Investors' Activism and the Gains from Takeover Deals

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Abstract

We examine whether activists add value to the shareholders of targets and their acquirers. Several findings emerge. First, on the announcement of a takeover bid, acquirers of targets that have activists outperform acquirers of other targets. In the long run, however, the performance of acquirers remains independent of activism. Second, the premium received by the shareholders of targets is not affected by activism. Third, superior gains achieved by the acquirers of targets with activists is driven by non-cash deals while the average target benefits more from cash deals. Finally, the gains to acquirers and targets remain independent of the activists' type.

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1. Introduction

It is known that activist shareholders, usually the institutional investors, seek seats on the company's board and exert influence on the decision-making process of the company. Several studies suggest that activists can enhance firm value by influencing several aspects of company management including business strategies and managerial freedom.[1] Becht et al. (2015), among others, report that activists force the firm's management to become takeover targets and the large positive abnormal returns received by the shareholders of such firms come in the form of a takeover premium. If the activists' intervention can make positive contributions to firms' business strategies and governance, then the acquisitions of such targets should be more value enhancing to the acquirers compared to the acquisitions of other targets. Whilst there is evidence to suggest that the shareholders of the activists' target firms benefit from takeover deals, the question of whether acquirers of firms that are subjected to investors' activism gain more remains to be investigated. Similarly, there is no evidence on whether the premium received by the shareholders of targets that are subjected to investors' activism is dependent on the methods of payment in takeover deals. This is important because the method of payment used in settling the deal signals the sustainability of value created by activism, if any. In cash only deals, activists have opportunities to 'cash and run' while in non-cash deals (including stocks and other securities) activists maintain their stake in the merged firms. There is growing evidence that there are significant differences in the effectiveness of activism by the type of activist (discussed in section 2.3). However, there is no evidence on which type of activist(s) can create

[1] For example, Brav et al. (2008) report evidence of activist hedge funds disciplining underperforming management as well as changing payout policies. Clifford (2008) reports evidence of the divestiture of under-performing assets by the firms that are subjected to activism. Klein and Zur (2009) suggest that activism creates value by transferring wealth from creditors to shareholders – activists tend to pursue the firms to issue long-term debts and repurchase stocks. Boyson and Mooradian (2011) suggest that hedge fund intervention can alleviate agency costs through reductions in excess cash. Brav et al. (2014) suggest firms are more likely to reshape corporate innovation after the intervention of activists. Brav et al. (2015) report that firms influenced by activists tend to change business strategies and improve productivity. Overall, studies suggest that activists can create value by influencing the firms' financial policies, business strategies and managerial freedom.

more value to the acquirers. The paper, therefore, aims to fill these voids in the literature. More specifically, we investigate three main issues: (i) do acquirers gain more by acquiring targets that have been subjected to activism by investors? (ii) is the premium received by the shareholders of targets that are subjected to activism dependent on the method of payment? and (iii) are the gains to acquirers and target premium dependent on the type of activist?

The analysis reveals several findings. First, after controlling for the firm and deal specific characteristics, acquirers of targets that are subjected to investors' activism outperform the acquirers of targets that do not have activists by about 2 percentage points on the announcement of the deal. This significant superior gain is driven by the gains from non-cash deals in which the activists maintain their stakes in merged firms. However, activist involvement was found to have no significant effect on the acquirers' long-term performance, indicating that the additional value created by activists for acquirers is fully recognized by the market on the announcement of the deal. Second, on the announcement of the deal, targets with activists received a 20% premium. However, the premium received by the activists' targets is not significantly different from the premium received by the shareholders of other target firms. Third, the shareholders of the targets that are subjected to activism benefit more in cash only deals ('cash and run') than in non-cash deals. Finally, neither the gains to acquirers from acquisitions nor the takeover premium received by target firms is dependent on the type of activist (hedge fund vs. other institutional activists, serial vs. casual activist, and single vs. multiple activists), indicating that activism is valuable irrespective of the type of activist(s).

The findings have several strategic implications. First, the acquirers can benefit more by acquiring targets that are subjected to shareholders' activism. Second, the takeover premiums received by the shareholders of targets with and without activists do not differ significantly. Therefore, contrary to the suggestion of some earlier studies, firms do not need to be sold to realize the value of the firm or be the subject of activism

to realize the value of the firm in a takeover deal. It is, however, possible that the value created by activists' actions is already reflected in the market value of the target before the takeover deal is announced. Hence the lack of difference in the premium cannot be used to challenge the value creating ability of activism. Third, the findings also signal differences in methods of payment preferred by acquirers and targets. In acquiring targets that are subjected to activism, acquirers are likely to benefit from non-cash deals such that the possible constructive role of activists in the merged firm can be maintained. The preferred method of payment of target shareholders, however, is cash only. Finally, the benefits of activism to firms involved in takeover deals (both targets and acquirers) remain independent of the type of activist. All activists contribute equally to improving the quality of firms and realizing their full potential, leading to higher market value.

The remainder of the paper is structured as follows. Section I develops testable propositions drawing on the evidence available and by identifying the gaps in the literature. Section II explains how the database is constructed and outlines the methods used. Section III provides the results and their discussion. Section IV concludes the paper.

2. The Development of Testable Propositions

2.1. Activism and firm quality

More recently a number of studies have examined the effectiveness of hedge fund activism on firm performance. Briggs (2007) finds that hedge funds with significant stockholding are able to use wolf-pack tactics against companies to achieve some of their aims and force the management to bring about changes in the company strategy. Brav et al. (2008) report that hedge fund activists employ a variety of tactics to pursue their objectives and are largely successful, even though they hold a relatively small stake. Such activists are able to generate value because of their credible commitment to confront the target firm management on behalf of all shareholders. Similarly, Clifford (2008) reports that firms targeted by hedge fund activists earned larger excess stock returns and return on assets (ROA). Klein and Zur (2009) show that firms targeted by

hedge funds earned significant positive abnormal stock returns around the initial 13D filing date. They also suggest that hedge funds extract cash from the firms by increasing the target's debt capacity and paying out higher dividends. Butu (2013) argues that hedge funds play a significant role in the governance of public companies and cause polemic. She analyzed the nature of hedge fund activism using the Securities and Exchange Commission (SEC) filings and assessed the various types of engagement made by activist hedge funds. She found a positive market reaction around the announcement of hedge fund interventions. She also reports evidence of larger positive market reaction to more aggressive types of activism.

Boyson and Mooradian (2011) report that hedge fund activists improve both short-term and long-term operating performance of the targeted firms. Hedge funds themselves were also gaining from their efforts as the risk-adjusted annual performance of activist hedge funds was about 7% to 11% higher than non-activist hedge funds. Wang and Zhao (2015) found that hedge funds improve corporate productivity by increasing patent quantity and quality. This evidence is supported by He et al. (2014) who found evidence of activist hedge funds generating long-term benefits to shareholders of target firms by enhancing their innovative activities. Similarly, the findings of Bebchuk et al. (2015) also support the view that the effects of hedge fund activism can be long-lasting as there was no evidence of declining operating performance or abnormal long-term returns even after the activist hedge fund exit.[2]

Using a sample of SEC 13D filings by portfolio investors, Greenwood and Schor (2009) studied the association between the positive market reaction and one of the outcomes of aggressive forms of activism – takeover. They attribute the large excess

[2] Gantchev and Jotikasthira (2015) investigate the role of institutional trading in the emergence of hedge fund activism and find a positive correlation between institutional selling volume and net hedge fund purchases of stocks of target companies before the launch of an activist campaign. They also report that hedge fund activists use institutional sales to camouflage their purchases, which allows them to obtain additional trading gains, thereby covering their monitoring costs.

stock returns of target firms (i.e. takeover premium) to the ability of hedge fund activists to recognize potentially undervalued companies, identifying their potential acquirers, and forcing them to be acquired. They found that both the announcement returns and the long-term abnormal returns were high for those target firms that were ultimately acquired, but not significantly different from zero for those target firms that remained independent. They also found that when the market-wide takeover interest fell, many activists saw a decline in the value of their portfolios. This is consistent with the view that the firms in the activists' portfolios were purchased in the hope of securing a takeover deal. The findings of Greenwood and Schor (2009) were further supported by Becht et al. (2015) who analyzed nearly 1,800 interventions by activist shareholders in Europe, Asia and North America. In all three continents, they found much higher median returns to those activist engagements resulting in at least one observable outcome than those without any outcome. More specifically, when a hedge fund activist fails to change the target firm's strategy, the activism effort is significantly less profitable. Although they admit that it is difficult to understand the source of returns generated by activism, the largest abnormal returns were generated by takeover transactions averaging 17.1% during the 41-day announcement period window. Boyson *et al.* (2016) also found that shareholder value creation from hedge fund activism occurs primarily by influencing takeover outcomes for targeted firms.

