

Top-up Options and Tender Offers

ERIK DEVOS, WILLIAM B. ELLIOTT, and HILMI SONGUR¹

ABSTRACT

We investigate the role of top-up options granted by target managers to bidders in tender offers. A top-up option enables bidders to bypass target shareholder consent and allows for relatively fast execution of the tender offer. Our evidence, from 456 tender offers announced during 2000-2012 suggests that deals with top-up options are detrimental to both bidder and target shareholders, when compared to tender offers without the top-up feature. This effect seems to be concentrated in the pre-2007 period. After 2006 a large majority of tender offers include top-up options. We also find that the use of top-up options is negatively related to the use of lock-up options in the early period. In the later period of our sample, when lock-up options are no longer used in tender offers, toeholds are negatively related to the use of top-up options. Moreover, top-up options increase the speed of deal completion and are associated with less hostility, higher target free cash flows, and higher termination fees. We also provide some evidence that target firms that provide top-up options have somewhat weaker governance and we find that target management that provides a top-up option is more likely to receive a golden parachute. Overall we conclude that the use of top-up options is most consistent with an anti-competitive hypothesis.

This Draft: August 2014

¹Erik Devos is from the University of Texas at El Paso, William B. Elliott is from John Carroll University, and Hilmi Songur is from Antalya International University. We thank Subramanian Iyer, James Upson, and seminar participants at the University of New Mexico and the University of Texas at El Paso for comments. We retain responsibility for any remaining errors. All correspondence should be addressed to Erik Devos. Mailing address: Dept. of Economics and Finance, University of Texas at El Paso, 500 W. University Ave., El Paso, TX 79968, E-mail: hdevos@utep.edu, Voice: 915-747-7770, Fax: 915-747-6289.

In the business press, the use of top-up options has been advanced as an explanation for the increase in the use of tender offers over the last decade. According to Factset Mergermetrics, tender offers were employed in about 23 percent of friendly public deals in 2010. This compares with only 7.6 percent of such deals in 2006.² It's likely that the 2006 Best Price Rule (SEC Rule 14d-10), which reduced litigation risk associated with top-up option use, is a major factor in the increased use of top-up options (Offenberg and Pirinsky, 2013). However, the use of top-up options has not been without its critics. Opposition to the use of top-up options and the associated termination of shareholder approval and speedy completion of the deal has focused on the lack of shareholder oversight, absence of proxy advisory opinions, and the anti-competitive nature of this type of tender offer. However, not all commentators subscribe to the view that the use of top-up options (i.e., speedy deal completion) is detrimental to target shareholders. For example, quick resolution may avoid the enactment of a "material adverse change," or "MAC," clause. To the best of our knowledge, no research has investigated the effects of top-up options on target and bidder shareholder wealth.³ Nor is there any research that investigates the factors that lead to the use of top-up options in tender offers. It is this gap in the literature that we attempt to fill with our paper.⁴

After August 1, 2013, an amendment to Delaware General Corporation Law (DGCL) has supplanted the need for a top-up option in order to accomplish a short-form merger without shareholder approval. This new amendment was put forward, in part, because the use of top-up

² http://dealbook.nytimes.com/2010/10/14/behind-the-growing-number-of-tender-offers/?_r=0

³ In their paper that compares mergers with tender offers, Offenberg and Pirinsky (2013) suggest that fast execution of a merger is useful for a bidder when the target is strategically important or there is a high probability that a competing bid may arrive.

⁴ To our knowledge, Ganor (2011), in her law treatise on authorized shares, is the only paper that discusses top-up options in some detail.

options is constrained by the amount of authorized, but unissued, shares of common stock.⁵ The amendment gives an acquirer an advantage similar to that from the top-up option, without the need for a large number of unissued, authorized shares. So, although top-up options are no longer necessary, studying their use in tender offers is important, as the findings of our paper extend to the manner in which tender offers, under DGCL amendment (Section 251[h]), are currently conducted. Thus, any potential negative impact on shareholder wealth which may have been associated with the use of top-options prior to August 1, 2013 is likely to still exist after that date, calling into doubt the fairness, to shareholders, of the DGCL amendment.

