Do target CEOs sell out their shareholders to keep their job in a merger?

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Abstract

CEOs have a potential conflict of interest when their company is acquired: They can bargain to be retained by the acquirer and for private benefits rather than for a higher premium to be paid to the shareholders. We investigate the determinants of target CEO retention by the acquirer and whether target CEO retention affects the premium paid by the acquirer. The probability that a CEO is retained increases with a private bidder, the performance of the target, and with the fraction of target shares held by insiders. Regardless of the bidder type, we find no evidence that the premium paid is lower when the CEO is retained by the acquirer. Strikingly, the target stock price increases more at the announcement of an acquisition by a private firm when the CEO is retained than when she is not. This result holds whether the private acquirer is a private equity firm or an operating company and for management buyouts.

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1. Introduction

The top management of a firm faces a potential conflict of interest when that firm becomes an acquisition target. Top managers can fight the bid and if they are successful they keep their jobs but the shareholders lose the acquisition premium. They can work hard to drive up the premium offered by the acquirer but, as they do so, they are more likely to have to find new jobs if the acquisition takes place. Finally, they can bargain less vigorously for a higher premium in the hope of or even in exchange for keeping their jobs and receiving other private benefits, such as the acceleration of the vesting of options and retirement benefits. Courts and the press have recognized this conflict of interest. For instance, in a recent decision, a judge concludes that a CEO "had powerful interests to agree to a price and terms suboptimal for public investors so long as the resulting deal" gave him some benefits including "the chance to continue his managerial positions for a reasonable time."[1] This conflict of interest is even more serious when top target managers are allied with the acquirer as is common in acquisitions made by private equity firms. Incumbent management's heightened conflict of interest in such acquisitions has been the subject of much attention in the press. For instance, an article in the Financial Times notes that "[t]here are always conflicts of interest between shareholders and managers of public companies, but they escalate when private equity firms hove into view. Take Justin King, chief executive of Sainsbury's, the supermarket chain. We are told that Kohlberg Kravis Roberts, CVC Capital Partners and Blackstone want him to stay if they buy the business and will no doubt give him a stake. Whose side is Mr. King now on?"[2] In this paper, we investigate the determinants of target CEO retention by the acquirer and whether the gains made by target shareholders from the acquisition depend on whether the CEO is retained by the acquirer.

Though much attention has been paid to the view that the conflict of interest between target CEOs and their shareholders is costly to shareholders (henceforth the "conflict of interest" hypothesis), an acquirer might instead find the acquisition to be more valuable precisely because of the anticipated

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[1] In Re: Lear Corporation Shareholder Litigation, Opinion, Court of Chancery, Delaware, June 15, 2007.
[2] "Sleepwalking into a new insider scandal," by John Gapper, The Financial Times, February 5, 2007.

retention of the target's CEO and might therefore pay less for the acquisition if the CEO were to exit at or shortly after the completion of the merger. For instance, part of the attraction of acquiring Bank One for JP Morgan Chase was the fact that the CEO of Bank One, Jamie Dimon, was viewed as a likely future CEO of the acquirer.[3] We call this hypothesis the "valuable CEO" hypothesis. Another view is that, as a result of the conflict of interest, the acquirer has to pay more when the conflict of interest is most intense, namely in private equity transactions where the CEO is part of the acquiring team, to avoid subsequent litigation. Consequently, the target shareholders receive a larger fraction of the value created through the transaction. We call this hypothesis the "shareholder bribe" hypothesis.

The three hypotheses we investigate have sharply different predictions for CEO retention and for target premiums. We would expect the interests of the CEO and target shareholders to be better aligned if an acquisition takes place when insiders have a large stake in the target. If the acquirer is paying off the CEO to facilitate the acquisition, such an effort can be expected to have less of an impact for the acquirer if the target has high insider ownership because the insiders have strong incentives to take actions to maximize the value of their stake. Yet, we find that the probability that the incumbent CEO is employed by the acquirer increases with insider ownership which appears to be inconsistent with the conflict of interest hypothesis. Not surprisingly, CEO retention is more likely for private equity acquisitions, yet is also more likely for acquisitions by private operating companies. With the conflict of interest, we would expect the CEOs to be most concerned about retention when their firm has performed poorly. If the firm has performed well, they would be more attractive in the job market. In contrast, with the valuable CEO hypothesis, we would expect the acquirer to be more eager to retain CEOs of firms that perform well. In support of the valuable CEO hypothesis, we find that the CEO is more likely to be retained if the target has better performance, as measured by operating income, or a higher Tobin's q. There is, however, evidence that the CEO is less likely to be retained when the acquisition appears to involve more of a contest. More specifically, the CEO is less likely to be retained if there are competing bidders and if the

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[3] The New York Times article "Banking Giant: The Overview; $58 Billion Deal to Unite 2 Giants of U.S. Banking" dated January 15, 2004 states, "[Dimon] is to take over as chief executive in two years from J. P. Morgan's leader, William B. Harrison, settling the persistent question of succession."

merger is brought about by a tender offer. This evidence suggests that there is a personal cost to the CEO from resistance, but it is possible that the financial gain made by the CEO on her shares by obtaining a higher premium offsets that cost. Nevertheless, this result could be supportive of the conflict of interest hypothesis as it suggests that CEOs who want to remain employed after an acquisition may be better off to avoid pushing up the premium through resistance tactics. Of course, it is also possible that acquisitions without managerial synergies are acquisitions with more potential acquirers and hence a greater likelihood of competition, in which case competition would not be costly for the incumbent CEO.

Turning to the analysis of the returns to target shareholders, we find no evidence supportive of the conflict of interest hypothesis. More specifically, there is no evidence that shareholders of targets acquired by public companies receive a lower premium when the CEO is retained by the acquirer. However, when the target is acquired by a private equity firm or a private operating company, there is some evidence that the premium is higher if the CEO is retained. For acquisitions by private bidders, the premium, measured as the announcement abnormal return, is significantly higher when the CEO is retained. When the premium is measured over longer periods of time, there is no significant difference between the premium when the CEO is retained and when she is not, possibly because of a loss of power in the test. We also investigate whether the premium differs when other top management (including the chairperson of the board) is retained, but the CEO is not. We find no evidence of lower premiums when management other than the CEO is retained. Surprisingly, for the case of public firm acquisitions, we show that target shareholders receive a larger premium when a top executive other than the CEO is retained. We also investigate whether, among private equity deals, there is a premium difference between management buyouts and other private equity transactions. We find no difference.

The evidence on the valuable CEO hypothesis and the shareholder bribe hypothesis is mixed. The valuable CEO hypothesis suggests that the premium is always higher when the CEO is retained, but we only find evidence of a higher premium when the CEO is retained for acquisitions by private firms. Further, the shareholder bribe hypothesis predicts that transactions where the CEO is part of the acquiring team have a higher premium. In contrast, we find no evidence that management buyouts have higher

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premiums compared to other acquisitions by private equity firms or by private operating firms where the CEO is retained. It appears that CEO retention is valuable when a firm is acquired by a private firm, but not when it is acquired by a public firm.

Our paper contributes to the literature by expanding our understanding of the role of CEO private benefits in acquisitions. Hartzell, Ofek, and Yermack (2004) use a sample of friendly acquisitions from 1995 to 1997 to show that an acquisition results in the CEO of the acquired firm receiving significant payments. It is not surprising that the target CEO would receive a payment if the target is acquired because CEOs who lose their job in an acquisition rarely show up again as CEOs of other public companies (see, e.g., Agrawal and Walkling, 1994). However, Hartzell et al. show that target shareholders receive a smaller premium when the CEO receives unusually high private benefits. Moeller (2005) predicts that target shareholders receive more in an acquisition if the target CEO is less powerful because a powerful CEO bargains more for private benefits and finds supportive evidence using a sample of acquisitions from the 1990s. McConnell and Martin (1991) compare disciplinary takeovers, which they define as takeovers where the CEO of the target changes soon after the acquisition, and non-disciplinary takeovers using a sample of tender offers from 1958 to 1984. They find that there is no difference in the cumulative abnormal return for the 41 days surrounding the announcement between the two types of acquisitions. Wulf (2004) shows that shareholders of firms acquired in 53 merger-of-equals deals from 1991 through 1999, where the incumbent CEO remains with the corporation, receive lower returns relative to other deals. Matsusaka (1993) does not examine target returns, but he argues that for some acquisitions target management is the main asset acquired. He calls such acquisitions "managerial-synergy" acquisitions and shows that for a sample of mergers from the 1960s and early 1970s bidder returns are higher when target management is retained. It follows from his analysis that, to the extent target shareholders capture some of these synergy gains, target shareholders could gain more from the acquisition when target management is retained by the bidder. The existing literature offers mixed results on the relation between retention and target shareholder gains using very different samples. None of the

existing papers investigate directly the determinants of retention. Further, these papers only look at acquisitions made by public firms.

