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Fight or flee: Outside director departures prior to contested management buyout offers

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Fight or flee: Outside director departures prior to contested management buyout offers

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Abstract

Research Question/Issue: We investigate outside director departures prior to management buyout offers (MBOs). In these transactions, managers have both an information advantage and incentives to make a lowball offer to shareholders. Outside directors can safeguard against managerial self-dealing by negotiating for the best terms for public shareholders from either management or another bidder. Research Findings/Insights: It is typical that outside directors stay on the board through an MBO offer as MBOs are less likely to have changes in

directors—either joining or leaving—relative to a control sample. After controlling for endogeneity as well as firm and director characteristics, we find that outside directors are more likely to leave when the offer is later contested. We do not find any evidence that departing directors are replaced by new outside directors who ensure shareholders get a higher premium nor do we find any evidence that the board acts as a public auctioneer. We also find that outside directors are more likely to depart when the buyout contest is longer. Our findings show that outside directors provide a weak internal monitoring mechanism as they leave precisely when shareholders need their expertise the most. Theoretical/Academic Implications: Our results contribute to research that supports the notion that outside director departures are symptomatic of board weakness. The results of our study support the contention of other researchers that outside directors often fail to monitor managers. Practitioner/Policy Implications: Our study offers useful information to M&A investment banking advisors and leverage buyout analysts by showing the mechanisms under which director turnover can affect the value and the outcome of MBOs.

Keywords

1 INTRODUCTION

The role outside directors play in monitoring managers has been the subject of extensive research. Fama and Jensen's seminal 1983 paper launched the discussion arguing that outside directors have incentives to monitor management to protect their reputations as decision experts. Many studies support the notion that outside directors are effective monitors (see, e.g., Brickley, Coles, & Terry, 1994; Byrd & Hickman, 1992; Cotter, Shivdasani, & Zenner, 1997; Hanson & Song, 2000; Nguyen & Nielsen, 2010; Rosenstein & Wyatt, 1990; Weisbach, 1988). However, some researchers question the independence and effectiveness of outside directors given that management largely controls the nominating process (see Arena & Ferris, 2007; Shivdasani & Yermack, 1999). Goergen and Renneboog (2014) review the literature and conclude that the role that independent directors play in advocating for shareholders' interests remains unsettled. We contribute to the research on outside directors and board dynamics by examining director turnover prior to management buyout (MBO) offers, a transaction where managers have an inherent conflict of interest with shareholders.

Outside directors can play an important role by advocating for public shareholders during the MBO contest—the "fight" hypothesis. Yet prior research suggests there is a potential cost for outside directors who stay on the board when the MBO offer is contested. Harford (2003) studies what happens to directors' future board seats and the accompanying directors' fees after a takeover bid. He finds that for outside directors, the direct financial impact of a completed merger is negative. He concludes that when outside directors fail as monitors, forcing the external control market to act for them, there is a partial settling-up in the directorial labor market. Other researchers have also found that outside directors bear costs when the firm faces adverse events. Fich and Shivdasani (2007) find that outside directors lose future board seats when there is a financial fraud lawsuit against the firm where they serve as a director. Srinivasan (2005) finds the reputation of outside directors is damaged when they are on boards of firms that restate earnings. Gilson (1990) finds that outside directors lose board seats when they serve on boards of firms experiencing financial distress. These findings suggest that outside directors are likely to leave the board prior to the MBO offer when they think that the offer is weak and could be contested. These directors leave to avoid being tainted in the directorial labor market by avoiding any involvement in a transaction in which the external control market intervenes to correct board failings; this is the "flee" hypothesis.

Additionally, outside directors can have conflicting loyalties and reputational concerns in these transactions. On the one hand, they have incentives to create a reputation among the shareholders who elect them as watchdogs

against management entrenchment. Institutional shareholders can vote against directors nominated to the board when the firm's performance and corporate governance practices are weak (see Del Guercio, Seery, & Woidtke, 2008). On the other hand, outside directors may wish to cultivate a reputation for going along with the managers who nominate them, as this can lead to more board seats and higher compensation (see Brick, Palmon, & Wald, 2006; Dah & Frye, 2017; Nguyen, 2014). We hypothesize that the tension created by these conflicting reputational concerns is likely to cause directors to depart, that is, flee. By avoiding controversy, they can preserve their reputations as independent monitors while maintaining a friendly attitude toward management.

In this study, we focus only on buyouts of U.S. firms. A cross-country investigation would prevent us from providing the depth of analysis we offer in this paper, as regulatory and institutional contexts are vastly different across countries and economies in different phases of development. First, procedurally, the parties involved in the transactions are not uniform across regions due to differences in available sources of financing, in the impacts of debt pressure, and, in some cases, due to the absence of private equity. Second, differences in regulatory approval across countries are likely to significantly impact the interaction between governance and the business rationale for an MBO transaction (see Wright, Scholes, & Yao, 2010). However, our results have implications for directors' incentives to stay on a board in non-U.S. settings. Our methodology for investigating director changes can provide guidance for researchers who study non-U.S. buyouts.

For a sample of MBO offers from 1999 through 2016, we compare both board composition and board turnover to a control sample. We find that the boards of firms with MBO offers have a higher percentage of insiders. We find that while board *composition* is stable during the 2 years preceding the MBO, there is considerable turnover in the individual directors who serve on the board. About a third of the board turns over for both samples. We also find that when there is an MBO offer, directors are more likely to stay beyond what can be explained as routine vis-à-vis our control sample. Thus, the MBO offer itself does not lead to more director departures. Further, these observed departures are more likely to occur when the MBO offer is subsequently challenged by either shareholders or a competitive bidder. While outside director departures can be a form of monitoring by signaling to a competitive bidder that the management's offer is weak, this type of monitoring is likely to be less effective than staying on the board and actively seeking higher offers from competitive bidders and/or blocking management from adopting anti-takeover amendments designed to discourage other bidders.

After controlling for firm and director characteristics, fixed effects, and the endogenous relation between director turnover and MBO-related factors, we find that outside directors provide a weak internal monitoring mechanism as they are likely to leave precisely when shareholders need them to ensure that the buyout offer is fair. The results of our study support Jensen's (1993) contention that outside directors often fail to monitor managers.

Professional directors or those who are retired from their primary profession are more likely to depart when the MBO offer is challenged than other types of outside directors. Professional directors are likely to be more sensitive to protecting future board seats than directors who are currently working and have alternative sources of compensation. We find only weak evidence that professional directors are more likely to depart than other types of outsiders. We do not find any evidence that departing outside directors are replaced by new outside directors who may have better expertise in navigating a contentious MBO offer. Nor do we find any evidence that when directors depart, the board they leave engages in actions to auction off the firm to the highest bidder. Finally, we report mixed results on our tests regarding whether outside directors depart to avoid the time required in a buyout. The overall weight of our findings suggests that outside directors "flee" rather than "fight" on behalf of the interests of shareholders.

Our study makes several contributions. First, we contribute to a growing body of research on outside director departures. Fields and Gupta (2009) show that when a company announces an outside director resignation, the market responds negatively. Agrawal and Chen (2017) and Dewally and Peck (2010) show that outside directors leave when there are disputes with management and often publicly criticize the firm. Farrell and Whidbee (2000) find that when the CEO is forced out of the firm, outside directors leave too. Fahlenbrach, Low, and Stulz (2010) show that outside directors' incentives to protect their reputations increase the likelihood of their resigning when the firm is performing poorly. Overall, these studies provide evidence that outside directors' departures can indicate problems with management. If directors are unable or unwilling to reign in management, they are likely to leave. Our results add to this evidence.

Second, our findings corroborate studies that show that insiders time their efforts to go private when they know that the firm is undervalued. Harford, Stanfield, and Zhang (2019) provide evidence that insiders make MBO offers when they have private information that the industry is undervalued and hence time the offer to exploit public shareholders. Our observation that outside directors resign prior to an offer that later is likely to be considered unfair is consistent with insiders using their information advantage to exploit shareholders.

