have zero payout and 58% do not engage in R&D. For the variables *DIVYLD*, *PAYOUT* and *RND*, the summary statistics include zeros; Compustat quintile breakpoints and the percentage of target firms within each quintile are computed excluding zeros. *AMIHUD* illiquidity measure is from CRSP, *INST* is from Thomson-Reuters, all other variables are from Compustat.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---------------|--------------------|----------|--------|--------|--------|-------|-------|------------------------------|-------|-------|-------|-------|
| | Summary statistics | | | | | | | % of Sample in each quintile | | | | |
| Firm chars. | Mean | St. Dev. | 10th | 25th | Median | 75th | 90th | Q1 | Q2 | Q3 | Q4 | Q5 |
| <i>MV</i> | 1766 | 5839 | 27 | 67 | 210 | 872 | 3367 | 21.43 | 26.72 | 21.92 | 16.74 | 13.14 |
| <i>BM</i> | 0.874 | 0.820 | 0.211 | 0.381 | 0.668 | 1.086 | 1.652 | 14.36 | 16.75 | 18.81 | 20.90 | 29.10 |
| <i>Q</i> | 1.892 | 1.843 | 0.742 | 0.953 | 1.301 | 2.052 | 3.464 | 29.04 | 19.89 | 20.43 | 17.40 | 13.19 |
| <i>GROWTH</i> | 0.198 | 0.901 | -0.210 | -0.055 | 0.046 | 0.183 | 0.464 | 25.77 | 22.47 | 17.50 | 17.48 | 16.73 |
| <i>ROA</i> | 0.021 | 0.291 | -0.186 | 0.004 | 0.074 | 0.146 | 0.217 | 23.07 | 18.48 | 23.80 | 19.51 | 15.14 |
| <i>CF</i> | -0.030 | 0.344 | -0.268 | -0.030 | 0.043 | 0.104 | 0.168 | 23.91 | 19.66 | 21.80 | 18.97 | 15.67 |
| <i>STKRET</i> | -0.034 | 0.500 | -0.585 | -0.351 | -0.091 | 0.174 | 0.519 | 32.41 | 23.11 | 17.96 | 13.66 | 12.86 |
| <i>LEV</i> | 0.297 | 0.273 | 0 | 0.008 | 0.258 | 0.508 | 0.700 | 23.78 | 18.15 | 17.56 | 18.43 | 22.06 |
| <i>CASH</i> | 0.144 | 0.178 | 0.007 | 0.021 | 0.076 | 0.197 | 0.374 | 19.05 | 17.10 | 20.74 | 21.69 | 21.35 |
| <i>DIVYLD</i> | 0.007 | 0.016 | 0 | 0 | 0 | 0.002 | 0.024 | 22.49 | 19.12 | 20.67 | 16.61 | 20.93 |
| <i>PAYOUT</i> | 0.027 | 0.061 | 0 | 0 | 0 | 0.030 | 0.076 | 23.90 | 18.24 | 17.08 | 17.99 | 22.70 |
| <i>CAPEX</i> | 0.058 | 0.091 | 0.002 | 0.011 | 0.028 | 0.063 | 0.136 | 16.91 | 21.48 | 20.95 | 20.20 | 20.33 |
| <i>RND</i> | 0.063 | 0.158 | 0 | 0 | 0 | 0.057 | 0.175 | 19.22 | 20.47 | 21.03 | 21.32 | 17.79 |
| <i>HHI</i> | 0.150 | 0.142 | 0.040 | 0.052 | 0.106 | 0.190 | 0.312 | 20.51 | 21.41 | 23.31 | 23.16 | 11.02 |
| <i>INST</i> | 0.529 | 0.313 | 0.080 | 0.253 | 0.545 | 0.806 | 0.943 | 12.69 | 18.61 | 22.16 | 23.17 | 17.09 |
| <i>AMIHUD</i> | 0.356 | 0.511 | 0.019 | 0.049 | 0.151 | 0.434 | 0.977 | 16.48 | 19.85 | 22.84 | 24.59 | 16.16 |