Recent evidence shows that private acquirers pay less for targets than public acquirers (see, e.g., Bargeron, Schlingemann, Stulz, and Zutter, 2008). However, DeAngelo, DeAngelo, and Rice (1984) study going private transactions in a different era and find that the average premium in all cash going private transactions is not different from all cash tender offers by public firms. If acquisitions by private equity firms where the CEO is retained are mostly the equivalent of going private transactions, their results would imply that private equity firms would not pay less than public firms in acquisitions where the CEO is retained. We find that private equity firms pay lower premiums than public firms whether the CEO is retained or not. Consequently, the greater likelihood of CEO retention in acquisitions by private equity firms cannot explain why private equity firms offer lower premiums than public firms. In contrast, however, targets of private operating companies receive the same premium as targets of public companies when the CEO is retained, but they receive a lower premium when the CEO is not retained. It follows from this result that operating companies find acquisitions to be worth less when they do not find it worthwhile to, or cannot, retain the CEO of the acquired company after the acquisition.

The paper proceeds as follows. In Section 2, we describe the sample construction. In Section 3, we investigate the determinants of CEO retention. In Section 4, we compare premiums across acquisition types when the CEO is retained and when the CEO is not retained. In Section 5, we examine whether the results differ when a top manager who is not the CEO is retained instead of the CEO. We conclude in Section 6.

2. Sample construction

Our sample of acquisitions comes from the Securities Data Company's (SDC) U.S. Merger and Acquisition Database. We focus on a sample of cash-only offers to have an apples-to-apples comparison between deals involving private bidders and those involving public bidders. We collect all completed majority acquisitions for the period 1994-2006 between U.S. public targets and U.S. bidders in which the

acquirer owns 100% of the shares of the target after the deal and the form of payment is cash only. We exclude all transactions with non-operating targets, without disclosed deal value, and labeled as spin-offs, recaps, self-tenders, exchange offers, repurchases, minority stake purchases, acquisitions of remaining interest, or privatizations. We check the Lexis-Nexis database for announcement press releases in order to verify the status of private bidders, and we exclude all cases where the bidder is a group of individual investors. We further require each target firm to be in the Center for Research in Securities Prices (CRSP) and Compustat databases and to have a share code indicating a public firm (10, 11). We follow Schwert (1996) and require that the acquisition from first bid to completion takes place in no more than one year. These filters result in a sample with 1,263 deals where 352 deals involve a private bidder. Of the 352 deals involving a private bidder, a private equity firm is the bidder in 50.85% of acquisitions.

Using the EDGAR database we find documents for 1,138 of the 1,263 deals announced between 1994 and 2006. We search these documents to determine whether any member of the target top management team, including the Chairman of the Board (COB), is retained by the bidder to be employed by the merged firm. The only individuals considered for retention are target officers or the COB listed in merger-related documents filed with the SEC.[4] We conclude that there is retention if at least one member of the target's management is retained.

Retention is generally indicated by one of two types of statements. First, there are general statements such as "it is generally expected that a number of our executive officers will remain after the merger is completed." Second, more specific statements clearly identify the managers who will be retained. An example of such a statement is "the executive officers of Il Fornaio that are expected to remain officers of Il Fornaio following completion of the merger are Michael J. Hislop (President and Chief Executive Officer), Michael J. Beatrice (Executive Vice President of Operations) and Paul J. Kelley (Executive Vice President and Chief Financial Officer)." A deal is classified as involving the retention of the CEO if the

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[4] We primarily review merger-related proxy statements, tender offers, and tender offer agreements. These include, but are not limited to, any iteration of S-4, PREM, DEFM, DEFA, DEFC, etc. for mergers and any iteration of 14-D and 14-C for tender offers. We examine all documents around the time of the merger announcement up to and including the effective date.

merger documents have a statement explicitly indicating that the CEO is retained. It could be, therefore, that in some retention cases the CEO is retained even though we find no information in the merger documents indicating that this is the case. In our analysis, we focus mostly on cases where the CEO is explicitly retained, but we also investigate the relation between the acquisition premium and retention of a top executive other than the CEO.

The deal is considered to have no retention if there is no mention of retention in the merger documents. In addition, we do not classify deals as retention deals if the target's managers are offered new employment agreements by the target firm before the merger unless there is language indicating the bidder's intention to not only honor the agreement (which could simply mean that the bidder intends to pay the severance attached to the new agreement), but also to retain the management after the merger. In some cases, certain members of target management are indicated as being retained on a temporary basis to assist during the transition period of the merger. Such cases and other temporary employment cases (employment that is mentioned as temporary, transitional, or a term lasting one year or less) are not included in the retention sample. Managers who are offered consulting agreements are also not considered to be retained by the acquirer.

In 504 of the 1,138 deals we find that at least one individual is retained based on the above criteria. For the deals where there is retention, we determine whether the target CEO is retained. In 375 of the 504 deals with retention, the target CEO is retained. Our base sample consisting of 1,009 acquisitions excludes the 129 deals in which an executive is retained but the CEO is not. The target CEO is retained in 219 public bidder deals and 156 private bidder deals (66.67% of these deals involve a private equity firm). For 511 (123) public (private) bidder deals there is no retention. Of the 123 deals with a private firm acquirer where there is no retention, 38.21% are acquisitions involving a private equity firm.

After finding that a CEO is retained by the acquiring firm, we seek information concerning her position in the new merged firm. If no position information is available in the merger document, we search for articles on Factiva and Lexis Nexis that contain the CEO's name following the date of the merger to determine the position that the CEO ends up with at the completion of the merger. If there are

no articles indicating a position title, we attempt to identify the CEO's new title using Google searches as well as by examining the 10-K and proxy statements of the acquiring firm (for public acquirers). The key finding of this search is that there is a strong asymmetry in outcomes. For acquisitions by public firms, the CEO of the target is most likely to be retained as CEO of a subsidiary, as president of a subsidiary, or as a vice-president general manager. Specifically, out of 219 acquisitions where the CEO is retained, the CEO has one of these titles in 141 acquisitions. In contrast, for acquisitions by private equity firms, the CEO is retained in 104 acquisitions and has the position of CEO in the new company in 82 cases. In acquisitions by private operating companies, the most likely outcome is the same as for acquisitions by public companies, namely that the CEO of the target becomes the CEO of a subsidiary.

3. Determinants of retention

The conflict of interest and valuable CEO hypotheses have different implications for the characteristics of the target when the CEO is retained. In this section, we investigate how firm characteristics differ depending on whether the CEO is retained and whether differences in firm characteristics are supportive of the hypotheses we have developed concerning the retention of CEOs.

Table 1 provides comparisons of firm characteristics by bidder type and CEO retention. For these comparisons, we split the sample into acquisitions by public firms and by private firms. We further provide data separately for acquisitions by private equity firms and acquisitions by private operating firms. For each bidder type, we provide information separately for the acquisitions where the CEO is retained and those where she is not. CEO retention occurs in 55.91% of acquisitions by private firms, but only in 30.00% of acquisitions by public firms. Private equity bidders retain the target CEO in 68.87% of the acquisitions. The CEO is retained in 40.62% of the acquisitions by private operating companies. These differences in the frequency of CEO retention across the various bidder types suggest that it is not meaningful to unconditionally compare firm and deal characteristics or target premiums for acquisitions where the CEO is retained and those where she is not. Such comparisons would effectively amount to comparing public firm acquisitions to private firm acquisitions. Throughout Table 1 we report medians,

except for binary variables where we report means. It is common in corporate finance to focus on medians because they are less sensitive to outliers. For binary variables, the mean is a measure of frequency.

Our first firm characteristic is the level of target insider ownership (TARGET_INSIDE_OWN) obtained from the Compact D Disclosure database. Insider ownership in the case of targets of public firms is the same whether the CEO is retained or not. In contrast, targets acquired by private firms where the CEO is retained have significantly higher insider ownership. This result holds for both types of private acquirers. Strikingly, targets of private acquirers where the CEO is retained have higher insider ownership than targets of public firms where the CEO is retained.

We use the log of the market value of equity as our measure of size (ln(MVE)). For each type of acquisition, there is no significant difference in the size of targets when the CEO is retained and when she is not. However, private targets where the CEO is not retained are significantly smaller than public targets where the CEO is not retained.

We next consider four measures of performance: Tobin's q (Q), industry-adjusted Tobin's q (IAQ), operating cash flow (OCF), and the past twelve month stock return (ARET_12). Tobin's q is defined as the ratio of the firm's market value of assets (defined as the book value of assets minus the book value of equity plus the market value of equity) to the book value of assets. Tobin's q is highest for public firm acquisitions and lowest for acquisitions of private operating firms. To the extent that Tobin's q, or industry adjusted Tobin's q, captures managerial talent or managerial synergies, our valuable CEO hypothesis predicts a positive association between Tobin's q and CEO retention. Though Tobin's q does not differ between the CEO retention sample and the no retention sample for acquisitions by public companies or by private operating companies, it is significantly higher for private equity acquisitions when the CEO is retained than otherwise. Similar results hold for industry-adjusted q.