In our study, we test three hypotheses that may explain the use of top-up options. We test these hypotheses by analyzing the reaction of the target firm's stock price around the announcement date of the tender offer. The effects of a top-up option may be negative to the target shareholders if they prevent competitive bidding ("anti-competitive hypothesis"), positive if they enhance the bargaining power of the target ("increased bargaining hypothesis"), or neutral if top-up options are a mechanism to an efficient merger resolution ("efficient merger resolution hypothesis"). Our sample spans the years 2000 to 2012, inclusive, and consists of 206 tender offers that include top-up options and 250 tender offers without top-up options. Our evidence is most consistent with the anti-competitive hypothesis. Specifically, the average abnormal returns to target shareholders during the period beginning 42 days prior to the announcement through the effective date (ex-date) are 50% for tender offers that include top-up options and about 57% for tender offers without a top-up option. Although we do not have specific predictions, we find that bidder abnormal returns are also lower for deals that include a top-up option. Bids that include a top-up option lead to bidder abnormal returns of about 2%, whereas bids without a top-up option

⁵ For more discussion on the DGCL amendment, see: <http://www.skadden.com/insights/amendments-delaware-general-corporation-law-facilitate-short-form-mergers-two-step-transact>

generate abnormal returns of about 9%. These results appear to be driven by deals made prior to 2007. After 2006, when the use of top-up options became widespread, we find no statistically significant differences in bidder or target returns for tender offers with and without top-up options.⁶ These results are robust and remain intact after controlling for other potential effects that existing literature suggests are related to abnormal returns surrounding the announcement of a tender offer. These findings are consistent with the premise that top-up options are detrimental to shareholder wealth in the period prior to 2007.

We also attempt to discover the factors that lead to the use of top-up options. We relate the use of top-up options in tender offers to a host of potential determinants. In the pre-2007 period, we find that the use of lock-up options is positively related to the use of top-up options. After 2006, when lock-up options are no longer used in the tender offers in our sample, we find that toeholds are negatively related to the use of top-up options.

We further analyze the relation between top-up options, lock-up options, toeholds, and termination fees, because these tender offer features may all be part of a particular bargaining strategy. The literature documents associations between toeholds and lock-up options (Ravid and Spiegel 1999; Burch 2001), and toeholds and termination fees (Bates and Lemmon, 2003; Betton, Eckbo, and Thorburn, 2009). For the entire sample period, there is a significant correlation between toeholds and top-up options. When we bifurcate the sample, there is a positive correlation between lock-up options and top-up options during the pre-2007 period. Inclusion of a top-up option is negatively, though weaker than with lock-up options, related to termination fees. This suggests that tender offers during this period, which include a top-up

⁶ From 2007 until 2012, nearly 80% of the tender offers in our sample included a top-up option.

option, may be friendly in nature. In the post-2006 period, we find that toeholds appear to take the place of lock-up options.

Given that our findings are most consistent with the “anti-competitive hypothesis”, we study why target management is willing to accept bids that seem to be detrimental to their shareholders. We first investigate whether top-up options are agreed to by target firms with relatively weak governance. However, we find no statistical difference in the G-Index (Gompers, Ishii, Metrick, 2003) between tender offers that include top-up options and those that do not. We also examine the relation between a variety of CEO and board characteristics and the inclusion of a top-up option in tender offers and its corresponding wealth effects. We hand collect the data for CEO and board characteristics from SEC filings and find that for target firms that issue (do not issue) top-up options, 38% (54%) have a CEO who is also the chairman of the board (duality). We also find that top-up option targets are associated with lower levels of CEO ownership and more staggered boards, especially in pre-2007 period. This is in line with the findings of Bebchuk and Cohen (2005), who find that staggered boards protect incumbents from a hostile takeover and supports the prior literature that staggered boards destroy firm value (Daines, 2005; Faleye, 2007; and Ganor 2007). In a multivariate setting, we examine wealth effects, after controlling for CEO and board characteristics. We find that the top-up options are still negatively related to target wealth. Our analysis of CEO and board characteristics in relation to the decision to include a top-up option reveals that younger CEOs are more likely to grant top-up options (but only pre-2007). Finally, we analyze career paths of target management after the tender offer is completed. Similar to Hartzell, Ofek and Yermack (2004) we attempt to determine whether target management was willing to take sub-optimal deals as a result of a quid-pro-quo deal. We do not find any statistically significant difference between CEOs whose firms use top-

up options compared to those who do not. However, we find that CEOs of targets that issue top-up options are more likely to have golden parachutes.

