

The Intra-Industry Effects of Proxy Contests

Fang Chen

University of New Haven
FChen@newhaven.edu

Jian Huang

Towson University
jhuang@towson.edu

Han Yu

Southern Connecticut State University
yuh5@southernct.edu

ABSTRACT: This paper is the first study on the intra-industry effects of proxy contests. Using a sample of proxy contests from January 1988 through December 2008, we identify a striking cross-sectional difference in market reaction to the target companies. As much as 61% of the target firms have significant positive cumulative abnormal return (CARs) in the period (-10, +10) around the announcement day, while 39% of the target firms have the negative CARs in the same event window. Moreover, we find that the stock market reaction to the target firms' competitors is primarily driven by the target-related factors when the market reacts favorably to a proxy contest. In contrast, the stock market reaction to the competitors is mainly affected by the competitor-related factors when the market reacts unfavorably to the proxy contest. We further reveal that competitors experience a significant negative abnormal stock return when the target firms receive negative market reactions, while competitors have no significant abnormal return when the target firms receive a positive market reaction. Our findings enrich the corporate governance research by showing the impact of the target firms' corporate governance change on the firms' competitors.

KEYWORDS: proxy contest, intra-industry effect, competitive effect, systemic risk effect

JEL Classification: G14, G34

1. Introduction

A salient fact of the mechanism to mitigate the agency problem in the last decade is that there have been large increases in the proxy contests. There were 17 proxy contests per year during 1979 and 1994 (Mulherin and Poulson 1998) while there were 55 per year during 1994-2008 (Fos 2016). The market value of target companies rose from about 221 million from 1978 to 1984 (Sridharan and Reinganum 1995) to 1,629 million from 1988 to 2008 (see Table 1). The target companies are often high profile companies such as Motorola (2007), Yahoo (2008), Target (2009), Hewlett Packard (2009), DuPont (2015) and P&G (2017).

Over the years, researchers have study the accounting and market performance of target firms in proxy contests and conclude that proxy contests improve the target firms' competitive performance (Dodd and Warner 1983; DeAngelo and DeAngelo 1989; Mulherin and Poulson 1998; Laudano 2004; Cohn et al. 2016; Fos 2016). An important implication is that the proxy contests potentially change the competitive landscape of the industries. However, it remains unclear how the investors interpret the information content of the proxy contests and react to the potential industry change? The intra-industry effects of these proxy contests have been overlooked. To the best of our knowledge, this is the first paper to explore the intra-industry effect of proxy contests.

Proxy contests potentially have two effects on the target firms' competitors. On the one hand, a proxy contest mitigates the agency problem stemming from inefficient management (Borstadt and Zwirlein 1992). In the long run, the target firms' performance will improve. A competitive effect exists whereby the target firms improve their profitability and seize more market share from their competitors (Borstadt et al. 1992; Fos 2016). Therefore, we would expect a negative stock market reaction to its competitors. On the other hand, the low efficiency or poor performances of the target firms (Austin 1965; Mukherjee and Varela 1993; Cohn et al. 2016) are often the bellwethers of a systemic risk shared by the target firms and the competitors. In line with this view, we would also expect the stock market to react negatively to the competitors of the target firms upon announcement of the proxy contests.

Using a sample of proxy contests between 1998 and 2008, we show that target firms, on average, experience positive risk-adjusted abnormal returns upon the announcements of proxy contests, consistent with prior studies. Interestingly, we find a striking cross-sectional difference in market reaction to the target companies. As much as 61% of the target firms have significant positive cumulative abnormal return (CARs) in the period (-10, +10) around the announcement day, while 39% of the target firms have the negative CARs in the same event window.

Next, we examine the stock market reaction to the target firms' competitors. We segregate the competitors of the target firms into two groups: one group with positive market reactions to the target firms and another group with negative market reactions to the target firms. In each group, we conduct a regression of the competitors' abnormal return on the target-related factors and the competitor-related factors. The regression result reveals when the target firms have a positive abnormal return, the stock market reaction to the competitors is primarily driven by the target-related factors. On the contrary, when the target firms have negative abnormal return, the stock market reaction to the competitors is mainly affected by the competitor-related factors.