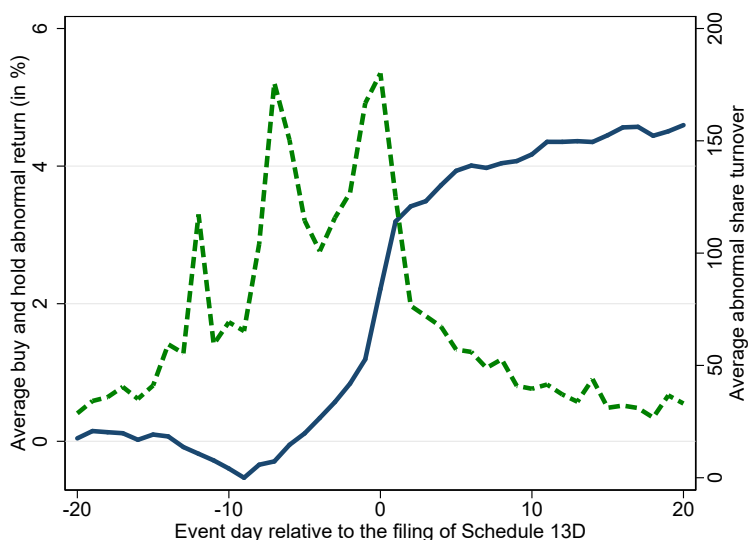
2 Short-run Market Reaction

2.1 Abnormal Return Centered Around the Filing of Schedule 13D with the SEC

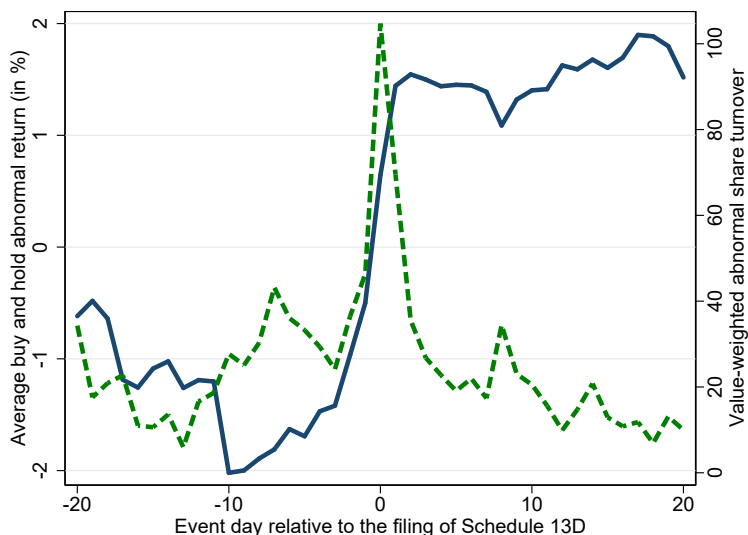
Figure 2: Abnormal Return Centered Around the Filing of Schedule 13D with the SEC: 20 days before to 20 days after

In Panel A, the solid blue line (left axis) plots the average buy-and-hold centered return around the filing of the Schedule 13D with the SEC, in excess of the buy-and-hold return of the value-weight market, from 20 days prior the 13D file date to 20 days after. The dashed green line (right axis) plots the increase in percentage points of the share trading turnover during the same time window compared to the average turnover rate during the preceding (-220, -21) event window. Share turnover in the (-220,-21) window is winsorized within-event at the 99% extreme to limit the effect of the highest volume trading days on the baseline. Panel B plots value-weighted analogue of panel A, where events are weighted by their 2016-adjusted market capitalization at 21 days before the filing of the 13D. In Panel C, events are split into terciles based on their 2016-adjusted market capitalization; the solid blue line displays the equal-weighted average return for “small” stocks, the red dashed line displays the same for “mid” and the green dashed-dotted line displays that for “large”. The mean (median) of small cap stocks (in millions of dollars) is 49.1 (47.3). For mid cap, it is 224 (198). For large cap, it is 7050 (1541). Of the 4260 events, 3727 have price data available in CRSP around the date of the 13D.