Operating cash flow, defined as sales minus cost of goods sold, sales and general administrative expenses, and change in net working capital, divided by book value of assets, is a measure of performance. For public firm acquisitions, there is no difference in operating cash flow between the CEO retention sample and the no retention sample. For private firm acquisitions, operating cash flow of firms

where the CEO is retained is higher than for public firm acquisitions and than for private firm acquisitions where the CEO is not retained. This difference is not significant within types of private firm acquisitions, but the magnitude of the difference is similar to what it is for the whole sample of private firm acquisitions.

ARET_12 is measured as the market-adjusted buy-and-hold return for the 12 months prior to the runup period or from day -316 to day -63 relative to the announcement date. There is no difference in ARET_12 when comparing acquisitions by public and private firms. Further, none of the median differences between the CEO retention sample and the no retention sample across different bidder types are significant.

Leverage could be considered a measure of performance as well. However, leverage also affects the ability of a firm to make payouts to equity to fend off an acquisition attempt and the ability of a bidder to borrow against the assets of the target. Leverage (DEBT), defined as the debt-to-assets ratio, is calculated as the book value of debt divided by the sum of the book value of debt and the market value of equity. We find that leverage is higher for public firms when the CEO is not retained than otherwise. However, for other acquisitions, leverage is the same whether the CEO is retained or not. Interestingly, we find that leverage levels are significantly higher for acquisitions by private firms relative to acquisitions by public firms for the sample of deals where the CEO is retained.

We consider two stock volatility measures. Firms with greater volatility are likely to be firms with greater information asymmetries. CEO retention might be more valuable for such firms. The first measure is the stock's total volatility (STDEV) for days -379 to -127. The second measure is the volatility of the stock's market model residual (STDEVAR) over the period. There is no difference in these measures across firms acquired by different bidder types and between retention and no retention samples for a given bidder type.

Our next two measures are liquidity measures. The first measure is a measure of the liquidity of the assets of the target (TARLIQ) developed by Schlingemann, Stulz, and Walkling (2002). This measure is the ratio at the four-digit SIC code level of corporate control transactions to the assets of the firms in

Compustat. A higher value of this measure means that the market for corporate control is more active. We would expect more potential competition if the market for the corporate assets is more liquid. With a more liquid market, we would expect conflicts of interest to be less important because there would be more potential entrants in the bidding for the firm, so that a bidder that agrees to retain the CEO might still see the premium driven to where it would have been without retention through competition. There is no difference in TARLIQ across bidder types or within bidder types across the retention and no retention samples. We also use the Amihud (2002) measure of common stock illiquidity (STOCKLIQ). Greater stock liquidity would make it easier for arbitrageurs to take positions and for investors to take block positions to influence a deal. We find no evidence of a difference in stock liquidity across types of acquisitions.

Finally, we consider deal characteristics. All variables are binary variables and we report their means. We use the following characteristics: whether another offer is made (COMPETE) for the target prior to the winning bid, whether the announcement of the offer of the winning bidder is followed by a bid by another firm (INITBID), whether the offer is a tender offer (TENDER), whether the bidder has a toehold (TOEHOLD), whether the deal has a target termination fee (TARTERM), and finally whether the deal has bidder lockup provisions (BIDLOCK). COMPETE is significantly lower for acquisitions by operating companies, public or private, when the CEO is retained, but not for acquisitions by private equity firms. Surprisingly, CEO retention is not related to the probability of a subsequent bid. There is no difference for any acquirer type in the frequency of toeholds whether the CEO is retained or not. For public firm acquisitions and private equity firm acquisitions, tender offers are less frequent when the CEO is retained. Finally, bidder lockups are more likely if the CEO is retained for acquisitions by private operating companies but not for acquisitions by other firms.

The differences across acquirer types in the frequency of CEO retention could be explained by differences in target characteristics or deal types rather than by differences in the organizational form of the acquirer. In Table 2, we use logistic regressions to investigate whether CEO retention is explained by the type of acquirer in addition to firm and deal characteristics. We find that CEO retention is more likely

if the acquirer is a private firm even when controlling for firm and deal characteristics. The target CEO is more likely to be retained when insider ownership of the target is higher. CEO retention is positively related to target performance as measured by Tobin's q and operating income. A high runup is associated with a lower probability of retention. CEO retention is less likely if the market for corporate control for firms in the target's industry is more active and if there is competition for the target. Importantly, CEO retention seems accompanied by agreements that impose penalties on the target for walking away from the merger.

The results in Tables 1 and 2 reveal important differences between targets where the CEO is retained by the acquirer and other targets. The CEO is more likely to be retained when the target has performed well based on operating income and Tobin's q as measures of performance. Such a result is supportive of the valuable CEO hypothesis. We also find that the CEO is more likely to be retained when insiders at the target firm own a greater fraction of the firm's shares. Such a result does not seem to support the conflict of interest hypothesis. At the same time, we find that the CEO is less likely to be retained in acquisitions that involve competition and where the bidder makes a tender offer. The CEO can affect the extent of competition. The fact that the CEO is less likely to be retained when there is competition suggests that there may be a personal cost to the target CEO from resisting aggressively and losing. The existence of such a cost would make it more likely that the CEO would bargain for private benefits at the expense of a higher premium. Consequently, our study of the determinants of retention, while supportive of the valuable CEO hypothesis, does not make it possible to reject the conflict of interest hypothesis. However, it could also be that competition is more likely when managerial synergies are low, so that the association between CEO retention and lack of competition might simply reveal that the merger is more valuable for a specific bidder because of managerial synergies and therefore would not indicate a cost of generating competition for the target CEO. To assess the relevance of the various hypotheses, it is therefore necessary to consider the relation between CEO retention and the premium paid.

4. Acquisition premiums and CEO retention

This section examines the return to the target shareholders from the acquisition. We use the Center for Research in Securities Prices (CRSP) database to collect daily return data for our sample of targets. We estimate target shareholder gains over short event windows using standard event study methods (see, e.g., Brown and Warner, 1985). We compute cumulative abnormal returns (CAR) using market model abnormal returns based on the CRSP value-weighted index. Market model parameters are estimated from day -379 to day -127 relative to the first acquisition announcement day as in Schwert (1996). Such a measure is commonly used. It is much less sensitive to benchmark specification (see, e.g., Brown and Warner, 1985) than measures that cumulate returns over a long period of time, but it would be biased and incomplete if there are systematic differences in how information about acquisition likelihood and terms is revealed to the market before and after the bid announcement between different types of acquisitions. To account for bid revisions, we calculate abnormal returns from the day before the announcement to the close of the acquisition. We use size and book-to-market adjusted buy-and-hold returns (FFRET).[5] To further account for events that precede the announcement, we estimate size and book-to-market portfolio adjusted buy-and-hold abnormal returns from 42 days before the *winning* bid to completion (WBC). As Schwert (1996) notes, this approach to estimating the premium has the advantage of including all of the days when the offer to the target shareholders might have changed as well as any pre-bid runup. When using this measure of the premium, it cannot be argued that somehow we find differences in premiums because takeover contests proceed differently for private bidders than they do for public bidders or for cases where the CEO is retained than when she is not. However, this measure has two potentially serious problems. First, the return can be affected by news not related to the acquisition since the returns before the acquisition announcement can reflect news about the target's business as a stand-alone firm. As a result, the returns estimated over a long period are noisier estimates of the gain from the acquisition.

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[5] Size and book-to-market adjusted returns are calculated using the returns on the 25 Fama-French size and book-to-market portfolios. Our results are similar if we use market-model cumulative abnormal return measures.

Second, the return measure is sensitive to misspecification of the benchmark return.[6] This second problem applies to the FFRET measure as well.

In Table 3, we show the mean and median CAR estimates. In both Panel A and Panel B, the CAR estimates are generally lower for acquisitions by private firms than they are for acquisitions by public firms as previously reported in Bargeron et al. (2008). However, when there is no retention, both the mean and median CARs for acquisitions by private equity firms and by private operating firms are lower than for acquisitions by public firms. In contrast, where there is CEO retention, only CARs of acquisitions by private equity firms are lower than the CARs of acquisitions by public firms. These results indicate therefore that the premium paid by private operating companies is lower than the premium paid by public firms only when the acquisition does not involve the retention of the CEO. For public firm acquisitions, there is no difference between the CEO retention and the no retention samples. In contrast, the CARs are significantly lower for acquisitions by private firms when the CEO is not retained. First, using the means, the CAR estimate when the CEO is retained is higher by 6.52 percentage points than when the CEO is not retained. This difference is significant at the 5% level. For medians, the difference is 3.84% and is significant at the 10% level. When we consider separately private equity firm and private operating firm acquisitions, the difference in CARs between acquisitions with CEO retention and those without are not statistically significant. This seems to be due to the lower power of the tests on the subsamples because the estimates of the mean differences in premiums are quite large, ranging from 5.58% for acquisitions by private equity firms to 10.67% for acquisitions by private operating firms. In summary, we see no evidence that shareholders receive less when the CEO is retained and some evidence that they receive more for private firm acquisitions.