On balance, the discussion above suggests that investors' activism can improve the quality of the firm and create value through improved corporate governance and business strategies. It is also evident that the value of activists' efforts is likely to remain in the long run. If the resulting effect of activism is the improved quality of the firm, then such firms should be value enhancing to their acquirers. This leads to our first testable proposition that *"Acquirers gain more from the acquisition of targets that have been subjected to shareholders' activism than from the acquisition of other targets."*

As indicted by some earlier studies (e.g. Butu (2013) shareholders benefit more from aggressive forms of activism. Therefore, for the reasons discussed above, i.e. the

activists are able to improve the quality of the firms and acquirers are willing to acquire them, the shareholders of the firms that are subjected to activism should be able to sell their stocks at a higher price to an acquirer. This leads to our second testable proposition that *"Compared to other targets, firms that are subjected to activism secure a higher takeover premium from their acquirers."*

2.2.Activists' confidence and the method of payment

It is also known that in a takeover deal the method of payment signals the quality of the deal. For instance, acquirers of private targets gain more in stock deals than in cash deals (see Faccio et al. (2006). This is because the readiness of a single or a handful target owner(s) to continue to hold stakes in merged firms indicates that the deal is value enhancing. In the same way, if the activists are confident that their activism has improved the quality of the target and the value they created is sustainable in the long run, they are likely to be prepared to accept stocks and/or other securities in the merged firm and continue to hold stakes. Otherwise, they would accept only cash and walk away from the firm, i.e. they would prefer to 'cash and run'. Moreover, the willingness of acquirer management to accept activists' stakes (effectively their active role) in the merged firm also signals the quality of the management of the acquirer. Consequently, the market is likely to react favorably to non-cash deals compared to cash only deals where the management of the acquirer effectively 'buys out' the activists. This leads to our third testable proposition that *"Acquirers of targets that have activists gain more in non-cash deals than in cash deals."*

2.3.Activism by hedge funds vs. other investors

Studies discussed in previous paragraphs suggest that hedge fund activists can add value to firms. However, studies that dwell on the value implications of other investors' activism argue that such activists (e.g. large pension funds and mutual funds) can make very little positive impact, if any, on company management and value creation. Wahal (1996) reports no evidence of the effect of pension funds' activism on the long-term

stock price and accounting performance of firms. Similarly, Black (1998, p.459) argues that "… the currently available evidence, taken as a whole, is consistent with the proposition that the institutions achieve the effects on firm performance that one might expect from this level of effort – namely, not much". Karpoff (2001) suggests that shareholder activism can make a small change in target firms' governance structures. Its impact, however, remains negligible on stock value and earnings of the firm. After reviewing the literature on the evidence of institutional investors' activities in corporate governance, Romano (2001) suggests that the shareholders' activism has little or no effect on targeted firms' performance. She recommends that institutions should reassess their activism agenda and use the resources more effectively.

Kahan and Rock (2007) highlight the difference between activism by hedge funds and other institutional investors. They attribute the differences to the incentive structures of hedge fund managers and the diversification strategy pursued by traditional institutional investors that is difficult to combine with strategic activism. Klein and Zur (2009) studied confrontational activism campaigns by hedge funds and other private investors. They found that hedge funds targeted more profitable firms than other activists and hedge fund activists addressed cash flow agency costs whereas other activists changed the targets' investment strategies. They suggest that hedge funds take a different approach from other private activists and that confrontational entrepreneurial activism may represent a new breed of shareholder activist. Cumming and Dai (2010) argue that regulations tend to restrict the performance of hedge funds and suggest that future research to investigate the interaction between the regulation governing hedge funds and their activism.

Overall, the evidence suggests a significant difference on the effectiveness of activism by hedge funds and other investors. Consequently, in takeover deals both the acquirers as well as the target firms should benefit more from the deals that involve targets subjected to activism by hedge funds than by other activist investors. This leads to our fourth/final set of testable propositions that: *(a) "Acquirers' gains from takeover*

deals are dependent on the type of activist", and (b) "The takeover premium secured by target firms depends on the type of activist."

3. Data and Methodology

3.1.The Sample

The sample is comprised of US domestic merger and acquisition (M&A) deals subsequent to activists' campaigns from 1994-2014. Data on activist campaigns were collected from the Thomson Reuters Shareholder Activism Intelligence database, which has recorded campaigns by prominent activist investors since 2000. We complemented this dataset with data sourced from 13D filings available in SEC's Edgar database. The Edgar database has recorded 13D filings for most public firms since 1994. Activist investors are required to file a Schedule 13D with the SEC if they acquire beneficial ownership of more than 5% of a public firm (Greenwood and Schor (2009). The Thomson Reuters Shareholder Activism Intelligence database contains information about activist campaigns by 1038 activists all over the world from 2000-2014. A total of 5,637 13D filings were recorded by 817 activists in SEC's Edgar database.

In order to compare the implications of activists' type on the returns from takeover deals, we classify the activists into two categories: hedge fund activists and other activists (see Appendix B for their description). Hedge fund/non-hedge fund activists were identified by searching their details (using the names of activists) on the Internet.

Next, activist campaigns whose outcomes were takeovers had to be identified. As in Greenwood and Schor (2009), we define targets involving activists if they were acquired within 18 months of the activist's campaign. Information on subsequent takeovers was obtained from Thomson One Mergers and Acquisitions database. Our final sample includes 316 M&A deals subsequent to campaigns by 167 activists. Table 1 (Panel A) shows that deals involving activists started to increase from 1994 (two deals) and reached their peak in 2014 (25 deals). However, there is no particular pattern to this

change. Panel B shows that 192 targets involved activist hedge funds while 169 deals involved other activists.[3]

(Insert Table 1 about here)

To assess the implications of activists' targets on acquirers' gains (and the premium received by target firm shareholders) we compare the gains (and premium) from acquisitions of such targets against the gains from acquiring targets that did not have activists. To create a sample of deals that did not have activists' involvement we constructed a matching sample based on acquirers' industry, size and market-to-book value ratios (i.e. we followed the control firm approach of benchmarking). More specifically, in each industry and calendar year, we categorized acquirers into quintiles based on their market values. In each size quintile, acquirers were sorted on their market-to-book value ratios. Deals involving acquirers with market-to-book value ratios close to those of acquirers of targets involving activists were selected as the matching sample. We identified 359 matching deals that did not involve activists. The stock returns and financial (accounting) data, used in assessing short-term gain and long-term performance were obtained from CRSP and COMPUSTAT respectively.

3.2.Key features of merging partners and the deals

Table 2 provides summary statistics of key features of acquirers (Panel A) and targets (Panel B) of both the deals involving activists and the matching sample (see Appendix A for their definition). Lack of significant differences in mean/median values of the key features of merging partners (acquirers/targets) in the two categories of deals (activists' sample and the matching sample) confirms their suitability for comparison purposes. As reported by earlier studies on M&A, targets are much smaller than acquirers in size and the acquirers have higher growth opportunities (M/B ratios) than

[3] The number of deals by activist groups is greater than the number of deals in total because some deals involved multiple activists.

the targets. The target firms that were subjected to investors' activism have higher stock price growth in the run-up to the announcement of the deal than that of the matching firms. This is, possibly, due to the fact that the up to 18 months' gap between the deal and the initiation of the activists' campaign gave enough opportunity to the activists to improve the target firms' performance leading to an increase in stock price of the targets. Panel C (Table 2) provides a summary of the key features of the deals involving targets with activists as well the matching sample. The estimates show that relatively higher proportions of the deals involving activists are settled in cash compared to the matching sample. This is plausible because activists may prefer cash, rather than stocks or other securities in merged firms, for two reasons namely: (a) 'cash and run' because of their lack of confidence in the long-term quality of the deal, including the sustainability of the improvement in the quality of targets they have achieved through activism, and (b) to move their funds to another superior investment opportunity (i.e. the exit strategy).

(Insert Table 2 about here)

Table 3 shows the correlation between the variables used in this study. The estimates show very low correlation between most variables. The correlation between the acquirers' announcement period returns (CAR) and bid premium (difference between the price offered by the acquirer and the target's market price four weeks before the announcement of the deal divided by the latter) is 0.632 (Panel B) indicating that in deals that involve high performing targets the shareholders of both acquirers and targets gain more. Similarly, reasonably high correlations between cash deals and acquirers' announcement period returns (0.286) and volatility in targets' pre-bid returns (sigma) and bid premium are also recorded. Overall, the correlation between the variables of our interest (except those noted above) are low and hence are not likely to cause any concern in multiple regressions.

(Insert Table 3 about here)

3.3.Measuring announcement period gains

Following recent studies on M&As (e.g. Fuller et al. (2002) the announcement period excess returns of acquirers' shareholders are estimated using the market-adjusted model[4] as in equation (1):

$$AR_{i,t} = R_{i,t} - R_{m,t} \qquad (1)$$

Where, $AR_{i,t}$ is the abnormal return of company *i* (acquirer or target) on day *t*; $R_{i,t}$ is the return of company *i* on day *t*, and $R_{m,t}$ is the market return on day *t* (measured by CRSP value-weighted index return). The cumulative abnormal return (CAR) is the sum of the abnormal returns over the 5-days (-2 to +2) surrounding the day of announcement of the deal as in equation (2):

$$CAR_i = \sum_{t=-2}^{t=+2} AR_{i,t} \qquad (2)$$

The excess returns of the shareholders of target companies are measured in the same way as the gains to the acquirers, i.e. the CAR for the 5-day event window.

We also measure the gains to the shareholders of target firms using a bid premium, defined as the difference between the offer price and the target's stock price four weeks before the announcement divided by the latter as in equation (3).

$$Bid\ \ premium = \frac{OP - P_{(t-28)}}{P_{(t-28)}} \qquad (3)$$

[4] We also estimate excess returns using the market model and the CAR for the 3-day [-1, +1] window. In the market model the parameters (alpha and beta) are estimated over the pre-announcement [-365, -28 days] period. In the interest of brevity we report the estimates based on the market adjusted 5-day event window and discuss other results if they are qualitatively different. The unreported estimates are available on request.