Finally, our findings highlight the importance of accounting for changes in corporate governance structures during MBOs specifically and changes in corporate control more generally. While there are many studies on board composition post-buyout (see Renneboog & Vansteenskiste, 2017, for a review of this literature), there is little research examining changes prior to the buyout announcement. In a global study, Cornelli and Karakas (2008) report that for a sample of MBOs firms' board size declined, and that for a sample of leverage buyout firms the percentage of outsiders declines in the 5 years prior to the offer. Wright et al. (2010) provide a more detailed analysis for a sample of 19 firms, and like our empirical approach, they use a control sample to measure changes in the board prior to the offer. They find that board size declines prior to the MBO but find no differences in board size between MBO firms and a set of control firms, which is consistent with our findings. Wright et al. (2010) find that the percentage of independent or outside directors increases in preparation for an MBO. It is to be expected that major transactions in a firm's life cycle lead to board restructuring. In addition to board size, we also find that board *composition* is static over the 3-year period prior to the MBO. However, about a third of the *individual* board members turn over for both our MBO and control samples. Future researchers need to consider that boards are dynamic and can change in response to changes in control.

The rest of the paper is organized as follows. The next section discusses prior research and develops our hypotheses and related tests. The third section describes how we construct both our MBO and control samples, how we track director turnover, and how we categorize directors. The following section provides our results on the differences in director turnover between our MBO offer and control samples. Next, we present evidence that directors leave the board when the offer is more likely to be contested. In the last section, we provide suggestions for future research.

2 PRIOR RESEARCH AND HYPOTHESIS DEVELOPMENT

2.1 Prior research on MBO offers

In management buyout offers, management attempts to take the firm private by purchasing the firm from public shareholders. There is an inherent conflict between managers and shareholders in these transactions—managers have an incentive to purchase the firm as cheaply as possible while shareholders want to receive the highest price possible in exchange for their shares. Further, as insiders, managers have an information advantage over public shareholders on the intrinsic value of the firm. Consequently, a stream of research investigates whether managers time these transactions to exploit their information advantage over public shareholders (see DeAngelo, 1986; DeAngelo, DeAngelo, & Rice, 1984; Harford et al., 2019; Kaplan, 1989).

Researchers also have investigated the efficacy of mechanisms that check managerial self-dealing in MBOs. Safeguards can take either the form of legal and corporate processes or competitive bidding in the market for corporate control. Cain and Davidoff (2011) provide a review of the laws and regulations of MBO transactions. Some of the legal and procedural mechanisms include using an auction process to ensure the highest bid prior to the public MBO announcement, limiting the use of deal termination fees, forming special committees of independent directors to evaluate the fairness of the offer, requiring fairness opinions from third-party investment bankers, and using "go shop" provisions. "Go shop" provisions allow the company to solicit offers for a prespecified period after the initial buyout announcement. Researchers have found mixed results on whether these safeguards lead to higher premiums for shareholders. Cain and Davidoff (2011) find that the "go shop" provision, an auction, or termination fees do not impact the final bid premium. However, they find that premiums are higher for successful MBOs in the presence of a special committee of outside directors. In contrast, Boone and Mulherin (2017) find that special committees do *not* increase bid premiums in a broader sample of mergers and acquisitions, and in a subset of going private transactions, they find that premiums are *lower* when a special committee is used. In a sample of mergers and acquisitions, Kisgen, Qian, and Song (2009) find that fairness opinions do not increase, and in some cases decrease, the premium paid to target shareholders.

These studies' mixed results are consistent with researchers who argue that legal safeguards can be inherently weak (see Bebchuk & Kahan, 1989; Carney, 1992; Davidoff, 2006; DeAngelo, 1990; Elson, 1992). One weakness is that managers can use these legal mechanisms to rubber-stamp their offers. Another weakness is that shareholders seeking legal recourse force courts to evaluate the fairness of an offer using a sample of one.

Outside directors can act as an internal control mechanism to guard against managerial self-dealing. Prior studies on the role of outside directors on the outcome of control contests are mixed. Byrd and Hickman (1992) find that when at least 50% of board seats are held by outside directors, a bidding firm will have higher announcement-date abnormal returns. However, at 60% or higher representation, these abnormal returns decline. Cotter et al. (1997) find that target bid premiums are higher when independent directors make up at least 50% of target's board, yet, unlike Byrd and Hickman (1992), they do not test whether this finding holds true for 60% or higher representation. Finally, Güber, Malmendier, and Tate (2008) investigate the role outside directors' professional backgrounds have on control contests. They find that when investment bankers are on the board, the firm makes *worse* acquisitions.

The market for corporate control arguably provides a more effective restraint against managerial self-dealing. When outside bidders, including both financial and strategic buyers, notice that managers are attempting to buy the firm from shareholders at a discount, they might offer a competing bid. Strategic buyers can decide that even at a higher price, the acquisition still provides value to their firm (i.e., positive net present value project). Financial buyers can offer a higher bid to reap the benefits of a nonpublic restructuring and the subsequent sale or IPO of a firm that is worth more. Or financial buyers can bid to flush out a higher bid from either management or another bidder and make a profit on a "toehold" (see Peck, 1996).

Unlike the mixed findings for the effectiveness of legal mechanisms, the literature consistently finds that a competitive bidder increases the premiums paid to shareholders. Easterwood, Singer, Seth, and Lang (1994) find that for completed MBOs, public competitive bidding yields higher target returns than board negotiations or shareholder litigation. Peck (1996) finds evidence that control specialists identify low-priced MBO offers and facilitate competitive bidding, which, in turn, increases the likelihood that the MBO offer fails and the firm is taken over by a third party offering a higher bid. Officer, Ozbas, and Sensoy (2010) find less bidding competition leads to lower premiums. Gogineni and Puthenpurackal (2014) also report that the incidence of a competitive bid increases the final premium.

Further, when management announces an MBO offer, it is by no means a "done deal." Peck (1996) reports that offers are often challenged and the buyout contest can be contentious: a competitive offer can be made, shareholders can contest the offer via public announcements, management can adopt anti-takeover defenses, and, finally, management can revise their original offer. We investigate whether outside directors "flee" to avoid a contentious buyout contest or stay and "fight" for the highest offer for shareholders.

2.2 Hypothesis development—"fight" or "flee"

In the context of the existing research on procedural and legal safeguards on the one hand and the market for corporate control on the other, we investigate changes in board composition as the internal procedural mechanism along with market control as the external mechanism. Yet, in evaluating the changes in board composition, we take a market perspective by focusing on the economic incentives of outside directors in MBO offers. Our overarching hypothesis is that, while outside directors have a fiduciary duty to ensure that public shareholders are paid a fair price, their own economic self-interest often precludes them from doing so.

To investigate our central hypothesis, we develop and test a series of competing hypotheses. First, when examining any turnover around MBOs, we want to be able to distinguish between ordinary turnover and turnover associated with an upcoming MBO offer. We define turnover as whether a director leaves, joins, or stays on the board. If the turnover we observe prior to an MBO offer is no different than that at otherwise similar firms, we cannot argue that *any* observed turnover is related to the MBO offer. We test this "routine turnover" hypothesis in a multivariate setting by investigating whether director turnover in our MBO sample is different from a control sample after controlling for both individual director and firm characteristics. Our results show that typically directors are more likely to stay through the MBO offer than for our control sample.

Second, given that directors have a greater propensity to stay on the board, we ask whether *any* director departures are related to how the MBO contest develops, especially if the offer is challenged. Yet it is also possible that when directors leave, they signal to potential competitive bidders and shareholders that the offer is weak. Thus, we jointly estimate the likelihood of net director departures and whether the MBO offer is challenged while controlling for both firm and other pertinent contest characteristics. We find that net departures and a challenge to the MBO offer are positively related.

