**Institutional Ownership and the Spillover Effects of Shareholder Activism**

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***Manuscript Type***: Empirical

***Research Question/Issue***: This study examines the spillover effects of institutional activism on non-targeted firms, which share the same ownership and size characteristics as targeted firms.

***Research Findings/Insights***: We document that institutional activism leads to a significant spillover effect at non-targeted firms, which share the same ownership and size characteristics as the targeted firms. The portfolio of matching non-targeted firms experience a significant positive wealth effect on announcement of shareholder activism campaigns at a targeted firm. Managers of the matching on-targeted firms respond to the activism threats by reducing agency costs (i.e., reducing cash balance and increasing dividend payment) and by improving operating performance (i.e., improving profitability ratios and cutting down on capital and operating expenditure). We further show that shareholder activism impacts not only stock returns but also stock risk.

***Theoretical/Academic Implications***: First, we study the effects of institutional activism using a new database, i.e., the Thomson Reuters Shareholder Activism Intelligence (TRSAI), which allows us to study the effects of various types of activist investors beyond hedge funds. We highlight that the positive externalities of shareholder activism depend on institutional ownership. The higher the proportion of in institutional shareholdings, the larger is the wealth effect and the decline in risk measures. However, the volatility in institutional shareholdings produces an opposite effect.

***Practitioner/Policy Implications***: Our study highlights that the threat of activism as a potent force in disciplining companies extends well beyond targeted firms.

JEL classification: G30, G34

Keywords: Institutional ownership; Shareholder Activism; Spillovers; Shareholder Wealth; Operating Performance; Risks

**Introduction**

Shareholder activism represents the various actions taken by investors to force changes at an organization (which we refer to as the target firm). Activism campaigns are particularly important since they are intended to improve corporate performance and shareholder wealth. Activists’ demands vary widely ranging from the sale of the company and/or share buybacks to management and corporate reorganizations and demanding seats on corporate boards. Activist investors can be both public and private institutions (e.g., CalPERS), or individual investors (e.g., Carl Icahn), and they tend to target underperforming firms (see Nesbitt (1994), Strickland *et al*. (1996), Wahal (1996), Thomas and Cotter (2007) for empirical evidence).

 In this paper, we examine the spillover effects of shareholder activism campaigns at non-targeted firms, which share the same institutional ownership and size characteristics as the target firms. We specifically focus on firms with existing high level of insider ownership because of the imminent threat of these firms to become targets. PricewaterhouseCoopers suggests that a firm is most vulnerable to activist attacks when institutional investors accumulate a vast majority of the firm shares.[[1]](#footnote-1) Such high level of ownership not only creates an incentive but also empowers these institutional investors to be more active in monitoring and interfering in the firm management. Besides, SEC regulations require institutional investors to vote their shares on all proxy issues, which further reinforces their position. The presence of institutional owners at non-targeted firms increases the likelihood that they could be subject to activists’ demands. The threat prompts managers of these non-targeted firms to take actions to reduce the prospects of a taxing future activist campaign.

We use the *Thomson Reuters Shareholder Activism Intelligence* (TRSAI) database to identify announcement dates of shareholder activism events at U.S. publicly traded firms between 2000 and 2010. We consider the effects of shareholder activism on portfolios of non-targeted firms matched on institutional ownership level and size. Our main findings are as follows. Similar to targeted firms which experience significant short-term positive stock market reaction upon announcements of shareholder activism, the portfolios of the matching non-targeted firms experience similar positive abnormal stock returns. The wealth effect is stronger among firms with a higher proportion of shares held by institutional owners and weaker at firms that are already profitable.

Non-targeted firms’ profitability and payout ratios improve significantly following the announcements. Simultaneously, these firms decrease their operating and capital expenditures and hold lower cash balances. Decreases in the cash balances and the payment of dividend tend to mitigate the agency costs of free cash flows (see Jensen’s (1986)). At the same time, dividends can be used to dissuade activist-type undertakings. To the extent that managers cut down on investing in negative NPV projects and adopt a more prudent and conservative approach to cash management, we should observe a decrease in capital expenditure, which is evident among the non-targeted firms. The improvement in operating performance is directly related to both the proportion of shares held by institutional investors and the size of the firm. However, an increase in the volatility of institutional shareholdings adversely affects the gains expected from shareholder activism.

The portfolios of the non-targeted firms also experience significant decreases in stock volatility upon the shareholder activism announcements. This finding is consistent with Novy-Marx (2013), who argues that an increase in operating margin reduces systematic risk of the firm. The reduction in risk is larger in magnitude among firms with higher proportions of shares held by institutional investors, and lower among firms that experience frequent turnover of institutional investors. We find that the variables leading to improved performance amongst non-targeted firms also help in reducing their perceived risk levels.

We make several contributions to the literature. First, we study the effects of institutional activism using a new database, i.e., the TRSAI. It covers a variety of activism campaigns that are sponsored by prominent activists. The database allows us to study the effects of various types of activist investors beyond hedge funds (which are the focus of recent research by Aslan and Kumar (2013) and Gantchev et al. (2014)). We document that institutional activists besides hedge funds also exert a strong spillover effect on non-targets. The portfolio of non-targeted firms experience significant positive wealth effects upon announcements of shareholder activism campaigns at targeted firms. Managers of the non-targeted firms respond to activism threats by reducing agency costs (e.g. reducing cash balance and increasing dividend payment) and improving operating performance (e.g. improving profitability ratios and cutting down on capital and operating expenditures). We further show that shareholder activism impacts not only stock returns but also stock risk. Our study highlights that the threat of activism as a potent force in disciplining companies extends well beyond target firms.

Second, by considering portfolios of non-targeted firms, we allow for a cleaner event study of the wealth effects of investor activism by creating a random sample of companies that are not pre-selected for activism. Third, we highlight that the positive externalities of shareholder activism depend on the ownership held by institutional investors. The higher the proportion of their shareholdings, the larger is the wealth effect and the decline in risk measures. However, the volatility in their holdings of the portfolio firms produces an opposite effect.

The rest of the paper proceeds as follows. We review the literature and develop our hypotheses in Section II. We describe the sample in Section III. We explain the methods used in Section IV. We present and discuss our findings in Section V. Section VI concludes.

**II. Literature Review and Hypotheses**

***Literature Review***

The empirical evidence on the short-term wealth effects of shareholder activism is mixed as summarized by Gillan and Starks (2007), ranging from no effect (Smith (1996); Wahal (1996); Karpoff *et al*. (1996); Del Guercio and Hawkins (1999); and, Gillian and Starks (2000)), to positive effects involving private negotiations (Strickland et al. (1996)), and to negative effects (Prevost and Rao (2000)) where private negotiations fail and shareholder proposals are needed. In the long run, Nesbitt (1994) and Smith (1996) find positive abnormal stock returns, while Del Guercio and Hawkins (1999) report none.

As regards the spillover effects of hedge fund activism, Gantchev, Gredil and Jotikasthira (2014) argue that unlike hostile takeovers, the threat of activism is more effective and difficult for firms to ignore. It forces non-targeted firms to take actions to address potential vulnerabilities and keep activist investors at bay. For instance, a company with a large stash of cash may opt to start paying dividend to its shareholders. The authors document a momentum effect in activism activity, i.e., recent activity acts as a harbinger for future activist actions in an industry. Peers that are under threats from activists share similar fundamentals as targeted firms. They respond by reducing agency costs and improving operating performance. These changes translate in higher stock returns and lessen the prospect of a firm becoming a target. While they consider firms in the same industry, they do not to take into account the existing institutional ownership structure at the non-target firms. The presence of institutional investors poses an immediate and serious threat at non-targeted firms that they could be targeted next. We conjecture that the presence of institutional owners is a critical pre-existing condition that significantly impacts the threat of activism.

Mietzner, Schweizer and Tyrell (2011) examine the valuation effects of industry rivals in Germany targeted by hedge funds and private equity investors, which are more likely to actively monitor their investees due to their strong drive and ability. The authors argue in favor of an intra-industry effect because the investments incurred by these investors in collecting and processing data about a target firm also convey insights about the industry. Consistent with the *information signaling hypothesis*, the information spillovers will impact rival firms and investors would expect parallel gains at these firms. Raff (2011) shows that shareholders free-ride on information acquisition at rival firms and an externality arises because informed intervention transmits valuable information about a common performance shock to peers. This is also consistent with the *monitoring spillover hypothesis*. The *competition hypothesis* though suggests that the targeted firm will adversely affect the performance of rival firms owing to its improved governance and performance that render the firm more dominant in its industry (Mietzner, Schweizer and Tyrell (2011), Aslan and Kumar (2013), Gantchev, Gredil and Jotikasthira (2014)).

Mietzner *et al.* (2011) find that the extent of the intra-industry effect depends on the type of the activist investor. First, investments from private equity investors elicit a higher surge in the target firm’s stock price than investments from hedge funds. Second, the intra-industry effect on rival firms’ stock prices is positive following a private equity investment, but negative following investments from hedge funds. Funds targeted by hedge funds tend to increase dividend payments and decrease capital investments. However, in long-run analyses, the stock performance of rival firms of hedge funds’ targets outperforms.