In equation (3) OP is the price offered by the acquirer to the target firm and P_{t-28} is the price of the target 28 days before the announcement of the deal. Unlike the 5-day event period CAR, the bid premium (equation 3) is expected to capture the relatively long-term movement in the value of the target, including the effects of any possible rumor of the takeover deal. Following Officer (2003); Golubov et al. (2012), the bid premium is winsorized if the value is outside the range of 0 and 2.[5]

3.4.Long-term performance of acquirers

The long-term (post-announcement) performance of both sets of acquirers (the sample and the matched firms) is measured by buy-and-hold returns (BHR) over 24 months.[6] As the returns of the portfolio of matched firms (no involvement of activists) serve as benchmark returns, the difference between the gains of the two sets of acquirers serves as a measure of buy-and-hold abnormal returns (BHAR).

3.5.Univariate analysis

The announcement period gains of acquirers and targets (CAR), bid premium received by targets and the acquirers' long-term performance (BHR/BHAR) are analyzed using the *t-test* (two sided) to assess their statistical significance. The announcement period CARs and the bid premium received by the sample and the matched firms are compared using a two-sample *t-test*. Similarly, the long-term performances of sample and matched acquirers are also compared using a two-sample *t-test*. Where appropriate, to test the significance of median gains we use the Wilcoxon signed-rank test. The Wilcoxon rank-sum test is used to compare the median gains/premium of two sets of sample (e.g. gains from the sample and the matched deals).

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[5] We also conduct robustness tests by using the original values of bid premiums. The results are not qualitatively similar.

[6] We also estimate the BHR over 12 months and 36 months. Additionally, we measure acquirer long-term performance by size and market-to-book ratio adjusted BHAR as the robustness test. In the interest of brevity, however, we report the estimates based on 24-month buy-and-hold returns (BHR24) and discuss other results if they are qualitatively different.

3.6.Multivariate Analysis

We examine whether the deals that involve acquiring activists' targets can generate superior announcement gains (CAR_i) to acquirers after controlling for the effects of other factors that are known to affect the acquirers' gain, as in equation (4):

$$CAR_i = \alpha_0 + \alpha_1 Activist + \alpha_2 Firm_i + \alpha_3 Deal_i + f_t + f_{ind.} + \varepsilon_i \qquad (4)$$

In equation (4) the key explanatory factor of interest to us is the dummy variable that represents the presence of activists. It takes the value of 1 if the takeover target was subjected to activism, and 0 otherwise. The vectors 'Firm' and 'Deal' represent the firm and deal specific factors as listed in Appendix A. The model also accounts for year (f_t) and industry effects (f_{ind}).

To examine the implications of activists' involvement on the long-term performance of acquirers (BHR_i), we estimated equation (5) which controls for the effects of firm and deal specific characteristics as well as year and industry fixed effects. Again, the key variable of interest to us is the activist dummy.

$$BHR_i = \alpha_0 + \alpha_1 Activist + \alpha_2 Firm_i + \alpha_3 Deal_i + f_t + f_{ind.} + \varepsilon_i \qquad (5)$$

Similarly, we also examine whether target firms that have activists can secure higher takeover premiums ($Premium_i$) by estimating equation (6). Once again, the key variable of interest to us is the activist dummy and the equation controls for the possible effects of firm and deal specific factors, year and industry effects.

$$Premium_i = \alpha_0 + \alpha_1 Activist + \alpha_2 Firm_i + \alpha_3 Deal_i + f_t + f_{ind.} + \varepsilon_i \qquad (6)$$

Equations (4) to (6) are estimated using OLS.

As noted earlier, one of the issues that we examine is the choice of the method of payment. We examine this issue using two alternative definitions of dependent variable, viz. by estimating the probability of cash payment (equation 7), and the percentage of cash payment (equation 8).

$$\text{Probability of Cash Payment} = \alpha_0 + \alpha_1 Activist + \alpha_2 Firm_i + \alpha_3 Deal_i + f_t + f_{ind.} + \varepsilon_i \quad (7)$$

$$\text{Percentage of Cash Payment} = \alpha_0 + \alpha_1 Activist + \alpha_2 Firm_i + \alpha_3 Deal_i + f_t + f_{ind.} + \varepsilon_i \quad (8)$$

In equation (7) the dependent variable is a *Cash* dummy that equals one if the deal is 100% paid in cash, and 0 otherwise. In equation (8) the dependent variable is defined as the percentage of consideration paid in cash (transaction value paid in cash over total transaction value). Equation (7) is estimated using the Probit model while equation (8) is estimated using OLS. In both equations *Activist* is the key variable of interest, $Firm_i$ is a vector of characteristics of acquirer *i* at the end of fiscal year prior to the announcement of the deal, and $Deal_i$ is a vector of the deal specific features pertinent to deal *i*. The firm and deal characteristics are defined in Appendix A. In estimation we also control for both the year fixed effect (f_t) and the industry fixed effect ($f_{ind.}$).

To control for outliers, all continuous variables in above regressions are winsorized at the 2% and 98% levels, except for bid premium that is discussed above. To check for robustness of results with respect to the effects of outliers we also use original values, winsorize the data at the 1% and 99% levels and at 5% and 95% levels. The results remain qualitatively similar.

4. Results and Discussion

4.1.Activism and announcement period gains to acquirers

As discussed earlier, targets that are subjected to investors' activism are likely to have superior financial and business strategies. Hence acquisitions of such firms should enhance the value of their acquirers more than the acquisitions of other targets. Consequently, on the announcement of deals, involving activists' targets should generate relatively higher gains to acquirers. On the other hand, given the superior/reformed quality (at least perceived) of the target firms, they are likely to be attractive to many potential bidders. To minimize competition and pre-empt competition in acquiring such targets, potential bidders are likely to offer higher premiums to such targets, possibly close or equal to the synergy gains. Consequently, the acquirers may not gain on the announcement of targets that are subjected to activism.[7] Therefore, whether acquisitions of activists' targets generate higher returns to acquirers remains an empirical question. To address this issue, in this section, we compare the announcement period gains of acquirers that acquire activists' targets against those of matching firms. Table 4 (Panel A) provides a comparison of the 5-day market-adjusted CARs (announcement period gains) of the activists' sample and the matching sample. The estimates show that the acquirers of activists' targets gain a positive and significant return (0.78%) on the announcement of the deal while the acquirers of other targets (matching sample) suffer a significant loss (-0.69%). The difference between their gains (1.6%) is also statistically significant, confirming that the acquisition of activists' targets is superior to the acquisition of other targets. This is possible because the activists have already improved the governance and business strategies of the targets before making the firm available for acquisition.[8] This result also supports the finding of Boyson et al. (2016), who found that third-party bids for activist targets experienced higher returns. In summary, the results support our first testable proposition that *"Acquirers gain more from the acquisition of targets that have been subjected to shareholders' activism than from the acquisition of other targets"*

[7] When judged *ex post*, it is possible for acquirers to end up paying more than the synergy value and suffer a loss on the announcement of the deal. However, *ex ante*, no rational manager should pay a premium higher than the synergy value of the deal, hence the expected lower limit of the gain is zero.

[8] The estimates based on a 3-day event period window and market model are qualitatively similar.

and suggest that acquiring firms' shareholders are better off by acquiring targets that have been subjected to activism.

(Insert Table 4 about here)

Next, to ensure that the superior gains to acquirers of activists' targets is due to activism, rather than other factors, we estimate equation (4) to control for the implications of other factors that are known to affect acquirers' gains. The results reported in Table 5 reveal a positive and significant role effect of the 'activist' dummy on acquirers' announcement period gains in all four specifications. Thus, combined with the evidence from univariate analysis discussed earlier, it can be deduced that acquiring a target that had an activist can generate higher returns to the acquirer in comparison to acquiring a target that has no activist.

Other factors that affect the announcement period gains (CAR) of acquirers are the size of the acquirer (i.e. Ln(MV)) and the relative size of the deal. Both have an inverse relation with the acquirers' returns, thereby suggesting that larger acquirers and relatively larger deals lead to a decline in acquirers' announcement period returns.

Thus, the results suggest that target firms' activists can create value to acquiring firms' shareholders too. More specifically, after controlling for the firm and deal specific factors, activists' involvement can improve acquirers' market value by about 2% within a 5-day announcement period window (Table 5, specification 4). This return translates into $334 million (2% × $16,696 million average deal size) gain to an average acquirer. In summary, the evidence from multivariate analysis also supports our first testable proposition and confirms that potential acquirers can benefit by identifying targets that have been subjected to investors' activism.

