РАЗДЕЛ 1
НАУЧНЫЕ ИССЛЕДОВАНИЯ
И КОНЦЕПЦИИ

SECTION 1
ACADEMIC
INVESTIGATIONS
& CONCEPTS

AGENCY CONFLICTS AND THE WEALTH EFFECTS OF PROXY CONTESTS

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Abstract

We examine the shareholder wealth impact of proxy contests and find that over the three years preceding the contest, target stock prices significantly underperform their industry peers. In addition, consistent with the monitoring role of proxy contests, the announcement and full contest periods result in a positive stock price reaction suggesting that the market views the initiation of a proxy contest as good news. Interesting differences emerge between firms in which dissidents win seats and those where they do not win seats. While target firm stock prices appreciate for all firms at the announcement, such wealth gains are permanent only for the subsample of targets which not only are afflicted with elevated levels of agency problems but also make significant reduction in discretionary expenditures. When dissidents do not win seats, no attempt to reduce agency costs is apparent, and as a result, these firms experience a sustained wealth loss over the years surrounding the contest. The steps taken to reduce agency costs primarily in firms in which dissidents win seats suggests that proxy contests fulfil their intended role of disciplining the board and improve firm performance.

Keywords: Agency Conflicts, Shareholder Wealth Impact, Agency Costs

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1. Introduction

Strong and effective corporate governance has become a central issue for companies, shareholders and regulators over the last couple of decades, especially in light of the high profile governance failures during the Asian financial crisis of 1997-98 and the more recent bankruptcies of Enron and World Com leading to significant shareholder losses. The destructive effects of agency conflicts and corporate fraud arising out of a separation of ownership from control has therefore assumed centre stage in recent years highlighting the need for better regulatory oversight and tighter governance. This increased awareness has manifested in increased shareholder activism in monitoring managers. In this paper we examine the role of proxy contests as one such corporate control arrangement designed to mitigate agency conflicts. Dodd and Warner (1983) hypothesise that proxy contests are a good way to transfer corporate resources to higher valued users. We examine

whether proxy contests do in fact facilitate changes at the target firm and whether such changes result in increased shareholder wealth.

In the United States, shareholder activism is an integral part of corporate governance practice and is an important form of expression of what shareholders demand from those entrusted with the management of their wealth. Proxy contests are a mechanism through which shareholders who disagree (the 'dissidents') with the incumbent board and management, or have concerns about the performance of the firm may engage in a proxy fight. The primary aim of dissidents is to gain seats on the board in order to enact changes within the target firm and potentially limit the divergence of the interests of agents (the board and management) and principals (shareholders).

Existing literature is largely inconclusive in its findings vis-à-vis the reasons for initiating proxy contests and the outcome of such contests. For example, in the period preceding the contest Dodd and Warner (1983) and DeAngelo (1988) find that stock prices increase, while Ikenberry and Lakonishok (1993) report significantly negative stock price performance. However, in the post¬contest period, much of the past literature finds that firms in which dissidents win seats actually under-perform relative to firms in which dissidents do not win seats. Borstadt and Zwirlein (1992) and Ikenberry and Lakonishok (1993) find that firms in which the dissidents win seats experience highly negative and statistically significant abnormal returns after contest resolution, yet firms in which the dissidents fail to gain a seat experience insignificant returns over the same period. This is puzzling since proxy contests in which the dissidents win seats on the board should experience significantly higher abnormal returns than those in which dissidents do not win any seats. On the contrary, however, Mulherin and Poulsen (1997) find that firms where dissidents win seats tend to replace management and restructure the firm resulting in a positive and significant wealth appreciation. Collectively these studies suggest that the wealth effect of proxy contests remains an unanswered question.

In the spirit of Safieddine and Titman (1999) and Mulherin and Poulsen (1997), we extend prior research by examining changes made by target firms subsequent to the proxy contest. Specifically, we posit that managers may feel vulnerable by the mere fact that a proxy contest has occurred potentially resulting in an increase in the probability of the firm subsequently becoming a takeover target and this may trigger alteration of capital structures in ways that would reduce the likelihood of repeat takeover attempts. Analytical models developed in Zweibel (1996) and Novaes and Zingales (1995) show that managers use debt more as a potent antitakeover device rather than to increase shareholder welfare while Garvey and Hanka (1999) show that adoption of second generation antitakeover amendments induce firms to reduce debt. However, while debt has the potential to entrench managers, it also has the potential to increase performance pressure on managers due to the increased threat of default. Therefore, in an attempt to stave off financial distress, management may reduce discretionary expenditures thereby increasing efficiency.

Consistent with prior research, we find that for the full sample of proxy contests the mere initiation of a contest results in a positive and significant stock price response over the announcement period while abnormal returns over the post-announcement period are statistically insignificant. In addition, we also find that after the contest resolution, all firms increase their leverage ratios. However, only firms in which dissidents win seats and that subsequently reduce both capital expenditures and research and development expenditure experience significantly positive abnormal returns. These findings suggest that only the firms where dissidents win seats on the board take value enhancing restructuring measures such as reducing capital expenditure and research and development expenditures sufficiently to reduce agency problems.

In an effort to examine the direct role of proxy contests in mitigating agency conflicts we also examine long-run performance of subsamples of firms where targets are afflicted with varying degrees of agency conflicts. In the subsample where dissidents win seats we observe a sustained wealth appreciation resulting primarily from a reduction in capital and research and development expenditures. In sharp contrast, when dissidents do not win seats, no attempt to reduce agency costs is apparent and, as a result, these firms experience a sustained wealth loss over the years following the contest. All our results are robust to the use of different pre and post-contest time periods and to the use of alternative investment opportunity proxies.

The remainder of this paper is set out as follows: Section 2 gives a brief overview of the proxy process. Section 3 details and justifies the hypotheses tested in this study. Section 4 describes the data collection process and the characteristics exhibited by the data. Section 5 describes the event study methodologies employed to measure both short and long term shareholder wealth effects. Section 6 contains the presentation and discussion of our primary results while section 7 contains results of several robustness tests. Section 8 concludes the paper

2. The Proxy Process

The proxy contest process is governed by Section 14(a) of the 1934 Securities and Exchange Commission (SEC) Act which sets out strict

guidelines that must be adhered to by both the dissidents and the incumbents engaging in a proxy contest.

The proxy process itself can be broken down into three main areas: initiation, solicitation, and voting. The initiation process begins with the dissidents deciding that something has to be done about the poor performance of the firm, namely through the replacement of some or all of the incumbent board. In order to replace the board, a shareholder vote must take place just prior to a shareholders' meeting the results of which are announced at that meeting (usually at the annual shareholder meeting). However, if the regular shareholder meeting is not scheduled for some months, the dissidents may attempt to call a special meeting at which the proxy contest results are formally announced. The right for a group of shareholders to call a special meeting is governed by the firm charter and state incorporation laws[1].

Prior to the SEC Proxy Disclosure rule changes in 1991 dissidents had to announce their intentions to the SEC and the market by filing a Schedule 14A form before contacting any shareholders. However, the rule change now permits dissidents to contact shareholders even before announcing their intentions to the SEC[2]. This allows dissident shareholders to canvas other shareholders for their views prior to formally announcing their intentions.

The solicitation process involves both the incumbents and the dissidents contacting shareholders to convince them of the merits of voting for/against the proxy proposal. Both the dissidents and management often hire proxy firms to carry out this part of the proxy process. These proxy firms contact shareholders through a variety of mediums including newspaper advertisements, mailings and telephone conversations to try and convince them of the merits of voting for their client's position.

The 1991 SEC rule changes have meant that it has become much easier for the dissidents to mount a proxy challenge. Before the rule changes, the incumbent board had the upper hand in the solicitation process, as dissidents found that extracting shareholder details from the firm was a tedious process, often leading to court battles. The 1991 rule change has made it compulsory for the firm to provide full access to shareholder details. This has made the solicitation process much smoother and has removed some of the major advantages that the incumbent board enjoyed over challengers.

Finally, in the last stage, the voting process, shareholders are mailed out proxies that enable them to cast a vote on the proposed board changes. Generally, one share in the firm entitles the holder to one vote in the proxy fight. However, in some instances, certain share types may have special voting rights entitling the bearer to a higher (or lower) number of votes per share[3]. Once shareholders have voted, the proxies are then mailed to a designated collector who counts the votes and submits the results to the firm just before the proposed meeting date. The results of the proxy contest are then announced at the shareholder meeting. If the dissidents are successful, the board changes become effective immediately.

Due to the complexity of each of these stages, a proxy contest can be very expensive to initiate due to various costs, including professional fees for the hiring of proxy solicitors and attorneys; communication costs, including printing and mailing of information to shareholders; litigation costs; and other fees, such as vote tabulation costs.

3. Hypotheses development

Proxy contests are usually initiated when dissidents believe that the decline in firm performance is primarily driven by management inefficiency or the result of a heightened level of agency conflicts. The primary objective of dissidents in such contests is to gain seats on the board which would then enable them to take an active role in improving management. To achieve this objective, dissidents must convince shareholders that there has been a substantial decline in performance and that a change in the board (and hence management direction) will increase the performance and value of the firm. This is typically done by waging a campaign that publicises multiple facts "that collectively raise doubts about incumbents' performance" (DeAngelo and DeAngelo, 1989).

Manne (1965) hypothesises that proxy contests occur in response to poor management and that targets are likely to exhibit deterioration in performance prior to initiation of the contest. Using operating income before depreciation, Ikenberry and Lakonishok (1993) find that firms that are the subject of proxy contest substantially underperform control firms by 28.3%. They also report significantly negative performance for a number of other accounting variables including net sales, cash flow and dividends. However, the proxy contest literature is divided on target stock price performance prior to the contest announcement since Dodd and Warner (1983) document an appreciation in stock price. Given these conflicting results, we therefore test the following hypothesis:

[1] Many companies have attempted to pass an amendment to their corporate charter to limit shareholders' rights to call such a meeting.

[2] See Kaplan (1997) or Pound (1992).

[3] For example, many companies specify that preference shares have no attached voting rights.

H1: Firms involved in a proxy contest exhibit significantly negative abnormal returns in the period prior to the initiation of the contest.