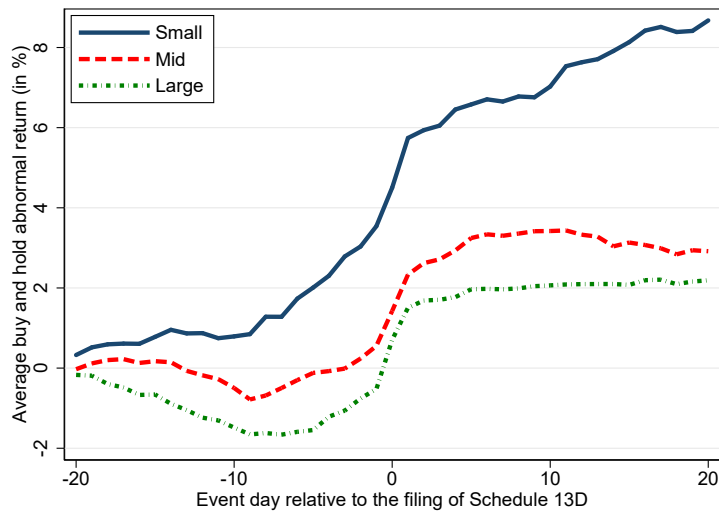
(A) Equal-weighted returns and share turnover



(B) Value-weighted returns and share turnover



(C) Equal-weighted returns, split by size

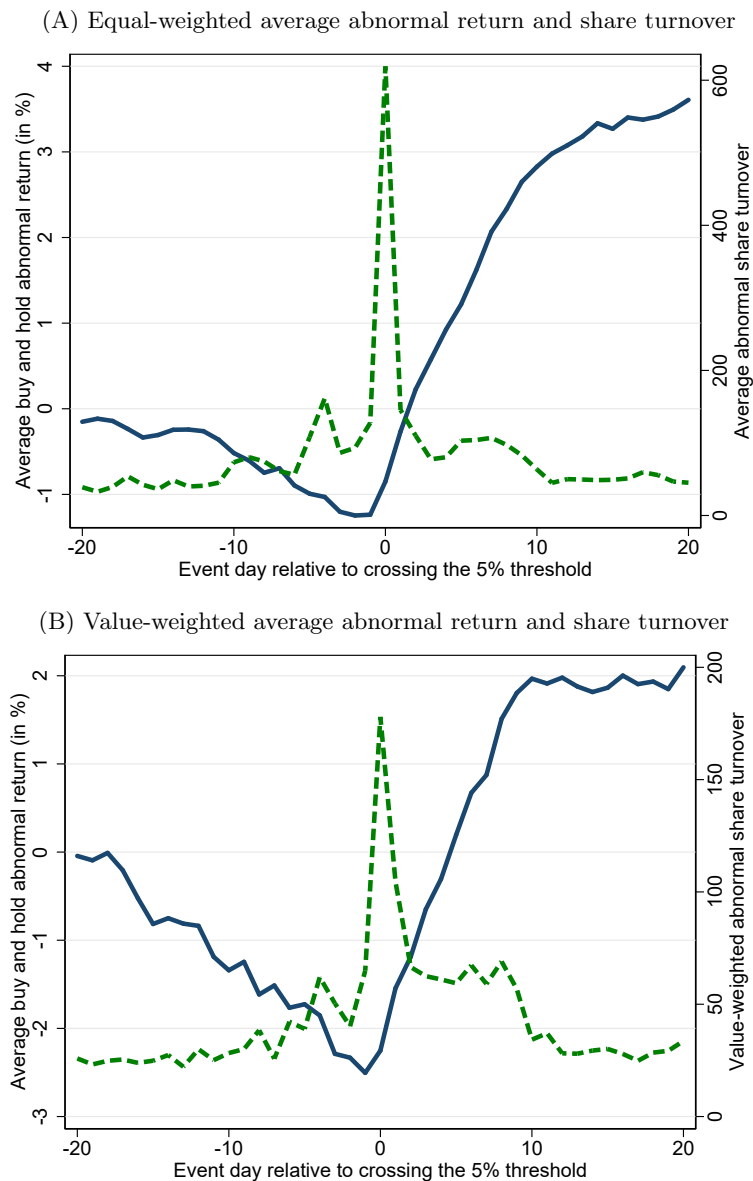


Synopsis of Figure 2: The buy-and-hold abnormal return over the period beginning 20 days prior to the filing of a Schedule 13D with the SEC to 20 days after is on average 4.5% (Figure 2A). This is consistent with the idea that the market perceives hedge fund activism as value-enhancing. The value-weighted abnormal return over the same period is on average 1.5% (Figure 2B). The negative performance from 20 to 10 days before 13D is more apparent in the value-weighted figure and for large cap stocks (as seen in Figures 2B and 2C).