Our study contributes to the literature in a number of ways. First, and most important, a vast literature exists that investigates the mechanisms that allow assets to be allocated to their most productive use. M&A activity is one mechanism through which this allocation may be adjusted. Yet, much is still unknown about the actual bargaining process leading up to reallocation of assets through a merger. Prior literature has investigated differences between mergers and acquisitions (Schwert, 1996; Officer, 2003; Moeller, Schlingemann, and Stulz, 2004; Betton, Eckbo, and Thorburn, 2008, and Fu, Lin, and Officer, 2013), the use of lock-up options⁷ (Burch 2001), the use of termination fees (Bates and Lemmon, 2003; Officer, 2003; Boone and Mulherin, 2007), toeholds (Walkling and Edmister, 1985; Eckbo and Langohr, 1989; Jarrell and Poulsen, 1989; Jennings and Mazzeo, 1993; Ravid and Spiegel, 1999; Betton and Eckbo, 2000; Betton, Eckbo, and Thorburn, 2009), and M&A bargaining processes (Boone and Mulherin 2007). We add to this literature by empirically investigating the use of top-up options, which we document to have substantial negative wealth effects. This is important because recent regulatory changes have made it easier for tender offers to be executed as if they included a top-up option (i.e., relatively fast without target shareholder approval). Secondly, we examine the interplay of tender offer features such as toeholds, termination fees, lock-up options, and top-up options. Most prior literature tends to investigate these features without considering the possibility that these features may be substitutes or complements. Our third contribution is to provide evidence that is consistent with the notion that managers are opportunistic. A large

⁷ Lock-up options are different from top-up options because a lock-up option gives a selected/friendly bidder the right to purchase a portion of a target's shares at a discount of the price any competing bidder must pay. However a top-up option gives a bidder the right, upon the completion of a tender offer that reaches the minimum tender condition level, to purchase newly issued shares of the target. Also, a lock-up option can be used in all sorts of mergers while top-up options are only used in tender offers.

literature (e.g., Chalmers, Dann, Harford, 2002; Hartzell, Ofek, and Yermack, 2004; Haslem, 2005; Fich, Jie, and Tran, 2011; Heitzman, 2011) finds that managers are willing to sacrifice shareholder wealth in exchange for their personal enrichment. Our findings of a greater number of golden parachutes for target CEOs that grant top-up options is consistent with this notion.

In the next section (Section I) we describe how top-up options function and provide a hypothetical example. Section II briefly describes the regulatory environment. Section III contains the sample selection procedure and describes the characteristics of the sample. Empirical results and additional analyses regarding the relation among top-up options, lock-up options, toeholds, and termination fees are reported in Sections IV and V, respectively. Section VI presents the results of our robustness tests. In Section VII we investigate the effects of CEO and board characteristics, as well as the career paths of target CEO's. Finally, Section VII summarizes the results.

I. The Mechanics of Top-up Options

A top-up option gives a bidder the right, upon the completion of a tender offer that reaches the minimum condition, to purchase newly issued shares of the target so as to increase the buyer's common stock ownership interest to the 90 percent level required to effect a "short form" merger. If the tender offer is successful and the bidder acquires at least a majority of the shares, the top-up option allows the bidder to proceed with the takeover of the company. The successful bidder buys newly issued shares directly from the company and combined with the shares already tendered, the bidder will have 90 percent of the target's issued and outstanding shares. This allows the bidder to buy out the non-tendering shareholders using a freeze-out short form merger. A short form merger does not require a meeting or a vote of the shareholders and

leaves shareholders with appraisal rights as their sole avenue of recourse. Although the top-up shares are issued at the tender offer price, the buyer typically pays for these shares with a note which is cancelled when the buyer consolidates with the target.⁸

To illustrate the use of a top-up option, consider the following example. Suppose the target has 1,000 shares issued and outstanding prior to the tender offer. Now, assume that the bidder was able to acquire 500 shares in the tender offer, representing 50 percent of the total issued and outstanding shares of the target. Following the exercise of a top-up option the target will issue new shares to the bidder who, as a result will own at least 90% of all outstanding shares, at that time. To do so, the target company has to issue 4,000 new shares to the bidder. These additional shares will increase the total number of issued and outstanding shares from 1,000 to 5,000 shares. Then, following the exercise of the top-up option the bidder owns 4,500 shares (500 shares that were originally tendered and the additional 4,000 shares that the company issued directly to the bidder as a result of the exercise of the top-up option). These 4,500 shares (or 90%) allow the bidder to force a short form merger.