Third, we test our central hypothesis that outside director departures are driven by the likelihood that the MBO offer is contested—the "flee" hypothesis. Outside directors are likely to leave when management's offer is weak, whether because of the price or a lack in the board's ability or willingness to negotiate terms. Thus, we jointly estimate the likelihood of an outside director's leaving and whether the MBO offer is challenged while controlling for individual director, firm, and other pertinent contest characteristics. We find that outside directors are more likely to leave when the MBO offer is challenged.

Our fourth hypothesis is that outside directors with higher reputation costs are more likely to leave to avoid being involved in contentious MBOs. We call this the "reputation cost" hypothesis and use the classification of outside directors—professional (retired), active managers, and financial, accounting, and legal professionals—to proxy for a director's reputation cost. As stated previously, professional directors are likely to have higher reputation costs than other directors. While we do find that professional directors are more likely to leave when the offer is contested, the result is only marginally significant. Additionally, directors may be unwilling to stay on the board in anticipation of a lengthy transaction regardless of whether the offer is contested by either shareholders or a competitive bidder. Thus, we call our fifth hypothesis the "time cost" hypothesis. Again, we test these hypotheses by including the director's professional background and the contest length in simultaneous equation multivariate regressions to estimate the likelihood that the MBO offer is contested and an outside director leaves after controlling for other individual director and firm characteristics. In some of our

regression specifications, we find that when the contest length is longer, outside directors are more likely to leave.

We also investigate whether outside directors leave knowing that remaining board members will take public actions to encourage a bidding contest (the "board public auctioneer" hypothesis). The board can encourage bidding by announcing that they have rejected bids, either management's or a competitive bidder's, or that they are shopping for bids. We find the board takes any of these actions infrequently, and we do not observe any relation between the frequency of these actions and director turnover.

Our final alternative hypothesis is that when outside directors leave, new outside directors who have more experience in corporate control transactions replace them, and, in turn, negotiate a higher premium for these MBOs (the "replacement" hypothesis). If this were true, there would be evidence that outside directors *do* provide a strong internal monitoring mechanism, with new outside directors stepping in to look out for shareholders' interests. We measure replacement by adding the number of outside directors who depart to the number of new outside directors who join the board. We scale this measure by the size of the board. As more outside directors depart and more outside directors join the board relative to board size, the extent of outside director replacement on the board is greater. We test the "replacement" hypothesis by jointly estimating buyout premiums with our measure of outside director replacement. If the "replacement" hypothesis was true, we would expect to find a statistically significant positive relation between premiums and outside director replacement, but we find none. Overall, our results support the conclusion that outside directors are likely to leave to avoid representing shareholders' interests during what is likely to be a contested MBO offer. Our findings suggest that outside director departures are symptomatic of board weakness.

3 DATA DESCRIPTION

3.1 Sample construction

We identify a preliminary sample of 231 MBOs of U.S.-based publicly held companies from 1999 through 2016 using Thomson ONE Banker (SDC). We follow our firms for up to 2 years after the announcement and collect board and financial data for 3 years before the announcement. We use this longer window since existing research finds that board turnover is "sticky." On one end of the spectrum of the firm's life cycle, when boards go public, Crutchley, Garner, and Marshall (2002) find that board changes related to IPO performance occur during a year +2 to year +5 window post IPO. At the other end of the spectrum, when firms return to private ownership, Wright et al. (2010) examine director changes for a sample of Chinese MBOs using a year −5 to up to a year +8 window around the MBO transaction. Furthermore, Harford et al. (2019) find that management times MBO offers when the prior 5 years show industry underperformance. This suggests that management begins contemplating a buyout for some time before they announce the offer, allowing outside directors enough time to leave prior to a problematic offer.

We collect financial data from COMPUSTAT. We collect board data in part manually from proxy statements and in part from RiskMetrics, which starts its data coverage in 1996. Thus, our initial sample includes announcements from 1999 through 2016, and our data collection spans from 1996 through 2018. Our two major considerations for inclusion in our final sample are that the firm has board data from years −3 to −1 relative to the year the MBO is announced and that the firm has sufficient financial data available for our empirical tests.[1] We lose 88 firms because of missing financial data on COMPUSTAT or missing board data. Our final sample consists of 143 MBO firms.

We create a matched control sample through propensity score matching. We obtain the propensity scores by computing predicted probabilities of receiving an MBO bid with nearest neighbor matching based on assets, leverage, ROA, and Q. The propensity scores are computed on the entire COMPUSTAT universe with the

exclusion of the MBO firms. The 143 control firms are the nearest neighbor matches based collectively on those four variables conditional on director data availability for the years preceding the MBO announcement.

To evaluate the quality of the matching, in Table 1, we present the *t* test statistics of the difference of the mean and Wilcoxon statistics for the matching variables between the sample and control firms. The mean and median of total assets, ROA, and Q are not significantly different between the sample and the control firms. The mean and median for leverage are different between the sample and control at the 10% significance level. It is important to note that the propensity score matching identifies the control firm that is the closest to each sample firm based on all four firm characteristics (assets, leverage, ROA, and Q) taken together. Even though firms that entertain the possibility of an MBO are unique in financial and performance characteristics (see Kaplan, 1989; Smith, 1990), the results of Table 1 show that our propensity score matching procedure performed well to help us generate a comparable set of control firms. To further mitigate the concern that the MBO and control firms are not perfectly matched (mostly for leverage), we control for firm-level characteristics in the multivariate analysis.

1 TABLE. Propensity matching goodness of fit

	Sample ($N = 143$)		Control ($N = 143$)		t test	Wilcoxon
	Mean	Median	Mean	Median	p value	p value
Total assets	1,118	120	1,393	168	0.445	0.672
Leverage	0.262	0.205	0.174	0.095	0.098*	0.089*
ROA	0.022	0.062	−0.008	0.040	0.227	0.129
Q	1.192	1.041	1.242	1.057	0.546	0.472

Note. This table presents the mean and median values of total assets, leverage, ROA, and Q for the sample firms and control firms. The values are reported for the year preceding the MBO announcement for each sample firm and the corresponding control firm. We selected the control firm through propensity score matching by computing predicted probabilities of receiving an MBO bid with nearest neighbor matching based on assets, leverage, ROA, and Q. The control firms are the nearest neighbor matches based on those four variables conditional on director data availability.
* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

3.2 Tracking directors' turnover, director types, and corporate governance

We carefully check director names for each firm to ensure that slight variations in name spelling, along with other identifying information such as age and professional background, do not signal a change in the director where there is none. We track turnover by checking for each firm whether a director identified by name continues to serve on the board from the previous year or is new to the board. We then track whether each director leaves, joins, or stays on the board from year to year. Finally, for each director per firm, we classify the director as either staying during the entire 2-year period or joining or leaving the board during that time. Our tracking process yields 2,367 unique director-firm observations, 1,178 MBO firms' directors, and 1,189 control firms' directors.

We use the information contained in the proxies or the information given in RiskMetrics to create five categories of directors. First, we group directors who are executives, retired executives from the firm, or related to insiders as "inside" directors. We define all other directors as "outside" directors or "outsiders." Second, we group executives who are retired from their primary profession as "professional" directors. Because these directors are retired, their time cost associated with monitoring is likely to be lower, which, in turn, is likely to make them

better monitors (see Brickley et al., 1994) but also more interested in board compensation. Additionally, since these directors are retired, they are likely to seek board seats and the compensation that goes with them. Third, we group outside directors who are lawyers, accountants, commercial bankers, corporate finance officers, investment professionals, individual investors, or directors who are retired from these professions as "finance, accounting, or legal professionals" (retired finance, accounting, and legal professionals are excluded from the "professional directors" category). During a buyout transaction, directors who have legal and/or financial backgrounds are likely to be particularly important in overseeing and advising on the transaction. Fourth, we group outside directors who are executives of other firms as "active managers." Finally, all other types of outside directors are classified as "other." This last category includes academics, past or current government officials or members of public policy commissions, philanthropists, and members of other professions, for example, medical.