Lee and Park (2009) argue that the first announcement of an activist campaign triggers an anticipation that similar activism will be aimed at other companies. They examine the effects of such announcements on the stock prices of non-target companies and document strong evidence for a positive spillover wealth effect of institutional activism.

***Hypotheses***

﻿We expect agency costs to be significantly reduced as a result of institutional shareholders’ activist actions. The active monitoring performed by the investors would reduce the information asymmetry and promote trading and liquidity in the company shares. Additionally, it has been documented that activist investors are able to constrain managerial hazard. Ellias (2015) finds little evidence to suggest that activists abuse current processes to extract value solely for themselves. The author's findings suggest that activist investors constrain managerial self-dealing and end up benefiting all stakeholders.

Handling activist shareholders can be costly, time consuming and distracting. The ultimate price paid by existing management is possibly that they are asked to leave (also see Brav *et al*. (2008)), which prompts management at potential target firms to take remedial actions to fend off activists. Edmans, Goldstein and Jiang (2012) argue that while managerial underperformance increases the threat of a takeover, the anticipation effect dampens it. The effect prompts managers to take actions that diminish their firm’s attractiveness as a takeover candidate. The same argument applies to firms responding to activist threats at rival companies.

H1: The stock returns of targeted firms would increase following announcements of institutional investor activism.

Non-targeted firms save on the aforementioned costs until they become the target of activist investors. To avoid confrontations with activist investors, managers at these firms initiate actions to redress their weaknesses - for instance, reducing agency costs and/or improving operating performance. As a consequence, non-targeted firms benefit from the preemptive actions taken by their managers to avoid conflicts with activists, but do not suffer the same costs as the targeted firms. This dual effect tends to add value at the non-targeted firms. Thus, we expect the value of these firms to increase following activist actions at targeted firms. Moreover, the non-targeted firms are shielding their owners from the actions of potential self-serving activists, and this ought to be beneficial to the current shareholders.

The notion of potential target firms is genuine and real. Many activist investors are serial raiders. Examples include Carl Icahn, Robert Chapman, Daniel Loeb, Bill Ackman, Phil Falcone, Bruce Berkowitz, Boone Pickens, Philip Goldstein, Ralph Whitworth and David Batchelder amongst others.[[2]](#footnote-2) They suggest that serial activist investors are constantly looking for the next target firm. The state of play confirms that there are ripple effects emanating from the actions of activist investors at one firm to other firms.

H2: The stock returns of matching non-targeted firms would increase following announcements of activism at targeted firms.

In a study on the disciplinary effects of proxy contests, Fos (2013) finds changes in corporate polices geared towards improving operating performance both in the sample of ex post targeted companies as well as the sample non-targets. Otchere and Ip (2005) find that target firms' rivals realize significantly positive abnormal returns following both acquisition proposal and termination announcements. Servaes and Tamayo (2014) find that firms respond to hostile takeover attempts at other firms in the same industry. Industry peers cut their capital spending, free cash flows, and cash holdings, and increase their leverage and payouts to shareholders. They also adopt more takeover defenses and experience a positive stock price reaction upon announcement of a takeover at a rival firm. These results are suggestive of a spillover effect originating from the actions taken by third parties at other corporations and we test for such effects. Thus, in terms of hypotheses (H3), we expect to find that institutional investor activism prompts matching non-targeted firms to (i) improve profitability; (ii) decrease capital and revenue expenditure; (iii) decrease their cash balance; (iv) decrease financial risk by repaying debt; and, (v) increase dividend payments, respectively.

The choice of these performance variables follows Brav, Jiang and Kim (2009) review of shareholder activism by hedge funds. They find that the actions of the activist investors culminate in creating value at target firms in the areas of governance, capital structure and operating performance. They show that changes can lead to increases in dividend payments, debt, improvements in asset utilization, and decreases in cash balances and capital expenditure.

In examining spillover effects from corporate events, prior studies identify the matching non-targeted firms to either be from the same industry or are similar in size and/or market-to-book ratio. For instance, Gantchev *et al*. (2014) examine the effects of shareholder activism on peers from the same industry with fundamentals similar to the target firms. Lee and Part (2009) identify small firms and high market-to-book companies as potential targets. However, in this study we argue that a non-targeted firm is more susceptible to activist actions if it already has significant institutional shareholders since they tend to be the catalyst of activism and of change.

PricewaterhouseCoopers suggests that a firm is most vulnerable to activist attacks when institutional investors accumulate a vast majority of the firm shares.[[3]](#footnote-3) High levels of ownership both incentivize and empower institutional investors to proactively monitor the firm. Besides, SEC regulations require institutional investors to vote their shares on all proxy issues, which underlie the power they exercise on management. The presence of institutional owners at non-targeted firms increases the possibility of activism campaigns. Consequently, their presence prompts managers at non-targeted firms to take preemptive actions to lessen the prospect of a potentially taxing activist campaign.

The focus of the paper is on institutional investors, who are the likeliest group of investors to initiate activist actions. Smith (1996) finds that firms with high institutional ownership tend to be targets for activism (also see Shleifer and Vishny (1986)). According to an article in the *Financial Times*, ‘More hedge funds today are styling themselves as activists […]’[[4]](#footnote-4) The article further adds that activists and the largest institutional shareholders are teaming up to fight for better tools to unseat directors.

Based on the above arguments, the approach adopted in this paper is to examine the effects of shareholder activism by considering the type of investors initiating the activism and requiring that similar investors are present at potential target firms. Thus, the method adopted in this paper takes into consideration the characteristics of both the investors that initiate the activist campaigns and the firms that are potential targets of the investors’ actions.

To select matching non-targeted firms, first we match each targeted firm with one non-targeted firm, and separately we match each targeted firm with a portfolio of matching non-targeted firms. Matching non-targeted firms are in the same quartile of institutional ownership as the target firm. Furthermore, they are in the same size quartile as the targeted firm.

H4: Shareholder activism at one firm leads to changes in a portfolio of non-targeted firms that share the same - and size quartile as the targeted firm.

It would be rash, though, to categorize all institutional investors as keen activists. Pozen (1991) points out that many institutional investors perform a cost-benefit analysis prior to deciding whether it’s worth fighting company management. In many instances, dissatisfied investors would rather vote with their feet, sell their target company’s stock and leave rather than challenging the firm’s management (also see Bushee (2001)). Maug (1998) argues that stock market liquidity allows investors to sell out if they are dissatisfied with company management. These investors might also favor short-term investing and active trading. We control for this possibility by calculating the volatility in the institutional shareholdings .

﻿High (low) IOV suggests high (low) volatility in institutional ownership. The success of an activist campaign will depend on the sponsoring shareholder's desire to stay the course. On this subject, it would be important that the firm institutional shareholdings are stable such that the activist campaign fulfills its objectives. Conversely, high volatility or turnover in the shareholdings of institutional investors would make activist campaigns less likely and/or less successful.

H5: Firms associated with a high volatility in institutional ownership are less likely to benefit from institutional investors’ activism.

**III. Sample**

We obtain the announcement dates of shareholder activism events from the *Thomson Reuters Shareholder Activism Intelligence* (TRSAI) database. We retain the companies for which we could identify the following: institutional ownership data from the *Thomson One Financial* database, stock price data from the *University of Chicago Center for Research in Security Prices* (CRSP) database and accounting data from the COMPUSTAT database. Our final sample consists of 507 announcements of shareholder activism between 2000 and 2010.[[5]](#footnote-5)

TRSAI covers all major forms of dissident shareholder activities for the most prominent activists from public announcements and proposals, to formal proxy fights.[[6]](#footnote-6) The *Shareholder Activism Module* accessed via *ThomsonOne.com* provides the following information per event: campaign announcement date, target name and its economic sector, target market cap (in $ millions), the activist group name, the demand made by the group, the status of the demand and the campaign history. The database covers formal proxy fights launched for Board control since 2000; all major campaigns launched by the Most Prominent Activist Investors; Proxy Fights; Shareholder Proposals; Public Letters to Management; Press Releases and Selected 13D Filings.

To analyze the spillover effects from the shareholder actions, we construct two portfolios of matching non-targeted firms that are not subject to such actions. A matching non-target firm is in the same institutional ownership quartile and market capitalization quartile as the target firm. Using market capitalization as weight, the first portfolio is value weighted while the second is equally weighted.

The method of finding potential target firms matched on institutional ownership size is new. Nonetheless, such a matching is imperative for this study since institutional investors act as a conduit for activist campaigns. Firms without institutional shareholdings won’t be subject to institutional investors’ activism. In consequence, the presence of institutional investors is important for institutional activist-related actions. Recognizing the role of institutional investors in enabling activist campaigns, we control for their presence in documenting the spillover effects of shareholder activism.

We present the distribution of shareholder activism events in Panel A of Table 1. The year 2006 marks a significant increase in activism events.[[7]](#footnote-7) For each shareholder activism event, the number of matching non-targeted firms ranges between 243 and 318. We also report the sample distribution by Fama-French 12 sector classification in Panel A of Table 1. Business equipment (22.922%) and Money (16.01%) are the two leading sectors in our sample.