We further explore how the intra-industry systemic risk effect might vary for different target sizes. For competitors with similar size as the target firms, competitors experience a significant negative abnormal stock return when the target firms receive negative market reactions, while competitors have no significant abnormal return when the target firms receive a positive market reaction.

Our findings contribute to the large literature on the proxy contests. While extant research finds that the market reacts positively to the proxy contests (Borstadt and Zwirlein 1992; Cohn et al. 2016), we find a negative market reaction to the target firms' competitors. Additionally, we identify the role of size on the intra-industry effect of a proxy contest. In a broader view, our findings enrich the corporate governance research by showing the impact of the target firms' corporate governance change on the firms' competitors. The remainder of the paper is structured as follows: Section 2 provides background on proxy contests, Section 3 describes our data and variables, Section 4 provides empirical results and Section 5 concludes.

2. Background

The proxy contest research is not new; however, the intra-industry effects of proxy contests have not been examined in prior studies. Consequently, we review the major papers relevant to the development of this study under two headings: studies relating to (1) proxy contests and (2) the intra-industry effects.

2.1 Proxy Contests

Prior studies have shown that the proxy contest is a useful mechanism for keeping management accountable to shareholders. Consequently, target firms tend to outperform the market upon the announcement of a proxy fight even though their accounting performance tends to be poorer than average before the proxy contest (Borstadt and Zwirlein 1992; Mukherjee and Varela 1993; Fos 2016). Dodd and

Warner (1983) examine proxy contests for board seats between 1962 and 1978. They find positive and significant abnormal returns upon the announcement of these contests, although most of the time dissidents fail to gain control of the board. Dodd and Warner attribute the abnormal return to the improved corporate performance brought forth (perhaps prompted) by the proxy contests. Studying proxy contests during 1978-1985, DeAngelo and DeAngelo (1989) obtain similar results with abnormal returns in a range of 2.94% to 3.84% around the proxy contest announcement day. They show that proxy contests often result in management change even when the initial contest has failed. They find that stockholder wealth gains are most noticeable when dissidents can force the sale or liquidation of the firm. Mulherin and Poulson (1998) look at a longer period (1979-1994) and find that proxy contests create value, especially for firms that are acquired. They also find that even for firms that are not acquired, management turnover has a positive effect on shareholder wealth. Laudano (2004) surveys the research on proxy contests and concludes that “the cumulative research on proxy contests supports the contention that such contests are an effective tool for disciplining inefficient managers and implementing corporate changes.” He argues that proxy contests increase shareholder wealth regardless of their outcome. In sum, these studies suggest that proxy contests have a disciplinary effect on management. However, these studies offer little insight into intra-industry effects of proxy contests.

2.2 Intra-Industry Effects..

Intra-industry effects have been documented for many major corporate events such as bankruptcy (Lang and Stulz 1992), dividends reduction or omission (Impson, 2005), stock split announcements (Tawatnuntachai and D’Mello 2002), stock repurchases (Otchere and Ross 2002), and accounting restatements (Gleason et al. 2007). Lang and Stulz (1992) study the intra-industry effects of bankruptcy announcements. They report that on one hand, there is the intra-industry effect when the bankruptcy conveys negative prospects of factors common to the industry. Simultaneously, however, there exists a competitive effect of bankruptcy when competing firms snatch a market share of distressed firms. Looking at the dividend reductions and omissions announcements of ten utility companies, Impson (2005) finds an intra-industry systemic risk effect in the electric utility industry in response to dividend omissions and decreases. Gleason, Jenkins, and Johnson (2007) find that some accounting restatements cause investors to reassess the financial statement information previously released by non-restating firms. Sometimes, the intra-industry effect can also be positive. Tawatnuntachai and D’Mello