Given the deterioration in performance and the dissidents' beliefs that this performance can be improved, the initiation of such a contest should send a positive signal to the market, "reflecting a rise in both the market value of the vote and the discounted value of the potential gain in the underlying share interest if the outsider wins" (Manne, 1965). Bradley, Desai and Kim (1983) suggest that, even if the outsider doesn't eventually win, the fact that a proxy contest has occurred may result in increased firm performance due to more prudent management and decision making thereby reducing agency costs and increasing firm efficiency. As Dodd and Warner (1983) state, proxy contests "are a way of transferring corporate resources to higher valued users". In line with this argument, empirical evidence shows positive abnormal returns around both the announcement and full contest periods. Although this evidence agrees on the stock price reaction over these periods, we use an updated sample (34% of our sample is from the most recent period and this is not examined in prior research) to re-examine this hypothesis in order to test whether more recent proxy contests still evoke such market response. Thus, we test the following hypothesis:

H2: Firms subject to a proxy contest will experience positive abnormal returns around the contest announcement period and over the full contest period.

The efficient market hypothesis (EMH) states that zero abnormal returns should be earned following the proxy contest announcement, as all relevant information regarding the contest is impounded into stock prices at the announcement. Except for Ikenberry and Lakonishok (1993), who find a barely significant negative abnormal return of -17.24% over the post-contest period, no prior studies have found significant abnormal returns following contest resolution. In addition, most prior empirical research which agrees that firms experience zero abnormal returns following a proxy contest was completed before the development of current, more widely accepted methodologies for long-term event studies with Mulherin and Poulsen (1997) being the only exception although even they only investigate a one-year period following the contest resolution, a period arguably too short to reflect the full value of the changes made by a successful acquirer. Maksimovic and Titman and Safieddine and Titman (1999) argue that capital structure changes (especially debt) can change a firm's incentives by boosting short-run profits through cutting costs at the expense of long- run reputation and profits hence examining performance may not reflect the true value of contest- related changes. Ikenberry and Lakonishok (1993) and Borstadt and Zwirlein (1992) show that a large part of the shareholder wealth effect occurs over the period that extends beyond 12 months post contest resolution. For example, Ikenberry and Lakonishok (1993) report -7.78% abnormal returns 12 months after the proxy contest which deteriorate to -18.43% by the 36th month post contest resolution. Therefore we believe that the longer post-contest period of three years needs to be used to allow for contest-specific structural changes to be impounded into firm value. This leads us to test the following hypothesis:

H3: Firms will experience zero abnormal returns over a three-year period following the contest resolution.

The next group of hypotheses analyse sub-samples to determine whether the value creation results from all contests or is instead driven primarily by those contests in which other firm-specific changes are made subsequent to the contest. For example, it may be the case that the dissidents need only acquire one or more board seats in order to motivate changes within the firm that will result in a turnaround in performance. In other words, partial success may be all that the dissidents need to gain control of the board. Therefore firms in which the dissidents are successful in gaining at least one board seat may experience significantly higher positive abnormal returns throughout the contest period and in the post-contest period than those firms in which dissidents fail to gain any board seats. Therefore, we test the following hypothesis:

H4: Firms where dissidents win seats on the board will experience more positive abnormal returns in the post-contest period than those in which dissidents fail to gain any board seats.

Prior research on the long-term effects of proxy contests has mainly focused on successful contests, and there has been little on firms involved in a failed contest. After a failed proxy contest, management may feel threatened by the fact that a proxy contest has occurred and that another potential acquirer may attempt to acquire the firm. Saffiedine and Titman (1999) find that targets of failed acquisition attempts implement significant capital structure and investment policy changes to ward off future acquisition attempts. Jensen (1986) posits that takeover targets tend to be of two types: firms with high free cash flows and firms with poor management. Management of both these types are likely to make value-destroying investments. To decrease this over-investment and potentially increase the value of the firm, management can

increase dividends, repurchase stock or increase debt. As Jensen (1986) points out, these have the effect of reducing the amount of cash flow that managers have under their control, hence reducing managers' ability to over-invest in projects returning less than the cost of capital. However, repurchasing stock and increasing dividends are non-binding and may not result in a substantial decrease in agency conflicts.

On the contrary, an increase in leverage bonds managers to their promise to pay out future cash flows since failure to meet debt obligations may lead to bankruptcy. Therefore, higher debt forces managers to seek higher profits through efficiency improvements rather than risk sacrificing their job through the possibility of bankruptcy (Grossman and Hart, 1982). Thus, increasing leverage reduces the agency costs of free cash flow by reducing managerial discretion over the firm's future cash flows thereby increasing efficiency. Indeed, Lang, Ofek and Stulz (1996) provide evidence that over-investment can be restricted by increasing firm leverage. Therefore, consistent with Saffiedine and Titman (1999), because of the increased threat faced by incumbent managers after a failed proxy contest, managers may increase leverage to fend off potential acquirers. Safieddine and Titman (1999) find that firms that increase leverage more than the median experience positive abnormal performance over a five-year period following a failed takeover attempt, while those that fail to increase leverage report significantly lower returns.

Models developed in Novaes and Zingales (1995) and Zweibel (1996) show that leverage has potential to entrench management. In fact Garvey and Hanka (1999) empirically demonstrate that managers of firms in states that adopted the Second Generation of Antitakeover statutes responded by significantly lower debt levels suggesting that debt previously was employed to guard against takeover threats. Therefore, for increased leverage to have any beneficial effects, firms must also make value enhancing investment policy changes. One way to increase the efficiency of a firm is to undertake restructuring such as cuts in discretionary capital expenditure or the sale or liquidation of major divisions. These events usually lead firms to increase focus on core activities. Cuts in expenditure and the liquidation or sale of assets have been shown to have a positive effect on both long-term stockholder wealth and operating performance measures, as they enable the firm to focus on employing the remaining assets more profitably (Daley et al., 1997; Desai and Jain, 1999; Megginson et al., 2003). Safieddine and Titman (1999) find that firms that increase their leverage ratios the most also reduce capital expenditures, research and development expenditure, sell assets and increase focus. Therefore, we test the following hypothesis:

H5: Firms inflicted with higher degrees of agency conflicts will exhibit higher stock price performance upon decrease in discretionary investment expenditures post contest resolution.

4. Description of Data

Proxy contest announcements over the period starting December 1987 and ending April 2000 were extracted from the Securities Data Corporation (SDC) Proxy Fight database. This search resulted in an initial sample of 419 firms with a clearly identifiable contest announcement date and other pertinent contest specific information. Daily and monthly stock returns and returns on the market index were obtained from the Centre for Research in Security Prices (CRSP) database, while the Compustat database was the source of all firm specific accounting information.

From our initial sample of 419 firms, 48 were dropped because the proxy fight was not for board seats and an additional 25 were dropped due to lack of stock price data around the announcement and contest resolution dates. This left a total of 346 sample firms (the "full sample") with sufficient market and financial data to permit examination of stock price reaction around the proxy contest. A second sample (the "restricted sample") was also created to allow examination of long-run stock price performance, as well as analysis of capital structure and capital expenditure changes subsequent to the contest resolution[4]. The restricted sample has fewer firms than the full sample because of the more stringent data requirements imposed on it to allow for analysis over an extended time period post contest. Stock price performance and capital structure and expenditure changes were examined for a period starting three years before the contest announcement through to three years following the contest resolution[5]. Therefore, measurement of the long-run stock price performance requires that firms have stock price data on CRSP for a seven year period surrounding the proxy contest[6]. The study of capital structure changes requires firms to have data on Compustat for total assets, total debt, shares outstanding, book value of common equity, operating income before depreciation, income tax, interest expense, dividends on preferred and

[4] The restricted sample was also used to estimate the stock price reaction surrounding the proxy contest announcement and resolution dates in order to compare results with the full sample

[5] The reason a three-year horizon is used instead of a five-year horizon is due to the substantial number of firms lost when the sample period is extended any further. The results for the extended time period are similar; however, substantial power is lost in subsample analyses with the reduced sample size.

[6] The three years before the contest announcement, the year of the announcement and three years after contest resolution.

common stock and the liquidating value of the firm's outstanding preferred stock for the same seven year period surrounding the proxy contest[7]. Therefore, starting with the 346 firms in the full sample, 87 were dropped due to insufficient stock price data to permit a long-term analysis and a further 101 firms were dropped because of insufficient Compustat data. This left us with a final restricted sample of 158 firms.

Table 1 reports the annual distribution of proxy contests. The incidence of contests is highest in the late 1980s and early 1990s, with a gradual decline over the mid to late 1990s[8]. This decline could be due to a number of factors including the large merger wave and stricter corporate governance practices in place over this period. The sustained bull market in the 1990s along with the fifth merger wave which began in approximately 1993 and the explosive growth in performance based compensation may have reduced the need for external disciplining that proxy contests provide[9]. Kaplan (1997) posits that boards and managers in the 1990s have applied the insights and strengths from the 1980s LBOs and, as a result, less activism on the part of shareholders is needed to keep companies in line[10].

There is no real discernable pattern in the mean equity values over time for either the full or the restricted sample. However, the median equity values show a slightly increasing trend over the mid- 1990s with a slight decrease towards the end of the sample period. The mean (median) equity value of $608.3 million ($52.8 million) for the full sample and $781 million ($55.1 million) for the restricted sample are substantially higher than that of the $354 million reported by Mulherin and Poulsen (1997) and the $278.8 million ($33.8 million) as reported by Borstadt and Zwirlein (1992).

Table 2 reports a number of important attributes of the firms in our sample. The median contest length for the full sample is 51 days while that for the restricted sample is 43 days. The median dissident stake for firms in the full sample at the time of the proxy contest announcement is 9.5%, which is similar to that of firms in the restricted sample (median of 9.4%) and that reported in Borstadt and Zwirlein (1992), Ikenberry and Lakonishok (1993), and Mulherin and Poulsen (1997).

DeAngelo (1988) points out that a high degree of industry clustering would suggest that industry-wide poor performance might be an important factor in proxy contests. However, in untabulated results we find that although the majority of firms involved in a proxy battle happen to be asset intensive (66% of the full sample and 77% of the restricted sample when the sample is split on a one-digit SIC code) there is a striking lack of any industry clustering[11]. The full sample reports 50 different two digit SIC codes for the 346 firms (an average of 7 firms to each two-digit SIC code), with the highest incidence of 25 firms occurring between SIC codes 3800-3900 (measuring, analysing, and controlling instruments; photographic, medical and optical goods; watches and clocks), 6000-6100 (depository institutions) and 7800-7900 (motion pictures). In addition, these contests are spread over the entire sample period, with the highest incidence being three contests in one year. The restricted sample shows even less industry concentration with 39 different two digit SIC codes for the 158 sample firms, an average of four firms per two-digit SIC code[12]. This lack of industry clustering is similar to results reported by DeAngelo (1988) and helps confirm his conjecture that proxy contests might be harder to wage in troubled industries as incumbents maybe able to convince shareholders that poor firm performance is due to industry-wide factors and hence beyond management's control.