[INSERT TABLE 1 ABOUT HERE]

The demand of activist investors vary. Forty-two percent of the sample activist demands covered in the study centered on board representation. This was by far the most popular demand of activist investors. The next set of popular activist demands include shareholder rights (15.22%), seeking alternatives (14.82%) and board control (11.46%). Taken together, we observe that the focus of the most popular activist demands is the protection of shareholder rights. Other significant activist demands include (in descending order): hostile acquisition (5.53%), opposition to selling the company (3.75%), changes to strategic direction (2.77%), forcing a sale (2.37%) and demanding a spinoff (1.19%).

The success rate of the shareholder campaigns is quite high at 44.87% (which is the sum of outright victory (3.56%), dissident victory (18.58%) and settlements (22.73%)). Fourteen percent of the actions initiated by shareholder activists are eventually withdrawn. In 13% of the cases, management ends up defeating the activists.

**IV. Methodology**

***Measures of institutional ownership***

To compute institutional ownership, we use two measures, i.e., the proportion of shares held by the institutional investors () and the standard deviation of the institutional shareholding proportions (). We follow Elyasiani . (2010) and use their formula as explained next.

The aggregate shareholding proportion of a firm () is computed over 20 quarters as follows:

|  |  |
| --- | --- |
|  | (1) |

where is the proportion of firm held by investor in quarter (, and is the number of institutional investors in firm .

The institutional ownership volatility for firm is the average of the standard deviations of quarterly institutional shareholding proportions across all investors in firm including the sample year and the four years preceding it (i.e., 20 quarters). The higher the ownership volatility (i.e., the value of ), the lower is the ownership stability. The formula is as follows:

|  |  |
| --- | --- |
|  | (2) |

Since the control samples are matched based on the proportion of institutional ownership (IOPr), the mean values of across the three groups (i.e., the target firms, the value- and equally-weighted portfolios of matching non-targeted firms) are similar, i.e., 50.40%, 62.60% and 49.40%, respectively (Panel B, Table 1). The corresponding values of are 0.4%, 0.5% and 0.4%, respectively. The median market capitalization values across the three groups are $207.254 million, $225.096 million and $178.983 million, respectively. We also present summary statistics of a range of other financial variables (see Panel B of Table 1).

***Measuring the wealth effect of shareholder activism***

To measure the wealth effects of shareholder activism, we compute abnormal stock returns surrounding the days of the activism announcement. We cumulate the abnormal returns over the following windows (defined in days): (-10, +5), (-5, +5) and (-2, +1) with 0 representing the day of the announcement of an action initiated by a shareholder activist group. The choice of multiple and extended windows follows other studies (for instance, Lee and Park (2009)). Karpoff (2001) points out that it is difficult to ascertain the true event date when the activism news first arrives in the market pointing to the need to use extended windows in measuring the effects of activism.

We measure the cumulative abnormal returns of the matching non-targeted portfolio of firms over the same time windows. We form two portfolios of the matching non-targeted firms: the first one is a value-weighted average of the based on market capitalization, and the second one is an equally weighted average of the . We report the test statistics from the skewness corrected test (Hall, 1992) and the sign rank test for the significance level of the estimated CARs.

 We use three methods of computing s including the market-adjusted model, the market model and the Fama and French (1993) three-factor model, alternatively.

|  |  |
| --- | --- |
|  | (3) |

|  |  |
| --- | --- |
|  | (4) |

|  |  |
| --- | --- |
|  | (5) |

where is the rate of return of the common stock of the firm on day *t*; is the CRSP equally weighted index return; is the average return on small market capitalization portfolios minus the average return on three large market capitalization portfolios; is the average return on two high book-to-market equity portfolios minus the average return on two low book-to-market equity portfolios. is a parameter that measures the sensitivity of to the CRSP equally weighted index of stock returns. is the abnormal return (or prediction error) for the common stock of the firm on day . The parameters of the market model and the Fama-French three-factor model are estimated over the (-252, -31) days relative to the announcement day 0. The choice of the different models and methods follows Jory, Madura and Ngo (2012), and Jory and Ngo (2014).

The CARs are computed as follows:

|  |  |
| --- | --- |
|  | (6) |

where is defined in trading days relative to the event date 0.

***Multiple Regressions of CARs***

The anticipated spillover effects will vary by non-target firm characteristics. For instance, activist investors are keener to target firms with poor governance. Managers at these firms are likely to make changes to fend off the activists. To control for these and related characteristics, we run the following multiple regression equation on the sample of the non-targeted matching firms:

|  |  |
| --- | --- |
|  | (7) |

where is the (-5,+5) of the matching portfolio of non-targeted firms; is a dummy variable that takes a value of 1 for shareholder activist campaigns that are successful and 0 otherwise; is a dummy variable that takes a value of 1 to represent cases where the activists either demand control of the board or ask for a board representation, else it takes a value of 0; is the median market cap of the non-targeted firms that comprise the portfolio; represents the mean proportion of the shares held by the institutional investors in the non-targeted firms comprising the matching portfolio; represents the standard deviation of the institutional shareholding proportions of the non-targeted firms comprising the matching portfolio; , and represent mean industry-adjusted figures of return on assets, the ratio of total debt-to-total assets and the market-to-book ratio of the firms comprising the matching non-targeted portfolio, respectively. The financial variables are measured at the end of the fiscal year preceding the announcement date. We control for year-fixed effects and calculate robust -statistics to assess the significance levels of the coefficients.

***Measures of non-targeted firms’ operating performance, leverage, cash holdings and payout policy***

We compare and contrast the changes in the industry-adjusted operating performance (i.e., ROA and the ratio of EBIT-to-Total Assets (EBIT/TA)), Market-to-Book ratio, Capital Expenditure-to-Total Assets, Operating Expenses-to-Total Assets, liquidity ratio (i.e., the ratio of total cash and bank balances-to-Total Assets), Total Debt-to-Total Assets ratio and the dividend per share of the portfolio of matching non-targeted firms from the years prior to the years following the announcement date. All measures are industry-adjusted, i.e., for each non-targeted matching firm, we subtract the median industry (based on the same four-digit SIC code) ratio and then we take the average of the adjusted ratios of all the firms in the portfolio.

***Measures of non-targeted firms’ risk***

We compare and contrast the total risk, systematic risk and idiosyncratic risk of the non-targeted matching firm portfolios from the year before (i.e., (-252, -31) in days) to the year after (i.e., (+31, +252) in days) the announcement (i.e., day 0). Total risk is measured as the standard deviation of the daily returns of matching firms. Idiosyncratic risk and systematic risk are measured as the standard deviations of the residuals and the predicted values from the Fama-French three-factor model Ri = αi + βi Rmt + ɤi SMBt + ɸi HMLt + ɛit following the same definition of variables from Equation (5).

**V. Results**

***Market Reaction to Activism Announcements***

We present our findings on the market reaction to the announcements of shareholder activism in Table 2. In Panel A, we present the of the target firms. The announcement of an activist action elicits a positive market response. The for all the various windows presented are positive and highly significant irrespective of the method used (consistent with Strickland *et al*. (1996), Brav *et al*. (2008), Brav *et al*. (2009), Klein and Zur (2009), and Renneboog and Szilagyi (2011)). The mean (-2, +1) range between 2.86% and 3.09% depending on the model used, while the mean (-10, +5) range between 4.91% and 5.89%. Thus, there is support for hypothesis H1, i.e., stock returns of targeted firms would increase following the announcements of institutional shareholder activism.

[INSERT TABLE 2 ABOUT HERE]

The revelation of activism prompts investors to reevaluate not only the beleaguered company but also other companies that share the same institutional ownership and size profiles as the targeted company. In Panel B of Table 2, we consider CARs accrued to the value-weighted portfolio of matching non-targeted firms. All the presented are positive and highly significant. The mean (-2, +1) range between 0.24% and 0.58% depending on the model used, while the mean (-10, +5) range between 1.16% and 2.39%. We observe a similar trend in Panel C with the equally weighted portfolio of the matching firms. Thus, there is a positive wealth effect of shareholder activism announcements on not only targeted firms but also on matching non-targeted firms, which is consistent with Hypothesis H2. The latter states that the stock returns of matching non-targeted firms would increase following activism announcements at targeted firms.

***What prompts investors to reassess the valuation of the matching non-targeted firms?***

To answer this question, we compare the performance measures that activist investors tend to focus from before to after the activism announcement. If firms are responding to the concerns of activist investors elsewhere, then we should find an improvement in the metrics that are of concern to activist investors.

In Table 3, we show an improvement in the following ratios amongst the portfolios of non-targeted firms: Return on Assets (ROA), the ratio of Earnings before Interest and Taxes-to-Total Assets (EBIT/TA), and the dividend per share. There is a decrease in the debt ratio. Concurrently, we observe a significant decline in the following ratios: Capital Expenditure-to-Total Assets, Operating Expenses-to-Total Assets and the Cash Balance-to-Total Assets. Thus, non-targeted firms’ profitability and payout ratios improve significantly following the announcements of activist actions elsewhere. At the same time, they hold back on both revenue expenditures and capital expenditures as well as decrease their cash balances. These findings are consistent with hypothesis H3 as well as previous studies, which argue that increases in leverage and payouts tend to limit managers’ ability to misuse firm resources (Jensen (1986); Easterbrook (1994); Lambrecht and Myers (2007); Clifford (2008); and, Klein and Zur (2009)).