(**Insert Table 5 about here)**

4.2.Activism and Long-term performance of acquirers

Evidence discussed above suggests that the acquiring activist's target generates significantly higher gains to the bidder on the announcement of the deal. The observed superior announcement period gains could be a function of a quality acquisition that brings synergy to the acquirer. Alternatively, it is also possible that the market overreacts (optimistically) to such deals. This question could be resolved by assessing the long-term performance of the acquirers. If the market is efficient and the acquisition of activists' targets is truly more value enhancing, which is already reflected in the deal price, than the acquisitions of other targets, then there should be no significant difference in the long-term performance of deals involving activists' targets and other targets. On the other hand, if the superior announcement period gains are due to the market's over-optimism, then there should be a reversal in long-term returns (i.e. correction of earlier over-optimism) leading to inferior performance of the acquirers of activists' targets. We test for these possibilities by comparing the long-term performance (measured by Buy and Hold returns i.e. BHRs) of the acquirers that acquired activists' targets against the performance of the matching deals. Panel B of Table 4 reports estimates of post-merger 24-month returns (BHRs) of the two groups. The estimates show that both sets of acquirers (deals involving activists' targets and other targets) earn significant gains in the long run. Although the acquirers of activists' targets earn higher returns than the acquirers of other targets (matching sample), the difference in their mean return is not statistically significant. The difference in median return, however, is weakly significant. This suggests that the long-term performance of acquirers of activists' targets is at least as good as that of the acquirers of other targets. This evidence suggests that the observed superior announcement period gains of acquirers of activists' targets were not due to the market's overreaction. The value of acquirers that was enhanced during the early stage of the deal (announcement period) is sustained in the long run too (i.e. there is no reversal).

To control for the possible implications of other factors on the long-term performance of the acquirers, we estimated equation (5) in which BHRs of acquirers

are regressed against a set of explanatory variables. The results are reported in Table 6. The positive and significant coefficient of the activist dummy in specification 3 suggests that acquirers of activists' targets gain more than the acquirers of other targets in the long run. However, the coefficient of the activist dummy remains insignificant in three of the four specifications, reducing the reliability of the suggestion of specification 3. On balance, the evidence of an insignificant difference in the long-term performance of the two groups of acquirers in both univariate and multivariate analysis suggests that the acquirers of activists' targets perform at least as well as the acquirers of other targets. It reconfirms that the observed superior announcement period gain of acquirers of activists' targets was not due to the market's overreaction. This is possible because the activists were helping the targets to improve their strategic decisions and governance for a sustained period of time prior to the deal which has strengthened the quality of the firm. Overall, the evidence discussed above supports our first testable proposition that *"Acquirers gain more from the acquisition of targets that have been subjected to shareholders' activism than from the acquisition of other targets."* Therefore, the evidence suggests that the managers of acquiring firms can add more value to the wealth of their shareholders by acquiring targets that have been subjected to shareholders' activism.

(Insert Table 6 about here)

4.3.Methods of payment and acquirers' gains

Extant literature on M&A suggests that the acquirer's performance is dependent on methods of payment. As noted earlier, the signal conveyed by the willingness of activists to maintain a stake in the merged firm should be much more favorable compared to that of 'cash and run'. Therefore, we expect non-cash deals with activists' involvement to generate higher announcement period gains to acquirers than the cash deals. To examine this issue, equation (4) is estimated by splitting the sample deals into two categories, namely (a) cash only deals, and (b) non-cash deals (i.e. all deals

excluding cash only deals). Announcement period gains of acquirers (5-days) are regressed against a set of explanatory variables. The results are reported in Table 7. In cash only deals (specifications 1-4), the coefficients of the activist dummy are statistically insignificant. In non-cash deals, however, the coefficient of the activist dummy is positive and significant in all specifications (5-8). These estimates suggest that non-cash (primarily stocks) payment helps generate higher returns to acquirers. The evidence that acquirers gain more in non-cash deals (stocks) is consistent with the experience of the acquirers of private (unlisted) targets, in which the acceptance of stocks by the shareholders of the target signals a certification of the quality of the deal to the market. The signal is meaningful because the activists, who are likely to have access to expertise for rigorous due diligence and substantial post-merger holdings, are willing to accept securities (e.g. stocks) of the acquirer. This evidence provides further support to our third testable proposition that *"Acquirers of targets that have activists gain more in non-cash deals than in cash deals."* Strategically, from the perspective of acquirers' shareholders, it looks more meaningful to bid for targets that have activists who are willing to maintain their stake in the merged firm.

(Insert Table 7 about here)

4.4.Activism and the announcement period gains of targets

Extant literature unanimously suggests that targets' shareholders achieve significant positive returns on the announcement of a takeover bid. Our results, reported in Table 8 (panel A), also confirm this and show that targets gain around 20% return on the announcement of the deal. However, the key question here is whether the shareholders of targets that have activists gain more than the shareholders of other targets. A comparative analysis of gains to the shareholders of activists' targets and other targets does not reveal any significant difference (Table 8, Panel A). This insignificant difference in the gains is plausible because the market may have appropriately valued the activist's firm in response to the news of activism (13D filing) rather than wait until the firm is taken over.

Estimates based on an alternative measure of bid premium received by the target firm shareholders (deal price relative to the market price of the target 4 weeks prior to the announcement of the deal), are presented in Panel B. The estimates reconfirm that there is no difference in the bid premium received by the shareholders of activists' targets and other targets. Thus, contrary to the suggestion of some earlier studies, our results suggest that shareholders of firms that are subjected to investors' activism do not need to be taken over to realize the value gained from activism.

(Insert Table 8 about here)

We also assessed the implications of activism on gains to target firm shareholders in a multivariate framework that controls for the effects of other firms and deal specific characteristics. Target firms' 5-day announcement period returns are regressed against a set of explanatory variables and the results are reported in Table 9. The coefficient of the activist dummy remains insignificant, indicating that the target firms' returns do not depend on investors' activism. This result is consistent with the evidence from our univariate analysis.[9] Overall, the evidence from the above discussion rejects our second proposition that *"Compared to other targets, firms that are subjected to activism secure a higher takeover premium from their acquirers."*

(Insert Table 9 about here)

4.5.Target firms' preferred method of payment

The results reported in Table 9 reveal a significant positive relation between the announcement period returns (CAR) secured by targets' shareholders and the variable representing cash payment. In other words, target shareholders who sell their stocks for

[9] The lack of significant difference in the returns secured by the shareholders of activist targets and other targets does not imply that investor activism fails to add value to target firms. It is possible that the value created by investor activism was already reflected in a target's market value before the announcement of the deal. Consequently, on the announcement of the deal they received only an average takeover premium. Whether investors' activism can create value to shareholders is a matter for a separate study.

cash earn significantly higher returns. This positive evidence prompted us to test if there is any significant difference in the preferences of activist and non-activist target firms' shareholders. To this end we split the sample into two groups – cash only deals and non-cash deals, and run two separate estimations. The choice of payment methods (cash only vs. non-cash) were regressed against a vector of explanatory variables using Probit (equation 7) and OLS (equation 8) methods. The results reported in Table 10 (all specifications) indicated by the positive and significant coefficients of the 'activist' dummy, suggest that activists' targets prefer cash only deals compared to non-cash deals. Such a preference of activists looks plausible because they would like to cash in their efforts and move on to some other investments that may have higher return potential. The choice of cash only can also be considered a rational decision for other investors because they receive higher premiums in cash only deals than in other deals (Table 9).

(Insert Table 10 about here)

4.6.Types of activist and gains from acquisitions

4.6.1. Hedge funds vs. Other activists

As discussed earlier (section 2), numerous studies show that hedge funds are more effective activists compared to other activists. On balance, the literature on shareholder activism shows differences in the effectiveness of activism led by hedge funds and other investors. To examine whether the gains to acquirers and the premium received by target firm shareholders are also dependent on the type of activist we split the sample targets into two groups, namely: (a) targets that have hedge fund activists, and (b) targets that have other activists. We compare the announcement period gains and long-term performance of acquirers and target premium by the type of activist. The estimates are reported in Table 11 (Panel A).

(Insert Table 11 about here)

The estimates show that, generally, acquisitions of targets associated with hedge fund activists generate higher announcement period gains (CAR) to acquirers than the

acquisitions of targets associated with other activists. However, the difference in the announcement period gains of the two groups of deals by the type of activist is not statistically significant. A similar pattern is observed in the long-term performance of acquirers (BHR24). Contrary to the evidence documented in the literature that hedge funds are superior activists, our evidence suggests no significant difference in the announcement period gains of target firms (Target CAR). Therefore, in response to our final set of testable propositions our results show that neither the gains to acquirers nor the premium received by target firm shareholders is dependent on the type of activist.

4.6.2. Multiple activists vs. Single activist

It could be argued that, compared to a single activist, multiple activists working together (e.g. wolf-pack argument of Briggs, 2007) could influence the governance and strategy of the firm more effectively. Consequently, the improvement in the quality of the firm that has multiple activists should be better than that of a firm with a single activist. Since the outcome of the quality of activism should be reflected in the outcome of an M&A deal, we compare the gains to acquirers as well as to the shareholders of targets that are subjected to activism by multiple activists against those of targets that have only one activist. A comparative analysis of the gains is presented in Panel B of Table 11. The estimates show that on the announcement of the deals, the acquirers suffer some losses (although statistically insignificant) from the acquisitions of targets with multiple activists, while the acquirers of targets with a single activist gain some positive returns. In statistical terms neither the losses/gains of individual sub-groups nor the differences are significant. However, the differences are economically meaningful. If the relatively lower acquirers' returns from deals that have multiple activists are due to overpayment in response to the combined (superior) bargaining powers of multiple activists, then the gains to such target firm shareholders should be higher. However, our estimates (Panel B) show that the shareholders of targets that have multiple activists do not gain more than the shareholders of targets with a single activist. Similarly, there is no significant difference in the long-term performance of acquirers of targets that have multiple activists compared to the

acquirers of targets that have a single activist. Once again, the balance of evidence suggests that the gains to acquirers of targets that have been subjected to activism and target firms' shareholders remain independent of the combined efforts of multiple activists *versus* those of a single activist.