5. Development of methodology

All prior studies with the exception of Mulherin and Poulsen (1997) measure long-run stock price performance using the traditional cumulative abnormal returns which has a number of problems including serial dependence and non-normality of abnormal returns, new-listing bias, rebalancing bias and skewness bias. This methodology predates the development of current methodologies for long-run event studies. In fact, even Mulherin and Poulsen (1997) uses a methodology which does not control for cross-sectional dependence in sample observations. We employ the Lyon, Barber and Tsai (1999) methodology which circumvents many of the econometric problems encountered with the use of cumulative abnormal returns to compute long-run performance post contest resolution.

In addition, Mulherin and Poulsen (1997) only study the effect of proxy contests for a one-year period following the contest resolution. Ikenberry and Lakonishok (1993) and Borstadt and Zwirlein

show that the majority of shareholder wealth effects occur in the period greater than one year

[7] All of these variables are measured at the fiscal year end.
[8] The small number of observations in the year 2000 is due to the sample period ending in April 2000.
[9] See Gaughan (2000).
[10] The insights from the 1980s LBOs include imposing a cost of capital on management, increasing the use of contingent compensation and pressuring boards to become more active. See Kaplan (1997) for a more in depth discussion.
[11] Asset intensive firms are defined as those with an SIC code of less than 6000. Firms with SIC codes greater than 6000 are generally much less asset intensive.
[12] The highest incidence of proxy contests for the restricted sample is in SIC codes 2800-2900 (chemicals and allied products) and 7300-7400 (business services). Again, further inspection reveals that these contests are spread over the entire sample period.

post contest resolution. For example, Ikenberry and Lakonishok (1993) report a -7.78% stock price performance over the twelve months post contest resolution which drops to -18.43% by the end of 36 months. In this research, we extend the post-contest period out to three years, as this will better determine any long-run effects of the proxy contest on shareholder-wealth.

Duvall and Austin (1965) state that a proxy contest results from "shareholders who are dissatisfied with inept management and wish to install new management to instigate reforms and potentially employ the resources of the firm more profitably" which implies that the majority of shareholder wealth effects of a proxy contest may result from firms that undergo some form of restructuring. Mulherin and Poulsen (1997) is the only study that looks at the wealth effects of restructuring and even their focus is solely on asset sales, while other forms of restructuring such as changes in ownership, board composition and capital structure changes are not taken into account. Following Saffiedine and Titman (1999), we also focus on the changes in capital structure and investment policies post contest.

In addition, we also investigate whether firms in our sample reduce capital expenditure and/or research and development expenditure. Jensen's free cash flow theory suggests that proxy contests should limit the divergence of the agents' (the board of governors and management) actions from the principals' (shareholders') best interests through a decrease in over-investment. We posit that this decrease in over-investment will be shown through decreases in research and development and capital expenditures. This analysis of leverage, capital expenditure, and research and development expenditure changes makes the longer post-contest period of three years especially important, as Maksimovic and Titman (1991) argue that these changes can change a firm's incentives by boosting short-run profits by cutting costs at the expense of long-run reputation and profits. Therefore, to gauge the actual gains from the proxy contest, a long time period must be examined following the contest resolution.

5.1 Long-Run Abnormal Stock Returns

Barber and Lyon (1997) raise concerns over the use of cumulative abnormal returns (CARs) and a reference portfolio since comparing CARs to a reference portfolio comprised of a market index may result in a positive bias leading to rejection of the null hypothesis more often than is theoretically predicted. Barber and Lyon identify new-listing, rebalancing, and the skewness biases as primary causes affecting long-run studies. The new-listing bias arises because new firms may enter the market subsequent to the event month, hence affecting the returns on the reference portfolio. The bias results from the difference in performance of newly-listed firms and the market. If these newly listed firms underperform the market, the return on the reference portfolio will be dragged down, resulting in an overstatement of the abnormal returns leading to the researcher erroneously concluding that sample firms earned positive abnormal returns. Likewise, if the new listings out-perform the market, the return on the reference portfolio will increase, understating the sample firms' abnormal returns. Ritter (1991) finds that firms that go public substantially under- perform an equally weighted index and Barber and Lyon (1997) point out that these firms are likely to make up a substantial proportion of newly-listed firms. Hence, newly-listed firms are likely to drag returns of reference portfolios down, causing overstatement of sample firms' abnormal returns.

The rebalancing bias occurs because the returns of the sample firms are compounded without rebalancing while the returns on the reference portfolio are usually calculated using monthly rebalancing. In the example of an equally-weighted reference portfolio, monthly rebalancing is used to maintain equal weights for each firm within the portfolio. Likewise, for value-weighted portfolios, rebalancing is used to maintain the correct weightings for individual companies within the portfolio. Finally, skewness bias results because some sample firms may experience large positive returns, while it is highly unlikely that the reference portfolio will experience a similar sized positive return.

Barber and Lyon (1997), Kothari and Warner (1997), and Lyon et al. (1999) believe that the aforementioned biases in traditional methodologies can result in grossly miss-specified test statistics[13]. Barber and Lyon (1997) also document a correlation between the magnitude of the bias and the time horizon of the study. As our long-run study encompasses a three-year period following contest resolution, these biases become especially important. To correct for these biases, Lyon et al. suggest the use of two different approaches that yield well-specified test statistics in most instances.

The first approach uses the simple buy and hold abnormal returns (BHAR) with carefully constructed reference portfolios that are free of the rebalancing, new listing and skewness biases. However, this approach does not control for two additional sources of misspecification pointed out by Kothari and Warner (1997) and Mitchell and Stafford (2000) namely, cross-sectional dependence in sample observations and a poorly specified asset

[13] For studies that focus on actual corporate events, rather than theoretical papers, see Ritter (1991), Loughran and Ritter (1995), Ikenberry, Lakonishok and Vermaelen (1995), Speiss and Affleck-Graves (1995) or Michaely, Thaler and Womack (1995)

pricing model. Cross-sectional dependence occurs because many of the sample firms overlap in calendar time, resulting in an overstatement of the actual number of independent observations[14]. The problem of a poorly specified asset pricing model, commonly known as the joint-test problem, occurs because the model used to generate expected returns may only be an imperfect description of such returns. Hence the measure of abnormal returns may include the effects of both stock misprising and model misspecification[15]. Despite these disadvantages, the BHAR methodology has the advantage that it precisely measures investor experience (see Barber and Lyon, 1997).

The second approach uses a variant of the calendar time abnormal returns (CTAR) method first used by Jaffe (1974) and Mandelker (1974). This method has a number of advantages over both cumulative and buy-and-hold abnormal returns. First, CTARs eliminate the cross-sectional dependence problem, as sample firms are aggregated into a single portfolio. By aggregating sample firms into a single portfolio, the cross-sectional correlations of individual firms can be taken into account in the portfolio variance. As individual event firm abnormal returns are cross-sectionally correlated (see Mitchell and Stafford, 2000), this methodology represents a strong improvement over traditional CARs and BHARs which assume independence of individual-firm abnormal returns. Second, as Lyon et al. (1999) and Mitchell and Stafford (2000) point out, the CTAR methods yield more robust test statistics than the traditional approaches of CARs and BHARs.

One disadvantage with the CTAR approach is that it does not precisely measure investor experience because of the way abnormal returns are calculated. Lyon et al. (1999), Loughran and Ritter (2000) and Mitchell and Stafford (2000) also point out a number of other potential problems with this method. First, Mitchell and Stafford (2000) explain that the number of firms in the calendar-time portfolio is likely to vary from month to month and that events tend to cluster through time by industry. Thus, the portfolio may be weighted towards certain industries at different points in time which may cause biased estimates. However, this seems to present no concern for our sample since the samples in this study show a striking lack of industry clustering through time.

Second, the changing number of firms in the monthly portfolio over time may introduce heteroskedasticity into the model as the variance and standard errors are related to the number of firms in the portfolio. A common correction to this problem and the one supported by Lyon et al. is the use of weighted least squares. This approach uses a weighting factor based on the number of firms in the portfolio in each calendar month.

Third, Loughran and Ritter (2000) point out that if the calendar-time approach is used with equal weighting in each calendar month, months with large numbers of contests will be treated the same as months with a smaller number of event firms. If there is a differential in performance between periods of high and low activity, the CTAR method is less likely to uncover any abnormal performance. Mitchell and Stafford (2000) discount this possibility as they find evidence that is inconsistent with the Loughran and Ritter (2000) hypothesis that abnormal performance is related to the intensity of event activity. If in fact this relationship does exist, the use of weighted least squares should substantially reduce any possible bias.

Finally, Loughran and Ritter (2000) also raise the concern that CTARs have low power in detecting abnormal performance and conjecture that BHAR have greater power in this regard. However, Mitchell and Stafford (2000) show that CTAR portfolios have substantially more power to detect abnormal performance than BHARs. Due to the significance of the cross-sectional dependence bias as discussed by Cowan and Sergeant (1996), Brav (1997) and Mitchell and Stafford, and the fact that the above potential problems can be easily mitigated, we measure long-run stock price performance using the CTAR approach.

This study uses the Fama-French variant of the CTAR method as suggested by Mitchell and Stafford (2000) and Lyon et al. (1999)[16]. For each calendar month, a portfolio of firms that have undergone a proxy contest in the previous three years is formed. This portfolio is rebalanced monthly to add firms that have just reached the end of a proxy contest and drop firms that have reached the end of the three-year post-contest period. The return on this portfolio is then estimated using the following regression:

$$Rpt-Rft=ai+Pi(Rmt-Rft)+siSMBt+hiHMLt+Sit \quad (1)$$

where Rpt is the monthly return on the calendar-time portfolio, Rft is the monthly return on three- month Treasury Bills, Rmt is the return on a value-weighted market index, SMBt is the difference in the returns of value-weighted portfolios of small and big stocks and HMLt is the difference in returns between value-weighted portfolios of high book-to-market and low book-to-market stocks[17].

[14] For more detailed information, see Brav et al. (2000) or Bernard (1987).

[15] See Fama (1970).

[16] For past research that uses this methodology, see for e.g., Brav and Gompers (1997), Agrawal and Jaffe (2003), Gompers and Lerner (2003) or Eberhart, Maxwell and Siddique (2004).