Corporate governance characteristics are likely to be an important determinant of an individual director's decision to stay on the board. We report the differences between the MBO offer group and the control sample on several board measures in Table 2. Firms with offers have boards that are more likely to be dominated by insiders and the CEO, as the CEO is more likely to be the board chair (see Brickley, Coles, & Jarrell, 1997). The table also shows that there is a smaller percentage of directors who are active directors on the boards of firms with MBO offers to allow for a higher percentage of insiders on the board. Firms that are positioned for a management-led buyout transaction are likely to be dominated by insiders. We also find that the median age for directors is lower for firms with MBO offers. Younger executives might be more willing to risk taking the firm private with a longer time horizon to realize the returns from going private. Finally, the total percentage of shares held by insiders is higher for firms with MBO offers. Share ownership provides economic incentives to buy out the firm from public shareholders, as directors who own more shares effectively have a "toehold" that lowers their costs of acquiring publicly held shares. Higher ownership also provides a means to discourage competitive bidders.

2 TABLE. Differences in board characteristics between management buyout offers and control sample

Board characteristics		Sample ($N = 143$)	Control ($N = 143$)	
Number of directors on board	Mean	7.077	6.951	
	Median	7.000	7.000	
CEO is board chair	%	79.720	49.650	***
Total percentage of shares outstanding held by inside directors	Mean	29.887	13.813	***
	Median	21.698	6.862	***
Total percentage of shares outstanding held by outside directors	Mean	6.670	9.295	
	Median	1.382	2.098	
Percentage of directors who are professional directors	Mean	12.564	10.597	
	Median	12.500	0.000	
Percentage of directors who are insiders	Mean	35.795	30.944	***
	Median	33.333	28.571	***
Percentage of directors who are active managers	Mean	23.440	30.775	***
	Median	21.429	33.333	***
Percentage of directors who are financial, accounting, or legal	Mean	24.169	22.557	
	Median	22.222	20.000	
Median age of directors	Mean	55.476	57.080	**
	Median	55.000	58.000	**
Median tenure of directors	Mean	6.570	6.958	

		Median	6.000	6.000	

Note. This table presents tests of the differences in various board characteristics for the sample of firms with management buyouts compared with the control sample. Management buyout offers from 1999 through 2016 are from Thomson ONE deal data that have sufficient board and financial data. The control sample consists of firms matched with propensity score matching. Directors who are executives, retired executives from the firm, or related to insiders are "inside" directors. Executives who are retired from their primary profession are "professional" directors. Directors who are lawyers, accountants, commercial bankers, corporate finance officers, investment professionals, individual investors, or directors who are retired from these professions are "legal and finance professionals" (retired finance and legal professionals are excluded from the "professional directors" category). Differences in means are tested using a t test. Differences in medians are tested using a Wilcoxon test.

* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

4 DIRECTOR TURNOVER ACROSS SAMPLES

Table 3 shows the differences in the types of directors on the board across time and across samples. Panel A shows that for both years −1 and −3, firms with MBOs have more insider directors and fewer directors who are active managers than firms in the control sample. These findings are consistent with those reported in Table 2. Panel B of Table 3 shows that the differences in the samples' board compositions are statistically significant. Panel B also shows that the composition of the board does not change significantly between years −3 and −1 for either sample. However, while the composition of the board in both samples remains relatively stable over the 2 years, the individual directors on the board *do* change.

3 TABLE. Board composition

Panel A: Statistics				
Type of director	Management buyout offers ($N = 143$)		Control sample ($N = 143$)	
	Year −3	Year −1	Year −3	Year −1
Active manager	240	257	317	326
	23.72%	25.75%	31.89%	32.53%
Financial, accounting, or Legal	246	241	220	223
	24.31%	24.15%	22.13%	22.26%
Insider	353	333	297	291
	34.88%	33.37%	29.88%	29.04%
Professional director	129	119	109	112
	12.75%	11.92%	10.97%	11.18%
Other	44	48	51	50
	4.35%	4.81%	5.13%	4.99%
Total	1,012	998	994	1,002

Panel B: Tests			
	χ^2 test of difference in frequency of director types		
	Year −3		Year −1
Across MBOs and controls	0.0008***		
Across MBOs and controls			0.0178**
Within MBOs across years		0.7915	

Within controls across years		0.9941	

Note. This table presents univariate statistics about the composition of the board 3 years and 1 year before the MBO announcement. Management buyout offers from 1999 through 2016 are from Thomson ONE deal data that have sufficient board and financial data. The control sample consists of firms matched with propensity score matching. Board turnover is measured in years −3 to −1 relative to the year of MBO announcement. Directors who are executives, retired executives from the firm, or related to insiders are "inside" directors. Executives who are retired from their primary profession are "professional" directors. Directors who are lawyers, accountants, commercial bankers, corporate finance officers, investment professionals, individual investors, or directors who are retired from these professions are "legal and finance professionals" (retired finance and legal professionals are excluded from the "professional directors" category).
* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

Table 4 reports the frequency of turnover for different types of directors over the 3-year period prior to the MBO announcement. On average, about a third of the board turns over in 2 years. Since boards are small (for our two samples, they are typically between six to eight directors), the change of a third of individuals can have a significant impact on board dynamics. New directors on the board can provide time-sensitive expertise and a fresh set of eyes to monitor management and shape the strategic direction of the firm. New directors, however, are likely to be less informed on firm operations and less familiar with other directors' communication styles and group dynamics during board deliberations. Researchers have argued that while outside directors can provide independence to board deliberations, they also are less well-informed than insiders, which can limit their ability to effectively monitor managers (see Adams & Ferreira, 2007; Cavaco, Crifo, Rebérioux, & Roudaut, 2017; Harris & Raviv, 2008; Hermalin & Weisbach, 1998; Raheja, 2005).

4 TABLE. Board turnover

Panel A: Statistics

Type of director	Management buyout offers (N = 143)				Control sample (N = 143)			
	Join	Leave	Stay	Number of unique observations	Join	Leave	Stay	Number of unique observations
Active manager	60	37	205	302	76	63	253	392
	19.87%	12.25%	67.88%		19.39%	16.07%	64.54%	
Financial, accounting, or legal	41	42	203	286	48	41	175	264
	14.34%	14.69%	70.98%		18.18%	15.53%	66.29%	
Insider	40	63	287	390	50	54	242	346
	10.26%	16.15%	73.59%		14.45%	15.61%	69.94%	
Professional director	20	32	95	147	18	27	85	130
	13.61%	21.77%	64.63%		13.85%	20.77%	65.38%	
Other	8	6	39	53	6	6	45	57
	15.09%	11.32%	73.58%		10.53%	10.53%	78.95%	
Total	169	180	829	1,178	198	191	800	1,189
Number of unique Observations	14.35%	15.28%	70.37%	100.00%	16.65%	16.06%	67.28%	100.00%

Panel B: Tests	
	χ^2 **test of difference in frequency of listed type of directors and director turnover**
Within MBOs	0.0132***
Within Controls	0.2599

Director departures can occur when an individual director's expertise no longer matches the firm's current needs. Departures can also occur when monitoring time costs increase (either because of changes in the firm's activities or a director's personal and professional circumstances) or a director disagrees with firm policies and wishes to protect his or her reputation (see Dewally & Peck, 2010).

Table 4 shows that boards of firms with MBO offers have less turnover than boards of the control firms. For MBO offers, 70.37% of the directors stay, but only 67.28% of directors stay for the control firms. This result suggests directors are interested in maintaining board membership while the firm transitions from public to private ownership. However, a lack of turnover could also reflect an entrenched board that may not act in the best interests of shareholders in negotiating the purchase of the firm from management. Moreover, director departures may signal an especially weak MBO offer.