4.6.3. Serial vs. Casual activist

It is possible that the experience of activists adds more value to the outcome of activism. Consequently, the quality of firms that have serial (experienced) activists can be expected to be superior to the quality of the firms that have casual activists. To examine the possible effect of activism experience on the gains to acquirers and targets from M&A deals, we split the sample deals by prior experience of activists. Activists are categorized as serial if they had performed five or more activist campaigns over a three-year period prior to the announcement of the deal. Other activists are categorized as casual. A comparative analysis of gains to acquirers as well as targets from deals involving serial and casual acquirers is presented in Panel C of Table 11.

The pattern of estimates shows that on the announcement of deals the acquirers of targets with serial activists gain slightly more than the acquirers of targets that have casual activists. However, the differences are not statistically significant. Neither are the gains to target firm shareholders significantly dependent on activists' experience. The lack of significant difference in the long-term performance of acquirers by the type of activist also confirms that serial activists cannot add more value than the casual activists. It is, however, noteworthy that in economic terms both the acquirers as well as target firm shareholders benefit more from the deals that involved experienced activists. It is also possible that the pre-bid market price of targets already reflects the additional quality added by serial activists and hence no further differences in gains are achievable by the acquirers or the targets.

Overall, the discussion above suggests that the type of activist (hedge fund vs. others, multiple vs. single, and serial vs. casual) does not influence the outcome of M&A. In other words, our fourth/final set of propositions that: *(a) "Acquirers' gains from takeover deals are dependent on the type of activist", and (b) "The takeover premium secured by target firms depends on the type of activist"* are not supported by the results.

5. Conclusions

Several studies report that activists can create significant value to a firm through their engagements. Greenwood and Schor (2009) attribute such excess returns (additional value) to the ability of the activists to force the firm to be acquired. Becht et al. (2015) also show that takeovers are the most popular outcome of activist engagements. Our paper examines whether firms that acquire targets which have been subjected to investors' activism can outperform the acquirers of targets that do not have any activist. We analyzed a sample of US domestic M&As subsequent to activist campaigns over the period 1994-2014. A comprehensive database on activist campaigns over the same period is compiled by collecting information from Thomson Reuters' Shareholder Activism Intelligence database as well as from the SEC's EDGAR database. Several findings emerge.

First, on the announcement of takeover deals, the acquirers of targets that have activists' involvement outperform the acquirers of targets that do not have any activist. After controlling for the firm and deal specific characteristics, activists' involvement contributes to acquirer outperformance by about 2% on the announcement of the takeover deal. This return translates into $334 million gain to the average acquirer. In other words, deals with activist involvement can create additional value to acquiring firms. In the long-term, however, the performance of acquirers is not significantly dependent on the presence (or lack of) activist – the acquirers of activists' targets gain as much as the acquirers of other targets. Second, the gains to target firm shareholders

remain independent of activism. Unlike the suggestions of some previous studies, this evidence implies that there is no need to sell the target to a bidder to realize the gains of activism. It is possible that the market price of firms that are subjected to activism already reflects the enhanced quality of the firm. This evidence, combined with the evidence from a comparative analysis of an alternative measure of bid premium, suggests that acquirers do not overpay to the targets that have activists. On the contrary, they benefit more by acquiring such targets compared to targets that do not have activists. Third, the superior gains enjoyed by the acquirers of activists' targets is largely driven by non-cash deals where the activists continue to hold their stakes in merged firms.

Finally, the results suggest similarity in the effectiveness of the roles of hedge funds and other activists. Neither the acquirers nor the target firm shareholders benefit more from the deals that involve multiple activists compared to a single activist. Similarly, the experience of activists does not seem to make any material difference in the gains to acquirers or targets. Therefore, the value of shareholder activism, especially in the gains from takeover deals, is not dependent on the type of activist. There is, however, some evidence to suggest that in economic terms the combined efforts of a group of activists (i.e. involvement of multiple activists) as well as activism by experienced (serial) activists can benefit both merging partners.

In summary, our findings suggest that acquirers can benefit more by taking over targets that have been subjected to investors' activism compared to the acquisitions of targets that have no activists. By implication, from the perspective of target firms' shareholders, it is worthwhile improving the quality of the firm before it is sold. Similarly, acquirers are better off by acquiring targets that have already gone through the improvement process. The benefit to acquirers is even higher when the activists are willing to retain their stakes in the merged firm by accepting a non-cash settlement.

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Table 1. Distribution of deals by year and activist type

This table presents deals with activist involvement from 1994-2014. Panel A reports the distribution of deals by sample year and Panel B reports distribution of deals by activist type.

Panel A: Annual Distribution of Deals with Activist Involvement					
Year	**No. of Deals**	**Percent (%)**	**Year**	**No. of Deals**	**Percent (%)**
1994	2	0.63	2005	10	3.16
1995	2	0.63	2006	23	7.28
1996	10	3.16	2007	16	5.06
1997	20	6.33	2008	21	6.65
1998	24	7.59	2009	20	6.33
1999	20	6.33	2010	15	4.75
2000	15	4.75	2011	15	4.75
2001	16	5.06	2012	11	3.48
2002	9	2.85	2013	13	4.11
2003	13	4.11	2014	25	7.91
2004	16	5.06	**Total**	**316**	**100.00**

Panel B: Distribution of Deals by Activist Type	
Activist Types	**No. of Deals**
Hedge Funds	192
Other Activists	169
Industrial Owners	68
Investment Managers	51
Individual Investors	18
Investment Companies	13
Financial Institutions	12
Private Equity Companies	4
Pensions Funds	3
Total	**361**

Note: The number of deals by activist group is greater than the number of deals in total because some deals involve multiple activists.

Table 2. Summary statistics for the sample of M&A deals

This table presents summary statistics for the full sample of M&A deals, portioned by the deals with activist involvement and matching deals. Panel A, B and C show summary statistics for acquirer firm characteristics, target firm characteristics, and deal characteristics, respectively. All variables are defined in Appendix A. Continuous variables are winsorized at the 2% and 98% levels. P-Values are shown in parentheses. T-test and the Wilcoxon rank-sum test are used to test the difference in mean and median, respectively. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	Full Sample			Activists Sample			Matching Sample			Difference (Activists – Matching)			
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	P-Value	Median	P-Value
Panel A: Acquirer Firm Characteristics													
MV ($ mil.)	16696.18	1843.67	675	14799.48	2139.30	316	18365.70	1706.35	359	-3566.22	(0.220)	432.95	(0.459)
M/B	4.12	2.41	675	3.91	2.39	316	4.32	2.41	359	-0.41	(0.322)	-0.02	(0.486)
Leverage	0.39	0.38	673	0.40	0.37	316	0.38	0.38	357	0.03	(0.213)	-0.02	(0.277)
Cash Flows/Equity	0.04	0.05	646	0.05	0.06	299	0.04	0.05	347	0.01	(0.416)	0.01*	(0.098)
RUNUP	0.15	0.10	675	0.18	0.13	316	0.13	0.08	359	0.05	(0.102)	0.05	(0.109)
Sigma	0.03	0.02	675	0.03	0.02	316	0.03	0.02	359	0.00	(0.495)	0.00	(0.471)
Panel B: Target Firm Characteristics													
MV ($ mil.)	1540.37	201.74	554	1404.12	213.75	273	1672.75	189.07	281	-268.64	(0.393)	24.68	(0.931)
M/B	2.48	1.78	502	2.50	1.75	249	2.47	1.78	253	0.03	(0.878)	-0.04	(0.811)
Leverage	0.37	0.36	559	0.38	0.35	276	0.36	0.36	283	0.02	(0.497)	0.00	(0.553)
Cash Flows/Equity	-0.03	0.04	480	-0.04	0.04	238	-0.03	0.05	242	-0.01	(0.826)	0.00	(0.654)
RUNUP	0.06	0.03	556	0.11	0.08	275	0.02	0.01	281	0.08**	(0.046)	0.07**	(0.019)
Sigma	0.04	0.03	567	0.04	0.03	281	0.04	0.03	286	0.00	(0.851)	0.00	(0.574)

	Full Sample			Activists Sample			Matching Sample			Difference (Activists – Matching)			
	Mean	**Median**	**N**	**Mean**	**Median**	**N**	**Mean**	**Median**	**N**	**Mean**	**P-Value**	**Median**	**P-Value**
Panel C: Deal Characteristics													
TV ($ mil.)	1013.52	183.73	615	1055.19	233.34	286	977.31	162.79	329	77.88	(0.636)	70.55**	(0.028)
Relative Size	0.35	0.16	615	0.38	0.17	286	0.34	0.15	329	0.04	(0.319)	0.03	(0.215)
All-Cash (%)	39.89	-	569	44.61	-	269	35.67	-	300	8.94**	(0.030)	-	-
All-Stock (%)	29.17	-	569	24.91	-	269	33.00	-	300	-8.09**	(0.033)	-	-
Mixed (%)	30.93	-	569	30.48	-	269	31.33	-	300	-0.85	(0.827)	-	-
Incl. Stock (%)	60.11	-	569	55.39	-	269	64.33	-	300	-8.94**	(0.030)	-	-
Hostile (%)	5.04	-	675	6.96	-	316	3.34	-	359	3.62**	(0.036)	-	-
Competing Bid (%)	7.85	-	675	11.39	-	316	4.74	-	359	6.66***	(0.002)	-	-
Tender Offer (%)	16.00	-	675	19.94	-	316	12.53	-	359	7.40***	(0.010)	-	-
Diversification (%)	34.07	-	675	34.18	-	316	33.98	-	359	0.19	(0.958)	-	-
Completed Deal (%)	81.33	-	675	81.96	-	316	80.78	-	359	1.18	(0.694)	-	-

Table 3. Correlation matrix

This table presents pairwise correlations of the variables. Panel A shows correlations of acquirer gains, activist involvement, acquirer firm characteristics, and deal characteristics. Panel B shows correlations of target gains, activist involvement, target firm characteristics, and deal characteristics. All variables are defined in Appendix A. Bid Premiums are winsorized if values are beyond the range of [0, 2]. Other continuous variables are winsorized at the 2% and 98% levels.