Table 3 also shows buy-and-hold abnormal returns from the day before the announcement to completion of the offer using the FFRET measure. In comparing public bidders to private bidders (Panels A and B) the pattern for FFRETs is the same as for CARs. Comparing deals with CEO retention to deals without CEO retention (Panel C), the difference in FFRET for private bidders is not significant, while the

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[6] See Kothari and Warner (2007).

difference for private operating bidders is marginally significant. The results in Panels A and B are also similar for the WBC estimate of the premium. It is interesting to note that in Panel C the mean difference between the CEO retention and no retention samples for private firm acquisitions is slightly negative while the median difference is larger than for the CAR results but insignificant. Such differences suggest that the estimates of the WBC premium are much noisier. In Table 3 we also provide data on the runup (RUNUP), which is the market-adjusted buy-and-hold return from 63 days prior to the announcement to 6 days prior to the announcement. We find that RUNUP is smaller for acquisitions by public firms where the CEO is retained than where the CEO is not retained. There is no difference in RUNUP between the CEO retention and the no retention samples for the other types of acquisitions.

Lastly, we investigate post-announcement returns in Table 3. These returns are size and book-to-market adjusted buy-and-hold returns and are estimated from day +2 to completion (FFRET_POST). It is not possible to know how well-informed the market is about the CEO's retention at the time of the announcement. The information we have is from the merger documents produced at completion of the merger. The offer announcement may have no information about CEO retention even though the CEO is retained. It is possible, however, that offers where the CEO is not retained are less likely to succeed. In this case, we would expect a higher return from the day after the offer announcement to completion for those offers without CEO retention that succeed because we do not include in our sample the offers that do not succeed. The higher post-announcement return would be accompanied by a lower CAR since the market would discount the offer more because of greater doubts about success. Hence, differences in probability of success could potentially explain the lower CAR of acquisitions by private firms. There is no evidence that this mechanism is at play because we find no difference in post-announcement returns between acquisitions where the CEO is retained and acquisitions where she is not for any type of acquisition.

Table 3 does not offer evidence that shareholders are hurt by CEO retention, but instead offers some evidence that they benefit. However, we saw in Section 3 that there are many target and deal characteristic differences between the CEO retention and no retention samples. It could be, therefore, that

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our evidence on abnormal returns masks differences in premiums once we take into account firm and deal characteristics. To conduct this investigation, we estimate regressions where the dependent variable is a measure of the premium. Our regressions control for variables that have been used in previous studies to explain abnormal returns associated with acquisition announcements and premiums. These variables are the target and deal characteristics we described in Section 3. In addition, we include an indicator variable for acquisitions by private firms and an indicator variable for cases where the CEO is retained. These regressions are models (1) to (3) of Table 4. Each regression uses a different measure of the premium. The coefficient on the CEO retention indicator variable is insignificant for all three regressions. In all cases, the coefficient represents a difference of less than one and a half percentage points in the premium in absolute value. The indicator variable for private firm acquisitions has a negative significant coefficient in all regressions. Consequently, we find no evidence that CEO retention is associated with a lower premium. Further, controlling for CEO retention does not affect the known result that acquisitions by private firms have a lower premium.

We next consider the possibility that the relation between the premium and CEO retention depends on the type of acquirer. Private equity acquisitions often involve participation of the management of the target. In contrast, acquisitions by public firms where the CEO of the target ends up being retained are typically not acquisitions where the target CEO is part of the acquisition team. As pointed out in the introduction, concerns about the conflict of interest hypothesis have been especially acute for acquisitions by private equity firms where the CEO is part of the acquisition team.

We re-estimate regressions (1) through (3) allowing the coefficient on the CEO retention indicator variable to differ if the acquisition is by a private equity firm or by a private operating firm. We also allow for the premium to vary depending on the type of acquirer. The coefficient on the CEO retention indicator variable captures the difference in premium when the target CEO in an acquisition by a public firm is retained. These regressions are models (4) to (6) of Table 4. The coefficient on the CEO retention indicator variable is insignificant in each specification. The coefficient on the private equity acquirer indicator variable is significantly negative in each specification. In model (4), the interaction between the

private equity bidder indicator variable and the CEO retention indicator variable is significantly positive. It follows that the CAR premium is significantly higher for private equity acquisitions when the CEO is retained. Unreported F-tests reveal that, for the CAR measure of the premium, the premium received by shareholders in private equity transactions is higher when the CEO is retained, but remains significantly lower than if the acquisition were made by a public firm. The conclusion regarding the difference between private equity and public transactions holds irrespective of the premium measure employed. The premium on acquisitions by private operating companies is significantly lower in models (4) and (5) but not when we use the WBC premium in model (6). As for acquisitions by private operating firms, the interaction with CEO retention is positive and significant in regressions (4) and (5). It is interesting to note that the estimate of the interaction is 12.01% in equation (4) whereas the estimate of the private operating firm indicator variable is -10.21%. Consequently, the interaction more than offsets the acquirer type indicator variable. A similar result holds for regression (5). Not surprisingly, therefore, additional unreported F-tests show that the premium for acquisitions by private operating companies is statistically indistinguishable from the premium for acquisitions by public companies when the CEO is retained. The premium paid by private operating companies is significantly lower than in acquisitions by public firms when the CEO is not retained. We also estimated the regressions of Table 4 allowing the coefficients on CEO retention and on the interactions of CEO retention with private equity and public operating company bidders to depend on whether the CEO is retained as CEO of the parent or as head of a subsidiary. Though we do not report these results in a table, we find no evidence that the exact position of the CEO in the merged firm is related to our measures of the premium and adding these additional interactions does not change our inferences from Table 4.

It follows from regressions (4) to (6) that CEO retention plays an important role in explaining the premium difference between acquisitions by public firms and acquisitions by private firms. Acquisitions by private equity firms always have a lower premium, but acquisitions by operating companies have a lower premium only when the CEO is not retained. The evidence that CEO retention is valuable for acquisitions by private firms but not by public firms is not supportive of the conflict of interest

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hypothesis. The evidence is supportive of the valuable CEO hypothesis, but also presents a puzzle: Why is the CEO more valuable for private firm acquisitions than for public firm acquisitions?

In the introduction, we offered a third hypothesis, labeled the shareholder bribe hypothesis. This hypothesis predicts that acquirers pay more to reduce litigation risks when concerns about the conflict of interest are high. Therefore, we would expect that the difference in premium between CEO retention and no retention would be greatest for management buyouts (MBOs) where the executives of the acquired firm are involved in the acquisition team. In our sample of acquisitions by private equity firms, we find 54 MBOs. The CAR measure for the private equity MBO acquisitions is 23.29% and it is 21.46% for the non-MBO private equity acquisitions. The difference between these two estimates is not significant. Though we do not report the results in a table, we estimate regressions of the premium on the same variables as in Table 4 except that we now have an MBO indicator variable and a CEO retention indicator variable. With this classification of acquisitions, we find that neither the MBO indicator variable nor the CEO retention indicator variable is individually significant in any of the regressions. Further, the MBO indicator variable and the CEO retention indicator variable are not jointly significant. It follows from these results that there is no evidence that premiums are different for MBOs.

A possible concern with the regressions we estimate is that we know that the CEO is more likely to be retained when insider ownership is high. High insider ownership makes it less likely that the premium will be low because the CEO is pursuing private benefits at the expense of the shareholders. Higher insider ownership could also drive up the premium if the supply curve of shares to the bidder is upward sloping (Stulz, 1988). Hence, it could well be that the premium is in some cases higher when the CEO is retained simply because insider ownership is high, so that retention acts as a proxy for high insider ownership. To investigate this possibility, we collect insider ownership for the firms in our sample. For the subset of firms for which insider ownership is available, we re-estimate the regressions of Table 4 but, following McConnell and Servaes (1990), we add the level and the square of insider ownership to allow insider ownership to have a non-linear impact on the premium. Though we do not report these regressions, we estimate regressions for the whole sample. In these regressions, the CEO retention

indicator variable, the insider ownership variable, and the square of the insider ownership variable are not significant. However, the private firm acquisition indicator variable has a significant negative coefficient in each regression.