 [INSERT TABLE 3 ABOUT HERE]

***Which non-targeted firms benefit most from shareholder activism at similar firms?***

To ascertain which non-targeted firms benefit the most from spillover effects of shareholder activism, we perform a multiple regression of their CARs and present our findings in Table 4 . The statistically significant determinants are: the proportion of institutional ownership , the volatility in IOPr and the Return on Assets . The wealth effects are positively related to both the institutional ownership proportion and volatility. The feasibility of potential future activist campaigns is stronger when there is higher existing institutional ownership proportion at non-targeted firms. The existence of prominent institutional owners ensures enough voting power, pressure and influence to put in place successful campaigns. As such, investor reactions are stronger among such non-targeted firms. Simultaneously, frequent turnover in institutional ownership could attract the attention of activist investors. Once alerted, activist institutional investors may monitor managerial decisions carefully to determine whether they need to increase control and launch an activism campaign. The CARs are inversely related to ROA across all the four models presented, suggesting that investors do not expect much gain from activist actions at firms that are already profitable.

[INSERT TABLE 4 ABOUT HERE]

Earlier, we document an improvement in the mean and median ratios of operating performance (i.e., and ) amongst the non-targeted firms upon the announcements of activism. In this section, we perform multiple regressions of the industry-adjusted s and to determine which factors affect the changes in the operating performance of the matching firm portfolios using the following equation:

|  |  |
| --- | --- |
|  | (8) |

where is the industry-adjusted , is the ratio of operating expenses-to-Total Assets and is the ratio of Capital Expenditure-to-Total Assets. The remainder variables are as defined earlier. In a second regression, we replace the dependent variable by the industry-adjusted figure of as an alternative measure of operating performance. We present our findings in Table 5.

[INSERT TABLE 5 ABOUT HERE]

We pool observations from prior to and after the activism announcement. We include a dummy variable to represent the time period following the announcement. Consistent with hypothesis H3, the coefficient of the dummy variable is positive and highly significant, which indicates an improvement in the operating performance of the matched firms following the activism announcements.

Consistent with the findings on stock performance (i.e., ) and hypothesis H4, we find that the operating performance, either or is positively correlated to the variable (both coefficients are positive and highly significant). Managers at non-targeted firms would be wary of potential activist campaigns in the presence of high institutional share ownership. With their voting power and significant influence on all other shareholders, large institutional investors are likely to be successful in erecting activism campaigns, which in turn prompts management at these firms to take remedial actions to preempt the investors.

Next, and consistent with hypothesis H5, the coefficient of is negative and significant, suggesting that matching non-targeted firms that experience constant changes in institutional ownership fail to realize improvements in their operating performance. Constant turnover of institutional ownership inhibits effective strategy implementation, which is in part due to the absence of the monitoring performed by more stable and long-term institutional investors. Institutional owners who constantly adjust their holdings of portfolio firms are short-term oriented and are less inclined to petition for strategic changes at portfolio firms.

***Robustness Tests***

In this section, we repeat the multiple regressions using the sample of individual matching non-target firms instead of portfolios, and present our findings in Table 6.

[INSERT TABLE 6 ABOUT HERE]

Our findings stay the same, i.e., both stock- and operating performance (industry-adjusted ) are positively related to the proportion of institutional ownership at the non-targeted firms. The stock performance of the non-targeted firms is inversely related to , implying that investors expect little benefits from activism at firms that are already profitable. There is an increase in the in the year following the activism announcement. The coefficient of the dummy variable is positive and highly significant. We further find that a dissident victory leads to better stock and operating performance amongst the non-targeted firms. The coefficient of the variable is positive and significant at the 5% level or better.

**Total Risk, Systematic Risk and Idiosyncratic Risk**

We compare and contrast the total risk, systematic risk and idiosyncratic risk of the matching non-targeted firm portfolios from the year before to the year following the shareholder activism announcement and present our findings in Table 7. The declines in the mean values of the different risk measures are all statistically significant. The findings based on the value weighted matching portfolio suggest declines of 0.603% in total risk, and either 0.595% or 0.606% in idiosyncratic risk depending on the method used (Panel A of Table 7). We obtain similar findings from the equally weighted portfolio in Panel B.

[INSERT TABLE 7 ABOUT HERE]

We present the findings of the multiple regressions of the different risk measures in Table 8. The coefficient of the dummy variable is negative and significant in the regressions of the total risk and idiosyncratic risk measures. This confirms the univariate findings that the volatility in the stock prices decline following the announcements of shareholder activism at similar firms elsewhere.

[INSERT TABLE 8 ABOUT HERE]

Successful activists’ actions also lead to a decline in total and idiosyncratic risks at non-targeted firms. The coefficient of the variable is negative and significant. Larger firms experience the most declines in volatility.[[8]](#footnote-8) The coefficient of is negative and highly significant in the regressions of all the three risk measures. The coefficient of is negative and highly significant, which suggests that the higher the proportion of shares held by institutional owners, the larger is the decline in total and idiosyncratic risk. We also find the risk measures to be positively associated with , and . Thus, firms with volatile institutional ownership fail to achieve a decline in their risk measures despite activist actions at similar firms elsewhere. Furthermore, the actions of the shareholder activists fail to reduce the risk at capital intensive and/or highly levered firms.

We repeat the multiple regressions on the sample of individual matching non-targeted firms rather than portfolios. The matching non-targeted firm shares the same and market cap quartiles as the target firm. We present our findings in Table 9. Our findings stay the same, i.e., the risk measures are inversely related to and positively related to . continues to be positively associated with the risk measures. Risks are lower in the period following the shareholder activism and when the activists’ demands are met. Demands for changes in a company’s board composition also cause the idiosyncratic and systematic risks to fall. Finally, larger firms continue to be associated with larger declines in the risk measures.

[INSERT TABLE 9 ABOUT HERE]

**VI. Conclusion**

We provide evidence on the extent of spillover effects of shareholder activism based on a portfolio approach. We measure the announcement effects of shareholder activism on the sample of target firms and on the portfolios of non-targeted firms matched on the proportion of institutional ownership and market capitalization. We find that shareholder activism acts as an effective disciplinary mechanism at both targeted- and non-targeted firms of similar institutional ownership and size characteristics. The portfolios of the matched but non-targeted firms cut their capital spending, operating expenses, and cash holdings, increase their leverage and dividend payouts following activism announcements elsewhere at similar firms. Both stock returns and operating performance improve significantly after the shareholder activism announcement. The stock price reaction and operating performance are positive and larger for non-targeted firms with a higher proportion of institutional ownership. The presence of institutional investors causes non-target firms to respond to shareholder activism occurring elsewhere. Thus, the mere threat of institutional activism serves as an important disciplinary function.

We document the effects of shareholder activism on the volatility of the stock price of the non-targeted firms. The announcement of shareholder activism at a target firm leads to a decline in the volatility of the share prices of the portfolio of non-targeted firms that share similar institutional ownership and size characteristics. The factors that contribute to improved performance are the same ones that lead to further declines in the stock market-based risk measures at non-targeted firms. The proportion of shares held by institutional investors contributes to decreases in the risk measures while the volatility in the shareholdings leads to increases in the measures. Large non-target firms are the ones that experience the most declines in stock price volatility following shareholder activism. Successful activists’ campaigns and demands for changes in the board composition also lead to declines in stock price volatility.

﻿While the present study points to a transmission effect of shareholder activism amongst firms with comparable institutional shareholdings profile, it does not examine which kind of institutional shareholder is the ultimate cause of the transmission owing to the limited availability of consistent data. Future studies should explore the consequences of the different types of institutional stockholders. For instance, future research should look into the contagion effect conditional on the interests of pressure-sensitive (i.e., those investors with a business interest at the portfolio firm) versus pressure-insensitive investors, who do not have any additional business aside from their share investments.