Panel A: Correlations of Acquirer Gains, Activist Involvement, Acquirer Firm Characteristics and Deal Characteristics

	CAR [-2,2]	BHR24	Activist	MV	M/B	Leverage	CF/E	RUNUP	Sigma	TV	Relative Size	Cash	Hostile	Competing Bid	Tender Offer	Diversification
CAR [-2,2]	1.000															
BHR24	-0.049	1.000														
Activist	0.106	0.039	1.000													
MV	0.022	-0.045	-0.029	1.000												
M/B	0.080	-0.151	-0.041	0.192	1.000											
Leverage	0.047	0.114	-0.029	0.014	-0.005	1.000										
CF/E	0.030	0.100	0.028	0.031	-0.106	0.097	1.000									
RUNUP	0.055	-0.122	0.059	-0.015	0.422	-0.069	-0.140	1.000								
Sigma	-0.032	-0.089	-0.027	-0.242	0.209	-0.118	-0.456	0.299	1.000							
TV	-0.140	-0.052	-0.029	0.291	0.134	0.096	0.089	0.044	-0.119	1.000						
Relative Size	-0.213	-0.028	0.047	-0.222	-0.068	0.032	-0.004	-0.008	0.228	0.231	1.000					
Cash	0.103	0.110	0.085	0.228	0.010	-0.170	0.155	-0.082	-0.277	-0.120	-0.336	1.000				
Hostile	-0.054	0.024	0.096	-0.016	0.007	0.110	0.121	0.045	-0.016	0.190	0.110	-0.028	1.000			
Competing Bid	-0.021	0.118	0.135	-0.005	-0.031	0.037	0.128	0.027	-0.058	0.067	0.174	0.068	0.243	1.000		
Tender Offer	0.116	-0.008	0.069	0.007	0.053	-0.101	0.028	-0.022	-0.035	-0.014	-0.070	0.258	0.070	0.125	1.000	
Diversification	0.054	-0.007	0.054	0.111	0.076	0.004	0.107	0.004	-0.116	-0.062	-0.172	0.225	-0.037	-0.013	0.101	1.000

Panel B: Correlations of Target Gains, Activist Involvement, Target Firm Characteristics and Deal Characteristics

	CAR [-2,2]	Bid Premium	Activist	MV	M/B	Leverage	CF/E	RUNUP	Sigma	TV	Relative Size	Cash	Hostile	Competing Bid	Tender Offer	Diversification
CAR [-2,2]	1.000															
Bid Premium	0.632	1.000														
Activist	-0.051	-0.017	1.000													
MV	-0.176	-0.129	-0.008	1.000												
M/B	-0.073	-0.043	0.032	0.196	1.000											
Leverage	-0.143	-0.037	-0.014	0.145	-0.052	1.000										
CF/E	-0.142	-0.226	-0.032	0.092	0.057	0.105	1.000									
RUNUP	-0.083	-0.084	0.055	0.022	0.283	0.067	0.078	1.000								
Sigma	0.245	0.318	-0.047	-0.210	0.065	-0.137	-0.497	0.129	1.000							
TV	-0.135	-0.049	-0.009	0.813	0.232	0.184	0.120	0.052	-0.217	1.000						
Relative Size	-0.238	-0.063	0.066	0.149	-0.052	0.263	0.127	-0.023	-0.112	0.249	1.000					
Cash	0.286	0.082	0.031	-0.156	-0.022	-0.314	-0.006	0.074	0.023	-0.152	-0.383	1.000				
Hostile	-0.041	0.014	0.082	0.174	0.046	0.061	0.057	0.033	-0.100	0.246	0.150	-0.039	1.000			
Competing Bid	-0.057	0.174	0.110	0.131	-0.022	0.021	0.065	0.032	-0.074	0.171	0.202	0.046	0.289	1.000		
Tender Offer	0.158	0.164	0.049	0.039	0.041	-0.158	-0.023	0.050	0.041	-0.016	-0.094	0.285	0.087	0.181	1.000	
Diversification	0.132	0.084	0.022	-0.116	0.109	-0.114	0.014	0.048	0.035	-0.086	-0.224	0.231	0.000	-0.037	0.095	1.000

Table 4. Gains to acquirers from M&A deals

This table presents acquirers' short- and long-term gains. Panel A shows acquirers' announcement abnormal returns. CAR [-2, 2] is the 5-day market-adjusted cumulative abnormal returns around the announcements. Panel B shows acquirers' post-announcement long-term returns. BHR24 is the 24-month buy-and-hold returns after the announcement. Variables are winsorized at the 2% and 98% levels. P-Values are shown in parentheses. T-test is used to test the significance of the mean, and the difference in the means. Wilcoxon signed-rank test and Wilcoxon rank-sum test are used to test the significance of median and the difference in medians, respectively. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	Full Sample			**Activists Sample**			**Matching Sample**			**Difference (Activists – Matching)**			
	Mean	**Median**	**N**	**Mean**	**Median**	**N**	**Mean**	**Median**	**N**	**Mean**	**P-Value**	**Median**	**P-Value**
Panel A: Acquirers' Announcement Abnormal Returns													
CAR [-2, 2] (%)	0.00	-0.15	675	0.78*	0.16	316	-0.69*	-0.35**	359	1.46**	(0.012)	0.51**	(0.034)
	(0.996)	(0.402)		(0.081)	(0.262)		(0.067)	(0.025)					
Panel B: Acquirers' Post-Announcement Buy-and-hold Returns													
BHR24 (%)	16.90***	10.15***	574	20.83***	16.93***	256	13.74***	6.14**	318	7.10	(0.177)	10.79*	(0.088)
	(0.000)	(0.000)		(0.000)	(0.000)		(0.000)	(0.011)					

Table 5. Multivariate analysis of acquirers' announcement gains

Acquirers' announcement abnormal returns (CAR [-2, 2]) are regressed (OLS) against a set of explanatory variables (Activist dummy, acquirer firm characteristics and deal characteristics). All variables are defined in Appendix A. In all models, industry fixed effects and year fixed effects are controlled for. For brevity, their coefficients are not reported in the table. The number of observations used in different specifications may vary because of the missing value of one or more variable. All continuous variables are winsorized at the 2% and 98% levels. P-Values shown in parentheses are adjusted for heteroskedasticity and acquirer clustering. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	(1)	(2)	(3)	(4)
Activist	0.0137**	0.0160**	0.0172***	0.0206***
	(0.022)	(0.010)	(0.009)	(0.002)
Ln(MV)		-0.0029		-0.0068***
		(0.110)		(0.001)
M/B		0.0009		0.0011
		(0.276)		(0.267)
Leverage		0.0110		0.0169
		(0.423)		(0.267)
CF/E		-0.0215		0.0279
		(0.592)		(0.487)
RUNUP		0.0013		0.0045
		(0.913)		(0.715)
Sigma		-0.2725		0.2003
		(0.483)		(0.627)
Relative Size			-0.0240***	-0.0411***
			(0.003)	(0.000)
Cash			0.0034	0.0055
			(0.634)	(0.470)
Hostile			-0.0108	-0.0154
			(0.460)	(0.335)
Tender Offer			0.0092	0.0105
			(0.257)	(0.207)
Competing Bid			-0.0017	0.0014
			(0.887)	(0.910)
Diversification			-0.0010	0.0013
			(0.886)	(0.859)
Constant	-0.0066	0.0146	-0.0323	-0.0373
	(0.807)	(0.706)	(0.179)	(0.437)
N	675	644	569	542
R^2	0.072	0.087	0.115	0.167
adj. R^2	0.025	0.030	0.051	0.093