We next consider separate regressions for private and public acquirers. Regressions (1) through (3) of Table 5 have the estimates for public firm acquisitions. Neither the CEO retention indicator variable nor the insider ownership variables are significant. In regressions (4) through (6), we use the sample of acquisitions by private firms. We find that the indicator variable for CEO retention is positive and marginally significant in equation (4) with a *p*-value of 0.058. Neither the level nor the square of insider ownership is significant. It follows from these regressions that adding insider ownership variables does not affect our conclusions concerning CEO retention.

5. Non-CEO retention

The previous analysis has focused on cases where the CEO is retained by the acquirer. When building the sample we identified 129 cases where a top-level executive other than the CEO is retained. We examine these cases in this section. The fraction of cases, where non-CEO executives are retained but the CEO is not, is highest for private operating companies (15.23% of all acquisitions) and lowest for private equity acquisitions (9.58%). There are 90 acquisitions by public firms where non-CEO executives are retained (10.98%). For these 90 cases, there is some evidence that the premium is higher for acquisitions where a non-CEO executive is retained than for acquisitions where a CEO is retained (though not for the CAR3 or FFRET measure). The mean CAR is 36.64% when a non-CEO executive is retained compared to 30.36% when the CEO is retained, but this difference is not significant. Furthermore, the difference of the medians is economically small and also statistically insignificant. The difference in premiums is larger and significant at the 10% level when we look at the long-term estimate of the premium. Here we report 55.04% for the mean when a non-CEO executive is retained versus 40.99% when the CEO is retained. The difference of the medians is again insignificant (41.91% versus 33.30%). To conserve space these results are not tabulated. In contrast to the results for acquisitions by public firms, there is no evidence

that there is a difference in premium when we compare acquisitions by private firms where the CEO is retained to those where a non-CEO executive is retained.

We next estimate regressions to assess more precisely whether the premium paid by the bidder differs when a non-CEO executive is retained instead of the CEO. We estimate in Table 6 regressions for public firm acquisitions and for private firm acquisitions. Regressions (1) through (3) show the results for the public firm acquisitions. We use an indicator variable called RETENTION that equals one if any executive is retained. We then have a second indicator variable called NON_CEO_RETENTION. This indicator variable equals one if the CEO is not retained but some other executive is retained. We see that the estimates of the coefficient on the RETENTION indicator variable are insignificant for all three regressions. However, the indicator variable for the NON_CEO_RETENTION indicator variable is significantly positive in models (1) and (3) and in model (2) the p-value is 0.112. Consequently, retention of a non-CEO executive instead of a CEO leads to a higher premium for target shareholders. In regressions not reproduced in a table, we use the sample of acquisitions without CEO retention but include an indicator variable for non-CEO retention. In that regression, all coefficients on that indicator variable have a positive coefficient. The coefficient is 0.1008 for the WBC measure and is statistically significant at the 10% level.

Regressions (4) through (6) in Table 6 show estimates of identical regressions but using the sample of private firm acquisitions. We see that the coefficient on RETENTION is positive and marginally significant only for the CAR measure of the premium, but not the others. The coefficient on NON_CEO_RETENTION is insignificant irrespective of the premium measure, so that it does not make a difference for the return to target shareholders whether the CEO is retained or the CEO is not retained but some other executive is retained.

6. Conclusion

In this paper, we have investigated the determinants of target CEO retention in an acquisition and the implications of target CEO retention for the premium paid by the acquirer. There is much concern that in

an acquisition the CEO's interests may not be well-aligned with those of shareholders and that the CEO may choose to negotiate for private benefits, including possibly retention, at the expense of a higher premium for the shareholders. Our evidence is not supportive of this conflict of interest hypothesis.

We consider first the determinants of CEO retention. We find that CEOs of better performing firms and of firms with greater insider ownership are more likely to be retained. However, CEOs of better performing firms are precisely managers who would have better opportunities in the managerial labor market, so that retention would be less valuable for them, and CEOs that the acquirer would be more likely to want to retain because their performance is good, so that retention would be less likely to be at the expense of target shareholders. Further, when insiders have high holdings of shares, their incentives are better aligned with those of other shareholders, so that they will push hard for a higher premium. We find that CEOs are less likely to be retained in acquisitions made through tender offers and in competitive situations. These results are consistent with the view that management that resists more, either directly or by generating competitive offers, is less likely to be retained. One could therefore argue that this evidence provides indirect support for the existence of a conflict of interest. However, it is also possible that there is more competition when managerial synergies are lower, so that CEO retention would be less likely when there is more competition for reasons that have nothing to do with the actions of the incumbent CEO.

When we examine the premium paid by the acquirer, we find that there is no evidence that retention is associated with a lower premium. In fact, the evidence we do find on a relation between the premium and retention is the opposite. We find that the stock-price reaction to the acquisition announcement is higher for private firm acquisitions when the CEO is staying. This result holds for management buyouts as well as for acquisitions by private equity firms where the CEO is retained but where the CEO is not directly part of the acquisition team. The same result does not hold for acquisitions by public companies.

In the introduction, we presented two hypotheses that imply a greater premium when the CEO is retained. The first hypothesis is that the acquirer pays a greater premium when target management is part of the acquisition team in order to decrease the risk of litigation. We find, however, that the premium is

greater for acquisitions by private operating companies, a result that cannot be explained by the shareholder bribe hypothesis. The second hypothesis we call the valuable CEO hypothesis. With this hypothesis, the retention of the CEO creates value for the acquisition and the price paid for the acquisition reflects this value. Another, perhaps more precise way to describe this hypothesis is that there are managerial synergies as suggested by Matsusaka (1993). However, we find no evidence that the CEO retention is valuable for acquisitions by public firms. These results create a puzzle, which is why CEO retention would be more valuable when the acquirer is a private firm than when the acquirer is a public firm.

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Table 1

Summary statistics on target and deal characteristics

The sample includes all SDC completed cash-only merger and acquisition deals between a U.S. bidder and a U.S. public target announced between 1994 and 2006 that result in 100% ownership by the bidder. Mean or median target and deal characteristics are reported for public bidder deals, private bidder deals, private equity bidder deals, and private operating bidder deals by CEO retention and no retention. The target insider ownership (TARGET_INSIDE_OWN) is the aggregate insider ownership listed in the Compact D Disclosure database. The market value of equity (MVE) is from CRSP calculated as the CPI-adjusted (2005 dollars) price of the stock times the number of shares outstanding 63 days prior to the announcement date. Tobin's q (Q) is defined as the firm market value assets divided by the book value of assets. Industry-adjusted Tobin's q (IAQ) is defined as Tobin's q minus the median two-digit SIC code industry value of this variable. Operating cash flow (OCF) is defined as sales minus costs of goods sold, sales and general administrative expenses, and change in net working capital, divided by book value of assets. ARET_12 is the market-adjusted buy-and-hold return from day -316 to day -63 relative to the announcement date. Debt-to-assets (DEBT) is calculated as the book value of debt divided by the sum of the book value of debt and the market value of equity. STDEV and STDEVAR are defined, respectively, as the raw returns from day -379 to day -127 relative to the announcement date and standard deviation of the market model residuals. TARLIQ is the liquidity of the market for corporate control for the target firm's industry and is defined as the value of all corporate control transactions for $1 million or more reported by SDC for each year and two-digit SIC code divided by the total book value of assets of all Compustat firms in the same two-digit SIC code and year. STOCKLIQ is the measure of stock illiquidity of Amihud (2002). COMPETE is an indicator variable equal to one if another deal for the same target is announced in SDC during the 12 months prior to the announcement date. INITBID is an indicator variable equal to one if the announcement of the offer is followed by an offer by another firm, while no bids took place during the 12 months before the announcement. TENDER, TOEHOLD, TARTERM, and BIDLOCK are indicator variables from SDC equal to one if the deal respectively is a tender offer, involves a bidder that holds 0.5% or more of the target stock prior to the announcement, includes target termination fees, and includes bidder lockup provisions. Mean [median] values for the non-public bidder deals that are significantly different from the corresponding mean [median] value for the public bidder deals denoted with a, b, or c, are significant at the 1%, 5%, or 10% level, respectively. Within the bidder groupings, differences in means [medians] between CEO retention and no retention denoted with α, β, or γ, are significant at the 1%, 5%, or 10% level, respectively.