(2002) show that favorable information conveyed by stock split announcements transfers to non-splitting firms within the same industry. Otchere and Ross (2002) study stock repurchases and find that share buyback announcements signal positive information about the values of both announcers and rivals. Intra-industry studies have also found that firm size is a key determinant of the market reaction. For example, Collins, Kothari, and Rayburn (1987) use firm size to proxy the amount of information and the number of informed traders when investigating the information content of prices with respect to earnings. They find that the size of the firm within the industry has a direct impact on the magnitude of the intra-industry effect. Gonen (2003) finds a positive relationship between the intra-industry effect of a corrective disclosure and the industry position of the firm measured by its relative size within the industry. Tawatnuntachai and D’Mello (2002) find that the interaction of the CARs of stock splitting firms with their relative size position in the industry has a significantly positive effect on the CARs of non-splitting firms. Gleason, Jenkins, and Johnson (2007) find that larger firms in an industry have more pronounced intra-industry effects due to revenue reinstatement. However, as the firm size increases, they have more resources to reposition themselves and thus convey less industry information. In extending this line of research, we examine how target firm size and competitor firm size affect the outcome of intra-industry analyses.

3. Data and Methodology

We obtain a list of proxy contests from the Security Data Corporation (SDC) database. The SDC database contains 737 domestic proxy contest initiations from January 1988 through December 2008. We then match the sample with the Center for Research in Security Prices (CRSP) database by CUSIP and Ticker Symbol and get 647 matches (470 by CUSIP and 177 by Ticker Symbol). For each firm, we obtained the number of shares outstanding and closing price at the end of the year prior to the proxy contest initiation to calculate the market capitalization. Table 1 reports descriptive statistics for the pooled sample of 647 proxy contest initiations between 1988 and 2008. There is a trough in proxy contest initiations between 2000 and 2004, and a peak toward the end of the period, with over fifty initiations per year during 2006-2008. While we are hesitant to draw any conclusions about the “typical” size of targets, we note targets are much larger during the 2005-2008 period than any other period, and especially versus the late 1990s (a period of great market return). We follow Lang and Stulz (1992) and use the primary four-digit SIC code in CRSP to identify the industry competitors for our target sample. We then use COMPUSTAT

to obtain company financial information. To study the effect of a proxy contest announcement on its industry competitors, we form an equally weighted portfolio of all firms in the same industry.

Abnormal returns are computed using standard event-study methodology following Brown and Warner (1985). Any non-trading event date has been converted to the next trading date. Market model parameters are estimated using days -301 to -46 relative to the proxy contest announcement. The daily abnormal returns are summed to get the cumulative abnormal return (CAR) from day t_1 prior to the proxy contest announcement to day t_2 subsequent to the announcement date.

4. Empirical Results

4.1 Market reaction to the target firms

In table 2, we report the target firm abnormal returns from $t-10$ to $t+10$ relative to the proxy-initiation day. They are statistically significant each day from $t-5$ through $t+1$ with the cumulative abnormal return (CAR) for the period $(-5, 1)$ being 3.20 percent, significant at 0.1% level. This result is consistent with the possibility of leakage of a forthcoming proxy contest during day's $t-5$ through $t-1$. The announcement date ($t=0$) shows an abnormal return of 1.15 percent and day $t+1$ shows an abnormal return of 0.55 percent. These are driven by the proxy contest announcement. If we focus on the window of $(-10, 10)$, we see an abnormal return of 3.47 percent, significant at the 0.1% level. This is consistent with the abnormal return of 4.27 percent in the month of the proxy contest reported for a smaller sample from 1968 to 1987 by Ikenberry and Lakonishok (1993). In general, these results support the notion of the discipline role of proxy contests.

Further analysis in table 3 reveals that 392 (61%) target firms have positive CARs in the window of $(-10, 10)$ around the announcement day, while 245 (39%) target firms have negative CARs during this period. The results suggest that such asymmetry may come from target firm characteristics differences as well as industry characteristics differences. Table 3 shows that target firms that experience negative CARs tend to have a lower Book-to-Market ratio, higher debt ratio, and higher prior stock returns than target firms that experience positive CARs upon the announcement of proxy contests.