[17] For a more indepth discussion of the importance of these factors, see Fama and French (1992). These data were collected from Kenneth French's website.

6. Results and discussion

6.1 Shareholder Wealth Effects

Shareholder wealth effects over a three-year period prior to the contest announcement, around the proxy contest period and over a three-year period following contest resolution are reported in panel B of Table 3[18]. Consistent with the market discipline hypothesis, and as postulated in hypothesis H1, we find that firms that become targets of proxy contest experience a period of poor performance leading up to the initiation of the contest. Our full sample exhibits a significantly negative CTAR of -25.92% (t-statistic of -2.65) for the three years preceding the contest.

When the sample is partitioned by contest outcome, the subsample of 70 firms where dissidents win seats exhibits a negative and significant CTAR of -34.20% (t-statistic of -2.08), while the 88 firms where dissidents do not win seats experience a slightly lower negative, but significant CTAR of -19.44% (t-statistic of -1.62). This poorer performance exhibited by the dissidents that win seats is expected, as the poorer the performance of a firm prior to the proxy contest, the stronger the dissidents' case should be for a change in the board and, hence, the greater the chance they should have of gaining board seats. However, this finding is reversed when the sample is split between contests where the dissidents succeed and those where they do not succeed in gaining the number of board seats originally sought after. When the dissidents succeed in winning the intended number of seats (35 firms), the CTAR for the three-year period prior to the proxy contest is a negative but insignificant -20.16%. When dissidents do not gain the desired number of board seats (123 firms), the CTAR is a significantly negative -27.00% (t-statistic of -2.70). This finding is interesting, because if there is a relationship between the dissidents' success in a proxy contest and prior performance, it is expected that the relationship would be stronger for the cases in which dissidents succeed in gaining the desired number of board seats.

The theory of the firm suggests that proxy contests should have a significant effect on shareholder wealth, as they allow shareholders to impose their will on the target firms. Therefore, the announcement of a proxy contest should be met with a positive reaction by the market. Panel A of Table 3 shows that for both the full and restricted samples, we find significantly positive abnormal returns of 8.90% (z-statistic of 8.95) and 9.19% (z-statistic of 5.30) respectively over the announcement period. The subsamples, based on whether dissidents win or do not win seats, whether dissidents succeed or do not succeed, and whether dissidents successfully take over the firm or not, all exhibit similar significantly positive abnormal returns over the announcement period[19]. These results support our second hypothesis that firms subject to a proxy contest experience positive abnormal returns around the contest announcement. They are also consistent with the findings in Bradley, Desai and Kim (1983), suggesting that even if dissidents do not eventually win, a proxy contest may result in increased firm performance due to increased pressure from shareholders and other third parties, resulting in reduced agency costs. However, it is interesting to note that the subsamples when dissidents do not win and dissidents do not succeed show slightly higher positive abnormal returns than those where dissidents win and dissidents succeed in winning the desired number of seats.

The post-announcement period represents the period between the proxy contest announcement and resolution. For both the full and restricted samples, no significant abnormal performance is found for the full sample and several subsamples. The only significant result is for the sample of firms that go through with a successful tender offer which shows a positive and significant postannouncement period of returns 3.42% (z-statistic of 2.86). However, the subsamples over the same period within the restricted sample show more interesting results. For the group of firms where the dissidents win seats the abnormal return of 6.30% is significantly different (a t-statistic of difference in means of 1.77) from the negative wealth effect experienced by the firms in which dissidents do not win seats. Likewise, when dissidents succeed in gaining the desired number of board seats the abnormal returns are significantly higher (a t-statistic of difference in means of 1.65) than when dissidents do not succeed. These results suggest that information released over the post¬announcement period allows the market to differentiate between firms in which dissidents are likely to succeed from those in which they are not. In addition, the full contest period reports abnormal returns for the full and restricted samples of 6.68% (z-statistic of 4.68) and 7.65% (z-statistic of respectively. Results for the full sample show that returns when dissidents win seats and when dissidents succeed and those for successful takeover subsamples are higher than the corresponding unsuccessful subsamples.

The subsamples derived from the restricted sample show similar, albeit slightly stronger

[18] All results reported in this table we computed using equally-weighted averages. These results were replicated using value-weighted averages with no material effect

[19] This definition of the announcement period (20 days prior to the contest announcement until five days post announcement) is the same as that specified by Mulherin and Poulsen (1997). Results are also generated for a number of different periods as in prior research and the results are empirically the same

relationships. The 70 firms where dissidents win seats exhibit significantly positive abnormal returns of 11.31% (z-statistic of 2.54) while the dissidents 'do not win' subsample shows a slightly lower but still significantly positive abnormal return of 4.73% (z-statistic of 1.31). However, there are no significant differences between any of the subsamples within the restricted sample. This is surprising, as it is expected that a successful proxy contest (either where the dissidents 'win' seats or where dissidents are successful in gaining the stated number of board seats originally sought) should result in substantially higher abnormal returns due to the replacement of some (or all) of the underperforming board and the subsequent improvement in firm performance. However, this finding is similar to the results of prior research (see, for e.g., Dodd and Warner, 1983; Ikenberry and Lakonishok, 1993; Mulherin and Poulsen, 1997). Collectively these findings support our second hypothesis that firms subject to a proxy contest experience positive abnormal returns around the contest announcement and over the full contest period.

Over the three years following the contest, the Efficient Market hypothesis (EMH) states that, on average, firms should not earn any abnormal returns as all relevant contest-specific information should already be impounded into the price. Consistent with this, we find that the restricted sample exhibits a negative but insignificant return of -4.68%. Similar results are obtained when results are partitioned by outcome where the dissidents 'win seats' subsample exhibits a negative but insignificant CTAR of -20.16%, while the dissidents 'do not win seats' subsample experiences a positive but insignificant CTAR of 5.04%. In addition, similar pattern is observed when the dissidents 'succeed' and 'do not succeed' subsamples are examined. For the 35 firms where the dissidents succeed, a negative but insignificant CTAR of -5.76% is found, while the dissidents 'do not succeed' subsample exhibits a negative and insignificant CTAR of -2.52%. Overall, this analysis supports our third hypothesis that in the post-contest period firms, on average, experience zero abnormal returns in the three years following the proxy contest.

6.2 Agency Costs, Free Cash Flows, Capital Expenditure and R&D Expenditure

Descriptive analysis of the data suggests that firms that were targets of a proxy fight were prone to overinvestment prior to the initiation of the contest. Results presented in Table 4 show that both categories of discretionary expenditures were higher for the sample firms than their corresponding industry peers (average capital expenditures to book value of assets of 11.05% versus 4.92% for the industry peers and R&D over book assets of 6.35% versus 4.0% for industry peers). Similar trend is observed when the sample is split into firms that win board seats versus those that do not. These results suggest that potential acquirers could unlock sufficient upside value through reduction in capital and R&D expenditures. Saffidiene and Titman (1999) show that targets of failed acquisitions not only make capital structure changes but those that earn significant long-term abnormal returns also reduce discretionary expenditure.

As hypothesized in H5, the potential to generate gains through reduction in expenditures will be greatest for those targets where dissidents not only win seats but also suffer from high degrees of agency costs of free cash flow. To examine this, we split the restricted sample into four subsamples based on free cashflow and Tobin's Q one year prior to the contest announcement. Classifying firms as per Jensen (1986), the subsample containing firms with free cash flows greater than the sample median and a Tobin's Q less than one would represent firms with the highest level of agency problems (the "high-agency" subsample) while the subsample with free cash flows less than the sample median and a Tobin's Q greater than one would represent firms with the lowest level of agency problems (the "low-agency" subsample).

Panel A of Table 5 contains abnormal returns for the high- and low-agency subsamples. Theory and intuition suggest that prior to contest initiation firms with higher degrees of agency problems should display poorer performance relative to those with the lower agency problems. Consistent with this, results in Table 5 show that firms in the high-agency subsample experience a stock price performance of -42.40% (t-statistic of -2.56) in the three years prior to the contest initiation while those in the low-agency subsample earn a positive but insignificant CTAR of 30.96%.

The announcement of a proxy contest should, however, result in higher abnormal return for the subsample with the highest agency problems due to the greater benefit such firms are likely to derive from the proxy contest through reduction in agency costs. Indeed, over the announcement period, the high-agency subsample exhibits a statistically significant and positive abnormal return of 8.13% (z-statistic of 3.81), while the low-agency subsample exhibits a positive but insignificant abnormal return of 7.39%. Over the post-announcement period, results in Table 5 report a negative and significant abnormal return of -5.12% for the high-agency subsample, while returns for the the low- agency subsample are insignificantly different from zero. This result is surprising as no negative abnormal performance is expected over the post-announcement period, especially for the high- agency subsample. This leaves positive but

insignificant abnormal returns over the full contest period of 1.46% and 1.06% for the high-agency and low-agency subsamples respectively. Over the post-contest period, the high-agency subsample exhibits a significantly negative CTAR of -21.24%, while the low-agency subsample exhibits a positive but insignificant CTAR of 4.32%. Overall, the high-agency subsample exhibits significantly negative abnormal return performance in the years surrounding the proxy contest, while the low-agency subsample exhibits positive but insignificant abnormal returns over the same period.

In the three years following contest resolution, the two subsamples that increase expenditure less than the median exhibit higher CTARs than that for the subsample of firms that increase expenditure greater than the median. Specifically, the subsample of firms that increase capital expenditure greater than the sample median experiences a highly negative and significant CTAR of - 52.20% (t-statistic of -2.02), while the sample with capital expenditure increase less than the median exhibits a positive but insignificant CTAR of 14.40%. In addition, firms that increase research and development expenditure greater than the median exhibit a negative but insignificant CTAR of -24.12% while those that increase research and development expenditure less than the median exhibit a positive and significant CTAR of 95.76% (t-statistic of 2.67). Intuitively these findings make sense, as firms that have taken steps to reduce agency problems and potential over-investment by reducing capital expenditure, and research and development expenditures, exhibit substantially better performance than firms in which no action is taken to reduce the high level of agency problems arising out of overinvestment. A quick correlation check reveals that 76% of the firms that increase capital expenditures less than the median and 72% of the firms that increase research and development expenditures less than the median are firms in which dissidents win seats. This suggests that the majority of the positive effects of a reduction in agency problems come from firms in which the dissidents win seats on the board.