There is a constraint on the use of a top-up option, namely, the number of authorized and unissued shares of the target. If there are insufficient authorized shares, shareholder approval is required to increase the level of authorized shares. Obviously, this reduces the benefit of using the top-up option substantially.

II. Regulatory Environment

As noted by Andrade, Mitchell, and Stafford (2001) and others (e.g., Offenberg and Pirinsky, 2013), the number of hostile tender offers decreased dramatically in the 1990s as a

⁸ Appendix A contains an excerpt from Burger King's SC TO-T filing dated September 16, 2010 that presents a typical example of a top-up option explanation in a tender offer.

result of the adoption of state antitakeover laws. However, tender offers continued to be used all throughout the 1990s and later. Two major regulatory events have since affected the way tender offers are executed.

First, on December 8, 2006 the SEC amended its Best Price Rule (SEC Rule 14d-10).⁹ This amendment made tender offers about as friendly as mergers and reduced the legal uncertainty (i.e., litigation risk) regarding the executive compensation payment activated by the tender offer by allowing them to be excluded from the definition of consideration.¹⁰

A second major regulatory change affecting the use of top-up options occurred on August 1, 2013 when the state of Delaware amended its Delaware General Corporation Law (DGCL). Specifically, lawmakers added Section 251(h) of the DGCL, which basically eliminated the need for stockholder approval of back-end mergers following certain tender offers in two-step public company merger transactions. Prior to the promulgation of Section 251 (h), in a two-step merger a bidder first made a tender offer to acquire the target company's shares. Following the consummation of the offer, the bidder conducted a back-end merger to acquire all of the target's shares that were not previously tendered. Historically, under Delaware law, if at least 90% of the shares, in each class of the target's shares of capital stock that would otherwise be entitled to vote on the back-end merger were owned by the bidder immediately following the consummation of the tender offer, the back-end merger could be consummated immediately, without a stockholder vote. This allowed the use of short-form merger provisions of the DGCL. However, if less than 90% of the shares of each class of the target's shares were owned by the bidder immediately following the tender offer, it would be necessary to obtain formal stockholder approval. This would usually involve filing preliminary and definitive proxy

⁹ The SEC instituted rule 1986 to avoid blockholders selling their shares for a higher price than other investors. See <http://www.law.cornell.edu/cfr/text/17/240.14d-10>

¹⁰ For a more detailed discussion of the Best Price Rule see Offenberg and Pirinsky (2013).

statements with the SEC and holding a special meeting of stockholders to vote. However, top-up options granted by target managers to bidders in tender offers enabled bidders to bypass target shareholder consent and allowed for relatively fast execution of the tender offer and implementation of a two-step merger. Section 251(h) addressed the issues with public company two-step merger transactions and top-up options and provided that, unless expressly required by the target company's certificate of incorporation, no vote of the target company's stockholders would be necessary to effect a merger if the merger agreement relating to the merger was entered into on or after August 1, 2013. This basically eliminated the need for a top-up option for tender offers for two-step mergers.¹¹

Prior to the changes in Delaware law in 2013, court decisions had shown that litigation risk in tender offers that included a top-up clause was low. For instance, when Bristol-Myers Squibb Company tried to acquire ZymoGenetics opposing shareholders listed the top-up option as a tool to “...circumvent the requirement of a shareholder vote.” Yet, after the filing of the complaint, both sides reached a settlement in which the management of ZymoGenetics agreed to disclose information of the transaction bonus that the CEO, who also served as a director, would receive upon the closing of the sale. In addition, the company agreed to pay plaintiffs' counsel \$625,000 for attorneys' fees and expenses incurred in association with the case. This case indicates that successfully challenging the management decision to grant a top-up option is not an easy task, yet it can be costly for the company. Similarly, shareholders filed suit over the tender offer by 3M Corporation to acquire ownership of Cogent Inc. This offer included a top-up option clause.¹² They argued that the CEO of Cogent had convinced the board to grant a top-up

¹¹ For more detailed discussion see; http://www.dorsey.com/eu_csl_delaware_public_comp_merger_transactions/