Table 6. Multivariate analysis of acquirers' long-term performance

Acquirers' post-announcement buy-and-hold returns (BHR24) are regressed (OLS) against a set of explanatory variables (activist dummy, acquirer firm characteristics and deal characteristics). All variables are defined in Appendix A. In all models, industry fixed effects and year fixed effects are controlled for. For brevity, their coefficients are not reported in the table. The number of observations used in different specifications may vary because of the missing value of one or more variable. All continuous variables are winsorized at the 2% and 98% levels. P-Values shown in parentheses are adjusted for heteroskedasticity and acquirer clustering. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	(1)	(2)	(3)	(4)
Activist	0.0712	0.0946*	0.0310	0.0576
	(0.148)	(0.058)	(0.571)	(0.319)
Ln(MV)		-0.0061		-0.0154
		(0.703)		(0.370)
M/B		-0.0018		-0.0035
		(0.787)		(0.636)
Leverage		0.1791		0.2142
		(0.125)		(0.102)
CF/E		0.1117		0.1738
		(0.746)		(0.661)
RUNUP		-0.2375***		-0.1919**
		(0.006)		(0.038)
Sigma		-3.5462		-1.4616
		(0.249)		(0.704)
Relative Size			-0.0076	-0.0314
			(0.917)	(0.725)
Cash			0.1918***	0.1468**
			(0.001)	(0.028)
Hostile			0.0206	-0.0091
			(0.882)	(0.950)
Tender Offer			-0.0596	-0.0696
			(0.368)	(0.305)
Competing Bid			0.2965**	0.2908**
			(0.021)	(0.027)
Diversification			-0.0390	-0.0211
			(0.495)	(0.712)
Constant	0.3495	-0.1449	-1.0811***	-0.6278
	(0.367)	(0.663)	(0.000)	(0.101)
N	574	547	479	455
R^2	0.174	0.207	0.227	0.251
adj. R^2	0.128	0.151	0.164	0.174

Table 7. Methods of payment and acquirers' announcement gains

Acquirers' announcement period abnormal returns (CAR [-2, 2]) by the methods of payment are regressed (OLS) against a set of explanatory variables. All variables are defined in Appendix A. In all models, industry fixed effects and year fixed effects are controlled for. For brevity, their coefficients are not reported in the table. The number of observations used in different specifications may vary because of the missing value of one or more variable. All continuous variables are winsorized at the 2% and 98% levels. P-Values shown in parentheses are adjusted for heteroskedasticity and acquirer clustering. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	Cash Only Deals				**Non-cash Deals**			
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Activist	0.0094	0.0062	0.0081	0.0043	0.0177*	0.0243**	0.0196*	0.0259**
	(0.261)	(0.470)	(0.345)	(0.632)	(0.073)	(0.017)	(0.051)	(0.012)
Ln(MV)		-0.0052**		-0.0038		-0.0035		-0.0074**
		(0.047)		(0.196)		(0.233)		(0.015)
M/B		-0.0014		-0.0015		0.0030**		0.0025*
		(0.164)		(0.159)		(0.047)		(0.083)
Leverage		0.0323		0.0337		0.0052		0.0165
		(0.117)		(0.105)		(0.816)		(0.431)
CF/E		-0.0663		-0.0922		0.0106		0.0474
		(0.378)		(0.228)		(0.830)		(0.338)
RUNUP		0.0345*		0.0327*		-0.0124		-0.0063
		(0.054)		(0.064)		(0.451)		(0.681)
Sigma		-0.8379		-0.9386		0.2394		0.5878
		(0.224)		(0.208)		(0.674)		(0.285)
Relative Size			0.0220	0.0332			-0.0308***	-0.0488***
			(0.351)	(0.241)			(0.001)	(0.000)
Hostile			-0.0098	-0.0256			-0.0044	-0.0091
			(0.661)	(0.251)			(0.828)	(0.699)
Tender Offer			0.0016	0.0031			0.0068	0.0087
			(0.860)	(0.737)			(0.677)	(0.611)
Competing Bid			0.0062	0.0020			-0.0139	-0.0066
			(0.645)	(0.888)			(0.503)	(0.786)
Diversification			-0.0043	-0.0013			0.0051	0.0084
			(0.644)	(0.892)			(0.666)	(0.477)
Constant	-0.0044	0.1033**	0.0029	0.0432	-0.0225	-0.0455	0.0130	-0.0262
	(0.905)	(0.016)	(0.938)	(0.138)	(0.472)	(0.388)	(0.704)	(0.639)
N	227	219	227	219	342	323	342	323
R^2	0.147	0.216	0.158	0.233	0.103	0.142	0.150	0.225
Adj. R^2	0.012	0.056	-0.001	0.050	0.010	0.027	0.046	0.106

Table 8. Gains to targets from M&A deals

This table presents the distribution of targets' gains. Panel A shows targets' announcement abnormal returns. CAR [-2, 2] is the 5-day market-adjusted cumulative abnormal returns around the announcements. CARs are winsorized at the 2% and 98% levels. Panel B shows Bid Premiums measured by difference between the offer price and the target stock price 4 weeks before the announcement divided by the latter. Bid Premiums are winsorized if values are beyond the range of [0, 2]. P-Values are shown in parentheses. T-test is used to test the significance of the mean, and the difference in mean. Wilcoxon signed-rank test and Wilcoxon rank-sum test are used to test the significance of median and the difference in median, respectively. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	Full Sample			**Activists Sample**			**Matching Sample**			**Difference (Activists – Matching)**			
	Mean	**Median**	**N**	**Mean**	**Median**	**N**	**Mean**	**Median**	**N**	**Mean**	**P-Value**	**Median**	**P-Value**
Panel A: Targets' Announcement Abnormal Returns													
CAR [-2, 2] (%)	21.18***	16.27***	556	20.26***	16.32***	275	22.08***	16.14***	281	-1.82	(0.355)	0.18	(0.870)
	(0.000)	(0.000)		(0.000)	(0.000)		(0.000)	(0.000)					
Panel B: Bid Premium													
Bid Premium (%)	44.95	34.69	524	46.55	33.12	254	43.44	36.11	270	3.11	(0.395)	-2.99	(0.577)

Table 9. Multivariate analysis of targets' gains

Targets' gains and Bid Premium are regressed against a set of explanatory variables (activist dummy, target firm characteristics and deal characteristics). All variables are defined in Appendix A. In all models, industry fixed effects and year fixed effects are controlled for. For brevity, their coefficients are not reported in the table. The number of observations used in different specifications may vary because of the missing value of one or more variable. Bid Premiums are winsorized if values are beyond the range of [0, 2]. Other continuous variables are winsorized at the 2% and 98% levels. P-Values shown in parentheses are adjusted for heteroskedasticity and acquirer clustering. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	Targets' CAR [-2, 2]				**Bid Premium**			
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Activist	-0.0197	-0.0170	-0.0311	-0.0188	0.0343	0.0235	0.0105	0.0012
	(0.311)	(0.397)	(0.146)	(0.397)	(0.346)	(0.496)	(0.778)	(0.973)
Ln(MV)		-0.0260***		-0.0192**		-0.0243**		-0.0354***
		(0.000)		(0.012)		(0.039)		(0.004)
M/B		0.0005		-0.0025		-0.0114		-0.0082
		(0.903)		(0.594)		(0.176)		(0.329)
Leverage		-0.0759*		0.0070		0.1187		0.1573*
		(0.073)		(0.881)		(0.140)		(0.075)
CF/E		0.0117		0.0382		-0.0463		-0.0299
		(0.831)		(0.518)		(0.718)		(0.817)
RUNUP		-0.0579**		-0.0708***		-0.0999**		-0.1159**
		(0.014)		(0.005)		(0.037)		(0.013)
Sigma		1.9243**		2.9374***		4.6629***		4.6263***
		(0.036)		(0.003)		(0.006)		(0.005)
Relative Size			-0.0696***	-0.0514**			-0.0120	-0.0207
			(0.000)	(0.024)			(0.786)	(0.588)
Cash			0.0832***	0.0796***			0.0360	0.0092
			(0.001)	(0.005)			(0.393)	(0.841)
Hostile			-0.0063	0.0199			-0.0883	-0.0291
			(0.870)	(0.619)			(0.172)	(0.654)
Tender Offer			0.0371	0.0408			0.0368	0.0905*
			(0.213)	(0.187)			(0.456)	(0.056)
Competing Bid			-0.0493	-0.0218			0.3175***	0.3009***
			(0.187)	(0.550)			(0.000)	(0.000)
Diversification			0.0124	0.0233			0.0732*	0.0540
			(0.664)	(0.441)			(0.080)	(0.208)
Constant	0.0658	0.0193	0.0662	-0.1843	0.0886	-0.4073	0.1079	-0.3613
	(0.414)	(0.880)	(0.352)	(0.202)	(0.628)	(0.162)	(0.541)	(0.219)
N	556	477	469	420	524	404	505	396
R^2	0.089	0.190	0.186	0.260	0.129	0.247	0.182	0.313
Adj. R^2	0.033	0.120	0.114	0.173	0.072	0.169	0.115	0.227

Table 10. Multivariate analysis of payment methods

Payment methods are regressed against a set of explanatory variables. Specifications 1, 2, 3 and 4 show (Probit model) the cash payment binary variable takes a value of one if the deal is settled by 100% cash. In specifications 5, 6, 7 and 8 the dependent variable is the percentage of consideration paid in cash. All variables are defined in Appendix A. In all models, industry fixed effects and year fixed effects are controlled for. For brevity, their coefficients are not reported in the table. The number of observations used in different specifications may vary because of the missing value of one or more variable. All continuous variables are winsorized at the 2% and 98% levels. P-Values shown in parentheses are adjusted for heteroskedasticity and acquirer clustering. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