To examine this further, the high-agency subsample was further divided into firms in which dissidents win/do not win seats. These two subsamples show strong results that help support the above contention. Over the pre contest period, the dissidents 'win' and 'do not win' subsamples exhibit significantly negative CTARs of -40.32% (t-statistic of -2.04) and -26.64% (t-statistic of - respectively. The greater negative CTAR for the subsample where dissidents win seats suggests that firms with the highest incidence of agency problems are firms in which dissidents tend to win seats. This agrees with intuition because it is expected that dissidents will be able to build a much stronger case against the current board and management when severe agency problems are present; hence the dissidents should have a much higher chance of winning seats. The announcement period shows significantly positive abnormal returns for both subsamples, illustrating that the announcement of a proxy contest is taken as good news by the market. For the post¬announcement period, the dissidents 'win seats' subsample experiences a positive but insignificant abnormal return of 1.99%, while the dissidents 'do not win seats' subsample experiences a negative and significant abnormal return of -9.87% (z-statistic of -1.78). This negative abnormal return in the post-announcement period suggests that, as more information about the contest is released, the market may realise that the dissidents may not gain any seats on the board and hence there is unlikely to be any reduction in agency problems. This results in a full contest abnormal return for the dissidents 'do not win' subsample of a negative, but insignificant 1.68% as the gains from the announcement period disappear in the post-announcement period when it becomes clear that the dissidents may not attain any seats. Surprisingly however, the dissidents 'win seats' subsample shows a positive but insignificant return over the same period of 5.81%.

However, substantial differences exist in the post resolution performance of both subsamples. For firms in which the dissidents win seats, the three year CTAR post contest resolution is a negative but insignificant -19.08%, while the dissidents 'do not win seats' subsample experiences a highly negative and significant CTAR of -37.44%. Therefore, reviewing the years surrounding the proxy contest, firms in which the dissidents gain seats experience zero abnormal returns, while the firms in which dissidents do not win seat' experience substantial negative abnormal returns. These results, along with the correlation check between dissidents 'win seats' and capital expenditure, and research and development expenditure reductions, show that the majority of the positive effects of a reduction in agency problems come from firms in which dissidents win seats on the board, forcing changes that help reduce potential over-investment by management.

Overall, our results show that firms involved in a proxy contest exhibit significantly negative performance in the three years prior to the contest announcement. When the dissidents announce that they are going to mount a proxy fight, there is a significantly positive stock price reaction, indicating that the market sees the launch of a proxy contest as a good chance to improve the poor performance. After the contest resolution, firms in which dissidents win seats as well as those in which dissidents do not win seats increase their leverage ratios to discourage potential acquirers from

mounting a takeover bid. As well as discouraging any takeover bids, this increase in leverage serves to discipline the board and management by forcing them to increase the efficiency of the firm or face the possibility of bankruptcy. Interesting differences exist between the cases in which dissidents win seats and those in which dissidents do not win seats particularly among firms in which agency problems are the highest. For firms in which dissidents win seats, long term price performance matches that of control firms. It bears to reflect on the past performance of these firms where abnormal performance was significantly lower than that of their peers over the three years preceding the contest initiation. On the contrary, when dissidents do not win seats, no attempt to reduce agency costs is apparent and, as a result, these firms experience sustained wealth depreciation over the years surrounding a proxy contest.

7. Robustness tests

In this section, we examine the robustness of our primary results to test for stability of the results under the following conditions. First, does the requirement that firms must have three years of data available on the CRSP and Compustat affect our results? Second, how sensitive are the results to different variable specifications?

7.1 Basic Event Study Results

Table 6 reports the basic event study results using one, three and five-year samples. The sample sizes vary due to the different conditions placed on each sample. The one-year sample (295 firms) requires firms to have data available on the CRSP and Compustat databases for a period starting one year prior to the contest announcement and ending one year after the contest resolution. The three- year sample (158 firms) is the same as the restricted sample used in the results section above which requires data to be available on CRSP and Compustat for the three years prior to the contest announcement until three years post-contest. Finally, the five-year sample (102 firms) requires firms to have data available on CRSP and Compustat for the period beginning five years prior to the contest announcement and ending five years after the contest resolution.

As reported earlier, all three samples show that a proxy contest is preceded by a period of poor prior performance. Five years before the proxy contest announcement, sample firms experience a negative and statistically significant CTAR of -19.80% (t-statistic of -1.78). This increases to a negative and statistically significant CTAR of -25.92% (t-statistic of -2.65) three years before the contest and then slightly decreases to a negative but statistically significant CTAR of -23.40% (t-statistic of -2.99) in the year before the proxy contest announcement.

Over the announcement period, the one year sample reports a positive and statistically significant abnormal return of 8.27% (z-statistic of 7.37), while the five year sample reports a similar positive and statistically significant abnormal return of 7.15% (z-statistic of 3.54). Both samples display results similar to the three-year (restricted) sample which reports a positive and statistically significant abnormal return of 9.19% (z-statistic of 5.50).

Over the post-announcement period, the one-year sample reports a positive but statistically insignificant abnormal return of 0.69%, while the five-year sample reports a similarly positive but insignificant abnormal return of 2.25%. Both exhibit similar abnormal returns to the positive but statistically insignificant abnormal return of 1.78%, as reported for the restricted sample.

For the full contest period, the one-year sample reports a positive and statistically significant abnormal return of 6.29% (z-statistic of 3.66). The restricted sample exhibits a positive and statistically significant abnormal return of 7.65% (z-statistic of 2.67), while the five-year sample reports a positive and statistically significant abnormal return of 6.69% (z-statistic of 2.34). Both samples report similar findings in both magnitude and significance to those reported for the restricted sample earlier.

Collectively these results suggest that our analysis is robust to the use of different pre and post contest time periods. They also show that the poor performance of a firm prior to a proxy contest occurs over an extended period of time (at least five years). This result is similar to the five year pre¬contest performance of -34.40% reported in Ikenberry and Lakonishok (1993).

7.2 Agency Cost and Event Study Results

The agency cost results presented in Section 6 above were obtained using the restricted (three-year) sample. In Tables 7 and 8 we replicate these results using one and five-year time periods respectively. Results in Panels A of these tables generally concur with results reported in Panel A of Table 5 suggesting that our primary results are not sensitive to the choice of the time period over which firm performance is measured. The only place where these results differ is over the post¬contest period, where both the one-year and five-year samples report statistically insignificant results for the high- and low-agency subsamples. This differs from the three-year sample, which reports a negative and significant -21.24% (t-statistic of -1.68) for the high-agency subsample. One possible explanation for the difference between the three-year and one-year samples could be that a

one-year post-contest period is not long enough for changes made subsequent to the proxy contest to take full effect (see Ikenberry, Lakonishok and Vermaelen, 1995; Loughran and Ritter, 1995; Maksimovic and Titman 1991) while difference between the five-year and three-year samples may be due to the substantially reduced sample size in the five-year case, causing a loss of power in some of the statistical tests.

Panel B in Tables 7 and 8 report various subsamples created from the high-agency subsample. The one-year sample exhibits very similar results over the pre-contest and contest periods to those reported for the three-year sample. However, differences appear in the post-contest periods. For the subsample of firms which increase capital expenditure to book value more than the median, the three-year sample reports a negative and statistically significant CTAR of -52.20% (t-statistic of - 2.02), while the one-year sample exhibits a negative but insignificant CTAR of -11.52%. Differences are also found between the research and development expenditure change less than the median subsamples where the one-year sample exhibits a negative but insignificant CTAR of - 3.24%, while the restricted sample experiences a positive and statistically significant CTAR of 95.78% (z-statistic of 2.67). As previously discussed, the most probable reason for these differences is that the one-year subsample does not permit sufficient time for changes that have occurred subsequent to the proxy contest to take effect. The most interesting result to come from Table 7 is that the sample of firms where dissidents do not win seats shows a negative and significant CTAR of -31.68% (t-statistic of -1.66) over the post-contest period. This suggests that the market correctly anticipates those firms in which dissidents do not win seats and subsequently increase capital and research and development expenditure.

For the five-year sample, similar returns to those reported for the restricted sample reported earlier are obtained with some differences in the pre and post-contest periods. For example, within the high-agency subsample, the subsample in which dissidents win in Table 5 reports a negative and statistically significant CTAR of -40.32% (t-statistic of -2.04), while Table 8 reports a negative but statistically insignificant CTAR of -10.80%. However, as previously pointed out, the differences between the one and five-year samples are most probably due to the small sample sizes exhibited in Table 8.

Overall, our primary results with respect to the wealth effects of proxy contests in firms afflicted with varying degrees of agency conflicts seem robust to the choice of alternative time periods to measure firm performance. Results with alternative time periods confirm that the majority of the positive effects of a reduction in agency problems come from firms in which dissidents win seats on the board who subsequently force changes that help reduce over-investment.

7.3 Free Cash Flow and the Market to Book Ratio

Finally we test for robustness of our primary results vis-à-vis agency conflicts and the disciplinary changes brought about by proxy contests by employing an alternative proxy for investment opportunities. Adam and Goyal (2004) study a broad range of growth proxies using a sample of gold mining companies and find that the market-to-book ratio has the highest information content with respect to future investment opportunities. Similar results are reported in Kallapur and Trombley (1999) who also study a wide variety of growth proxies and find that the market-to-book ratio is most highly correlated with future growth (see also for e.g., Smith and Watts, 1992).

Results reported in Table 9 replicate the high-agency subsample results for the dissidents 'win' and 'do not win' subsamples as reported in Table 5, using market-to-book ratio in place of Tobin's Q. As in results reported earlier in Table 5, in the pre-contest period sample firms exhibit negative and statistically significant CTARs of -46.44% (t-statistic of -2.44) and -27.00% (t-statistic of -1.99) for the dissidents 'win' and 'do not win' subsamples respectively. The greater negative CTAR in the dissidents 'win' subsample reinforces our earlier contention that firms with the highest incidence of agency problems are those in which the dissidents tend to win board seats.