¹² <http://www.shearman.com/files/Publication/d6caae48-dc5c-4fec-a544-9a178ee47973/Presentation/PublicationAttachment/1d72f781-464d-48c6-a891-9c91d7b1b9d5/MA-112410-Delaware-Chancery-Court-Provides-Guidance-for-Use-of-Top-Up-Options.pdf>

option to 3M for his personal economic interests (and also have a controlling position), even though another bidder had offered more for the shares of Cogent. The court denied the shareholders and allowed 3M to continue with the tender offer and acquire Cogent. Following this decision of the Delaware Court the impression in the market was that litigation risk for top-up was almost eliminated.¹³

III. Data and Sample Construction

In Table I we describe the sample selection procedure in detail. From the Securities Data Corporation (SDC) *Mergers and Acquisitions* database we collect all completed and failed tender offer deals announced between January 1, 2000, and December 31, 2012, that involve publicly traded U.S. target firms. We find a total of 2,429 tender offers. We delete 683 duplicate deals (i.e., deals with the same bidder, target, announcement date, and transaction value). We also require that the bidder be based in the U.S., this removes 238 deals. Seven hundred and eighty-one offers are excluded because they are self-tender offers and never include top-up options. Our next screens eliminate deals with a transaction value less than \$10 million (90 tender offers) and deals in which the bidder owns over 50% of the target prior to the tender offer (67 offers). We also require that CRSP and Compustat data is available for the target. This requirement eliminates an additional 112 observations. Finally, we exclude any firm, either targets or acquirers, that are not listed on the NYSE, NASDAQ, or AMEX or have a share code other than 10 or 11 (2 offers). Our final sample consists of 456 tender offers. Our sample is comparable in size to similar studies, such as Hartzell et al. (2004) with 235 observations, Boone and Mulherin (2007) with 400 observations, and Barger (2012) with 802 offers.

¹³ Steven M. Davidoff (10.14.2010) Behind the Growing Number of Tender Offers <http://dealbook.nytimes.com/2010/10/14/behind-the-growing-number-of-tender-offers/>

Table II presents the temporal distribution of the 456 sample tender offers. We bifurcate the sample, based on whether a top-up option was included in the deal, or not. Overall, we find that, during our sample period, 206 tender offers included a top-up option and 250 tender offers do not. To determine whether a top-up option was included in the tender offer we read the tender offer statements (Form SC TO-T - *Tender offer statement by Third Party*) that are filed with the Securities and Exchange Commission (SEC) when a tender offer is announced and are available in the SEC's EDGAR database. In most of these filings we find statements similar to the following one made by Blue Acquisition Holding Corporation in their Form SC TO-T dated September 16, 2010¹⁴;

“that if Parent and Purchaser will not collectively own at least 90% of the Shares immediately after the completion of the Offer and, therefore, the exercise of the Top-Up (as defined below) is necessary to ensure that Parent and Purchaser collectively own at least 90% of the Shares immediately after the completion of the Offer, there shall not exist under applicable law or other legal restraint any restriction or legal impediment on Purchaser's ability and right to exercise the Top-Up, and the Shares issuable upon exercise of the Top-Up, together with any Shares held by Parent and Purchaser (including Shares validly tendered in the Offer), constitute at least 90% of the outstanding Shares”

In the early part of our sample period the use of top-up options was a relatively uncommon practice. For example, in 2000 only 4.5% of all tender offers included top-up options. However, by 2012 top-up options were included in more than 90% of all tender offers. We also report the percentage of top-up options that were exercised by acquirers. We find that 101 (or about 49%) top-up options were exercised.¹⁵ We find a noticeable increase over time. While in 2005 only 20% of these options were exercised this percentage increased to over 70% in the last two sample years. Hence, both due to the to the marked increase in the use of top-up options and the

¹⁴ <http://www.sec.gov/Archives/edgar/data/1352801/000095012310086742/0000950123-10-086742-index.htm>

¹⁵ To determine whether a Top-up option is exercised we read the final and amended SC TO-T of the acquired firm from SEC Edgar.

increase in their exercise during the later part of our sample period, not only do we perform analyses over the full sample, but also over two subsamples; Pre-2007 (2000-2006) and Post-2006 (2007-2012).