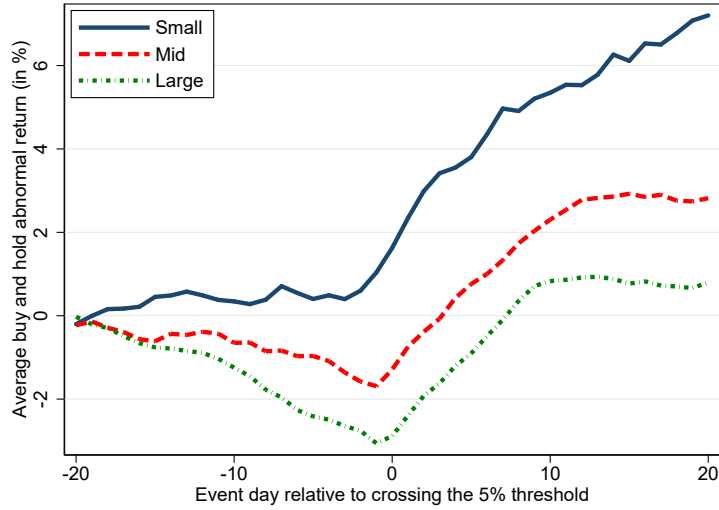
2.2 Abnormal Return Centered Around the Date that Triggers the Requirement to File the Schedule 13D

Figure 3: Average Abnormal Return Centered Around the Date that Triggers the Requirement to File the Schedule 13D

Investors are required to file Schedule 13D no later than 10 days after the transaction that causes them to go over (“cross”) the 5% threshold. The solid blue line (left axis) plots the average buy-and-hold return around the “cross” date, in excess of the buy-and-hold return of the value-weight market, from 20 days prior the 13D file date to 20 days after. The dashed green line (right axis) plots the increase in percentage points of the share trading turnover during the same time window compared to the average turnover rate during the preceding (-220, -21) event window. Share turnover in the (-220, -21) window is winsorized within-firm at the 99% extreme. Of the 4260 activist events in the sample, 3518 have data available on the date of trigger and 3069 have price data available in CRSP around the date that triggers the filing of the 13D.



(C) Equal-weighted average abnormal return, split by size

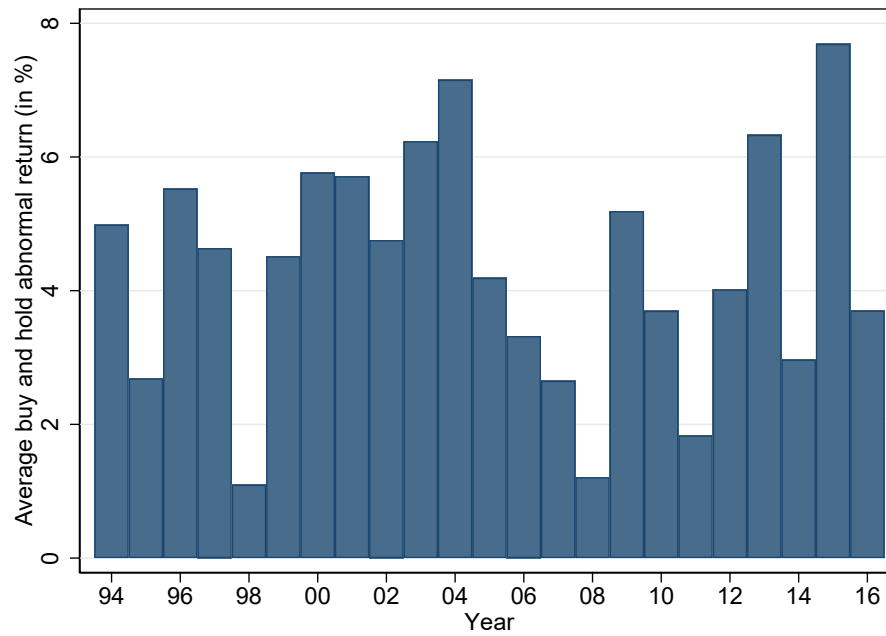


Synopsis of Figure 3: Now that activism events are centered around the day activists cross the 5% threshold (rather than the day they file the Schedule 13D with the SEC as in Figure 2A) we can see that most of abnormal trading volume occurs during the day the activist investor crosses the 5% threshold. Turnover on the day the activist hedge funds cross the 5% threshold is, on average, 600% higher than normal. We can also see that the positive price drift begins on the day activists cross the 5% threshold for about ten days. The value-weighted return and share turnover display similar dynamics, however the buy-and-hold return leading up to the date that triggers the 13D is more negative in Figure 3B. Figure 3C also shows that, as in Figure 2C, the buy-and-hold performance pre-event is negatively correlated with firm size.