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| **Table 1 – Sample Distribution and Descriptive Statistics** |
| ***Panel A - Sample Distribution*** |
| Year | Number of activism events | Percent | Average number of non-target matching firms per event |   | Industry | Percent |
| 2000 | 15 | 2.96 | 243.13 |  | BUSEQ | 22.92 |
| 2001 | 23 | 4.55 | 274.04 |  | CHEMS | 1.58 |
| 2002 | 23 | 4.55 | 266.91 |  | DURBL | 2.17 |
| 2003 | 28 | 5.53 | 290.61 |  | ENRGY | 3.95 |
| 2004 | 18 | 3.56 | 264.44 |  | HLTH | 13.24 |
| 2005 | 32 | 6.32 | 296.19 |  | MANUF | 7.71 |
| 2006 | 58 | 11.46 | 287.17 |  | MONEY | 16.01 |
| 2007 | 62 | 12.25 | 297.47 |  | NODUR | 3.36 |
| 2008 | 87 | 17.19 | 317.61 |  | SHOPS | 11.26 |
| 2009 | 72 | 14.23 | 270.25 |  | TELCM | 3.95 |
| 2010 | 88 | 17.39 | 291.47 |  | UTILS | 1.38 |
|  |  |  |  |  | OTHER | 12.45 |
|  |  |  |  |  |  |  |
| Demand | N | Percent |   | Campaign results | N | Percent |
| Board Control | 58 | 11.46 |  | Dissident Part. Victory | 18 | 3.56 |
| Board Representation | 213 | 42.09 |  | Dissident Victory | 94 | 18.58 |
| Force Sale | 12 | 2.37 |  | Management Victory | 67 | 13.24 |
| Hostile Acquisition | 28 | 5.53 |  | Pending | 141 | 27.87 |
| Oppose Reorg. | 1 | 0.2 |  | Settled | 115 | 22.73 |
| Oppose Sale | 19 | 3.75 |  | Withdrawn | 71 | 14.03 |
| Propose Liquidation | 2 | 0.4 |  |  |  |  |
| Propose Reorg. | 1 | 0.2 |  |  |  |  |
| Seek Alternatives | 75 | 14.82 |  |  |  |  |
| Shareholder Rights | 77 | 15.22 |  |  |  |  |
| Spinoff | 6 | 1.19 |  |  |  |  |
| Strategic Direction | 14 | 2.77 |  |  |  |  |
| ***Panel B - Sample Descriptive Statistics in the Preceding Year*** |
|  | Targets Firms | Value-weighted non-target matching portfolios | Equally-weighted non-target matching portfolios |
|   | Mean | Median | Mean | Median | Mean | Median |
| Institutional ownership | 0.504 | 0.491 | 0.626 | 0.558 | 0.494 | 0.474 |
| Institutional ownership volatility | 0.004 | 0.003 | 0.005 | 0.004 | 0.004 | 0.004 |
| Market cap. | 1,830.940 | 207.254 | 7,330.04 | 225.096 | 2,112.11 | 178.983 |
| Market-to-book ratio | 1.563 | 1.659 | 2.749 | 2.506 | 2.586 | 2.015 |
| ROA | -0.028 | 0.011 | -0.078 | -0.036 | -0.041 | -0.042 |
| EBIT/asset | 0.008 | 0.030 | -0.011 | 0.003 | 0.004 | -0.007 |
| Operating earnings per share | 0.327 | 0.210 | 0.621 | 0.404 | 0.575 | 0.307 |
| Operating expense/asset | 0.832 | 0.710 | 1.093 | 1.015 | 0.864 | 0.876 |
| Capital expenditure/asset | 0.048 | 0.029 | 0.055 | 0.047 | 0.041 | 0.042 |
| Cash/asset | 0.205 | 0.101 | 0.248 | 0.228 | 0.190 | 0.190 |
| Debt/asset | 0.525 | 0.496 | 0.661 | 0.630 | 0.513 | 0.506 |
| Dividend per share | 0.209 | 0.000 | 0.362 | 0.265 | 0.286 | 0.211 |

We report the sample distribution by year, by activist demands and by campaign status in Panel A. We report sample descriptive statistics in Panel B. The value-weighted (based upon market capitalization in the preceding year) and equally-weighted portfolios of matching firms include firms in the same quartiles of institutional ownership and of market capitalization as target firms. Institutional ownership is the average of total institutional ownership in a firm in the preceding 5 years. Institutional ownership volatility is the average of the standard deviation of the ownership across institutional owners of a firm in the past 5 years. Other firm characteristics reported in Panel B are obtained from Compustat in the year preceding the activism events.

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| **Table 2 - Market Reactions to Target Firms Subject to Activism Events and Non-Target Matching Firm Portfolios**  |
| ***Panel A – Target Firms (N=507)*** |
| CAR estimation method | Windows | CARs | Pos:Neg | Skewness corrected test | Rank test |
| Market adjusted | (-10,+5) | 4.91% | 315:192 | 7.461\*\*\* | 6.410\*\*\* |
|  | (-5,+5) | 4.31% | 312:195 | 7.902\*\*\* | 6.594\*\*\* |
|  | (-2,+1) | 2.86% | 312:195 | 8.685\*\*\* | 6.208\*\*\* |
| Market model | (-10,+5) | 5.89% | 318:189 | 9.043\*\*\* | 6.655\*\*\* |
|  | (-5,+5) | 4.94% | 324:183 | 9.160\*\*\* | 7.027\*\*\* |
|  | (-2,+1) | 3.09% | 323:184 | 9.501\*\*\* | 6.711\*\*\* |
| Fama-French 3-factor model | (-10,+5) | 5.82% | 318:189 | 9.171\*\*\* | 6.446\*\*\* |
|  | (-5,+5) | 4.93% | 330:177 | 9.360\*\*\* | 6.946\*\*\* |
|  | (-2,+1) | 3.07% | 316:191 | 9.656\*\*\* | 6.797\*\*\* |
| ***Panel B - Value-weighted non-target matching portfolios (N=507)*** |
| CAR estimation method | Windows | CARs | Pos:Neg | Skewness corrected test | Rank test |
| Market adjusted | (-10,+5) | 2.39% | 376:131 | 12.037\*\*\* | 4.410\*\*\* |
|  | (-5,+5) | 1.65% | 376:131 | 10.020\*\*\* | 3.276\*\*\* |
|  | (-2,+1) | 0.58% | 335:172 | 5.853\*\*\* | 2.188\*\* |
| Market model | (-10,+5) | 1.68% | 379:128 | 9.929\*\*\* | 4.671\*\*\* |
|  | (-5,+5) | 1.10% | 358:149 | 7.863\*\*\* | 3.285\*\*\* |
|  | (-2,+1) | 0.39% | 315:192 | 4.574\*\*\* | 2.106\*\* |
| Fama-French 3-factor model | (-10,+5) | 1.16% | 317:190 | 8.440\*\*\* | 5.617\*\*\* |
|  | (-5,+5) | 0.77% | 308:199 | 6.720\*\*\* | 4.271\*\*\* |
|   | (-2,+1) | 0.24% | 272:235 | 3.491\*\*\* | 2.036\*\* |
| ***Panel C - Equally-weighted non-target matching portfolios (N = 507)*** |
| CAR estimation method | Windows | CARs | Pos:Neg | Skewness corrected test | Rank test |
| Market adjusted | (-10,+5) | 0.35% | 270:237 | 2.752\*\*\* | 1.756\* |
|  | (-5,+5) | 0.20% | 264:243 | 1.949\*\* | 1.02 |
|  | (-2,+1) | 0.04% | 265:242 | 0.684 | 0.353 |
| Market model | (-10,+5) | 0.44% | 265:242 | 4.498\*\*\* | 2.549\*\*\* |
|  | (-5,+5) | 0.26% | 262:245 | 3.273\*\*\* | 2.646\* |
|  | (-2,+1) | 0.06% | 255:252 | 1.196 | 1.196 |
| Fama-French 3-factor model | (-10,+5) | 0.40% | 256:251 | 4.575\*\*\* | 2.020\*\* |
|  | (-5,+5) | 0.26% | 262:245 | 3.532\*\*\* | 2.482\*\* |
|   | (-2,+1) | 0.03% | 248:259 | 1.769\* | 1.428 |

We report the cumulative abnormal returns for the target firms in Panel A, for the value-weighted portfolio of matching nontargeted firms in Panel B and for the equally-weighted portfolio of matching nontargeted firms in Panel C. The value-weighted (based upon market capitalization in the preceding year) and equally-weighted portfolios of matching firms are firms in the same quartiles of institutional ownership and of market capitalization as the target firm. Abnormal returns are calculated using 3 alternative methods:

1. Market-adjusted abnormal return = Actual return – CRSP equally-weighted index return
2. Market model abnormal return = Actual return Ri – (αi + βi× CRSP equally-weighted index returns Rmt), whereby αi and βi are estimated from the following regression: Ri = αi + βi×Rmt + ɛit with daily return data in the (-252,-31) day window relative to the announcement date of the activism event.
3. Fama-French three-factor model abnormal return = Actual return – (αi + βi Rmt + ɤi SMBt + ɸi HMLt), whereby αi, βi, ɤi, and ɸi are estimated from the following regression: Ri = αi + βi Rmt + ɤi SMBt + ɸi HMLt + ɛit with daily return data in the (-252,-31) day window relative to the announcement date of the activism event. SMB and HML are the size and book-to-market factors from Professor Kenneth French website.

We report the test statistics from the skewness corrected test and the sign rank test. \*, \*\* and \*\*\* indicate the significance levels of 10%, 5% and 1%, respectively.