4.2 Regression of the competitors' CAR on the target-related and competitor-related factors

To examine the factors that may drive the market response to the competitors, we perform a regression analysis of the competitor's CAR based on the target-related

factors and competitor-related factors. The ordinary least squares method is used to estimate the following model:

$$\text{Competitor CAR in } (-10,+10) = \alpha + \beta_1 \text{TCAR} + \beta_2 \text{TMC} + \beta_3 \text{TBM} + \beta_4 \text{TDR} + \beta_5 \text{TROA} + \beta_6 \text{CMC} + \beta_7 \text{CBM} + \beta_8 \text{CROA} + \beta_9 \text{CRUNUP}$$

where TCAR is the target firm's CAR during the period of (-10, +10), TMC is the target firm's market capitalization on the last trading day of the year prior to the proxy fight announcement day, TBM is the target firm's book-to-market ratio, TDR is the target firm's debt ratio, TROA is the target firm's return on asset, CMC is the competitor's market capitalization on the last trading day of the year prior to the proxy fight announcement day, CBM is the competitor's book-to-market, CROA is the competitor's return on asset, CRUNUP is the competitor's market-adjusted returns over days (-12m,-1m) of the proxy fight announcement day. Except for the market capitalization, the values are in the same fiscal year as the proxy fight announcement. Table 4 provides the result of the regression for the group of target firms with a positive market response and the group of target firms with a negative market response respectively.

For the competitors of target firms with a positive market response, among the target-related variables, the estimated coefficient for target CAR is 0.091 and significant. Estimated coefficients of target ROA (0.028), target debt ratio (0.025) and target book-to-market (-0.021) are significant. This suggests that the profitability, debt and the growth perspective of the target firms have an impact on the market's anticipation of the competitors' performance when the market responses positively to the target firms of the proxy contests. Among the competitor-related variables, the estimated coefficient of the competitor's market capitalization is -0.005 and significant. The larger the size of the competitor, the less impact it has from the proxy contest. The estimated coefficient of the competitor's market-adjusted run-up is -0.0411 and significant.

For the competitors of target firms with the negative market response, among the target-related variables, only the estimated coefficient for target ROA (0.023) is significant. Among the competitor-related variables, the estimated coefficient for the target market capitalization (-0.005) is significant. The estimated coefficients of the competitor's ROA (-0.007) and for debt ratio (0.019) are significant. The estimated coefficient of the competitor's market-adjusted run-up is -0.063 and significant.

In sum, the competitors of the target firms with positive CARs have been affected primarily by the target-related factors. On the contrary, the competitors of the target firms with negative CAR have been affected mainly by the competitor-related factors.

4.3 The intra-industry effect of the proxy contests

Next, we examine the CARs of competitors in the same industry when proxy contests are announced. Following the finding in Section 4.2, we divide the proxy target firms into two subsamples (target with positive CAR group and target with negative CAR group) and compute abnormal returns for competitors with similar size in each group respectively. We define similar size industry competitors as firms with market capitalizations that are within $\pm 10\%$ of that of the target firms in the same industry. We then form an equally-weighted portfolio of the industry competitors for each proxy contest firm. We identify 767 competitors for 129 target firms with negative CARs. For the target firms that have positive CARs, we find 995 competitors for 186 target firms. Alternatively, we define the competitors as firms with a market capitalization within $\pm 5\%$ of that of the target firms in the same industry; the number of competitors that match the target drops slightly. In Column B of Panel A, we see a total of 395 competitors for 95 target firms with negative CARs, and in Panel B, a total of 522 competitors for 146 target firms with positive CARs.