	Probit: Cash				**OLS: % Cash**			
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Activist	0.1950*	0.2784**	0.2129*	0.3134**	0.0753**	0.0884**	0.0505	0.0647*
	(0.089)	(0.025)	(0.094)	(0.021)	(0.038)	(0.011)	(0.144)	(0.056)
Ln(MV)		0.0472		-0.0821*		-0.0001		-0.0159
		(0.261)		(0.070)		(0.992)		(0.168)
M/B		0.0193		0.0079		0.0029		-0.0004
		(0.179)		(0.587)		(0.460)		(0.903)
Leverage		-0.8178***		-0.5985**		-0.1451*		-0.0914
		(0.004)		(0.047)		(0.051)		(0.201)
CF/E		1.3444*		2.6230***		0.2601*		0.3391**
		(0.054)		(0.002)		(0.092)		(0.021)
RUNUP		-0.3760*		-0.2569		-0.0644		-0.0423
		(0.087)		(0.242)		(0.244)		(0.387)
Sigma		-36.8705***		-34.4194***		-9.2539***		-6.9290***
		(0.000)		(0.000)		(0.000)		(0.000)
Relative Size			-1.5079***	-1.8668***			-0.2008***	-0.1628***
			(0.000)	(0.000)			(0.000)	(0.000)
Hostile			-0.1282	-0.2517			-0.0036	-0.0284
			(0.606)	(0.374)			(0.951)	(0.648)
Tender Offer			0.8339***	0.7804***			0.2699***	0.2418***
			(0.000)	(0.000)			(0.000)	(0.000)
Competing Bid			0.3473	0.3940			0.1493***	0.1295**
			(0.152)	(0.165)			(0.005)	(0.016)
Diversification			0.5560***	0.5413***			0.1429***	0.1336***
			(0.000)	(0.000)			(0.000)	(0.001)
Constant	-4.1270***	-2.1769***	-4.0225***	-1.1940	0.0432	0.6832***	0.1114	0.6496***
	(0.000)	(0.009)	(0.000)	(0.154)	(0.762)	(0.006)	(0.502)	(0.001)
N	569	542	569	542	569	542	569	542
pseudo R^2	0.135	0.243	0.301	0.380	-	-	-	-
R^2	-	-	-	-	0.203	0.320	0.345	0.411
Adj. R^2	-	-	-	-	0.156	0.269	0.299	0.361

Table 11. Gains to acquirers and targets from deals by the type of activist

Gains to acquirers and targets by the type of activist are analyzed. All variables are defined in Appendix A. Panel A compares gains involving hedge funds involvement and other activists. Panel B compares the gains from acquisitions of targets that have multiple activists against the gains from deals that have a single activist. Panel C compares the gins from deals that involves serial activist against those of casual activists. Serial activists are defined as activist investors who have performed five or more activist campaigns over three years before the current deal. CARs and BHARs are winsorized at the 2% and 98% levels. Bid Premiums are winsorized if values are beyond the range of [0, 2]. P-Values are shown in parentheses. T-test is used to test the significance of the mean, and the difference in mean. Wilcoxon signed-rank test and Wilcoxon rank-sum test are used to test the significance of median and the difference in median, respectively. Statistical significance at the 1%, 5% and 10% levels are denoted as ***, ** and * respectively.

Panel A: Hedge Fund vs. Other Activists

	Hedge Funds			Other Activists			Difference (Hedge Funds – Others)			
	Mean	**Median**	**N**	**Mean**	**Median**	**N**	**Mean**	**P-Value**	**Median**	**P-Value**
Acquirer CAR [-2, 2] (%)	0.85	0.33	174	0.68	0.00	142	0.17	(0.847)	0.33	(0.594)
	(0.135)	(0.227)		(0.332)	(0.721)					
Acquirer BHR24 (%)	21.91***	23.42***	138	19.58***	9.03**	118	2.33	(0.768)	14.40	(0.369)
	(0.000)	(0.000)		(0.002)	(0.026)					
Target CAR [-2, 2] (%)	20.31***	14.94***	156	20.19***	17.02***	119	0.12	(0.962)	-2.08	(0.700)
	(0.000)	(0.000)		(0.000)	(0.000)					
Bid Premium (%)	41.98	30.28	146	52.72	36.78	108	-10.73*	(0.062)	-6.50*	(0.100)

Panel B: Multiple Activists vs. Single Activist										
	Multiple Activists			Single Activist			Difference (Multiple – Single)			
	Mean	Median	N	Mean	Median	N	Mean	P-Value	Median	P-Value
Acquirer CAR [-2, 2] (%)	-0.31	-0.22	40	0.93*	0.37	276	-1.24	(0.309)	-0.58	(0.456)
	(0.781)	(0.717)		(0.053)	(0.192)					
Acquirer BHR24 (%)	20.12	25.02	27	20.92***	16.77***	229	-0.80	(0.954)	8.25	(0.914)
	(0.141)	(0.249)		(0.000)	(0.000)					
Target CAR [-2, 2] (%)	17.10***	13.22***	34	20.70***	16.72***	241	-3.60	(0.282)	-3.50	(0.416)
	(0.000)	(0.000)		(0.000)	(0.000)					
Bid Premium (%)	43.82	33.18	35	46.99	33.06	219	-3.17	(0.658)	0.12	(0.875)

Panel C: Serial Activists vs. Casual Activists										
	Serial Activists			Casual Activists			Difference (Serial – Casual)			
	Mean	Median	N	Mean	Median	N	Mean	P-Value	Median	P-Value
Acquirer CAR [-2, 2] (%)	1.17**	0.47*	136	0.48	-0.03	180	0.69	(0.428)	0.50	(0.275)
	(0.048)	(0.093)		(0.455)	(0.935)					
Acquirer BHR24 (%)	23.19***	25.02***	107	19.14***	6.71**	149	4.05	(0.593)	18.31	(0.213)
	(0.000)	(0.000)		(0.001)	(0.012)					
Target CAR [-2, 2] (%)	21.26***	16.76***	124	19.44***	15.50***	151	1.82	(0.472)	1.26	(0.290)
	(0.000)	(0.000)		(0.000)	(0.000)					
Bid Premium (%)	43.71	32.64	115	48.90	34.78	139	-5.18	(0.341)	-2.14	(0.504)

Appendix A: Definition of variables

Variable	Definition
Panel A: Gains to Acquirers and Targets	
CAR [-2, 2]	Market-adjusted cumulative abnormal returns around the announcement over 5-days [-2, 2] surrounding the day of deal announcement.
BHR24	Post-merger Buy-and-hold excess returns in 24 months.
Bid Premium	Difference between the offer price and the target stock price 4 weeks before the announcement divided by the latter.
Panel B: Key Explanatory Variable	
Activist	Dummy variable equals one if takeover target is an activist target firm.
Panel C: Firm Characteristics	
MV	Market value of the firm 4 weeks before the announcement (CRSP item PRC×SHROUT).
Ln(MV)	Natural logarithm of MV.
M/B	Market value of equity 4 weeks before the announcement (CRSP item PRC×SHROUT) divided by book value of equity at the fiscal year end before the announcement (Compustat item CEQ).
Leverage	Total debt over total capital at the fiscal year end before the announcement (Compustat item (DLTT+DLC)/(DLTT+DLC+SEQ)).
CF/E	Cash flows at the fiscal year end before the announcement (Compustat item IB+DP-DVP-DVC) divided by market value of equity 4 weeks before the announcement (CRSP item PRC×SHROUT).
RUNUP	Market-adjusted CARs before the announcement of the deal, [-365, -28] days window.
Sigma	The standard deviation of a firm's market-adjusted daily abnormal return prior to the announcement [-365, -28].
Panel D: Deal Characteristics	
TV	Transaction value of the M&A deal (from Thomson One Banker).
Relative Size	Transaction value (from Thomson One Banker) divided by the acquirer's MV (defined above).
Cash	Dummy variable equals one if the deal is 100% paid in cash, and 0 otherwise.
Stock	Dummy variable equals one if the deal is 100% paid in stock, and 0 otherwise.
Mix	Dummy variable equals one if deal is paid in cash and stock, and 0 otherwise.
Non-cash	Dummy variable equals one if deal is not 100% cash (includes stocks and other securities), and 0 otherwise.
% Cash	The percentage of consideration paid in cash (from Thomson One Banker).
Hostile	Dummy variable equals one if the deal attitude is hostile or unsolicited in Thomson One Banker.
Competing Bid	Dummy variable equals one if there is more than one bidder reported in Thomson One Banker.
Tender Offer	Dummy variable equals one if the deal is identified as a tender offer in Thomson One Banker.
Diversification	Dummy variable equals one if the bidder and the target have different first two-digits of the primary SIC code.

Appendix B: Description of activist type

Following Norli et al. (2015), we classify activist investors' type as follows:

Activist Type	Definition
Hedge Funds	Hedge fund manager or sponsor, a private investment fund or partnership
Industrial Owner	Firms that own an equity stake in the target firm; all corporations excluding those in the financial sector
Investment Managers	Managers who manage asset portfolios of private clients; includes both financial advisors and consultants
Individual Investors	Single individual, who is usually a shareholder of the target company
Investment Companies	Mutual funds, both closed-end and open-end
Financial Institutions	Mostly different types of bank, such as commercial banks, savings banks etc.; includes broker-dealers
Private Equity Companies	Includes both private equity funds and private equity investors
Pension funds	Funds such as CalPERS that are retirement systems