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| **Table 3 - Comparison of Non-Target Matching Firm Portfolio Performance Before vs. After the Activism Events** |
| ***Panel A - Comparison of Non-Target Matching Firm Performance in the Year before and the Year After the Activism Events*** |
|  | Value-weighted non-target matching portfolios | Equally-weighted non-target matching portfolios |
|  | Before | After | Difference | t-stat | Wilcoxon-stat | Before | After | Difference | t-stat | Wilcoxon-stat |
| ROA | -0.076 | -0.034 | 0.042 | 11.94\*\*\* | 6.00\*\*\* | -0.047 | -0.039 | 0.008 | 3.34\*\*\* | 2.12\*\* |
| EBIT/Assets | -0.048 | -0.019 | 0.029 | 13.50\*\*\* | 5.16\*\*\* | -0.031 | -0.024 | 0.007 | 5.80\*\*\* | 2.21\*\* |
| Market-to-book ratio | 0.289 | 0.116 | -0.173 | -0.53 | -0.50 | 0.468 | 0.702 | 0.234 | 1.53 | 1.25 |
| Capital expenditure / asset | 0.177 | 0.121 | -0.056 | -14.40\*\*\* | -4.40\*\*\* | 0.125 | 0.115 | -0.010 | -5.17\*\*\* | -1.53 |
| Operating expenses / asset | 0.011 | 0.010 | -0.001 | -2.12\*\* | -1.15 | 0.008 | 0.006 | -0.002 | -12.22\*\*\* | -8.64\*\*\* |
| Cash / asset | 0.038 | 0.034 | -0.004 | -5.17\*\*\* | -1.77\* | 0.028 | 0.022 | -0.007 | -12.60\*\*\* | -5.24\*\*\* |
| Debt / asset | 0.039 | 0.025 | -0.014 | -6.13\*\*\* | -3.40\*\*\* | 0.018 | 0.020 | 0.002 | 2.05\*\* | 1.09 |
| Dividend per share | 0.124 | 0.156 | 0.032 | 3.78\*\*\* | 2.07\*\* | 0.091 | 0.088 | -0.003 | -0.98 | -0.41 |
| ***Panel B - Comparison of Non-Target Matching Firm Performance in the 3 Years before and the 3 Years After the Activism Events*** |
|  | Value-weighted non-target matching portfolios | Equally-weighted non-target matching portfolios |
|   | Before | After | Difference | t-stat | Wilcoxon-stat | Before | After | Difference | t-stat | Wilcoxon-stat |
| ROA | -0.060 | -0.029 | 0.031 | 13.71\*\*\* | 5.66\*\*\* | -0.037 | -0.027 | 0.010 | 7.23\*\*\* | 3.64\*\*\* |
| EBIT/Assets | -0.038 | -0.018 | 0.020 | 11.36\*\*\* | 4.22\*\*\* | -0.024 | -0.017 | 0.007 | 7.36\*\*\* | 2.76\*\*\* |
| Market-to-book ratio | 0.939 | 0.346 | -0.592 | -2.92\*\*\* | -2.16\*\*\* | 0.641 | 0.504 | -0.136 | -0.95 | -0.82 |
| Capital expenditure / asset | 0.148 | 0.111 | -0.037 | -10.28\*\*\* | -3.67\*\*\* | 0.113 | 0.099 | -0.013 | -6.72\*\*\* | -2.39\*\*\* |
| Operating expenses / asset | 0.010 | 0.009 | -0.002 | -6.64\*\*\* | -3.69\*\*\* | 0.007 | 0.005 | -0.002 | -18.42\*\*\* | -12.64\*\*\* |
| Cash / asset | 0.037 | 0.030 | -0.007 | -9.03\*\*\* | -3.02\*\*\* | 0.028 | 0.020 | -0.009 | -16.32\*\*\* | -7.75\*\*\* |
| Debt / asset | 0.030 | 0.019 | -0.011 | -6.24\*\*\* | -3.71\*\*\* | 0.015 | 0.015 | 0.000 | -0.37 | -0.25 |
| Dividend per share | 0.115 | 0.156 | 0.042 | 7.82\*\*\* | 3.35\*\*\* | 0.081 | 0.096 | 0.015 | 5.11\*\*\* | 1.92\* |

We report the industry-adjusted operating performance (ROA and EBIT-to-asset ratio), market-to-book ratio, capital expenditure-to-asset, operating expenses-to-asset, cash-to-asset ratio, debt-to-asset ratio and dividend per share of the value-weighted portfolio and equally-weighted portfolio of matching firms in the year before and the year after the activism events (in Panel A) and in the 3 years before and 3 years after the events (in Panel B). The value-weighted (based upon market capitalization in the preceding year) and equally-weighted portfolios of matching firms are firms in the same quartiles of institutional ownership and of market capitalization as the target firm. \*, \*\* and \*\*\* indicate the significance levels of 10%, 5% and 1%, respectively.

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| **Table 4 – Cross-Sectional Analyses of Non-Target Matching Portfolios’ CARs** |
| Variables | ***Panel A – Value-weighted non-target matching portfolios*** | ***Panel B – Equally-weighted non-target matching portfolios*** |
| Market model | Fama-French 3-factor model | Market model | Fama-French 3-factor model |
| Constant | -0.046 | -0.042 | 0.004 | -0.001 |
|  | (-1.725\*) | (-1.764\*) | (0.438 ) | (-0.097 ) |
| WIN | -0.064 | -0.066 | -0.048 | -0.060 |
| (-1.527 ) | (-1.592 ) | (-1.089 ) | (-1.355 ) |
| CHANGE | 0.059 | 0.051 | -0.005 | -0.016 |
| (1.421 ) | (1.247 ) | (-0.124 ) | (-0.357 ) |
| Ln (MKCAP) | 0.029 | 0.036 | 0.055 | 0.088 |
| (0.401 ) | (0.500 ) | (0.707 ) | (1.139 ) |
| IOPr | 0.177 | 0.173 | 0.173 | 0.131 |
| (2.081\*\*) | (2.072\*\*) | (1.937\*) | (1.767\*) |
| IOV | 0.230 | 0.216 | 0.113 | 0.103 |
| (2.526\*\*) | (2.425\*\*) | (2.186\*\*) | (2.075\*\*) |
| ROA | -0.248 | -0.287 | -0.464 | -0.487 |
| (-2.740\*\*\*) | (-3.237\*\*\*) | (-4.896\*\*\*) | (-5.143\*\*\*) |
| DEBT | 0.112 | 0.122 | -0.110 | -0.093 |
| (1.016 ) | (1.133 ) | (-0.952 ) | (-0.808 ) |
| MKBK | 0.051 | 0.051 | 0.019 | 0.010 |
| (1.167 ) | (1.177 ) | (0.417 ) | (0.212 ) |
|  |  |  |  |  |
| F-statistics | 9.93\*\*\* | 11.34\*\*\* | 6.57\*\*\* | 6.63\*\*\* |
| Adj. R-squared | 0.244 | 0.272 | 0.168 | 0.169 |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 507 | 507 | 507 | 507 |

We report the results from the cross-sectional analyses of the cumulative abnormal returns (CARs) in the (-5,+5) day window of the value-weighted portfolio (in Panel A) and the equally-weighted portfolio (in Panel B) of matching non-targeted firms. The value-weighted (based upon market capitalization in the preceding year) and equally-weighted portfolios of matching firms are firms in the same quartiles of institutional ownership and of market capitalization as the target firm. Abnormal returns are calculated using two alternative methods:

1. Market Model abnormal return = Actual return Ri – (αi + βi× CRSP equally-weighted index returns Rmt), whereby αi and βi are estimated from the following regression: Ri = αi + βi×Rmt + ɛit with daily return data in the (-252,-31) day window relative to the announcement date of the activism event.
2. Fama-French three factor model abnormal return = Actual return – (αi + βi Rmt + ɤi SMBt + ɸi HMLt), whereby αi, βi, ɤi, and ɸi are estimated from the following regression: Ri = αi + βi Rmt + ɤi SMBt + ɸi HMLt + ɛit with daily return data in the (-252,-31) day window relative to the announcement date of the activism event. SMB and HML are the size and book-to-market factors from Professor Kenneth French website.

 is a dummy variable representing successful campaigns ran by the shareholders activists; is a dummy variable representing campaigns where the activists demand control of the board or board representation; is the median market cap of the non-targeted firms that comprise the portfolio; represents the mean proportion of the shares held by the institutional investors in the non-targeted firms comprising the matching portfolio; represents the standard deviation of the institutional shareholding proportions of the non-targeted firms comprising the matching portfolio; , and represent equally-weighted/value-weighed industry-adjusted figures of return on assets, the ratio of total debt-to-total assets and the market-to-book ratio of the firms comprising the matching non-targeted portfolio, respectively – they are measured at the end of the fiscal year preceding the announcement date. We control for year-fixed effects and calculate robust -statistics to assess the significance levels of the coefficients.