The intra-industry effect of the target group with negative CARs is reported in Table 5 Panel A. The industry competitors also experience significant CARs of -2.38% when the competitors are firms within $\pm 10\%$ of that of the target firms, and CARs of -4.13% when the competitors are firms with market capitalizations within $\pm 5\%$ of that of the target firms. These results indicate a significant intra-industry effect of proxy contests when target firms have negative CARs.

In Panel B of Table 5, we examine the intra-industry effect for the target firms with positive CARs. In contrast to the results in Panel A, we see no evidence of an intra-industry effect here. The daily abnormal returns for competitors in the same industry cluster around zero with no statistical significance during the event window. The positive abnormal return earned by the target seems to be limited to target firms only. Therefore there is no intra-industry effect.

The intra-industry effect merely appears when the target firms have negative CAR. Following this finding, in the later analysis, we focus on the competitors of target firms with negative CARs only. Prior studies suggest the importance of firm size on intra-industry effects (Gonen, 2003; Gleason, Jenkins and Johnson, 2008; Tawatnuntachai and D'Mello, 2002). We next explore how the intra-industry systemic risk effect might vary for different target sizes.

5. Conclusion

We explore the intra-industry effect of proxy contests. Consistent with prior work, we find that abnormal returns of proxy targets are positive upon the announcements of proxy contests. Further analysis reveals an asymmetry in market reaction to the proxy contest targets. The regression analysis shows that the market reaction to the competitors of the target firms with positive CAR is mainly affected by the target-related factors. On the contrary, the market reaction to the competitors of the target firms with negative CAR is primarily influenced by the competitor-related factors.

We find that when there are negative abnormal returns for target firms upon the proxy contest announcements, the competitors in the same industry also experience significantly negative abnormal returns. In contrast, we find that the competitors in the same industry do not experience any significant abnormal returns when proxy contest announcements are associated with positive abnormal returns for target firms. Further analysis reveals that competitors experience largest negative intra-industry effects when the target firms are small or medium-sized firm within the industry.

References

- Austin, Douglas V., 1965. "Proxy contests and corporate reform." *Financial Executive* Vol. 47: 20-30.
- Borstadt, Lisa, and Thomas J. Zwirlein. 1992. "The efficient monitoring role of proxy contests: An empirical analysis of post-contest control changes and firm performance." *Financial Management* Vol. 21: 22-34.
- Brown, S., and J. Warner. 1985. "Using daily stock returns: The case of event studies." *Journal of Financial Economics* Vol. 14: 3-31.
- Cohn, J. B., S. L. Gillan, and J. C. Hartzell. 2016. "On enhancing shareholder control: A (Dodd) Frank assessment of proxy access." *The Journal of Finance* 71(4): 1623-1668.
- Collins, Daniel W., S. P. Kothari, and Judy D. Rayburn. 1987. "Firm size and the information content of prices with respect to earnings." *Journal of Accounting and Economics* 9(2): 111-138.
- DeAngelo, H., and L. DeAngelo. 1989. "Proxy contests and the governance of publicly held corporations." *Journal of Financial Economics* Vol. 23: 29-59.
- Dodd, P., and J. Warner. 1983. "On corporate governance: A study of proxy contests." *Journal of Financial Economics* Vol. 11: 401-438.