Consistent with our primary results in Table 5, the announcement of a proxy contest in firms with elevated levels of agency conflicts results in significantly positive abnormal returns for both subsamples, suggesting that the announcement of a proxy contest is interpreted as good news by the market. The dissidents 'win' subsample exhibits a positive and statistically significant abnormal return of 6.73% (z-statistic of 2.40) while the dissidents 'do not win' subsample exhibits a similar positive and statistically significant abnormal return of 6.17% (z-statistic of 2.52). Similar results are obtained for the post-announcement period where the dissidents 'win seats' subsample exhibits a positive but statistically insignificant abnormal return of 2.37%, while the dissidents 'do not win seats' subsample experiences a negative but insignificant abnormal return of -5.22%. The full contest period results remain insignificant. Finally, consistent with findings reported in Table 5, over the post-contest period, the dissidents' 'win' subsample exhibits a negative but insignificant CTAR of -42.84% while the dissidents 'do not win' subsample exhibits a negative and significant CTAR of -23.04% (t-statistic of -1.73). Overall,

results reported in Table 9 are very similar to those reported in Table 5, and thus confirm that our results are robust to the use of alternative specifications of the sensitive and important growth proxy.

8. Conclusions

Proxy contests are an important corporate control mechanism at the disposal of designed to enable a dissident group to seek board seats in order to support their particular issue or concern - usually poor firm performance, resulting from poor direction or decision making from the board of governors. Existing literature however reports inconsistent findings as to the reasons for initiation and the outcome of such contests. Theory and accepted wisdom suggests that a proxy contest should be preceded by a period of poor performance. Inconsistent with this theory, Dodd and Warner (1983) and DeAngelo (1988) find that stock prices actually increase. However, a more recent study by Ikenberry and Lakonishok (1993) reports significantly negative stock price performance up to five years prior to the proxy contest. In the post-contest period, much of the existing literature finds that firms in which dissidents 'win' seats actually under-perform relative to firms in which dissidents 'do not win' seats. Borstadt and Zwirlein (1992) and Ikenberry and Lakonishok (1993) find that firms in which the dissidents 'win' seats experience highly negative and statistically significant abnormal returns after contest resolution, yet firms in which the dissidents fail to gain a seat experience insignificant returns over the same period. This is inconsistent with theory which suggests that proxy contests in which the dissidents 'win' seats on the board should experience significantly higher abnormal returns than those in which dissidents 'do not win' any seats. The exception in the literature is Mulherin and Poulsen (1997), who find that firms where dissidents 'win' seats tend to replace management and restructure the firm, resulting in a positive and significant abnormal return.

Using new and improved methodology for the measurement of long run abnormal stock returns that was not available in the earlier proxy contest studies we examine the effects of proxy contests on shareholder wealth. Our primary objective is to uncover the source of target wealth effects. Consistent with Ikenberry and Lakonishok (1993) and our stated hypotheses, we find that firms involved in proxy contests exhibit significantly negative performance in the three years prior to the contest announcement. The announcement of a proxy contest results in a significantly positive stock price reaction, indicating that the market sees the advent of a proxy contest as a good opportunity to improve firm performance. A positive reaction is also observed over the full contest period, suggesting that regardless of whether dissidents win board seats or not, the mere appearance of a contest results in stock price improvement.

There are, however, differences in performance of firms in which dissidents win and do not win seats over the three years after the contest resolution. Similar to theoretical predictions in Novaes and Zingales (1995) and Zweibel (1996) and empirical findings in Safieddine and Titman (1999), we find that following a proxy contest firms increase leverage in order to shield against potential acquirers. This increase in leverage also serves to increase managerial discipline thus making the firm more efficient.

Contrary to predictions in the past literature, we find that proxy contests do indeed serve their intended purpose of disciplining managers and bringing about policy changes to improve firm performance. For example, in the sample of firms with elevated levels of agency conflicts, only those contests in which dissidents win seats increase their leverage ratios significantly above industry averages post resolution. In addition to the leverage change, firms that increase capital expenditure and research and development expenditure less than the median, exhibit positive and significant returns over the post-contest period while those that increase discretionary expenditures more than the median, exhibit significantly negative abnormal returns over the same post-contest period. When dissidents do not win seats, no attempt to reduce agency costs is apparent and as a result, these firms experience sustained wealth depreciation over the years surrounding a proxy contest. This suggests that only those firms in which dissidents win seats reduce capital and research and development expenditures sufficiently to reduce agency problems. Overall, we find that proxy contests do serve their intended purpose of disciplining the board and improving firm performance. This research shows that proxy contests are a very effective external disciplining mechanism, and should therefore become an increasingly important and central part of corporate governance over time.

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Table 1. Annual Distribution of Proxy Contests

The following table contains the frequency distribution of proxy contests for both the full and the restricted samples. Mean and median market equity values are also reported and are calculated as the number of shares outstanding (Compustat variable CSHO) multiplied by the share price (Compustat variable PRCCF) and are reported in millions of US Dollars.

Year	Full Sample		Restricted Sample	
	# Contests	Mean (Median) Equity Value	# Contests	Mean (Median) Equity Value
1988	26	623.3 (31.0)	10	679.9 (49.3)
1989	49	324.1 (57.1)	14	314.8 (69.7)
1990	48	381.1 (33.3)	26	450.7 (44.0)
1991	26	925.3 (30.8)	13	1327.7 (45.0)
1992	36	2168.9 (62.0)	20	2863.5 (50.6)
1993	20	58.4 (22.82)	12	56.7 (19.2)
1994	24	173.3 (56.3)	11	279.1 (124.2)
1995	31	261.8 (102.6)	13	268.5 (122.4)
1996	12	650.1 (109.3)	6	703.5 (106.9)
1997	19	519.5 (179.5)	9	400.4 (131.7)
1998	28	606.5 (161.5)	13	760.0 (28.8)
1999	21	79.0 (81.1)	9	71.9 (75.0)
2000	6	24.8 (25.23)	2	25.9 (25.9)
Total	346	608.3 (52.8)	158	781.2 (55.1)

Table 2. Descriptive Statistics for the Proxy Contest Samples

This table reports detailed descriptive statistics for both the full and restricted samples. The results are partitioned into two periods representing the period studied by previous research and that previously unstudied. Panel A reports general information about the firm, while panel B reports attributes associated with the proxy contest and panel C reports governance results from the proxy contests. A full control contest is such that the dissident's goal is to gain a majority of seats on the board, while a partial contest contains all contests not for control. The dissidents 'win seats' variable denotes contests where dissidents are successful in getting at least one of their candidates elected to the board of directors during the proxy contest. A contest is classified as being a success if, at a minimum, the dissidents attained the number of boards seats set out in the original proxy statement. The takeover bid variable denotes a firm that is subject to a tender offer or merger by the dissident during the contest period. Finally, the takeover success variable denotes that the firm was subsequently acquired by the dissidents following the proxy contest. The market value of equity for each firm is calculated by multiplying the number of common shares outstanding (Compustat variable CSHO) by the share price at the end of the fiscal year (Compustat variable PRCCF) and along with the total asset value are reported in millions of US dollars. The contest length in panel B is reported as the number of days. The takeover bid and acquired percentages are only for those firms where the dissident and not a third party enacted a takeover bid or was successful in acquiring the firm.

	Full Sample			Restricted Sample		
	Total	Subsample by time		Total	Subsample by time	
		1988-1994	1995-2000		1988-1994	1995-2000
Panel A: The Sample # of Contests	346	229	117	158	106	52
Mean (Median) Equity Value	608 (53)	726 (43)	381 (88)	781 (55)	1000 (54)	421 (67)
Mean (Median) Total Assets	2165 (135)	2942 (131)	622 (135)	2877 (115)	3966 (120)	721 (111)
Panel B: Sample Attributes Mean (Median) Dissident Stake	11.4% (9.5%)	11.6% (9.5%)	11.0% (9.5%)	11.5% (9.4%)	11.5% (9.5%)	11.5% (9.3%)
Mean (Median) Contest Length	74 (51)	84 (53)	59 (50)	66 (43)	76 (45)	46 (37)
Contest Type: Full Control Partial Control	192 (55%) 154 (45%)	127 (54%) 102 (46%)	65 (55%) 52 (45%)	90 (57%) 68 (43%)	58 (55%) 48 (45%)	32 (62%) 20 (48%)
Takeover Bid: Yes No	90 (26%) 256 (74%)	70 (30%) 159 (70%)	20 (17%) 97 (83%)	22 (14%) 136 (86%)	20 (19%) 86 (81%)	2 (4%) 50 (94%)
Staggerd Board: Yes No	147 (42%) 199 (58%)	9 (43%) 130 (57%)	50 (42%) 67 (58%)	71 (45%) 87 (55%)	50 (47%) 56 (53%)	21 (40%) 31 (60%)
Unequal Voting Rights: Yes No	80 (23%) 266 (77%)	55 (24%) 174 (76%)	29 (25%) 88 (75%)	40 (25%) 118 (75%)	28 (26%) 78 (74%)	12 (23%) 40 (77%)
Panel C: Governance results Dissidents Attain Seats: Yes No	137 (40%) 209 (60%)	95 (41%) 134 (59%)	42 (36%) 75 (64%)	70 (44%) 88 (56%)	49 (46%) 57 (54%)	21 (40%) 31 (60%)
Dissidents Succeed:* Yes No	81 (23%) 265 (77%)	55 (24%) 174 (76%)	26 (22%) 91 (78%)	35 (22%) 123 (78%)	25 (24%) 81 (76%)	10 (19%) 42 (81 %)
Acquired: Yes No	39 (11%) 307 (89%)	34 (15%) 195 (85%)	5 (4%) 112 (96%)	5 (3%) 153 (97%)	5 (5%) 101 (95%)	0 (0%) 52 (100%)

** This means dissident succeeded in gaining the number of board seats as set out in the original proxy statement*

Table 3. Event Study Results

This table reports event study results for both the full (panel A) and restricted (panel B) samples. For each sample, the results are partitioned into a number of subsamples. The dissidents 'win seats' subsample denotes contests where dissidents are successful in getting at least one of their candidates elected to the board of directors during the proxy contest. The dissident succeed subsample requires, at a minimum, that the dissidents attain the number of boards seats set out in the original proxy statement. The tender offer success subsample denotes those firms that were subsequently acquired by the dissidents following the proxy contest. The results are broken down into the pre-contest, announcement, post-announcement, full contest and post-contest periods. Daily CARs are reported for the announcement period, post¬announcement period and full contest periods followed by the corresponding z statistic in brackets. For the pre-contest and post-contest periods monthly CTARs are reported with the corresponding WLS t-statistic in brackets. The time periods covered by each of these variables are shown in square brackets and are denoted in days unless otherwise specified.