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| **Table 5 – Cross-Sectional Analyses of Non-Target Matching Portfolios’ Industry-Adjusted Operating Performance** |
|  | ***Panel A – Value-weighted non-target matching portfolios*** | ***Panel B – Equally-weighted non-target matching portfolios*** |
| Variables | ROA | EBIT/TA | ROA | EBIT/TA |
| Constant | -0.057 | -0.041 | -0.106 | -0.086 |
|  | (-3.726\*\*\*) | (-3.904\*\*\*) | (-12.303\*\*\*) | (-14.702\*\*\*) |
| AFTER | 0.068 | 0.045 | 0.061 | 0.046 |
|  | (4.038\*\*\*) | (3.167\*\*\*) | (3.441\*\*\*) | (3.271\*\*\*) |
| WIN | 0.010 | 0.010 | 0.001 | 0.003 |
| (0.555 ) | (0.683 ) | (0.035 ) | (0.222 ) |
| CHANGE | -0.016 | -0.025 | -0.024 | -0.030 |
| (-0.952 ) | (-1.716\*) | (-1.325 ) | (-2.077\*\*) |
| LN(MKCAP) | 0.210 | 0.207 | 0.524 | 0.503 |
| (7.428\*\*\*) | (8.559\*\*\*) | (17.463\*\*\*) | (21.370\*\*\*) |
| IOPr | 0.147 | 0.254 | 0.119 | 0.353 |
| (4.398\*\*\*) | (8.860\*\*\*) | (3.353\*\*\*) | (12.668\*\*\*) |
| IOV | -0.131 | -0.180 | -0.025 | -0.133 |
| (-3.842\*\*\*) | (-6.155\*\*\*) | (-0.697 ) | (-4.662\*\*\*) |
| OPEX | -0.507 | -0.574 | -0.354 | -0.317 |
| (-15.344\*\*\*) | (-20.236\*\*\*) | (-10.064\*\*\*) | (-11.525\*\*\*) |
| CAPX | 0.006 | 0.058 | 0.089 | 0.120 |
| (0.308 ) | (3.229\*\*\*) | (4.021\*\*\*) | (6.887\*\*\*) |
| DEBT | -0.191 | -0.093 | -0.157 | -0.126 |
| (-7.855\*\*\*) | (-4.425\*\*\*) | (-6.077\*\*\*) | (-6.226\*\*\*) |
|  |  |  |  |  |
| F-statistics | 151.7\*\*\* | 224.5\*\*\* | 128.2\*\*\* | 241.4\*\*\* |
| Adj. R-squared | 0.740 | 0.809 | 0.707 | 0.820 |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 1,014 | 1,014 | 1,014 | 1,014 |

We report the results from the cross-sectional analyses of the industry-adjusted return on asset (ROA of the non-target matching firms minus median ROA of all firms in the same 4-digit SIC codes) and industry-adjusted EBIT/asset (EBIT/TA of the non-target matching firms minus median EBIT/TA of all firms in the same 4-digit SIC codes) of the value-weighted portfolio (in Panel A) and the equally-weighted portfolio (in Panel B) of matching firms. The value-weighted (based upon market capitalization in the preceding year) and equally-weighted portfolios of matching firms are firms in the same quartiles of institutional ownership and of market capitalization as the target firm. We pool and stack the observations in the year preceding the activism events and the observations in the year following the activism events. AFTER is the dummy variable for the year following the activism events. WIN is the dummy variable for events whereby the dissidents win or partially win the campaign. CHANGE is the dummy variables for campaigns in which the activists demand changes/control of the board. IOPr is the average of total institutional ownership in a firm in the preceding 5 years (20 quarters). IOV is the average of the standard deviation of the ownership across institutional owners of a firm in the past 5 years (20 quarters). OPEX, CAPX and DEBT represent equally-weighted/value-weighed industry-adjusted figures of operating expenses-to-asset ratio, capital expenditure-to- asset ratio and total debt-to-total asset ratio, respectively, of the firms comprising the matching non-targeted portfolio. They are measured at the end of the fiscal year preceding the announcement date. We report robust t-statistics. \*, \*\* and \*\*\* indicate the significance levels of 10%, 5% and 1%, respectively.

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| **Table 6 – Cross-Sectional Analyses for Individual Non-Target Matching Firms** |
|  | CARs | ROA |
| Intercept | 0.034 | -0.170 |
|   | (7.77\*\*\*) | (-12.11\*\*\*) |
| AFTER |  | 0.005 |
|   |  | (2.79\*\*\*) |
| WIN | 0.004 | 0.003 |
| (3.96\*\*\*) | (1.95\*\*) |
| CHANGE | 0.000 | -0.003 |
| (.07) | (-1.60) |
| LN(MKCAP) | -0.004 | 0.032 |
| (-8.93\*\*\*) | (23.23\*\*\*) |
| IOPr | 0.008 | 0.016 |
| (3.06\*\*\*) | (6.49\*\*\*) |
| IOV | -0.714 | -1.554 |
| (-3.49\*\*\*) | (-3.50\*\*\*) |
| ROA  | -0.008 |  |
| (-2.16\*\*) |  |
| MKBK  | 0.000 |  |
| (1.50) |  |
| DEBT  | 0.002 | -0.254 |
| (.99) | (-7.41\*\*\*) |
| CAPX |  | -0.865 |
|  | (-3.60\*\*\*) |
| OPEX |  | -0.071 |
|  | (-3.21\*\*\*) |
|  |  |  |
|  |  |  |
| F-stat | 14.03\*\*\* | 529.34\*\*\* |
| Adj. R-squared | 0.026 | 0.1478 |
| Year fixed effects | Yes | Yes |
| Firm clustered std err | Yes | Yes |
| N | 282,710 | 282,710 |

We report the results from the cross-sectional analyses of CARs, and industry-adjusted ROA. CARs are the cumulative abnormal returns (CARs) in the (-5,+5) day window, whereby abnormal returns are calculated using the following method:

Fama-French three factor model abnormal return = Actual return – (αi + βi Rmt + ɤi SMBt + ɸi HMLt), whereby αi, βi, ɤi, and ɸi are estimated from the following regression: Ri = αi + βi Rmt + ɤi SMBt + ɸi HMLt + ɛit with daily return data in the (-252,-31) day window relative to the announcement date of the activism event. SMB and HML are the size and book-to-market factors from Professor Kenneth French website.

Industry-adjusted return on asset is ROA of the matching firms minus median ROA of all firms in the same 4-digit SIC codes. AFTER is the dummy variable for the year following the activism events. WIN is the dummy variable for events whereby the dissidents win or partially win the campaign. CHANGE is the dummy variables for campaigns in which the activists demand changes/control of the board. IOPr is the average of total institutional ownership in a firm in the preceding 5 years (20 quarters). IOV is the average of the standard deviation of the ownership across institutional owners of a firm in the past 5 years (20 quarters). OPEX, CAPX and DEBT represent equally-weighted/value-weighed industry-adjusted figures of operating expenses-to-asset ratio, capital expenditure-to- asset ratio and total debt-to-total asset ratio, respectively, of the firms comprising the matching non-targeted portfolio. They are measured at the end of the fiscal year preceding the announcement date. We report robust t-statistics. \*, \*\* and \*\*\* indicate the significance levels of 10%, 5% and 1%, respectively.

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| **Table 7 - Comparison of Non-Target Matching Firm Risk Before vs. After the Activism Events** |
| ***Panel A – Value-weighted non-target matching portfolio*** |
|  | Before | After | Difference | t-stat | Wilcoxon-stat |
| Return standard deviation | 4.982% | 4.379% | -0.603% | -8.32\*\*\* | -2.95\*\*\* |
| Idiosyncratic risk from Fama-French 3-factor model | 4.463% | 3.868% | -0.595% | -9.34\*\*\* | -3.09\*\*\* |
| Idiosyncratic risk from market model | 4.558% | 3.952% | -0.606% | -9.72\*\*\* | -3.11\*\*\* |
| Systematic risk from Fama-French 3-factor model | 1.876% | 1.745% | -0.132% | -3.15\*\*\* | -1.52 |
| Systematic risk from market model | 1.627% | 1.541% | -0.087% | -2.01\*\* | -1.08 |
| ***Panel B – Equally-weighted non-target matching portfolio*** |
|   | Before | After | Difference | t-stat | Wilcoxon-stat |
| Return standard deviation | 3.833% | 3.671% | -0.162% | -2.30\*\* | -1.80\* |
| Idiosyncratic risk from Fama-French 3-factor model | 3.409% | 3.303% | -0.106% | -1.86\* | -1.20 |
| Idiosyncratic risk from market model | 3.480% | 3.371% | -0.109% | -1.84\* | -1.23 |
| Systematic risk from Fama-French 3-factor model | 1.439% | 1.330% | -0.110% | -2.71\*\*\* | -2.18\*\* |
| Systematic risk from market model | 1.258% | 1.147% | -0.111% | -3.20\*\*\* | -2.25\*\* |

We report the total risk, idiosyncratic risk and systematic risk of the value-weighted portfolio (in Panel A) and equally-weighted portfolio (in Panel B) of matching firms in the year before and the year after the activism events. The value-weighted (based upon market capitalization in the preceding year) and equally-weighted portfolios of matching firms are firms in the same quartiles of institutional ownership and of market capitalization as the target firm. Total risk is measured as the standard deviation of the daily returns of matching firms in the (-252,-31) day and (+31,+252) day windows relative to the announcement date of the activism event, alternatively. Idiosyncratic risk and systematic risk are measured as the standard deviations of the residuals and the predicted values from the market model (Ri = αi + βi×Rmt + ɛit) and the Fama-French 3-factor model (Ri = αi + βi Rmt + ɤi SMBt + ɸi HMLt + ɛit), alternatively, in the (-252,-31) day and (+31,+252) day windows relative to the announcement date of the activism event. \*, \*\* and \*\*\* indicate the significance levels of 10%, 5% and 1%, respectively.