	Public bidder deals			Private bidder deals			Private equity bidder deals			Private operating bidder deals		
	CEO retention	No retention	Difference	CEO retention	No retention	Difference	CEO retention	No retention	Difference	CEO retention	No retention	Difference
n	219	511		156	123		104	47		52	76	
Median values												
TARGET_INSIDE_OWN	0.1097	0.1023	0.0074	0.1654	0.0742	0.0912^{α}	0.1510	0.0536^{c}	0.0974^{α}	0.1749	0.0830	0.0919^{γ}
ln(MVE)	4.8536	4.8673	-0.0137	4.3585	4.2853^{a}	0.0732	4.6719	4.4107^{b}	0.2612	4.0075^{a}	4.1187^{a}	-0.1112
Q	1.2762	1.2970	-0.0208	1.2004^{b}	1.0361^{a}	0.1643^{α}	1.2353	1.0706^{a}	0.1647^{β}	1.0695^{a}	1.0206^{a}	0.0489
IAQ	-0.0483	-0.1131	0.0648	-0.2045^{a}	-0.2731^{a}	0.0686	-0.2040^{b}	-0.3101^{b}	0.1060	-0.2144^{b}	-0.2569^{b}	0.0425
OCF	0.0900	0.0846	0.0054	0.1200^{a}	0.0803	0.0397^{α}	0.1351^{a}	0.0925	0.0425	0.1054	0.0684	0.0370
ARET_12	-0.1523	-0.1652	0.0129	-0.1941	-0.0985	-0.0956	-0.1782	-0.0772	-0.1009	-0.2096	-0.0991	-0.1105
DEBT	0.0860	0.1114	-0.0254^{γ}	0.1821^{a}	0.1451	0.0370	0.1901^{a}	0.1590	0.0311	0.1591	0.1425	0.0166
STDEV	0.0358	0.0337	0.0021	0.0337	0.0352	-0.0015	0.0325	0.0401	-0.0076	0.0354	0.0314	0.0040
STDEVAR	0.0355	0.0329	0.0026	0.0325	0.0348	-0.0023	0.0318	0.0364	-0.0046	0.0352	0.0314	0.0038
TARLIQ	0.0454	0.0491	-0.0038	0.0462	0.0470	-0.0008	0.0470	0.0470	0.0000	0.0273	0.0454	-0.0181
STOCKLIQ	0.0263	0.0177	0.0086	0.0434^{c}	0.0848^{a}	-0.0414	0.0327	0.0661^{b}	-0.0334	0.0803^{a}	0.0865^{a}	-0.0062
Mean values												
COMPETE	0.0274	0.0724	-0.0450^{α}	0.0321	0.1138	-0.0818^{β}	0.0481	0.0638	-0.0158	0.0000	0.1447^{c}	-0.1447^{α}
INITBID	0.0274	0.0137	0.0137	0.0192	0.0244	-0.0052	0.0288	0.0213	0.0076	0.0000	0.0263	-0.0263
TENDER	0.4064	0.5068	-0.1005^{β}	0.2500^{a}	0.3659^{a}	-0.1159^{β}	0.2115^{a}	0.4468	-0.2353^{α}	0.3269	0.3158^{a}	0.0111
TOEHOLD	0.0548	0.0391	0.0157	0.0769	0.0325	0.0444^{γ}	0.1154^{c}	0.0638	0.0516	0.0000^{a}	0.0132	-0.0132
TARTERM	0.7123	0.7260	-0.0137	0.5897^{a}	0.7073	-0.1176	0.5962^{b}	0.6596	-0.0634	0.5769^{c}	0.7368	-0.1599^{γ}
BIDLOCK	0.0639	0.0607	0.0033	0.0449	0.0163^{a}	0.0286	0.0096^{a}	0.0213	-0.0117	0.1154	0.0132^{a}	0.1022^{β}

Table 2
CEO retention logistic regression analysis
The sample includes all SDC completed cash-only merger and acquisition deals between a U.S. bidder and a U.S. public target announced between 1994 and 2006 that result in 100% ownership by the bidder. The dependent variable (CEO_RETENTION) is equal to one for deals where the target CEO is retained by the bidder and zero otherwise. PEBIDDER (POBIDDER) is an indicator variable equal to one if the bidder is a private equity (operating) firm. All remaining variables are defined in the header of Table 1. Regressions include year and industry (two-digit SIC code main classifications) dummy variables. *p*-values are in brackets and are based on heteroskedasticity-consistent standard errors. Coefficients denoted with [a], [b], or [c], are significant at the 1%, 5%, or 10% level, respectively.

	(1) CEO Retention	(2) CEO Retention	(3) CEO Retention	(4) CEO Retention
PEBIDDER	1.6023[a]	1.5527[a]	1.6010[a]	1.6168[a]
	[0.000]	[0.000]	[0.000]	[0.000]
POBIDDER	0.4201[c]	0.4579[b]	0.4276[c]	0.4186[c]
	[0.062]	[0.038]	[0.058]	[0.063]
TARGET_INSIDE_OWN	0.9465[a]	0.9721[a]	0.9980[a]	0.9901[a]
	[0.005]	[0.005]	[0.004]	[0.004]
ln(MVE)	0.0155	0.0151	0.0411	0.0266
	[0.794]	[0.824]	[0.550]	[0.695]
Q	0.1636[c]	0.1444	0.1686[b]	
	[0.050]	[0.109]	[0.047]	
IAQ				0.1823[b]
				[0.023]
OCF	0.8943[c]	0.9001[b]	0.8580[c]	0.9559[b]
	[0.054]	[0.049]	[0.066]	[0.039]
ARET_12	-0.0528	-0.0401	-0.0405	-0.0610
	[0.652]	[0.731]	[0.724]	[0.594]
RUNUP	-0.4390[c]	-0.4325[c]	-0.4590[c]	-0.4256[c]
	[0.059]	[0.064]	[0.051]	[0.067]
DEBT	-0.0963	-0.1796	-0.1403	-0.1672
	[0.816]	[0.662]	[0.738]	[0.683]
STDEV		1.4253		
		[0.748]		
STDEVAR			-2.4498	1.4274
			[0.618]	[0.747]
TARLIQ	-5.3042[a]		-5.4521[a]	-5.1468[a]
	[0.000]		[0.000]	[0.000]
STOCKLIQ			0.0833[c]	
			[0.072]	
COMPETE	-1.0361[a]	-1.0548[a]	-1.0489[a]	-1.0610[a]
	[0.004]	[0.002]	[0.003]	[0.003]
INITBID	0.2650	0.3971	0.3218	0.2910
	[0.622]	[0.467]	[0.551]	[0.590]
TENDER	-0.3861[b]	-0.3896[b]	-0.3767[b]	-0.3940[b]
	[0.034]	[0.030]	[0.042]	[0.032]
TOEHOLD	0.3216	0.3348	0.3393	0.3270
	[0.362]	[0.333]	[0.340]	[0.353]
TARTERM	-0.1595	-0.1879	-0.1505	-0.1650
	[0.386]	[0.301]	[0.417]	[0.372]
BIDLOCK		0.5076	0.5423[c]	0.5045
		[0.103]	[0.078]	[0.107]
Constant	-1.1417	-1.7781[c]	-1.2828	-1.0258
	[0.219]	[0.061]	[0.184]	[0.297]
Observations	919	922	919	919
Pseudo R-squared	0.121	0.107	0.126	0.124

Table 3
Target return measures for different bidder types
The sample includes all SDC completed cash-only merger and acquisition deals between a U.S. bidder and a U.S. public target announced between 1994 and 2006 that result in 100% ownership by the bidder. Panel A reports mean and median [in brackets] target returns for deals with CEO retention. Panel B reports mean and median [in brackets] target returns for deals with no CEO retention. Panel C reports differences in target returns for deals with CEO retention and no retention. The variables CAR is the 3-day cumulative abnormal returns around the announcement day, based on market model parameters. The variable FFRET is the Fama-French size and book-to-market portfolio-adjusted buy-and-hold return from one day before the announcement date to the completion date of the transaction. The variable WBC is the Fama-French size and book-to-market portfolio-adjusted buy-and-hold return from 42 trading days prior to the announcement of the winning bid to the completion date. RUNUP is the market-adjusted buy-and-hold return from 63 days prior to the announcement to 6 days prior to the announcement. FFRET_POST is Fama-French size and book-to-market portfolio-adjusted buy-and-hold return from day +2 to completion. All reported *p*-values are based on t-tests for differences in the mean and on Wilcoxon tests for differences in the median.