Study	Sample Size	Calendar Time Abnormal Returns	Cumulative Abnormal Returns			Calendar Time Abnormal Returns
		Pre-Contest [-3 years, -20]	Annoucement Period [-20,+5]	Post-Annoucement [+6, resolution]	Full Contest [-20, resolution]	Post-Contest [resolution, +3 years]
Panel A: Full sample results						
Full Sample	346	n.a	8.90%	0.44%	6.68%	n.a
			(8.95)***	(0.86)	(4.68)***	
Dissidents Win Seats	137	n.a	6.71%	2.69%	7.67%	n.a
			(4.29)***	(0.86)	(2.95)***	
Dissidents Don't Win Seats	209	n.a	10.33%	-1.02%	6.03%	n.a
			(8.05)***	(0.42)	(3.64)***	
Test for difference in sub-samples			-1.37	1.20	0.5	
Dissidents Succeed	81	n.a	7.25%	2.10%	7.58%	n.a
			(3.26)***	(0.49)	(2.3)**	
Dissidents Don't Succeed	265	n.a	9.40%	-0.06%	6.40%	n.a
			(8.42)***	(0.71)	(4.07)***	
Test for difference in sub-samples			-1.11	1.30	0.94	
Successful Tender Offer	39	n.a	8.08%	3.42%	7.58%	n.a
			(4.62)***	(2.86)***	(2.31)**	
No Successful Tender Offer	307	n.a	9.00%	0.05%	6.40%	n.a
			(7.85)***	(-0.22)	(4.07)***	
Test for difference in sub-samples			-0.32	0.63	0.57	
Panel B: Restricted Sample Results						
Full Sample	158	-25.92%	9.19%	1.78%	7.65%	-4.68%
		(-2.65)***	(5.30)***	(0.48)	(2.67)***	(-0.63)
Dissidents Win Seats	70	-34.20%	8.58%	6.30%	11.31%	-20.16%
		(-2.08)**	(3.52)***	(1.31)*	(2.54)***	(-128)
Dissidents Don't Win Seats	88	-19.44%	9.67%	-1.79%	4.73%	5.04%
		(-1.62)*	(3.96)***	(-0.59)	(1.31)*	(0.67)
Test for difference in sub-samples			-0.28	1.77*	1.28	
Dissidents Succeed	35	-20.16%	7.66%	8.11%	12.08%	-5.76%
		(-0.85)	(1.86)**	(106)	(1.57)*	(-0.63)
Dissidents Don't Succeed	123	-27.00%	9.62%	-0.05%	6.38%	-2.52%
		(-2.70)***	(5.02)***	(-0.08)	(2.18)**	(-0.4)
Test for difference in sub-samples			-0.41	1.65*	1.11	
Successful Tender Offer	5	63%a	8.91%	7.32%	10.42%	24.48%
		(129)	(112)	(1.17)	(124)	(0.94)
No Successful Tender Offer	153	-29.52%	9.20%	1.59%	7.56%	-5.76%
		(-3.04)***	(5.18)***	(0.28)	(2.49)***	(-0.57)
Test for difference in sub-samples			-0.04	1.04	0.50	

** Significant at the 10% level of significance ** Significant at the 5% level of significance *** Significant at the 1% level of significance*

a: This result is mainly driven by 2 firms with very large returns

Table 4. Descriptive Statistics for Leverage and Investment

Summary statistics are presented for the restricted sample (panel A), cases where dissidents win board seats (panel B) and cases where dissidents fail to gain board seats (panel C) for the year immediately preceding the proxy contest announcement. Reported are the mean, median, minimum and maximum of total debt scaled by book value, total debt scaled by market value, research and development expenditure scaled by book value and capital expenditure scaled by book value for sample firms and their industry comparisons. A simple t-test for difference in means and the Wilcoxon signed-rank test are performed to determine whether sample firms' ratios are significantly different from their industry counterparts. The dissidents 'win seats' variable denotes contests where dissidents are successful in getting at least one of their candidates elected to the board of directors during the proxy contest. Debt to book value is created by dividing total debt (Compustat variable DT) by book value, as measured by total assets (Compustat variable AT). The debt to market value is constructed by dividing total debt by market value of assets, as measured by combining the market value of equity (calculated by multiplying the number of common shares outstanding (Compustat variable CSHO) by the share price at the end of the fiscal year (Compustat variable PRCCF)) with total assets and taking away the book value of equity (Compustat variable CEQ). Finally, capital expenditure to book value is created by dividing capital expenditure (Compustat variable CAPX) by book value.

Variable	Mean	Median	Min	Max	T-test of Wilcoxon Difference in Signed-Rank Means (p-value) Test (p-	
Panel A: Restricted Sample						
Debt to Book Value	18.93%	10.13%	0.02%	85.13%	-0.643	-1.461
Industry Debt to Book Value	19.96%	17.92%	0.00%	99.98%	(0.521)	(0.144)
Debt to Market Value	19.53%	13.97%	0.02%	72.48%	1.471	1.398
Industry Debt to Market Value	14.09%	12.83%	0.00%	98.56%	(0.149)	(0.162)
Capex to Book Value	11.05%	5.32%	0.20%	68.36%	5.266***	2.672***
Industry Capex to Book Value	4.92%	4.52%	0.00%	90.38%	(0.000)***	(0.008)***
R&D to Book Value	6.35%	1.80%	0.18%	34.52%	2.298**	-0.075
Industry R&D to Book Value	4.90%	5.56%	0.00%	99.83%	(0.024)**	(0.941)
Panel B: Dissidents Win Seats						
Debt to Book Value	19.72%	11.12%	0.02%	85.13%	0.242	-0.500
Industry Debt to Book Value	18.07%	17.38%	0.00%	99.98%	(0.809)	(0.617)
Debt to Market Value	20.77%	13.95%	0.02%	72.48%	1.569	1.485
Industry Debt to Market Value	14.00%	12.83%	0.00%	98.56%	(0.121)	(0.138)
Capex to Book Value	10.20%	4.72%	0.20%	59.12%	3.179***	1.443
Industry Capex to Book Value	4.83%	4.52%	0.00%	90.38%	(0.002)***	(0.149)
R&D to Book Value	6.88%	1.83%	0.37%	28.40%	2.506**	-0.280
Industry R&D to Book Value	4.80%	2.77%	1.98%	42.15%	(0.016)**	(0.779)
Panel C: Dissidents Do Not Win Seats						
Debt to Book Value	18.30%	10.12%	1.36%	61.28%	-1.202	-1.613
Industry Debt to Book Value	21.29%	17.97%	0.00%	99.98%	(0.232)	(0.107)
Debt to Market Value	18.53%	14.03%	0.56%	65.93%	0.335	0.516
Industry Debt to Market Value	18.08%	12.93%	0.00%	98.56%	(0.739)	(0.606)
Capex to Book Value	11.73%	5.67%	0.26%	70.86%	4.089***	2.247**
Industry Capex to Book Value	6.44%	4.86%	0.00%	90.38%	(0.000)***	(0.025)**
R&D to Book Value	5.84%	1.59%	0.18%	74.94%	1.659*	-0.156
Industry R&D to Book Value	4.80%	4.56%	0.00%	99.83%	(0.097)*	(0.876)

** Significant at the 10% level of significance ** Significant at the 5% level of significance *** Significant at the 1% level of significance*

Table 5. Event Study for Free Cash Flow and Tobin's Q

This table reports event study results, for a three-year period following the contest resolution, based on free cash flow (FCF) and Tobin's Q in the year prior to the proxy contest announcement. Panel A reports results for the restricted sample, partitioned into four subsamples, however, only the two subsamples of interest are reported. The first subsample includes those firms that have free cash flow greater than the median and a Tobin's Q less than one (the 'high agency cost' subsample) in the year prior to the contest announcement. The second subsample reports those firms that have free cashflow less than the median and a Tobin's Q greater than one (the 'low agency cost' subsample) in the year prior to the contest announcement. Panel B reports results based on the high agency cost subsample, further partitioned into those firms that increase capital expenditure greater and less than the median., firms that increase research and development expenditure greater and less than the median and firms in which dissidents win or 'do not win seats' on the board. The results are broken down into the pre-contest, announcement, post¬announcement, full contest and post-contest periods. Daily CARs are reported for the announcement period, post-announcement period and full contest periods followed by the corresponding z-statistic in brackets. For the pre-contest and post-contest periods monthly CTARs are reported with the corresponding WLS t-statistic in brackets. The time periods covered by each of these variables are shown in square brackets and are denoted in days unless otherwise specified. A t-test is also performed to determine whether there are any differences in mean between subsamples, however, this could not be performed for the pre-contest and post-contest periods.

Study	Sample Size	Calendar Time Abnormal Returns	Cumulative Abnormal Returns			Calendar Time Abnormal Returns
		Pre-Contest [-3 years, -20]	Annoucement Period [-20,+5]	Post-Annoucement [+6, resolution]	Full Contest [-20, resolution]	Post-Contest [resolution, +3 years]
Panel A: Restricted Sample						
FCF > median and Tobin's Q < 1	55	-42.40%	8.13%	-5.12%	1.46%	-21.24%
		(-2.56)**	(3.81)***	(-1.35)*	(0.51)	(-1.68)**
FCF < median and Tobin's Q > 1	13	30.96	7.39%	-0.04%	1.06%	4.32%
		(0.58)	(0.92)	(-0.48)	(-0.06)	(0.09)
Test for difference in sub-samples			0.11	-0.5	0.045	
Panel B: FCF > median and Tobin's Q < 1						
Capital Expenditure to book value > median	21	-40.68%	10.90%	-6.83%	2.74%	-52.20%
		(-1.71)*	(3.16)***	(-1.17)	(0.49)	(-2.02)**
Capital Expenditure to book	34	-48.60%	6.42%	-4.16%	0.66%	14.40%
		(-2.80)***	(2.37)***	(-0.83)	(0.28)	(0.86)
Test for difference in sub-samples			1.46	-0.22	0.55	
Research and Development Expenditure to book value > median	12	-42.84%	9.12%	-7.92%	-0.98%	-24.12%
		(-2.39)**	(3.60)***	(-1.90)**	(-0.22)	(-1.33)
Research and Development Expenditure to book value < median	43	-24.84	4.60%	6.08%	10.19%	95.76%
		(-0.75)	(1.36)*	(0.80)	(1.58*)	(2.67)***
Test for difference in sub-samples						
Dissidents Win Seats	23	-40.32%	7.64%	1.99%	5.81%	-19.08%
		(-2.04)**	(2.31)**	(0.03)	(0.56)	(-0.97)
Dissidents do not Win Seats	32	-26.64%	8.49%	-9.87%	-1.68%	-37.44%
		(-1.68)*	(3.04)***	(-1.78)**	(0.20)	(-1.73)**
Test for difference in sub-samples			-0.45	1.73*	0.89	

** Significant at the 10% level of significance ** Significant at the 5% level of significance *** Significant at the 1% level of significance*

Table 6. Event Study Results using Different Post-Contest Periods

This table reports event study results using varying post-contest period definitions. Results are reported using a one, three and five year post-contest periods. The results are broken down into the pre-contest, announcement, post-announcement, full contest and post-contest periods. Daily CARs are reported for the announcement period, post-announcement period and full contest periods followed by the corresponding z- statistic in brackets. For the pre-contest and post-contest periods monthly CTARs are reported with the corresponding WLS t-statistic in brackets. The time periods covered by each of these variables are shown in square brackets and are denoted in days unless otherwise specified, where n represents the length of the sample period; for example, for the five-year study, n=5.