IV. Empirical Results

A. Wealth Effects-Univariate Analysis

Table III shows abnormal returns to the bidder and target firms, for three different windows. We calculate market-adjusted cumulative abnormal returns, using the value weighted index (incl. dividends, from CRSP) as a proxy for market returns. Panel A shows that in the three days surrounding the tender offer announcement (-1, +1, where 0 is the announcement date) target CARs are somewhat higher (though not statistically different) when a top-up option is included. The mean (median) three day CAR is 41% (32%) when a top-up option is included, whereas it is 38% (31%) if no top-up option is included. This is not very surprising given that at the initial announcement it is not mentioned whether a tender offer includes a top-up option or not. When we investigate longer windows that are designed to capture all the price effects from 20 (or 42) days prior to the announcement until the effective date (x-date) of the bid.¹⁶ We find that target CARs tend to be significantly lower for tender offers that include top-up options. Economically, these differences appear to be meaningful. For example, the mean return for tender offers with and without top-up options are 50% and 57%, respectively. Based on these findings, we conclude that there is little to no support for the increased bargaining hypothesis and

¹⁶ Schwert (1996), Bargerion, Schlingemann, Stulz, and Zutter (2008), and Fu, Lin, and Officer (2013) suggest that in order to capture all wealth effects that may be associated with M&A activity it may be preferential to use a longer time interval, including a substantial period prior to the bid announcement to capture run up effects. Therefore, in the remainder of the paper, we focus our discussions mainly on the (-42, x-date) abnormal return window.

the efficient merger resolution hypothesis. Both hypotheses predict relatively higher (or at least not lower) target CARs when a top-up option is included. The results in Panel A are most consistent with the anti-competitive hypothesis. When we partition the sample temporally (pre-2007 and post-2006), important differences appear. Panels A1 and A2 clearly show that all the effects that were captured in Panel A are driven by tender offers with top-up options in the pre-2007 period. Although we have no empirical predictions in regards to the bidder wealth effects, we do report them in Panel B.¹⁷ We calculate these market-adjusted CARs using the value-weighted market return from CRSP. Interestingly, we find that the longer window CARs are significantly lower for tender offers that include a top-up option. To be specific, the (-42, x-date) bidder has an average (median) CAR of 2.0% (1.4%) for offers with a top-up option, whereas it is significantly positive mean (median) of 8.8% (8.9%) for offers without a top-up option. The difference between offers with and without top-up options is statistically significant. It appears that top-up options are not beneficial to bidders, either. As with the target returns, the results are driven by tender offers in the pre-2007 period, as Panel B1 (B2) shows that there are (no) significant differences in bidder abnormal returns in the pre-2007 (post-2006) period.

¹⁷ Note that the number of observations is substantially lower, when compared with target abnormal returns. This occurs because our sample includes a number of tender offers by private bidders. In regressions we attempt to control for systematic differences between private and public bids by including a private bidder dummy. In robustness section we also perform some analyses based on the sample of public tender offers in attempt to tease out whether there additional bidder characteristics have any effects on our findings.

B. Other Variables

Later in the paper, we investigate whether these results hold up in a multivariate framework. However, before we present the results of that analysis, we describe characteristics of the control variables we employ in that analysis. Table IV shows the means, medians, and number of observations for each of these variables.¹⁸ We also bifurcate the sample by whether the tender offer included a top-up option, or not. Additionally, we report our results, depending on whether the tender offer was made in the pre-2007 or post-2006 period. Starting with deal characteristics for the whole sample, Table IV, Panel A shows that the average (median) *Deal size* (from SDC)¹⁹ is somewhat smaller (larger) when top-up options are included. The mean *Deal size* for tender offers with top-up options is \$660 million, which is smaller than the \$843 million for offers without top-up options. The median *Deal size* is \$301 million versus \$180 million for offers with and without top-up options, respectively. We include toeholds in our analysis (a toehold is the percent of shares already owned by the bidding firm at the time of the deal's announcement, from SDC). A number of researchers have investigated the role that toeholds may play in M&A activity. Jarrell and Poulsen (1989), Eckbo and Langohr (1989), and Betton and Eckbo (2000), find that toeholds are negatively related to target returns. In contrast, Stulz, Walkling, and Song (1990) and Burch (2001) do not find any effects, and Franks and Harris (1989) find positive effects. The effects of toeholds on bidder returns are found to be positive by Betton and Eckbo (2000), but Burch (2001) reports insignificant regression coefficients. We find that the mean value for *Toehold* is 0.9% for offers with top-up options, whereas it is statistically larger for bids without top-options, with a mean of 2.5%. This is perhaps not surprising if having a toehold implies that a bidder already has a percentage of the

¹⁸ Table IV also includes summary statistics for other variables we use in later analyses.