	Public bidders	Private bidders	Difference from public p-value	Private equity bidders	Difference from public p-value	Private operating bidders	Difference from public p-value
Panel A: *Return measures for deals with CEO retention*							
n	219	156		104		52	
CAR3	0.3036	0.2643	0.215	0.2385	0.029	0.3161	0.840
	0.2483	*0.2010*	*0.026*	*0.1970*	*0.023*	*0.2108*	*0.306*
FFRET	0.3068	0.2596	0.222	0.2163	0.014	0.3464	0.584
	0.2472	*0.1803*	*0.023*	*0.1660*	*0.006*	*0.2292*	*0.717*
WBC	0.4099	0.3018	0.015	0.2301	0.000	0.4451	0.621
	0.3330	*0.2607*	*0.004*	*0.2148*	*0.000*	*0.3751*	*0.648*
RUNUP	0.0457	0.0582	0.619	0.0319	0.634	0.1107	0.076
	0.0206	*0.0341*	*0.785*	*-0.0010*	*0.378*	*0.0800*	*0.056*
FFRET_POST	-0.0163	-0.0192	0.833	-0.0329	0.306	0.0081	0.159
	-0.0216	*-0.0157*	*0.885*	*-0.0283*	*0.391*	*-0.0019*	*0.303*
Panel B: *Return measures for deals with no retention*							
n	511	123		47		76	
CAR3	0.3127	0.1992	0.000	0.1827	0.000	0.2094	0.004
	0.2531	*0.1626*	*0.000*	*0.1847*	*0.002*	*0.1608*	*0.001*
FFRET	0.3253	0.2173	0.000	0.1953	0.001	0.2309	0.022
	0.2743	*0.1874*	*0.001*	*0.1868*	*0.011*	*0.1905*	*0.023*
WBC	0.4494	0.3148	0.005	0.2211	0.002	0.3727	0.196
	0.3803	*0.1936*	*0.000*	*0.1625*	*0.000*	*0.2955*	*0.098*
RUNUP	0.0947	0.0754	0.554	0.0393	0.124	0.0977	0.942
	0.0527	*0.0111*	*0.443*	*-0.0077*	*0.171*	*0.0488*	*0.972*
FFRET_POST	-0.0049	0.0052	0.439	0.0036	0.670	0.0061	0.482
	-0.0055	*0.0013*	*0.725*	*-0.0066*	*0.959*	*0.0027*	*0.670*

Panel C: *Differences in return measures for deals with CEO retention and no retention*

	Difference	*p*-value	Difference	*p*-value	Difference	*p*-value	Difference	*p*-value
CAR3	-0.0092	0.701	0.0652	0.042	0.0558	0.131	0.1067	0.107
	-0.0048	*0.747*	*0.0384*	*0.084*	*0.0122*	*0.257*	*0.0500*	*0.117*
FFRET	-0.0185	0.531	0.0423	0.264	0.0210	0.643	0.1154	0.098
	-0.0271	*0.348*	*-0.0072*	*0.826*	*-0.0208*	*0.946*	*0.0387*	*0.349*
WBC	-0.0395	0.306	-0.0130	0.796	0.0090	0.894	0.0724	0.399
	-0.0474	*0.277*	*0.0672*	*0.858*	*0.0522*	*0.492*	*0.0796*	*0.301*
RUNUP	-0.0491	0.025	-0.0172	0.612	-0.0074	0.860	0.0130	0.813
	-0.0320	*0.135*	*0.0229*	*0.838*	*0.0067*	*0.733*	*0.0312*	*0.423*
FFRET_POST	-0.0114	0.278	-0.0244	0.123	-0.0365	0.134	0.0020	0.928
	-0.0161	*0.214*	*-0.0170*	*0.266*	*-0.0218*	*0.236*	*-0.0046*	*0.884*

Table 4
Target premium multiple regression analysis
The sample includes all SDC completed cash-only merger and acquisition deals between a U.S. bidder and a U.S. public target announced between 1994 and 2006 that result in 100% ownership by the bidder. The dependent variable in models (1) and (4) is CAR, in models (2) and (5) is FFRET, and in models (3) and (6) is WBC. The dependent variables are defined in the header of Table 3. CEO_RETENTION is an indicator variable equal to one for deals where the target CEO is retained by the bidder and zero otherwise. PEBIDDER (POBIDDER) is an indicator variable equal to one if the bidder is a private equity (operating) firm. CEO_RETENTION_PEBIDDER (CEO_RETENTION_POBIDDER) is an interaction term between CEO_RETENTION and PEBIDDER (POBIDDER). All remaining variables are defined in the header of Table 1. Regressions include year and industry (two-digit SIC code main classifications) dummy variables. *p*-values are in brackets and are based on heteroskedasticity-consistent standard errors. Coefficients denoted with [a], [b], or [c], are significant at the 1%, 5%, or 10% level, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	CAR3	FFRET	WBC	CAR3	FFRET	WBC
CEO_RETENTION	0.0086	-0.0033	-0.0131	-0.0169	-0.0236	-0.0167
	[0.661]	[0.886]	[0.671]	[0.480]	[0.415]	[0.652]
PRIVATE	-0.0764[a]	-0.0694[a]	-0.1197[a]			
	[0.000]	[0.004]	[0.001]			
PEBIDDER				-0.1434[a]	-0.1144[a]	-0.2116[a]
				[0.000]	[0.005]	[0.002]
POBIDDER				-0.1021[a]	-0.0955[b]	-0.0760
				[0.002]	[0.013]	[0.174]
CEO_RETENTION_PEBIDDER				0.0831[c]	0.0349	0.0348
				[0.059]	[0.505]	[0.648]
CEO_RETENTION_POBIDDER				0.1201[c]	0.1441[c]	0.0830
				[0.059]	[0.050]	[0.335]
ln(MVE)	-0.0169[c]	-0.0140	-0.0351[b]	-0.0168[c]	-0.0133	-0.0327[b]
	[0.075]	[0.181]	[0.015]	[0.073]	[0.197]	[0.022]
IAQ	-0.0266[a]	-0.0252[a]	-0.0183	-0.0270[a]	-0.0252[a]	-0.0181
	[0.002]	[0.007]	[0.152]	[0.003]	[0.007]	[0.150]
OCF	-0.0096	-0.0195	-0.1291	-0.0103	-0.0207	-0.1253
	[0.895]	[0.801]	[0.220]	[0.886]	[0.789]	[0.237]
ARET_12	-0.0651[a]	-0.0693[a]	-0.0798[a]	-0.0624[a]	-0.0666[a]	-0.0807[a]
	[0.000]	[0.000]	[0.002]	[0.000]	[0.000]	[0.002]
RUNUP	-0.1908[a]	-0.2059[a]		-0.1965[a]	-0.2129[a]	
	[0.000]	[0.000]		[0.000]	[0.000]	
DEBT	0.0045	0.0186	0.0992	0.0023	0.0189	0.1102
	[0.933]	[0.762]	[0.234]	[0.966]	[0.758]	[0.190]
STDEVAR	0.5168	1.1696	0.2708	0.5334	1.1713	0.2634
	[0.553]	[0.202]	[0.807]	[0.537]	[0.197]	[0.812]
TARLIQ	-0.1753[b]	-0.2532[b]	-0.2150	-0.1598[b]	-0.2458[b]	-0.1855
	[0.024]	[0.015]	[0.109]	[0.045]	[0.021]	[0.176]
COMPETE	-0.0670[a]	-0.0569[b]	0.0020	-0.0643[a]	-0.0523[c]	0.0003
	[0.002]	[0.038]	[0.968]	[0.003]	[0.056]	[0.996]
INITBID	-0.0520	0.0781	0.0110	-0.0450	0.0861	0.0176
	[0.310]	[0.318]	[0.880]	[0.365]	[0.267]	[0.815]
TENDER	0.0874[a]	0.0895[a]	0.0796[b]	0.0868[a]	0.0870[a]	0.0762[b]
	[0.000]	[0.001]	[0.030]	[0.000]	[0.001]	[0.035]
TOEHOLD	-0.0162	-0.0375	-0.1637[b]	-0.0098	-0.0275	-0.1462[b]
	[0.666]	[0.492]	[0.016]	[0.788]	[0.613]	[0.033]
TARTERM	0.0115	0.0177	0.0197	0.0123	0.0181	0.0164
	[0.593]	[0.504]	[0.582]	[0.572]	[0.500]	[0.651]
BIDLOCK	0.0428	0.0446	-0.0257	0.0366	0.0363	-0.0328
	[0.320]	[0.420]	[0.709]	[0.401]	[0.516]	[0.635]
Constant	0.3653[a]	0.3970[a]	1.0115[a]	0.3640[a]	0.3999[a]	1.0121[a]
	[0.000]	[0.006]	[0.000]	[0.000]	[0.006]	[0.000]
Observations	1,004	1,004	1,004	1,004	1,004	1,004
Adjusted R-squared	0.152	0.169	0.131	0.157	0.172	0.135

Table 5
Target premium multiple regression analysis controlling for target insider ownership
The sample includes all SDC completed cash-only merger and acquisition deals between a U.S. bidder and a U.S. public target announced between 1994 and 2006 that result in 100% ownership by the bidder. Models (1) – (3) are for public bidder deals only and Models (4) – (6) are for private deals only. The dependent variable in models (1) and (4) is CAR, in models (2) and (5) is FFRET, and in models (3) and (6) is WBC. The dependent variables are defined in the header of Table 3. CEO_RETENTION is an indicator variable equal to one for deals where the target CEO is retained by the bidder and zero otherwise. TARGET_INSIDE_OWN_SQU is the aggregate insider ownership squared. All remaining variables are defined in the header of Table 1. Regressions include year and industry (two-digit SIC code main classifications) dummy variables. p-values are in brackets and are based on heteroskedasticity-consistent standard errors. Coefficients denoted with [a], [b], or [c], are significant at the 1%, 5%, or 10% level, respectively.