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| **Table 8 – Cross-Sectional Analyses of Non-Target Matching Portfolios’ Risk** |
| VARIABLES | Total risk | Idiosyncratic risk from Fama-French 3-factor model | Idiosyncratic risk from market model | Systematic risk from Fama-French 3-factor model | Systematic risk from market model |
| Constant | 0.031 | 0.028 | 0.029 | 0.011 | 0.008 |
|  | (8.930\*\*\*) | (8.678\*\*\*) | (8.882\*\*\*) | (6.308\*\*\*) | (4.774\*\*\*) |
| AFTER | -0.036 | -0.044 | -0.043 | -0.011 | -0.021 |
|  | (-2.609\*\*\*) | (-3.216\*\*\*) | (-3.160\*\*\*) | (-0.744 ) | (-1.337 ) |
| WIN | -0.029 | -0.036 | -0.036 | -0.002 | 0.001 |
| (-2.072\*\*) | (-2.578\*\*) | (-2.521\*\*) | (-0.109 ) | (0.090 ) |
| CHANGE | 0.013 | 0.019 | 0.018 | -0.029 | -0.033 |
| (0.901 ) | (1.354 ) | (1.273 ) | (-1.815\*) | (-2.087\*\*) |
| LN(MKCAP) | -0.131 | -0.118 | -0.124 | -0.211 | -0.202 |
| (-5.980\*\*\*) | (-5.352\*\*\*) | (-5.660\*\*\*) | (-8.634\*\*\*) | (-8.213\*\*\*) |
| IOPr | -0.148 | -0.249 | -0.231 | 0.471 | 0.527 |
| (-5.843\*\*\*) | (-9.850\*\*\*) | (-9.174\*\*\*) | (16.763\*\*\*) | (18.683\*\*\*) |
| IOV | 0.474 | 0.572 | 0.557 | -0.079 | -0.143 |
| (19.318\*\*\*) | (23.312\*\*\*) | (22.710\*\*\*) | (-2.906\*\*\*) | (-5.206\*\*\*) |
| CAPX | 0.192 | 0.162 | 0.169 | 0.263 | 0.255 |
| (11.390\*\*\*) | (9.629\*\*\*) | (10.059\*\*\*) | (14.016\*\*\*) | (13.506\*\*\*) |
| DEBT | 0.209 | 0.206 | 0.207 | 0.145 | 0.124 |
| (12.533\*\*\*) | (12.327\*\*\*) | (12.425\*\*\*) | (7.810\*\*\*) | (6.651\*\*\*) |
|  |  |  |  |  |  |
| F | 260.80\*\*\* | 261.20\*\*\* | 261.60\*\*\* | 199.60\*\*\* | 198.00\*\*\* |
| Adj. R-squared | 0.823 | 0.823 | 0.824 | 0.781 | 0.779 |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes |
| Observations | 1,014 | 1,014 | 1,014 | 1,014 | 1,014 |

We report the results from the cross-sectional analyses of total risk, idiosyncratic risk and systematic risk of the value-weighted portfolio of matching firms. The value-weighted (based upon market capitalization in the preceding year) portfolios of matching firms are firms in the same quartiles of institutional ownership and of market capitalization as the target firm. Total risk is measured as the standard deviation of the daily returns of matching firms in the (-252,-31) day and (+31,+252) day windows relative to the announcement date of the activism event, alternatively. Idiosyncratic risk and systematic risk are measured as the standard deviations of the residuals and the predicted values from the market model (Ri = αi + βi×Rmt + ɛit) and the Fama-French 3-factor model (Ri = αi + βi Rmt + ɤi SMBt + ɸi HMLt + ɛit), alternatively, in the (-252,-31) day and (+31,+252) day windows relative to the announcement date of the activism event. AFTER is the dummy variable for the year following the activism events. WIN is the dummy variable for events whereby the dissidents win or partially win the campaign. CHANGE is the dummy variables for campaigns in which the activists demand changes/control of the board. IOPr is the average of total institutional ownership in a firm in the preceding 5 years (20 quarters). IOV is the average of the standard deviation of the ownership across institutional owners of a firm in the past 5 years (20 quarters). CAPX and DEBT represent equally-weighted/value-weighed industry-adjusted figures of capital expenditure-to- asset ratio and total debt-to-total asset ratio, respectively, of the firms comprising the matching non-targeted portfolio. They are measured at the end of the fiscal year preceding the announcement date. We report robust t-statistics. \*, \*\* and \*\*\* indicate the significance levels of 10%, 5% and 1%, respectively.

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| **Table 9 – Cross-Sectional Analyses for Individual Non-Target Matching Firms** |
|  | Total risk | Idiosyncratic risk | Systematic risk |
| Intercept | 0.068 | 0.069 | 0.009 |
|   | (177.20\*\*\*) | (196.98\*\*\*) | (45.43\*\*\*) |
| AFTER | -0.001 | -0.002 | -0.002 |
|  | (-13.62\*\*\*) | (-2.15\*\*) | (-1.41) |
| WIN | -0.001 | -0.001 | -0.001 |
| (-3.48\*\*\*) | (-9.68\*\*\*) | (-1.71\*) |
| CHANGE | 0.000 | -0.001 | -0.001 |
| (.28) | (-5.40\*\*\*) | (-23.48\*\*\*) |
| LN(MKCAP) | -0.005 | -0.005 | 0.000 |
| (-141.20\*\*\*) | (-167.34\*\*\*) | (2.51\*\*) |
| IOPr | 0.002 | 0.000 | -0.005 |
| (13.81\*\*\*) | (-1.59) | (-17.40\*\*\*) |
| IOV | -0.182 | -0.023 | -0.323 |
| (-6.18\*\*\*) | (-1.02) | (-15.47\*\*\*) |
| CAPX | 0.002 | 0.000 | 0.006 |
|  | (.94) | (.21) | (8.17\*\*\*) |
| DEBT | 0.006 | 0.006 | 0.001 |
| (4.52\*\*\*) | (4.57\*\*\*) | (3.74\*\*\*) |
|  |  |  |  |
| F-stat | 5249.22\*\*\* | 5432.36\*\*\* | 5515.47\*\*\* |
| Adj. R-squared | 0.332 | 0.382 | 0.2726 |
| Year fixed effects | Yes | Yes | Yes |
| Firm clustered std err | Yes | Yes | Yes |
| N | 282,710 | 282,710 | 282,710 |

We report the results from the cross-sectional analyses of total risk, idiosyncratic risk and systematic risk of individual non-target matching firms. Total risk is measured as the standard deviation of the daily returns of matching firms in the (-252,-31) day and (+31,+252) day windows relative to the announcement date of the activism event, alternatively. Idiosyncratic risk and systematic risk are measured as the standard deviations of the residuals and the predicted values from the Fama-French 3-factor model (Ri = αi + βi Rmt + ɤi SMBt + ɸi HMLt + ɛit) in the (-252,-31) day and (+31,+252) day windows relative to the announcement date of the activism event. AFTER is the dummy variable for the year following the activism events. WIN is the dummy variable for events whereby the dissidents win or partially win the campaign. CHANGE is the dummy variables for campaigns in which the activists demand changes/control of the board. IOPr is the average of total institutional ownership in a firm in the preceding 5 years (20 quarters). IOV is the average of the standard deviation of the ownership across institutional owners of a firm in the past 5 years (20 quarters). CAPX and DEBT represent equally-weighted/value-weighed industry-adjusted figures of capital expenditure-to- asset ratio and total debt-to-total asset ratio, respectively, of the firms comprising the matching non-targeted portfolio. They are measured at the end of the fiscal year preceding the announcement date. We report robust t-statistics. \*, \*\* and \*\*\* indicate the significance levels of 10%, 5% and 1%, respectively.

1. See “Shareholder activism: Who, what, when and how?” available at https://www.pwc.com/us/en/corporate-governance/publications/assets/pwc-shareholder-activism-full-report.pdf. [↑](#footnote-ref-1)
2. <http://www.businessinsider.com/the-shakers-9-bad-ass-activist-investors-and-the-deals-that-made-them-famous-2012-1?op=1&IR=T> [↑](#footnote-ref-2)
3. See “Shareholder activism: Who, what, when and how?”, available at https://www.pwc.com/us/en/corporate-governance/publications/assets/pwc-shareholder-activism-full-report.pdf. [↑](#footnote-ref-3)
4. ‘Shareholder activism: Battle for the boardroom’, *Financial Times*, April 23, 2014. Accessed at [www.ft.com](http://www.ft.com) on 12/14/2014 [↑](#footnote-ref-4)
5. The TRSAI database starts in 2000. [↑](#footnote-ref-5)
6. <http://thomsonreuters.com/products/financial-risk/content/07_010/thomson-reuters-shareholder-activism-intelligence-v1.3.pdf> [↑](#footnote-ref-6)
7. A review of the literature suggests varied reasons to support the rise of activism during that period. Shearer (2006) observes that the years 2005 and 2006 coincided with the highest levels of cash as a proportion of equity and liabilities held by S&P500 companies. This was likewise the era of low interest rates and cheap and abundant funding owing to securitization and other innovative products proposed by the financial institutions. Eisinger (2005) explains that activists call for companies to hand over those surplus cash in the form of dividends and buybacks. All these elements taken together could account for the rise of shareholder activism events around the year 2006. [↑](#footnote-ref-7)
8. This finding explains why value weighted portfolios exhibit a large standard deviation compared to equally weighted portfolios in Table 7 [↑](#footnote-ref-8)