- Fos, V. 2016. "The disciplinary effects of proxy contests." *Management Science* 63(3): 655-671.
- Gao, N., and J. Everett Brooks. 2010. "Capital structure and outcome of proxy contest targets: An empirical study." *Managerial Finance* 36(4): 294-321.
- Gleason, Cristi A., Nicole T. Jenkins, and W. Bruce Johnson. 2007. "The contagion effects of accounting restatements." *The Accounting Review* 83(1): 83-110.
- Gonen, Ido. 2003. *Intra-industry effects of corrective disclosures: Is mistrust contagious?* Working Paper, New York University.
- Hancock, G. D. 1992. "Battles for control: An overview of proxy contests." *Managerial Finance* 18 (7/8): 59-76.
- Ikenberry, David, and Josef Lakonishok. 1993. "Corporate governance through the proxy contest: Evidence and implications." *The Journal of Business* 66 (3): 405-435.
- Impson, Michael, 2005. "Contagion effects of dividend reduction or omission announcements in the electric utility industry." *Financial Review* 35(1): 121-136.
- Lang, Larry H. P., and René M. Stulz. 1992. "Contagion and competitive intra-industry effects of bankruptcy announcements." *Journal of Financial Economics* 32: 45-60.
- Laudano, Erica. 2004. "One man's junk mail is another man's treasure: Proxy contests and corporate governance." *Connecticut Public Interest Law Journal*, 15. http://lsr.nellco.org/uconn_cpilj/15.
- Mulherin, Harold J., and Annette B. Poulson. 1998. "Proxy contests and corporate change: Implications for shareholder wealth." *Journal of Financial Economics* 47 (3): 279-313.
- Otchere, Isaac, and Matthew Ross. 2002. "Do share buy back announcement convey firm-specific or industry-wide information? A test of the undervaluation hypothesis." *International Review of Financial Analysis* 11(4): 511-531.
- Sridharan, Uma V., and Marc R. Reinganum. 1995. "Determinants of the choice of the hostile takeover mechanism: An empirical analysis of tender offers and proxy contests." *Financial Management* 24 (1): 57-67.
- Tawatnuntachai, Oranee, and Ranjan D'Mello. 2002. "Intra-industry reactions to stock split announcement." *Journal of Financial Research* 25(1): 39-57.

Table 1**Summary Statistics for the Proxy Targets and the Competitors**

Market capitalization=shares outstanding * closing price. Market capitalization is calculated on the last trading day of the year prior to the proxy contest and is in millions. The industry competitors are defined as the firms with same 4-digit SIC code. The sample is from 1988 to 2008.

Year	Number of Proxy contests	Market Capitalization Per Target Firm		Total Number of Competitors	Competitors Mean Number Per Event	Mean Market Cap. per Competitor	Median Market Cap. per Competitor
		Mean	Median				
1988	33	1,116.1	252.2	1427	43	387.2	32.1
1989	52	394.8	73.8	3012	58	205.1	30.7
1990	54	592.3	82.7	2324	43	238.1	30.2
1991	26	542.1	24.1	1264	49	118.9	16.7
1992	40	3,986.5	41.3	1474	37	281.2	29.2
1993	22	94.7	32.8	823	37	1214.7	70.1
1994	22	1,077.9	143.4	571	26	553.1	97.2
1995	34	1,088.8	113.2	2447	72	512.1	56.9
1996	13	1,109.2	201.5	1276	98	346.2	66.7
1997	26	447.6	112.1	1691	65	657.5	80.7
1998	36	475.2	54.7	3983	111	571.3	114.2
1999	30	240.0	114.8	3758	125	376.6	104.3
2000	7	259.1	44.2	567	81	365.1	69.9
2001	2	5,959.2	5959.2	307	153	486.7	86.3
2002	23	491.3	64.8	3378	147	1758.8	123.2
2003	16	1,360.4	136.1	2130	133	1029.3	136.8
2004	10	278.8	228.3	548	55	2727.8	341.5
2005	31	4,348.4	482.2	2238	72	2025.9	258.5
2006	50	2,810.7	273.5	5656	113	1704.2	222.8
2007	57	2,874.5	411.5	4259	75	1654.5	252.9
2008	63	2,808.8	406.6	3687	59	3695.2	320.4
Total Proxy contest Firms: 647		Mean Market Cap Per Proxy contest Firm: 1629.2 Median Market Cap Per		Mean No. of Competitors Per Event: 76 Proxy contests Per Year: 31		Mean (Median) Market Cap Per Competitor: 1147.4 (107.4) Market Cap Per Competitor:	

Table 2

Abnormal Returns of the Target Firms around the Announcements Days

The table includes all target firms of proxy contests in our sample¹. The abnormal return (AR) is the market model residual in percentage. Event day is the proxy contest announcement day. Market index is CRSP equal-weighted index. Estimation period ends 46 trading days before event date. Minimum estimation length is 120 trading days. Maximum estimation length is 255 trading days. Estimate method is OLS. Number denotes the number of abnormal returns available to compute the average abnormal return. The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic two-tail test.