2.3 Short-run Market Reaction by Year

Figure 4: Short-run Market Reaction By Year

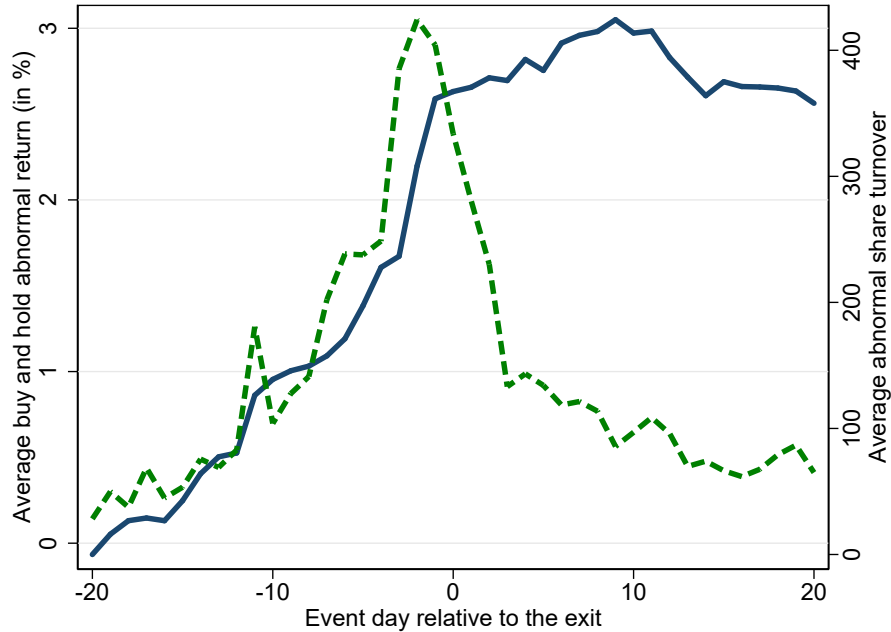
Annual average event-day buy and hold abnormal returns from 10 days before the filing of the Schedule 13D to 10 days afterwards. (See notes to Figure 2 for the calculation of the event day returns).



2.4 Abnormal Return Centered Around Activists' Exit

Figure 5: Abnormal Return Centered Around Activists' Exit

The solid blue line (left axis) plots the average buy-and-hold target return net of the value weight market around activists' exit, defined as the filing of an amendment to Schedule 13D in which the fund reveals that the percent of shares held in the target declined below the 5% reporting threshold. If this date is missing we replace it with the date in which it is announced that the activist has divested its stake in the target (this latter date included events in which the target firm is acquired or liquidated). The event period lasts from 20 days prior to the amendment to the 13D file date to 20 days afterwards. The green dashed line (right axis) plots the increase in percentage points of the share trading turnover during the same time window compared to the average turnover rate during the preceding (-220, -21) event window. Share turnover in the (-220,-21) window is Winsorized within-firm at the 99% extreme.



Synopsis of Figure 5: Average abnormal return around activist exit is approximately 2.8%, and flat afterwards. Trading volume tends to spike during the 10-day window leading up to the filing. This pattern indicates that hedge funds tend to exit after positive stock returns, and their exit overall does not have a positive or negative impact on the stock price.

3 Longer-term Abnormal Returns

3.1 Calendar Time Portfolio Analysis

Table 4: Long-term Abnormal Returns

The table reports statistics on long-term abnormal returns associated with targets of hedge fund activism. We report regression estimates and t-statistics from value-weighted calendar-time portfolio regressions. The “Holding period” indicates the holding period in months relative to the month of the hedge fund intervention. For example, the portfolio with holding period [+1, +12], continually adds target firms that have had an activist event in the preceding month and holds these firms through a year after their respective activism event. The regression takes the form:

$$r_t - r_f = \alpha + \beta_{RMRF}RMRF_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{MOM}MOM_t + \varepsilon_t$$