Table 4 also shows that for the control sample, the frequency at which directors leave the board is offset by the frequency at which directors join. For the MBO offer sample, slightly fewer directors join than leave. We also test whether there are differences in the types of directors who stay, leave, or join a board across the samples. There is no relation between types of directors and types of turnover for the control sample. For MBO offers, active managers and professional directors are less likely to stay. Professional directors, in anticipation of an MBO offer, might leave to find a position on another board, leave to retire from professional life altogether, leave to avoid a time-consuming and protracted buyout transaction, or leave as independent directors with more expertise in buyout transactions (directors with financial and accounting backgrounds) join the board and reduce the value of their director services. Directors who are active managers may be too busy to spend time on additional board meetings while the board completes the MBO transaction. Active managers who join the board might be involved with post-buyout restructuring. Firms are likely to need directors with financial and legal expertise during the buyout, and those directors could come and go depending on their expertise in buyouts. Insider turnover is likely to be related to participation in the post-buyout firm.

Next, we analyze director turnover in a multivariate setting controlling for individual director characteristics and firm characteristics that might be related to a director's decision to stay. All firm-level control variables are measured at year −3, the year in which we start to measure turnover relative to the MBO offer date. For directors who leave or join, we measure individual director characteristics—age, share ownership, and type—in the year the director leaves or stays. For those directors who stay for all 3 years, age and share ownership are measured at year −3. We choose to measure these characteristics at year −3 so we can assess the directors' decision to stay on the board for the following 2 years.

Table 5 reports the results of two different specifications of a logistic regression of the likelihood that a director will stay. In the first specification, we control only for director-level characteristics. We include whether the director is an outsider and if the outsider is an executive of another firm (active outsider) or a retired executive (professional outsider) as our univariate tests show that these directors are less likely to stay on the boards of firms with MBO offers.[2] We include the percentage of shares outstanding owned by individual directors. Share ownership is likely to affect a director's stake in the firm and his or her decision to stay. We also include the individual director's tenure and age. Directors with longer tenure may have exhausted their contributions to the board and be less likely to stay. Alternatively, a long tenure might reflect entrenchment and a propensity to stay on the board. Younger directors may have other professional opportunities or reputation concerns that can affect their decision to stay on a board. Older directors are more likely to retire from professional life altogether. In the second specification, in addition to director characteristics, we control for firm and board characteristics that we reported in Table 4. Both specifications include industry (one-digit SIC codes) fixed effects. The statistical significance reported in the table is based on heteroscedasticity-robust errors clustered at the firm and year level.

5 TABLE. Board stability and a management buyout offer

	Director stays (1) or leaves or joins the board (0)		Director stays (1) or leaves or joins the board (0)	
	Estimate	p value	Estimate	p value
Firm has an MBO Offer	0.200*	0.062	0.181*	0.084
Director characteristics				
Outsider	0.165	0.312	0.165	0.463
Active outsider	−0.094	0.693	−0.118	0.622
Professional outsider	−0.342**	0.048	−0.191	0.432
Director ownership	0.014*	0.091	0.013*	0.088
Age of director	0.003	0.854	0.004	0.844
Director tenure	0.081***	0.001	0.076***	0.001
Firm characteristics				
Log of total assets			−0.061	0.175
Leverage			0.286	0.522
Industry-adjusted ROA			0.875**	0.049
Industry-adjusted Q			0.032	0.864
Board characteristics				
Board size			0.002	0.946
Percentage outsiders			0.001	0.811
Percentage active			0.003	0.574
Percentage professional			−0.011**	0.037
Industry fixed effects	Yes		Yes	
N	2,367		2,367	

Note. This table presents the results of logit regression specifications of the likelihood that a director stays on the board. Management buyout offers from 1999 through 2016 are from Thomson ONE Banker. The control sample consists of firms matched with our MBO firms through propensity score matching. Directors who are not current or retired executives of the firm or related to insiders are "outsiders." Directors who are active executives of other firms are "active outsider" directors. Executives who are retired from their primary profession are "professional outsider" directors. Leverage is measured as long-term debt over total assets. For industry adjusted measures, we subtract the industry median defined at the two-digit level SIC code. Firm characteristics are measured at year −3 relative to the year of the MBO announcement. The *p* values are based on heteroscedasticity-robust errors clustered at the firm-year level.

* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

The results of the two specifications show that the parameter estimate for the MBO offer dummy is positive and statistically significant at the 10% level. Thus, from the results of our empirical tests up to this point, we conclude that firms with MBO offers are less likely to have board turnover than otherwise similar firms. This finding provides a benchmark that we use to further analyze directors' motives to leave the board prior to the MBO offer. If director departures are rare, then they may be indicative of a weak MBO offer and a contentious MBO contest.

5 IMPACT OF DIRECTOR DEPARTURES ON THE BUYOUT CONTEST

Given that most directors stay during the MBO transaction, we investigate why some directors choose to leave. The first possible explanation is benign. Directors leave simply because executing the MBO will demand too much of their time. Directors might also leave because they do not anticipate being a part of the MBO (through either board membership, ownership, or management) and decide to move on to other opportunities. Under these scenarios, we do not anticipate seeing any relation between subsequent contest events and the departure of a director.

The second possible explanation is that directors leave because of disagreements with the terms of the buyout and concerns about their reputation in the director market. Disagreement with the MBO executives can label such directors as "troublemakers" and reduce future nominations to boards. Moreover, directors might be concerned that, if they are ineffective at negotiating better terms for shareholders, they might lose shareholders' support for future board seats. Therefore, they leave rather than stay and be forced to choose sides (management versus shareholders). They might also be unwilling or unable to dedicate additional time in their director role if they perceive the buyout as being contentious. Additionally, the departure of a director may provide a signal to control-market participants that management's offer can be improved upon. Finally, director departures, and particularly insider departures, might reduce the board's resolve to facilitate management's acquisition of the firm and thus provide an opening for a competitive bidder to successfully negotiate with the board. Under any of these scenarios, the incidence of director departures is likely to be related to contest events.

Using Lexis-Nexis, we review all full-text articles on each firm and collect data for up to 2 years following the initial buyout offer on the following events: a competitive bid, a revision in management's initial offer, whether directors reject the competitive bid or management's offer, whether directors announce they are using a "go shop" provision, whether management adopts a takeover defense during the contest, whether shareholders contest the offer, and the outcome of the buyout contest. Shareholders, including minority shareholders, blockholders, or investor groups, can contest the offer by litigating the fairness of the MBO offer or the fairness of antitakeover defenses. Managers can defend against a takeover by adopting an antitakeover amendment, by litigating an outside bidder, by increasing management's effective stake by buying back shares, by swapping debt for equity, by repurchasing convertible preferred or convertible debt for cash, or by privately placing equity.

Table 6, panel A, reports, at the firm level, the frequency of events along with the frequency of firms where at least one director—either insider or outsider—leaves or joins the board. While most buyout offers are initiated by management (90.21%), management often revises its initial bid (37.06% of the time), and the MBO is successful only 55.24% of the time. MBO offers are often challenged either by a shareholder group (23.78% of the time) or a competitive bidder (20.98% of the time). Management adopts some type of takeover defense

after they make the MBO offer 26.57% of the time and revise their initial offer 37.06% of the time. Table 6 shows that challenges to the MBO offer and management's response are more likely when at least one director leaves the board. About three quarters of the competitive bids and shareholder challenges occur when a director departs. Management revises their initial offer 71.70% of the time when there is a director departure. We also report the frequency of any type of event that indicates the initial MBO offer is contested: a competitive bid, management's revision in its bid, management's adoption of a takeover defense, and shareholders contesting the offer. We find that when at least one director leaves the board, a contested offer is more likely and occurs 67% of the time. All these findings are statistically significant at the 10% level. We also report the frequency of contest events with the frequency of at least one new director joining the board. If new directors either facilitate bidding or reduce the need for bidding by ensuring that the initial management's offer is fair (the "replacement" hypothesis), we would expect to find a statistically significant relation with directors joining the board. We find none.