Day relative to proxy contest announcement	Average abnormal return for proxy contest firms		
	Number	AR	Z-statistics
-10	636	0.29%	1.08
-9	636	-0.02%	-0.34
-8	636	0.24%	1.68\$
-7	636	0.10%	0.54
-6	636	0.10%	0.97
-5	636	0.27%	1.25
-4	636	0.20%	2.16*
-3	636	0.22%	2.61**
-2	636	0.50%	3.71***
-1	636	0.30%	2.13*
0	636	1.15%	9.62***
1	636	0.55%	4.13***
2	634	-0.11%	-0.17
3	633	-0.04%	-0.33
4	633	0.15%	-0.14
5	632	-0.22%	2.16*
6	632	-0.04%	-0.28
7	632	-0.09%	-0.28
8	632	-0.11%	-0.71
9	632	-0.05%	0.94
10	632	0.07%	0.71

1 Out of the 647 proxy fight samples, some proxy fights have been dropped because they don't meet the requirement of minimum 120 security returns in estimation period.

Windows:			
(-10,-1)	636	2.22%	4.989***
(-5,-1)	636	1.50%	5.295***
(-5,0)	636	2.65%	8.762***
(-5,+1)	636	3.20%	9.673***
(+1,+5)	636	0.32%	0.604
(-10, +10)	636	3.47%	5.932***

Table 3
The Financial Characteristics of Target Firms

CAR is the cumulative abnormal return in the period of (-10, +10) days of the proxy contest announcement day. Book-to-market is the ratio of the total book value of equity in the current fiscal year of proxy contest to the market capitalization on the last trading day of the year prior to proxy contest. Debt ratio is the ratio of sum of the long-term debt and the debt in current liabilities to the total asset. ROA is the ratio of the net income to the total assets. The cumulative return is the cumulative compound return from 12 months prior to proxy contest to 1 month prior to proxy contest. The units of market cap, book value and total assets are million. The significance test is Wilcoxon Test. The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, for differences in two panels.

	N	Median	Mean	Max	Min	Std
Panel A: Target Firms with Positive CAR						
CAR in (-10,+10)	392	0.09	0.14	1.32	0.0003	0.15
Book-to- Market	346	0.71	0.78	5.93	-17.80	1.41
Total Asset	349	280.39	3184.12	123339.0	1.07	10491.0
Debt Ratio	348	0.19	0.24	1.52	0.00	0.24
ROA	349	0.005	-0.07	0.31	-3.25	0.27
Cumulative Return	314	-0.096	-0.79	1.97	-0.95	0.41
Panel B: Target Firms with Negative CAR						
CAR in (-10,+10)	245	-0.06***	-0.09***	-0.00002	-0.62	0.10
Book-to- Market	217	0.61***	0.74***	9.15	-2.13	0.84
Total Asset	217	465.98	3719.26	106434.8	2.73	13577.3
Debt Ratio	213	0.26***	0.26**	1.14	0	0.22
ROA	217	0.009*	-0.03*	0.83	-1.32	0.21
Cumulative Return	184	0.02***	0.05***	2.75	-0.83	0.47

Table 4
Cross-Sectional Regression Results for Competitors Abnormal Return

Ordinary least squares method has been used to estimate the following model: Competitor

$$\text{Competitor CAR in } (-10,+10) = \alpha + \beta_1 \text{TCAR} + \beta_2 \text{TMC} + \beta_3 \text{TBM} + \beta_4 \text{TDR} + \beta_5 \text{TROA} + \beta_6 \text{CMC} + \beta_7 \text{CBM} + \beta_8 \text{CROA} + \beta_9 \text{CRUNUP}$$