α is the estimate of the regression intercept from the factor model. β_{RMRF} is the loading on the market excess return. β_{SMB} , β_{HML} and β_{MOM} are the estimates of portfolio factor loadings on the Fama-French size and book-to-market factors, and the Carhart momentum factor. We obtain the factor returns, market capitalization breakpoints, and monthly risk-free rates from Ken French’s web site at Dartmouth College. R^2 is the adjusted R^2 from the regressions and N is the number of monthly observations. Standard errors are Newey-West with four lags of autocorrelation. We set a minimum of ten firms per month for all portfolios.

| Panel A: Value-weighted target firm four-factor regressions | | | | | | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Holding period (in months) | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | -36 to -25 | -24 to -13 | -12 to -1 | +1 to +12 | +13 to +24 | +25 to +36 |
| α | -0.693 (-3.297) | -0.813 (-3.768) | -1.327 (-5.320) | 0.251 (1.230) | 0.153 (0.793) | 0.251 (1.241) |
| β_{RMRF} | 0.991 (18.336) | 1.048 (16.811) | 0.970 (14.558) | 0.914 (15.258) | 1.059 (20.587) | 0.973 (17.321) |
| β_{SMB} | 0.424 (4.534) | 0.281 (3.427) | 0.078 (0.727) | 0.319 (4.218) | 0.313 (4.704) | 0.262 (3.181) |
| β_{HML} | 0.026 (0.288) | -0.141 (-1.478) | 0.191 (1.830) | 0.284 (2.774) | 0.137 (2.089) | 0.193 (2.428) |
| β_{MOM} | -0.048 (-1.020) | -0.158 (-2.840) | -0.086 (-0.993) | -0.142 (-2.827) | 0.006 (0.158) | 0.061 (1.215) |
| N | 277 | 277 | 277 | 273 | 273 | 262 |
| R^2 | 0.656 | 0.693 | 0.556 | 0.666 | 0.729 | 0.657 |
| Panel B: Value-weighted small target firms four-factor regressions | | | | | | |
| Holding period (in months) | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | -36 to -25 | -24 to -13 | -12 to -1 | +1 to +12 | +13 to +24 | +25 to +36 |
| α | 0.296 (1.360) | -0.348 (-1.597) | -0.789 (-3.738) | 0.165 (0.768) | 0.131 (0.506) | 0.295 (1.173) |
| β_{RMRF} | 0.942 (16.984) | 0.824 (16.222) | 0.933 (15.506) | 0.799 (11.324) | 0.781 (11.021) | 1.014 (13.993) |
| β_{SMB} | 0.871 (12.475) | 0.983 (15.113) | 0.662 (9.658) | 0.724 (9.285) | 1.014 (11.283) | 0.867 (10.533) |
| β_{HML} | 0.425 (4.893) | 0.203 (2.338) | 0.292 (2.689) | 0.331 (3.555) | 0.279 (2.343) | 0.333 (3.394) |
| β_{MOM} | -0.271 (-3.614) | -0.364 (-5.160) | -0.232 (-5.034) | -0.261 (-4.289) | -0.314 (-3.120) | -0.190 (-2.003) |
| N | 266 | 266 | 267 | 266 | 266 | 255 |
| R^2 | 0.761 | 0.776 | 0.734 | 0.728 | 0.722 | 0.722 |

| Panel C: Value-weighted large target firms four-factor regressions | | | | | | |
|--|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|
| Holding period (in months) | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | -36 to -25 | -24 to -13 | -12 to -1 | +1 to +12 | +13 to +24 | +25 to +36 |
| α | -0.781 (-3.554) | -0.862 (-3.827) | -1.401 (-5.474) | 0.310 (1.460) | 0.113 (0.558) | 0.233 (1.107) |
| β_{RMRF} | 1.003 (17.261) | 1.048 (16.203) | 0.970 (14.246) | 0.932 (15.122) | 1.073 (19.787) | 0.952 (16.676) |
| β_{SMB} | 0.414 (4.086) | 0.253 (3.031) | 0.075 (0.690) | 0.296 (3.822) | 0.266 (3.709) | 0.278 (3.254) |
| β_{HML} | 0.002 (0.020) | -0.137 (-1.336) | 0.230 (2.229) | 0.309 (2.929) | 0.151 (2.163) | 0.189 (2.247) |
| β_{MOM} | -0.041 (-0.832) | -0.152 (-2.695) | -0.086 (-0.926) | -0.130 (-2.451) | 0.021 (0.454) | 0.048 (0.898) |
| N | 265 | 266 | 266 | 267 | 267 | 253 |
| R^2 | 0.653 | 0.684 | 0.570 | 0.662 | 0.713 | 0.646 |

Synopsis of Table 4: Alphas in the post-targeting period ($[+1, +12]$, $[+13, +24]$ and $[+13, +36]$) are insignificant in the full sample as well as the two size sorted subsamples implying that prices do not revert to pre-event levels for up to three years after the initiation of activism. Therefore, the evidence refutes the market over-reaction hypothesis and supports the hypothesis that hedge fund activism creates value for shareholders. As shown in Panels B and C, this effect is not driven by small firms.