6 TABLE. The buyout contest and director turnover

Panel A: Contest events and outcome					
Event	Number of firms (percentage)	At least one director leaves (percentage of events)	χ² test	At least one director joins (percentage of events)	χ² test
Total number of firms	143	88	-	89	-
	100.00%	61.54%		62.24%	
Management initiates buyout contest	129	80	0.722	80	0.868
	90.21%	62.02%		62.02%	
Competitive bid	30	23	0.055*	19	0.889
	20.98%	76.67%		63.33%	
Management revises offer	53	38	0.055*	35	0.472
	37.06%	71.70%		66.04%	
Management adopts takeover defense	38	25	0.530	22	0.519
	26.57%	65.79%		57.89%	
Shareholders contest offer	34	25	0.099*	22	0.734
	23.78%	73.53%		64.71%	
Contested offer	94	63	0.062*	56	0.363
	65.73%	67.02%		59.57%	
Management completes buyout	79	49	0.894	47	0.452
	55.24%	62.03%		59.49%	
Competitive bidder completes buyout	31	19	0.974	20	0.768
	21.68%	61.29%		64.52%	
Buyout fails	33	20	0.900	22	0.550
	23.08%	60.61%		66.67%	

Panel B: Firms where directors leave the board	Number of firms	At least one inside director and one outside director leave	At least one inside director leaves but no outside director leaves	At least one outside director leaves but no inside director leaves	No director leaves	χ² test
Competitive bid	30	3	9	11	7	0.0276**
		10.00%	30.00%	36.67%	23.33%	
Contested offer	94	12	16	35	31	0.1097
		12.77%	17.02%	37.23%	32.98%	

Panel C: Board actions					
Event	Number of firms (percentage)	At least one director leaves (percentage of events)	χ^2 test	At least one director joins (percentage of events)	χ^2 test
Directors reject any bid	20	14	0.4017	14	0.4401
	13.99%	70.00%		70.00%	
Directors reject management's bid	11	7	-	10	-
	7.69%	63.64%		90.91%	
Directors reject competitive bid	9	7	-	4	-
	6.29%	77.78%		44.44%	
Directors announce shopping for bids	21	13	0.9357	16	0.1609
	14.69%	61.90%		76.19%	

Panel D: Contest length							
	All firms	At least one director leaves	No director leaves	p value	At least one director joins	No directors join	p value
Mean contest length (months)	7.86	7.45	8.49	0.3344	7.51	8.43	0.3691
Median contest length (months)	6.50	6.33	6.85	0.7188	6.03	7.52	0.1279

Panel E: Buyout premium							
	All firms ($N = 91$)	At least one director leaves ($N = 58$)	No director leaves ($N = 33$)	p value	At least one director joins ($N = 59$)	No director joins ($N = 32$)	p value
Mean buyout premium (%)	31.65	32.89	29.49	0.4180	31.31	32.29	0.8199
Median buyout premium (%)	28.57	27.03	29.51	0.7003	25.76	30.91	0.5306

Note. This table presents the relation between director turnover and various characteristics of the buyout contest. Director turnover is measured during the period −3 to −1 relative to the year of the MBO announcement. Contest events are collected from the initial buyout announcement for up to 2 years following the initial buyout offer and include a competitive bid, a revision in management's initial offer, whether directors reject the competitive bid or management's offer, whether directors announce they are shopping for bids, whether management adopts a takeover defense during the contest, whether shareholders' contest the offer, and the outcome of the buyout contest. Shareholders, including minority shareholders, blockholders, or investor groups, can contest the offer by litigating the fairness of the MBO offer or the fairness of antitakeover defenses. Managers can defend against a takeover by adopting an antitakeover amendment, litigating against an outside bidder, or increasing management's effective stake by buying back shares, making a debt for an equity swap, repurchasing convertible preferred or convertible debt for cash, placing private equity, or repurchasing shares from an investor. The contest length is measured from the announcement of the buyout to the outcome. The buyout premium is the percentage change in the final price per share paid from the share price 4 weeks prior to the buyout announcement.
* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

Panel B of Table 6 further parses the frequency of firms with different types of director departures with a competitive bid or a contested offer. Outside directors departing and inside directors departing at the firm level are not always mutually exclusive. To create mutually exclusive categories at the firm level, we report the frequency of firms where at least one inside director and one outside director leave; at least one inside director leaves but no outside director leaves; at least one outside director leaves but no inside director leaves; and no director leaves. We find that firms where only outside directors leave have the highest frequency of competitive bids. This result is statistically significant at the 5% level. We also find some evidence that firms where only outside directors leave have a higher frequency of contested offers. As outside and inside director departures are not mutually exclusive at the firm level, director-firm level regressions, which we discuss later in the paper, provide a better test of inside versus outside departures.

Panel C of Table 6 reports the publicly announced board actions. When the board publicly announces that it is rejecting bids or shopping for bids, it can signal to competitive bidders that it is receptive to higher offers. Directors who depart do so knowing that board will facilitate bidding to get the best offer for shareholders (the "board public auctioneer" hypothesis). We find that these events occur infrequently and are not associated with directors either leaving or joining the board.

Panel D of Table 6 reports the length of the buyout contest. Most MBOs take about 6 to 8 months to complete. We test whether directors leave when contests are longer (the "time cost" hypothesis) or whether directors who join accelerate the completion of the contest. We find no significant differences between contest length and director turnover. Finally, in Table 6, panel E, we report the buyout premium when the buyout is successful (the "replacement" hypothesis). We use data from Thomson ONE Banker (SDC) to calculate the buyout premium as the percentage change in the final price per share paid from the share price 4 weeks prior to the buyout announcement. We find no significant difference between premiums and the type of director turnover.

To confirm at the firm level that any type of director departure is related to a competitive bid or a contested offer, we run a test on the likelihood of net departures and the likelihood that the MBO offer is challenged while controlling for other firm characteristics. At the firm level, there can be directors both leaving and joining the board. Therefore, we need to create a firm-level variable that accommodates both types of turnover and allows us to test the relation of director departures to contest events. We use a variable that is equal to 1 when net departures are positive and 0 otherwise. To ensure that we are measuring the effect of net departures and not

just general turnover, we control for total board turnover—the percentage of the board that changes through replacements, additions, or departures. Furthermore, the relation between departures and the challenge to the offer is likely to be endogenous, as directors leave in anticipation of what they believe will be a contested offer and, concurrently, the offer is contested because director departures signal that management's offer is weak. Tests of endogeneity indeed confirm that the likelihood of net departures and the likelihood of a challenged offer are jointly endogenous. We therefore estimate a system of simultaneous equations to control for endogeneity. As some of our dependent variables are discrete, we follow the method recommended in Rivers and Vuong (1988). Moreover, besides testing whether any type of departure is related to contest events, the regressions we estimate at the firm level serve as a reference for the subsequent regressions that we estimate at the director level.

Table 7 reports our results about the relation of net departures and challenges to the MBO offer. The regressions of both panels are at the firm level. In addition to the control variables included in the regressions in Table 5, we include the length of the contest in months and whether management initiates the contest. The initiation of the buyout by management versus an outside group can potentially affect the probability of a competitive bid by another external group. By including the length of the contest, we can test the time cost hypothesis.