Where TCAR is target firm’s CAR during period of (-10, +10), TMC is target firm’s market capitalization in the last trading day of the year prior to the proxy fight announcement day, TBM is the target firm’s book-to-market ratio, TDR is the target firm’s debt ratio, TROA is the target firm’s return on asset, CMC is the competitor’s capitalization in the last trading day of the year prior to the proxy fight announcement day, CBM is the competitor’s book-to-market, CROA is the competitor’s return on asset, CRUNUP is the competitor’s market-adjusted returns over days (-220,-20) relative to the proxy fight announcement day. Except for the market capitalization, the values are in the same fiscal year as the proxy fight announcement. The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic two-tail test.

Variable	Competitors of Target Firms with Positive CAR		Competitors of Target Firms with Negative CAR	
		t value		t value
Intercept	-0.023	1.25	0.053***	2.78
Target Firm CAR in (-10,+10)	0.091***	6.84	0.00770	0.30
Target Firm Market Capitalization	0.001	1.08	-0.00048	-0.37
Target Firm Book-to-Market	-0.021***	-5.02	-0.00016	-0.04
Target Firm Debt Ratio	0.025***	2.83	0.00641	0.58
Target Firm ROA	0.028***	2.96	0.023**	2.27
Competitors Market Capitalization	-0.003	-1.16	-0.005***	-4.84
Competitors Book-to-Market	0.001	0.48	-0.001	-0.32
Competitors Debt Ratio	-0.004	-1.03	0.019*	1.96
Competitors ROA	-0.005	-1.32	-0.007***	-3.43
Run-up in period of (-220, -20)	-0.041***	-9.86	-0.063***	-12.17
Adjusted R ²	0.024		0.040	
Number of Observations	7869		4839	

Table 5
Abnormal Returns of the Competitors

For each proxy contest firm, we define its competitors as the firms with same 4-digit sic code and market capitalization within \pm ten percent (column A) or \pm five percent (column B) of that of the proxy contest target firm. Then we form an equal-weighted competitor portfolio for each proxy contest firm. The competitors are divided into two groups. In panel A, the firms are the competitors of the targets with a negative cumulative abnormal return in $(-10, -1)$ and $(-10, +10)$ day period around the proxy contest announcement day. In panel B, the firms are the competitors of the targets with a positive cumulative abnormal return in $(-10, -1)$ and $(-10, +10)$ day period around the proxy contest announcement day. The abnormal return (AR) is the market model residual in percentage. Event day is the proxy contest announcement day. Event study uses CRSP daily data. Market index is CRSP equal-weighted index. Estimation period ends 46 trading days before event date. Minimum estimation length is 120 trading days. Maximum estimation length is 255 trading days. Estimate method is OLS. The numbers in pair denote the portfolios' number/the competitors' number available to compute the average abnormal return respectively. The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, for differences in two panels.

Panel A: Abnormal Return of the Competitors of the Target Firms with Negative CAR

Windows:	Abnormal return for industry competitors (\pm 10%)			Abnormal return for industry competitors (\pm 5%)		
	Portfolio#/Competitors#	CAR	Z-Stat	Portfolio#/Competitors#	CAR	Z-Stat
$(-10, -1)$	129/767	-1.12%	-3.253***	95/395	-2.38%	-3.605***
$(-10, +10)$	129/767	-2.38%	-4.088***	95/395	-4.13%	-5.11***

Panel B: Abnormal Return of the Competitors of the Target Firms with Positive CAR

Windows:	Abnormal return for proxy contest firms(\pm 10%)			Abnormal return for industry competitors(\pm 5%)		
	Portfolio#/Competitors#	CAR	Z-Stat	Portfolio#/Competitors#	CAR	Z-Stat
$(-10, -1)$	186/995	-0.36%	-0.160	146/522	-0.67%	-0.647
$(-10, +10)$	186/995	-0.27%	0.371	146/522	-0.45%	0.121