4 13D Reporting Information

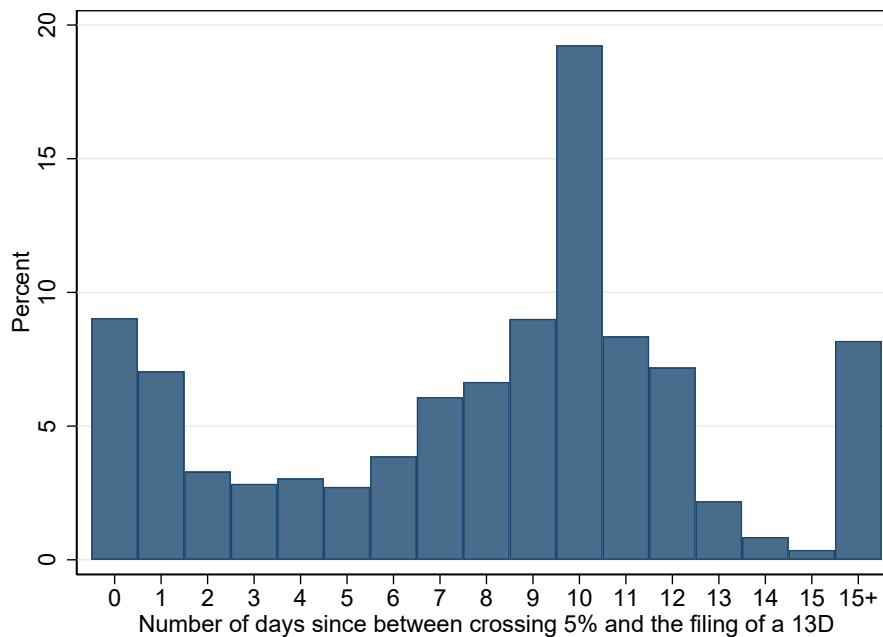
4.1 Number of Days between Crossing the 5% Threshold and the Filing of Schedule 13D

Table 5: Initial Filing of Schedule 13D and the Number of Days Since Crossing the 5% Threshold to File

The sample includes 4260 hedge fund activism events over the period 1994-2016. For each activism event in which a hedge fund filed a Schedule 13D with the SEC we search EDGAR for the filing date from the “Filing date” on the filing detail webpage. Similarly, we collect for each event the date that triggered the filing, namely, when the activist crossed the 5% ownership, from the item “Date of Event Which Requires Filing of this Statement.” For the 3518 events with valid date information we then calculate the number of days between these two dates, the “day lag.” The filing of a Schedule 13D on the same day that a fund has crossed the 5% threshold is measured as a 0 lag. Panel A provides the number and sample percentage of events in day-bins ranging from 1 to 15 days and a bin for those events with a day difference beyond 15 days. The same information is given as a bar graph below Panel A. Panel B provides the distribution of days since crossing the 5% threshold by year from 1994 to 2016. We also report the number of events in each year that exceed 10 days. Panel C provides information on the association between the “day lag” for each event and the size of the hedge fund’s invested capital as a percentage of the outstanding shares of the target companies at the time of their initial 13D filings. We report the 5th, 25th, 50th (median), 75th, and 95th percentiles as well as the average for the subsamples of days lags: 0-1, 2-4, 5-7, and 8-10, 10+ days as well as the entire sample. For a detailed analysis of disclosures of accumulations of large blocks of stock in public companies by activist investors, see [Bebchuk et al. \(2013\)](#).