	Public bidders			Private bidders		
	(1)	(2)	(3)	(4)	(5)	(6)
	CAR3	FFRET	WBC	CAR3	FFRET	WBC
CEO_RETENTION	-0.0122	-0.0199	-0.0204	0.0650[c]	0.0524	0.0024
	[0.638]	[0.524]	[0.620]	[0.058]	[0.191]	[0.967]
TARGET_INSIDE_OWN	-0.1485	-0.0048	0.2094	0.4101	0.2340	0.4093
	[0.307]	[0.977]	[0.380]	[0.118]	[0.451]	[0.294]
TARGET_INSIDE_OWN_SQU	0.2614	0.1556	-0.0988	-0.4418	-0.2586	-0.6785
	[0.166]	[0.510]	[0.731]	[0.177]	[0.498]	[0.170]
ln(MVE)	-0.0194	-0.0126	-0.0367[b]	-0.0394[b]	-0.0488[b]	-0.0499
	[0.108]	[0.322]	[0.035]	[0.038]	[0.026]	[0.114]
IAQ	-0.0261[b]	-0.0256[b]	-0.0179	-0.0429	-0.0400	-0.0413
	[0.011]	[0.017]	[0.214]	[0.120]	[0.228]	[0.208]
OCF	-0.0528	-0.0677	-0.2060[c]	0.3282[c]	0.3352[c]	0.3212
	[0.495]	[0.428]	[0.098]	[0.085]	[0.096]	[0.155]
ARET_12	-0.0690[a]	-0.0774[a]	-0.1096[b]	-0.0538[a]	-0.0620[b]	-0.0614[c]
	[0.004]	[0.006]	[0.016]	[0.006]	[0.015]	[0.060]
RUNUP	-0.1860[a]	-0.2094[a]		-0.2040[a]	-0.1853[b]	
	[0.000]	[0.000]		[0.008]	[0.043]	
DEBT	-0.0430	-0.0525	0.0324	0.0991	0.1463	0.2437[c]
	[0.561]	[0.528]	[0.775]	[0.262]	[0.150]	[0.086]
STDEVAR	0.0928	0.5464	-0.9989	0.1099	0.7939	0.9597
	[0.941]	[0.676]	[0.527]	[0.922]	[0.562]	[0.642]
TARLIQ	-0.3468[a]	-0.4825[a]	-0.3244	0.0941	0.0793	0.0581
	[0.008]	[0.005]	[0.173]	[0.517]	[0.577]	[0.749]
COMPETE	-0.0522[c]	-0.0313	-0.0030	-0.0243	-0.0330	0.1131
	[0.061]	[0.371]	[0.960]	[0.641]	[0.594]	[0.329]
INITBID	-0.0406	0.0783	-0.0301	-0.0214	0.1047	0.0927
	[0.583]	[0.471]	[0.698]	[0.788]	[0.467]	[0.610]
TENDER	0.0797[a]	0.0841[a]	0.0626	0.1256[a]	0.1178[b]	0.1232[c]
	[0.002]	[0.006]	[0.178]	[0.010]	[0.037]	[0.097]
TOEHOLD	-0.0235	-0.0624	-0.2213[b]	0.0220	0.0190	-0.0641
	[0.531]	[0.312]	[0.012]	[0.799]	[0.850]	[0.599]
TARTERM	0.0303	0.0359	0.0412	-0.0476	-0.0525	-0.0831
	[0.286]	[0.298]	[0.421]	[0.228]	[0.274]	[0.189]
BIDLOCK	0.0121	0.0147	-0.0722	0.0446	0.0191	0.1499
	[0.796]	[0.804]	[0.366]	[0.550]	[0.849]	[0.397]
Constant	0.3742[a]	0.3660[a]	0.7741[a]	0.2575	0.7716[a]	1.0686[a]
	[0.005]	[0.009]	[0.000]	[0.215]	[0.002]	[0.001]
Observations	660	660	660	259	259	259
Adjusted R-squared	0.133	0.157	0.104	0.194	0.207	0.123

Table 6

Target premium multiple regression analysis controlling for non-CEO retention

The sample includes all SDC completed cash-only merger and acquisition deals between a U.S. bidder and a U.S. public target announced between 1994 and 2006 that result in 100% ownership by the bidder. Models (1) – (3) are for public bidder deals only and Models (4) – (6) are for private deals only. The dependent variable in models (1) and (4) is CAR, in models (2) and (5) is FFRET, and in models (3) and (6) is WBC. The dependent variables are defined in the header of Table 3. RETENTION is an indicator variable equal to one for deals where any member of the target management, including the COB, is retained by the bidder and zero otherwise. NON_CEO_RETENTION is an indicator variable equal to one for deals where a member of the target management other than the CEO is retained by the bidder and zero otherwise. All remaining variables are defined in the header of Table 1. Regressions include year and industry (two-digit SIC code main classifications) dummy variables. p-values are in brackets and are based on heteroskedasticity-consistent standard errors. Coefficients denoted with [a], [b], or [c], are significant at the 1%, 5%, or 10% level, respectively.

	Public bidders			Private bidders		
	(1)	(2)	(3)	(4)	(5)	(6)
	CAR3	FFRET	WBC	CAR3	FFRET	WBC
RETENTION	-0.0182	-0.0253	-0.0154	0.0565	0.0292	-0.0276
	[0.460]	[0.398]	[0.686]	[0.102]	[0.463]	[0.615]
NON_CEO_RETENTION	0.0911^c	0.1131	0.1556^b	0.0323	0.0516	0.0516
	[0.098]	[0.112]	[0.027]	[0.617]	[0.499]	[0.511]
ln(MVE)	-0.0125	-0.0063	-0.0367^b	-0.0444^b	-0.0471^b	-0.0485^c
	[0.251]	[0.603]	[0.018]	[0.013]	[0.020]	[0.076]
IAQ	-0.0223^a	-0.0238^b	-0.0158	-0.0526	-0.0551	-0.0485
	[0.009]	[0.015]	[0.245]	[0.111]	[0.155]	[0.130]
OCF	-0.0310	-0.0284	-0.2350^c	0.4173^b	0.4412^b	0.4623^b
	[0.698]	[0.766]	[0.050]	[0.023]	[0.032]	[0.020]
ARET_12	-0.0729^a	-0.0831^a	-0.1137^a	-0.0589^a	-0.0624^b	-0.0629^b
	[0.002]	[0.002]	[0.005]	[0.005]	[0.010]	[0.039]
RUNUP	-0.2132^a	-0.2449^a		-0.1751^b	-0.1469^c	
	[0.000]	[0.000]		[0.016]	[0.087]	
DEBT	0.0191	0.0243	0.0701	0.0589	0.0974	0.2270^c
	[0.810]	[0.803]	[0.495]	[0.482]	[0.316]	[0.080]
STDEVAR	0.9752	1.8579	-0.0857	-0.4957	0.0494	0.3942
	[0.425]	[0.169]	[0.951]	[0.671]	[0.972]	[0.838]
TARLIQ	-0.2922^b	-0.3477^b	-0.2858	0.0391	-0.0523	-0.1343
	[0.011]	[0.024]	[0.139]	[0.788]	[0.734]	[0.454]
COMPETE	-0.0627^b	-0.0596^c	-0.0243	-0.0559	-0.0879	0.0561
	[0.023]	[0.089]	[0.665]	[0.266]	[0.138]	[0.566]
INITBID	-0.0436	0.0883	0.0185	-0.0257	0.1155	0.1273
	[0.494]	[0.361]	[0.818]	[0.657]	[0.317]	[0.363]
TENDER	0.1003^a	0.1082^a	0.0873^b	0.1183^b	0.1200^b	0.1313^c
	[0.000]	[0.001]	[0.049]	[0.013]	[0.037]	[0.060]
TOEHOLD	-0.0375	-0.0729	-0.1961^a	0.0037	0.0291	-0.0329
	[0.275]	[0.190]	[0.005]	[0.962]	[0.747]	[0.761]
TARTERM	0.0192	0.0194	0.0454	-0.0147	-0.0011	-0.0201
	[0.472]	[0.558]	[0.304]	[0.711]	[0.982]	[0.721]
BIDLOCK	0.0336	0.0359	-0.0419	0.0513	0.0556	0.1698
	[0.473]	[0.555]	[0.579]	[0.419]	[0.542]	[0.258]
Constant	0.3411^a	0.2249	1.0607^a	0.3738^c	0.6657^a	0.8048^b
	[0.004]	[0.102]	[0.000]	[0.069]	[0.007]	[0.024]
Observations	817	817	817	316	316	316
Adjusted R-squared	0.149	0.158	0.129	0.162	0.164	0.129