7 TABLE. Joint determination of net director departures and a competitive bid or a contested offer

Panel A: Competitive bid					
	Dependent variable			Dependent variable	
	Net departures dummy			Competitive bid	
	Estimate	p value		Estimate	p value
Competitive bid	1.958***	0.000			
Contest length	−0.008	0.427			
Net departures dummy				2.514***	0.000
Turnover percentage				−0.005	0.423
Management initiates bid				−1.315**	0.016
Log of total assets	−0.226**	0.028		0.158	0.161
Leverage	0.928	0.113		−0.784	0.258
Tobin's Q industry adjusted	0.058	0.579		−0.320	0.240
ROA industry adjusted	−1.186	0.287		0.254	0.839
CEO is board chair	−0.827***	0.005		0.645	0.112
Board size	0.037	0.569		0.027	0.705
Total directors' ownership	−0.003	0.516		0.003	0.597
Total outside directors' ownership	0.018*	0.092		−0.025	0.208
Percentage of outside directors	−0.009	0.302		0.014	0.199
Median age of directors	−0.004	0.853		−0.001	0.958
Year and industry fixed effects	YES			YES	
N	143			143	

Panel B: Contested offer					
	Dependent variable			Dependent variable	
	Net departures dummy			Contested offer	
	Estimate	p value		Estimate	p value
Contested offer	1.772***	0.000			
Contest length	0.000	0.924			

Net departures dummy				1.770***	0.000
Turnover percentage				0.000	0.977
Management initiates bid				−0.010	0.892
Log of total assets	−0.252***	0.002		0.252***	0.002
Leverage	0.904**	0.047		−0.900**	0.047
Tobin's Q industry adjusted	−0.053	0.580		0.053	0.581
ROA industry adjusted	0.029	0.972		−0.053	0.948
CEO is board chair	−0.274	0.272		0.270	0.281
Board size	0.072	0.147		−0.071	0.149
Total directors' ownership	0.003	0.413		−0.003	0.407
Total outside directors' ownership	0.008	0.346		−0.008	0.342
Percentage of outside directors	−0.007	0.339		0.007	0.332
Median age of directors	−0.018	0.290		0.018	0.286
Year and industry fixed effects			Yes		
N			143		

Note. This table presents the results of a simultaneous equations estimation of net departures and a competitive bid or a contested offer. Panels A and B measure net departures as an indicator variable equal 1 if the number of directors leaving the board is larger than the number of directors joining the board, and 0 otherwise. The sample consists of management buyout firms from 1999 through 2016. Directors who are not current or retired executives of the firm or related to insiders are "outsiders." A competitive bid and the contest length are measured from the initial buyout announcement for up to 2 years following the initial buyout offer or until the contest ends. An offer is considered contested if any of the following cases: shareholders contest the offer, a competitive is made, management revises its bid, or an antitakeover defense is implemented within the 2-year period. Leverage is measured as long-term debt over total assets. For industry adjusted measures, we subtract the industry median defined at the two-digit level SIC code. Firm characteristics are measured at year −3 relative to the year of the MBO announcement. Both regressions correct for heteroscedasticity.
* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

In panel A of Table 7, we test the relation between net departures and a competitive bid. The results show that after controlling for other firm characteristics, net departures are more likely when there is a competitive bid. Concurrently, when there are net departures, the firm is more exposed to a competitive bid from an external group. These results support the hypothesis that directors leave the firm in anticipation of a takeover fight. We also find that net departures are less likely for boards where the CEO is also the board chair. The CEO-board chair duality is likely to be symptomatic of an entrenched board.

In panel B of Table 7, we test the relation between net departures and any indication of a contested MBO offer: a competitive bid, a revision in management's initial offer, management adoption of a takeover defense during the buyout contest, and shareholders contesting the offer via litigation. Once again, we find that net departures are more likely when the offer is contested, reinforcing the notion that directors leave to avoid a contentious buyout contest.

In the next test, we focus on outside directors exiting and entering the board by analyzing outsider turnover at the director level. These director-level regressions have the advantage of controlling for individual director characteristics that are likely to be related to a director's decision to leave or join the board. As in the previous multivariate analysis, we estimate a system of simultaneous equations. In this instance, the director turnover variable is "Director Leaving vs. Joining," an indicator variable equal to 1 if the outside director leaves, 0 if the

director stays, and −1 if the director joins the board. This variable allows us to draw conclusions about why outside directors depart vis-à-vis why directors chose to stay or join the board. Table 8 reports the results.

8 TABLE. Joint determination of the likelihood of outside directors leaving, staying, or joining the board and a competitive bid or a contested offer

Panel A: Competitive bid					
	Dependent variable			Dependent variable	
	Outside director leaving vs. joining			Competitive bid	
	Estimate	p value		Estimate	p value
Competitive bid	0.741***	0.000			
Contest length	0.004	0.169			
Active outsider	−0.093	0.126			
Professional outsider	0.115	0.167			
Director ownership	0.007	0.376			
Director's age	0.006*	0.069			
Outside director leaving vs. joining				0.777***	0.000
Management initiates bid				−0.899***	0.000
Log of total assets	−0.014	0.683		0.034	0.335
Leverage	0.029	0.886		−0.258	0.280
Tobin's Q industry adjusted	0.021	0.584		−0.219***	0.008
ROA industry adjusted	−0.209	0.591		−0.260	0.593
CEO is board chair	−0.114	0.304		0.150	0.242
Board size	−0.010	0.613		0.062***	0.004
Total directors' ownership	0.000	0.930		0.000	0.868
Total outside directors' ownership	0.002	0.683		−0.038***	0.000
Percentage of outside directors	0.005	0.178		0.010***	0.008
Median age of directors	−0.012	0.154		−0.019	0.073
Year and industry fixed effects	YES			YES	
N	788			788	

Panel B: Contested offer					
	Dependent variable			Dependent variable	
	Outside director leaving vs. joining			Contested offer	
	Estimate	p value		Estimate	p value
Contested offer	0.788***	0.000			
Contest length	0.011***	0.000			
Active outsider	−0.098*	0.060			
Professional outsider	0.110	0.120			
Director ownership	0.000	0.947			
Director's age	0.002	0.422			
Director leaving vs. joining				0.585***	0.000
Management initiates bid				−0.220	0.119
Log of total assets	−0.011	0.731		0.048	0.159
Leverage	0.034	0.859		−0.167	0.409
Tobin's Q industry adjusted	0.010	0.779		0.035	0.486

ROA industry adjusted	−0.161	0.659	−0.410	0.348
CEO is board chair	−0.122	0.238	−0.096	0.416
Board size	0.011	0.571	−0.008	0.674
Total directors' ownership	−0.003	0.153	−0.008***	0.002
Total outside directors' ownership	−0.001	0.794	−0.003	0.512
Percentage of outside directors	0.004	0.265	0.004	0.250
Median age of directors	−0.016**	0.046	−0.001	0.904
Year and industry fixed effects	YES		YES	
N	788		788	

Note. This table presents the results of a simultaneous equations estimation of the likelihood that a director leaves, stays, or joins the board in the 2 years prior to a management buyout offer and, in panel A, a competitive bid is made, or, in panel B, a contested offer is made. The sample consists of management buyout firms from 1999 through 2016. The "Director Leaving vs. Joining" variable is an indicator equal to 1 if the director leaves, 0 if the director stays, and −1 if the director joins the board. Directors who are not current or retired executives of the firm or related to insiders are "outsiders." Directors who are active executives of other firms are "active outsider" directors. Executives who are retired from their primary profession are "professional outsider" directors. Directors who share ownership, tenure, and age are measured in the year in which the director leaves or in year 3 for directors who stay the entire period. A competitive bid, a contested offer, and the contest length are measured from the initial buyout announcement for up to 2 years following the initial buyout offer or until the contest ends. Leverage is measured as long-term debt over total assets. Firm characteristics are measured at year −3 relative to the year of the MBO announcement. Both regressions correct for heteroscedasticity.
* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

In Table 8, panel A, we find that the parameter estimate on the competitive bid indicator variable is positive and statistically significantly related to outside directors leaving versus joining the board. Concurrently, outside directors leaving versus joining the board increase the likelihood of a competitive bid. This argues against the replacement hypothesis, which says that new outside directors facilitate bidding to ensure the best offer for shareholders. The sign and significance of the control variables suggest that older directors are more likely to leave the board, most likely reflecting retirement from board service. We also find that the firm is less likely to receive a competitive bid when management initiates the buyout, possibly because management has acted pre-emptively. Firms that have lower industry-adjusted Q can attract the interest of a competitive bidder who believes it can increase the value of the firm or that the market has mispriced the firm. Competitive bidding is also more likely if the board is larger and more independent, which is consistent with earlier research findings that boards are important in facilitating control changes (see Byrd & Hickman, 1992; Cotter et al., 1997). Finally, a competitive bid is less likely when outside directors own a higher share of the firm because they have more insider voting power to block a takeover play for the firm.