Study	Sample Size	Calendar Time Abnormal Returns	Cumulative Abnormal Returns			Calendar Time Abnormal Returns
		Pre-Contest [-n years, -20]	Annoucement Period [-20,+5]	Post-Annoucement [+6, resolution]	Full Contest [-20, resolution]	Post-Contest [resolution, +n years]
One Year Sample	295	-23.40%	8.27%	0.69%	6.29%	-5.40%
		(-2.99)***	(7.37)***	(0.41)	(3.66)***	(-0.40)
Three Year Sample (Restricted Sample)	158	-25.92%	9.19%	1.78%	7.65%	-4.68%
		(-2.65)***	(5.30)***	(0.48)	(2.67)***	(-0.63)
Five Year Sample	102	-19.80%	7.15%	2.25%	6.69%	14.40%
		(1.78)*	(3.54)***	(1.25)	(2.34)***	(0.7)

** Significant at the 10% level of significance ** Significant at the 5% level of significance *** Significant at the 1% level of significance*

Table 7. Event Study using Free Cash Flow and Tobin's Q for a One-Year Post-Contest Period

This table reports event study results, for a one-year period following the contest resolution, based on free cash flow and Tobin's Q in the year prior to the proxy contest announcement. Panel A reports results for the restricted sample, partitioned into four subsamples, however, only the two subsamples of interest are reported. The first subsample includes those firms that have free cash flow greater than the median and a Tobin's Q less than one (the 'high agency cost' subsample) in the year prior to the contest announcement. The second subsample reports those firms that have free cash flow less than the median and a Tobin's Q greater than one (the 'low agency cost' subsample) in the year prior to the contest announcement. Panel B reports results based on the high agency cost subsample, further partitioned into those firms that increase capital expenditure greater and less than the median., firms that increase research and development expenditure greater and less than the median and firms in which dissidents win or do not 'win seats' on the board. The results are broken down into the pre-contest, announcement, post¬announcement, full contest and post-contest periods. Daily CARs are reported for the announcement period, post-announcement period and full contest periods followed by the corresponding z-statistic in brackets. For the pre-contest and post-contest periods monthly CTARs are reported with the corresponding WLS t-statistic in brackets. The time periods covered by each of these variables are shown in square brackets and are denoted in days unless otherwise specified. A t-test is also performed to determine whether there are any differences in mean between subsamples, however, this could not be performed for the pre-contest and post-contest periods.

Study	Sample Size	Calendar Time Abnormal Returns	Cumulative Abnormal Returns			Calendar Time Abnormal Returns
		Pre-Contest [-1 years, -20]	Annoucement Period [-20,+5]	Post-Annoucement [+6, resolution]	Full Contest [-20, resolution]	Post-Contest [resolution, +1 years]
Panel A: One-Year Sample						
FCF > median and Tobin's Q < 1	61	-32.76%	10.16%	-5.59%	2.17%	-13.68%
		(-2.78)***	(4.92)***	(-1.77)**	(0.55)	(-0.85)
FCF < median and Tobin's Q > 1	14	60.48%	5.92%	-11.04%	-16.99%	-43.56%
		(0.88)	(1.03)	(-1.16)	(-1.16)	(-0.89)
Panel B: FCF > median and Tobin's Q < 1						
Capital Expenditure to book value > median	35	-34.92%	11.16%	-2.51%	6.43%	-11.52%
		(-2.14)**	(3.49)***	(-0.66)	(1.04)	(-0.54)
Capital Expenditure to book value < median	34	-29.52%	8.81%	-9.87%	-3.57%	-10.80%
		(-1.70)*	(3.50)***	(-2.05)**	(-0.44)	(-0.39)
Research and Development Expenditure to book value > median	46	-33.48%	11.80%	-7.21%	1.64%	-16.56%
		(-2.58)***	(5.34)***	(-1.67)**	(0.83)	(-0.87)
Research and Development Expenditure to book value < median	15	-30.24%	5.14%	0.22%	3.78%	-12.24%
		(-1.10)	(0.58)	(-0.63)	(-0.40)	(-0.31)
Dissidents Win Seats	27	-38.88%	8.22%	-0.38%	4.44%	-20.52%
		(-2.13)**	(3.08)***	(-0.51)	(0.54)	(-0.67)
Dissidents do not Win Seats	34	-28.44%	11.70%	-9.33%	0.36%	-31.68%
		(-1.74)*	(3.85)***	(-1.90)**	(0.26)	(-1.66)*

** Significant at the 10% level of significance ** Significant at the 5% level of significance *** Significant at the 1% level of significance*

Table 8. Event Study using Free Cash Flow and Tobin's Q for a Five-Year Post-Contest Period

This table reports event study results, for a five-year period following the contest resolution, based on free cash flow and Tobin's Q in the year prior to the proxy contest announcement. Panel A reports results for the restricted sample, partitioned into four subsamples, however, only the two subsamples of interest are reported. The first subsample includes those firms that have free cash flow greater than the median and a Tobin's Q less than one (the 'high agency cost' subsample) in the year prior to the contest announcement. The second subsample reports those firms that have free cash flow less than the median and a Tobin's Q greater than one (the 'low agency cost' subsample) in the year prior to the contest announcement. Panel B reports results based on the high agency cost subsample, further partitioned into those firms that increase capital expenditure greater and less than the median., firms that increase research and development expenditure greater and less than the median and firms in which dissidents 'win' or 'do not win seats' on the board. The results are broken down into the pre-contest, announcement, postannouncement, full contest and post-contest periods. Daily CARs are reported for the announcement period, post-announcement period and full contest periods followed by the corresponding z-statistic in brackets. For the pre-contest and post-contest periods monthly CTARs are reported with the corresponding WLS t-statistic in brackets. The time periods covered by each of these variables are shown in square brackets and are denoted in days unless otherwise specified. A t-test is also performed to determine whether there are any differences in mean between subsamples, however, this could not be performed for the pre-contest and post-contest periods.

Study	Sample Size	Calendar Time Abnormal Returns	Cumulative Abnormal Returns			Calendar Time Abnormal Returns
		Pre-Contest [-5 years, -20]	Annoucement Period [-20,+5]	Post-Annoucement [+6, resolution]	Full Contest [-20, resolution]	Post-Contest [resolution, +5 years]
Panel A: Five-Year Sample						
FCF > median and Tobin's Q < 1	35	-24.12%	4.74%	-7.35%	-3.17%	2.52%
		(-1.67)*	(1.86)**	(-1.35)*	(-0.53)	(0.12)
FCF < median and Tobin's Q > 1	8	-2.52%	3.78%	11.74%	8.31%	13.68%
		(-0.05)	(0.35)	(1.21)	(0.87)	(0.27)
Panel B: FCF > median and Tobin's Q < 1						
Capital Expenditure to book value > median	10	15.48%	2.44%	-13.00%	-11.84%	-73.44%
		(0.52)	(0.88)	(-1.49)*	(-1.18)	(-1.91)*
Capital Expenditure to book value < median	25	-36.00%	5.65%	-4.89%	0.30%	17.28%
		(2.03)**	(1.65)**	(-0.66)	(0.12)	(0.67)
Research and Development Expenditure to book value > median	8	-46.32%	0.62%	2.23%	4.20%	38.52%
		(-1.21)	(0.14)	(0.17)	(0.30)	(0.94)
Research and Development Expenditure to book value < median	27	-16.20%	5.95%	-9.47%	-5.35%	-3.24%
		(-0.97)	(2.04)**	(-1.60)*	(-0.75)	(-0.16)
Dissidents Win Seats	19	-10.80%	4.40%	-13.48%	-8.01%	-19.08%
		(-0.47)	(1.31)*	(-1.60)*	(-0.44)	(-0.72)
Dissidents do not Win Seats	16	-36.72%	5.13%	0.98%	2.57%	8.64%
		(-1.72)*	(1.32)*	(-0.25)	(-0.31)	(0.18)

** Significant at the 10% level of significance ** Significant at the 5% level of significance *** Significant at the 1% level of significance*

Table 9. Event Study using Free Cash Flow and Market to Book

This table reports event study results for a subsample based on firms with free cash flow greater than the median and market to book ratio less than one in the year prior to the proxy contest announcement. The dissidents 'win seats' subsample denotes contests where dissidents are successful in getting at least one of their candidates elected to the board of directors during the proxy contest. The results are broken down into the pre-contest, announcement, post-announcement, full contest and post-contest periods. Daily CARs are reported for the announcement period, post-announcement period and full contest periods followed by the corresponding z-statistic in brackets. For the pre-contest and post-contest periods monthly CTARs are reported with the corresponding WLS t-statistic in brackets. The time periods covered by each of these variables are shown in square brackets and are denoted in days unless otherwise specified.

Study	Sample Size	Calendar Time Abnormal Returns	Cumulative Abnormal Returns			Calendar Time Abnormal Returns
		Pre-Contest [-3 years, -20]	Annoucement Period [-20,+5]	Post-Annoucement [+6, resolution]	Full Contest [-20, resolution]	Post-Contest [resolution, +3 years]
Dissidents Win Seats	29	-46.44%	6.73%	2.37%	5.83%	-42.84%
		(-2.44)**	(2.40)***	(0.18)	(0.78)	(-1.43)
Dissidents do not Win Seats	42	-27.00%	6.17%	-5.22%	0.15%	-23.04%
		(-1.99)**	(2.52)***	(-0.40)	(1.02)	(-1.73)**

** Significant at the 10% level of significance*
*** Significant at the 5% level of significance*
**** Significant at the 1% level of significance*