| Panel A: Distribution of the number of days from crossing 5% to the filing of the 13D | | | | | | | | | |
|---|------|------|-----|------|------|------|------|------|------|
| Day Bin | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Number of Events | 318 | 248 | 116 | 100 | 107 | 96 | 136 | 214 | 234 |
| Percent of Sample | 9.04 | 7.05 | 3.3 | 2.84 | 3.04 | 2.73 | 3.87 | 6.08 | 6.65 |

| Day Bin | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 15+ | Total |
|-------------------|------|-------|------|------|------|------|------|------|-------|
| Number of Events | 317 | 677 | 294 | 253 | 77 | 30 | 13 | 288 | 3518 |
| Percent of Sample | 9.01 | 19.24 | 8.36 | 7.19 | 2.19 | 0.85 | 0.37 | 8.19 | 100 |



| Panel B: Yearly distribution of day lag | | | | | | | |
|---|-----|------------|------|--------|------|------|-----------|
| Year | N | Percentile | | | | | $N_{>10}$ |
| | | 5th | 25th | Median | 75th | 95th | |
| 1994 | 8 | 1 | 1.5 | 3 | 6.5 | 135 | 1 |
| 1995 | 31 | 6 | 8 | 10 | 13 | 82 | 11 |
| 1996 | 87 | 3 | 8 | 10 | 14 | 85 | 42 |
| 1997 | 185 | 4 | 8 | 10 | 14 | 75 | 88 |
| 1998 | 138 | 1 | 8 | 10 | 14 | 184 | 65 |
| 1999 | 99 | 1 | 8 | 10 | 12 | 96 | 38 |
| 2000 | 101 | 1 | 8 | 10 | 12 | 46 | 37 |
| 2001 | 84 | 1 | 7 | 10 | 11 | 18 | 22 |
| 2002 | 126 | 0 | 5 | 9 | 10 | 35 | 30 |
| 2003 | 114 | 0 | 5 | 9 | 11 | 26 | 32 |
| 2004 | 137 | 0 | 6 | 9 | 11 | 13 | 35 |
| 2005 | 213 | 1 | 5 | 9 | 11 | 21 | 59 |
| 2006 | 291 | 0 | 4 | 9 | 11 | 19 | 78 |
| 2007 | 342 | 0 | 5 | 9 | 11 | 14 | 98 |
| 2008 | 254 | 0 | 4 | 10 | 11 | 28 | 80 |
| 2009 | 141 | 0 | 4 | 9 | 11 | 365 | 44 |
| 2010 | 161 | 0 | 4 | 9 | 10 | 18 | 34 |
| 2011 | 168 | 0 | 5 | 9 | 10 | 13 | 34 |
| 2012 | 157 | 0 | 1 | 8 | 10 | 12 | 24 |
| 2013 | 166 | 0 | 3 | 9 | 10 | 12 | 38 |
| 2014 | 185 | 0 | 3 | 8 | 10 | 12 | 23 |
| 2015 | 140 | 0 | 4 | 9 | 10 | 65.5 | 29 |
| 2016 | 190 | 0 | 0 | 1 | 8 | 12 | 13 |

| Panel C: Percent ownership sorted by days lag subsamples | | | | | | | |
|--|------|-----|------|--------|------|------|---------|
| Group | N | 5th | 25th | Median | 75th | 95th | Average |
| 0-1 | 566 | 5 | 5.4 | 7.9 | 10.2 | 20.5 | 9.6 |
| 2-4 | 955 | 5.1 | 5.5 | 6.7 | 9.6 | 25.4 | 9.7 |
| 5-7 | 323 | 5 | 5.3 | 6.4 | 10 | 21.6 | 9.6 |
| 8-10 | 446 | 5.1 | 5.2 | 6 | 8.4 | 20.5 | 8.6 |
| 10+ | 1228 | 5.1 | 5.4 | 6.2 | 8.5 | 20.6 | 8.7 |
| All Events | 3518 | 5 | 5.4 | 6.5 | 9.5 | 22.5 | 9.2 |

Synopsis of Table 5: The table provides evidence that a majority of activist hedge funds file their Schedule 13D between 7 and 10 days after they have crossed the 5% threshold, with 19.24% filing on the tenth day itself. The evidence in panel C indicates that activists who take longer to disclose their positions under Section 13(d) do not emerge with larger stakes than investors who disclose more quickly after crossing the 5% threshold.

References

- Bebchuk, L. A., , Brav, A., Jackson Jr, R. J., and Jiang, W. (2013). Pre-disclosure accumulations by activist investors: Evidence and policy. *Journal of Corporation Law*, 39:1.
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