In Table 8, panel B, we find that the parameter estimate on the contested offer indicator variable is positive and statistically significantly related to outside directors leaving versus joining the board. Concurrently, when the offer is contested, outside directors are more likely to depart. Again, these results support our hypothesis that outside directors depart to avoid a contentious buyout contest. We also find that outside directors who are still active in their professions are less likely to depart. These active managers are likely to be involved in post-buyout strategic decisions. Finally, we find that outside directors are more likely to depart when the buyout contest takes longer. This supports the "time cost" hypothesis.

Finally, we test whether outside directors who depart from the board are replaced by new outside directors who ensure that shareholders get a fair price for their shares. The results reported in Table 3 show that directors depart from MBO boards at slightly less than the same rate that directors join the board. If replacement directors ensure the fairness of the MBO offer, we expect that for MBO offers where directors depart and are replaced by new and more effective outside directors, buyout premiums should be higher. It is also possible that directors leave the board to make way for new directors who wish to gain experience in getting a higher premium for shareholders. We measure replacement by adding the number of outside directors who depart to the number of new outside directors who join the board, either replacing the departing directors or as net additions to the board. We scale this measure by the size of the board. As more outside directors depart and more outside directors join the board relative to board size, then the extent of outside director replacement on the board is greater. We estimate a system of simultaneous equations like the ones reported in Table 7. In this analysis, we use the buyout premium and the replacement percentage as the two dependent variables. Table 9 shows that the coefficient on the buyout premium is not statistically significant for the outside director replacement percentage regression, and the coefficient on the outside director replacement percentage is not statistically significant in the buyout premium regression. These findings do not support the alternative hypothesis that departing outside directors are replaced by new ones who ensure shareholders receive a higher buyout premium. We do find, as expected, that a competitive bid increases the buyout premium, and when management initiates the buyout, premiums are lower.

9 TABLE. Joint determination of outside director replacement and buyout premium

Panel A: Competitive bid					
	Dependent variable			Dependent variable	
	Replacement percentage			Buyout premium	
	Estimate	p value		Estimate	p value
Buyout premium	−1.053	0.659			
Contest length	−0.001	0.548			
Replacement percentage				−0.950	0.439
Competitive bid				0.061*	0.089
Management initiates bid				−0.132**	0.010
Log of total assets	−1.447	0.345		−1.375	0.345
Leverage	−10.658	0.296		−10.068	0.299
Tobin's Q industry adjusted	2.764	0.429		2.669	0.422
ROA industry adjusted	−36.780**	0.025		−35.337**	0.023
CEO is board chair	0.058	0.992		0.082	0.988
Board size	−0.429	0.672		−0.405	0.673
Total directors' ownership	0.103	0.264		0.098	0.260
Total outside directors' ownership	0.325	0.114		0.308	0.115
Percentage of outside directors	0.107	0.473		0.104	0.464
Median age of directors	0.280	0.244		0.274	0.228
Year and industry fixed effects	Yes			Yes	
N	91			91	

Panel B: Contested offer					
	Dependent variable			Dependent variable	
	Turnover percentage			Buyout premium	
	Estimate	p value		Estimate	p value
Buyout premium	−0.898	0.444			
Contest length	0.000	0.839			

Turnover percentage			−1.113	0.373
Competitive bid			0.054*	0.092
Management initiates bid			0.020	0.179
Log of total assets	−1.042	0.570	−1.159	0.570
Leverage	−10.942	0.349	−12.183	0.350
Tobin's Q industry adjusted	2.027	0.581	2.269	0.579
ROA industry adjusted	−35.790	0.153	−39.975	0.152
CEO is board chair	−0.106	0.986	−0.120	0.986
Board size	−0.319	0.767	−0.356	0.767
Total directors' ownership	0.073	0.465	0.082	0.464
Total outside directors' ownership	0.261	0.165	0.290	0.166
Percentage of outside directors	0.119	0.632	0.133	0.630
Median age of directors	0.205	0.753	0.207	0.444
Year and industry fixed effects	Yes		Yes	
N	91		91	

Note. This table presents the results of a simultaneous equations estimation of replacement percentage and the buyout premium. The sample consists of completed management buyouts of firms from 1999 through 2016. Replacement percentage is calculated by adding the number of outside directors who depart to the number of new outside directors who join the board divided by the size of the board. The buyout premium is the percentage change in the final price per share paid from the share price four weeks prior to the buyout announcement. Directors who are not current or retired executives of the firm or related to insiders are "outsiders." A competitive bid, a contested offer, and contest length, are measured from the initial buyout announcement for up to 2 years following the initial buyout offer or when the contest ends. Leverage is measured as long-term debt over total assets. Firm characteristics are measured at year −3 relative to the year of the MBO announcement. Both regressions correct for heteroscedasticity.
* Statistically significant at the 10% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 1% level.

In summary, the overall weight of our empirical results supports the hypothesis that outside directors leave when the buyout offer is weak and likely to be contested. We do not find any evidence to support alternative explanations—that directors leave expecting the board to act as a public auctioneer or that directors depart and are replaced by new directors who ensure the fairness of the offer. We do find some evidence that outside directors leave in anticipation of a lengthy contest. Our findings are consistent with Wright et al.'s (2010) findings for Chinese MBOs. While they do not examine outside director departures prior to the MBO, they do examine independent directors' propensity to agree with management via meeting minutes and find that the majority do not challenge management. Thus, it appears that independent or outside directors' reluctance to overtly disagree with management is a global phenomenon.

6 CONCLUSION

Researchers' understanding of the role that outside directors play in monitoring managers has evolved as reflected by the change of Jensen's positions from 1983 to 1993. Earlier studies support the notion that outside directors monitor managers on behalf of shareholders (e.g., Brickley et al., 1994; Byrd & Hickman, 1992; Cotter et al., 1997; Rosenstein & Wyatt, 1990; Weisbach, 1988). Later studies focus on outside directors' incentives to monitor and the factors that affect their monitoring quality (e.g., Fich & Shivdasani, 2007; Harford, 2003; Shivdasani & Yermack, 1999; Yermack, 2004). This study investigates outside director departures before MBO offers, which are transactions in which outside directors can provide value to the shareholders who elect them

by negotiating for the best terms from management or another bidder. Yet we find evidence that outside directors are likely to flee, especially when the offer is contested. They either leave to avoid advocating for shareholders in a contested buyout offer or to signal to other bidders that the offer is weak and can be improved upon. When they flee, they are not effective monitors of the buyout contest. Had they stayed on the board to fight, they could have remained actively involved in the MBO contest by soliciting higher bids, arguing against takeover defenses designed to discourage bidding, and steering board deliberations toward advocating for the best offer on behalf of the shareholders. This study adds to research that investigates director departures as a possible symptom of problems within the firm (e.g., Agrawal & Chen, 2017; Dewally & Peck, 2010; Farrell & Whidbee, 2000; Fields & Gupta, 2009). Our results suggest that future research investigating other motivations and circumstances of board turnover can be fruitful. In turn, these future studies can provide greater insight into how boards function as an internal monitoring mechanism to safeguard shareholder wealth. Additionally, studies using samples from different countries can tease out board functioning driven by differences in laws, regulations, and culture from those driven by universal characteristics of board decision making.

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Footnotes

1 While we use the terminology "years −1 to −3" relative to the MBO announcement for ease in exposition, for our sample of MBOs' year −1 relative to the announcement, the proxy statement data are from, on average, 6.84 months (median 6.83 months) prior to the announcement. Firms typically announce MBOs prior to issuing a proxy statement with deal information to shareholders. This usually happens only once the deal is close to being finalized. Further, in our sample, we include failed MBOs that never issue such proxy statements. Thus, we use the proxy statement that is closest in time before the announcement to determine board composition preceding the announcement.

2 In alternative specifications, we replace "Professional Outsider" with "Financial Outsider." The financial outsider indicator is not significant, while our main result persists.

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