¹⁹ Note detailed definitions of selected variables are provided in Appendix B.

shares of the target and it may therefore be relatively easier to acquire the necessary remaining shares. However, one could argue that having a toehold may make it easier to negotiate a top-up option which would suggest an opposite relation. In this case, having a toehold may indicate that the bidder has private information about the target and wants to capitalize on it with a relatively speedy closing. The next variable that we include in our regressions is *Non-cash bid*. This variable (from SDC) is a dummy that is equal to 1 if the bid was not 100% cash. There is a voluminous literature that investigates the method of payment in M&A. The basic tenet is that cash bids tend to be viewed more positively by both bidder and target shareholders (see for instance Jensen and Ruback, 1983; Fishman, 1989; Travlos, 1987; Brown and Ryngaert, 1991; Martin, 1996; and Fu, Lin, and Officer, 2013). We find that 10% of top-up option bids are of the non-cash type. This is significantly different from the 20% of non-top-up option bids. Perhaps, this is a function of the fact that top-up bids, by definition, do include bidder shares as a means of payment, in case the top-up option gets exercised.

Hostility is well known to have effects on M&A negotiations. However, as Schwert (2000) notes it is difficult to measure bid hostility. We measure hostility using SDC's classification. We create a dummy, labeled *Hostile* that is equal to 1 when a bid is labeled as hostile, zero otherwise. Hostility can be consistent with an aggressive bargaining strategy of target management (Schwert 2000). If this is true one expects target (bidder) returns to be relatively high (low) surrounding a tender offer. Burch (2001) presents evidence consistent with this assertion. Not surprising, we find that top-up option bids are associated with less hostility. Only 4% of tender offers with top-up options are labeled hostile versus 22% of the bids without top-up options. Clearly, in order to receive a top-up option from target management hostility is not helpful. We do not find any significant differences in *Termination fee* (defined as an indicator

variable equal to one if a termination fee is included in the offer, from SDC),²⁰ the use of *lock-up options* (defined as a dummy variable that takes the value of zero (one) if a lock-up option is (not) included, from SDC), whether the merger is *diversifying* in nature (a dummy equal to one if the bidder and target share the same four-digit primary SIC code, zero otherwise), whether the target is incorporated in *Delaware* or not, and whether the bidder is private or public.²¹ The latter finding is important given that there is some anecdotal evidence that top-up options are a tool that seemed to be used primarily by private bidders. Our results are consistent with the assertion that top-up options speed up the tender offer process and increase the probability of completion. To be precise, it takes an average of 65 days to resolve an offer that includes a top-up option while it takes 90 days for offers without this feature. We find that the completion rate (*Completion*) for offers with top-up options is significantly higher (95% versus 80%). Finally, we find that deals with top-options have target values that are significantly smaller than those without. The mean (median) *Relative value* for top-up bids are 0.12 (0.04) versus 0.19 (0.08) for deals without this feature.

Turning to characteristics of the target, we find that the market to book (*M-to-B*) ratio of the target (defined as the target's total assets minus book value of equity plus market value of equity, divided by total assets²²) is significantly larger for tender offers with top-up options (the mean and median is 1.87 and 1.50, respectively) when compared to offers without (mean and

²⁰ Note that Bates and Lemmon (2003) find that termination fee grants have a significantly positive effect on the probability of deal completion and hence truncate the bidding process. Since top-up options also have similar effects it is not surprising that targets that grant top-up options do not also grant termination fees.

²¹ Previous literature (e.g., Bates and Lemmon, 2003; Officer, 2003) suggests that termination fees are related to higher target returns and not related to bidder returns. Lock-up options are found to be related to higher target returns (e.g., Burch, 2001). Acquisitions that are focusing in nature are usually found to be relatively synergistic (e.g., Devos, et al, 2009; Morck, Shleifer, and Vishny 1990), and therefore bidder and target abnormal returns should be negatively related to our diversifying dummy. Targets incorporated in Delaware have higher bid premiums (Bargeron, 2012) and are more likely to receive takeover bids (Daines, 2001).

²² All accounting ratios are winsorized at 1% and 99% and all accounting data are from Compustat at the end of the fiscal year prior to the merger announcement.

median of 1.61 and 1.20, respectively). Similarly, firms that are the target of a tender offer that includes a top-up option have less *Leverage* (which is defined as long-term debt plus current liabilities, divided by total assets) and have a somewhat lower free cash flow (*FCF*) (defined as operating income before depreciation minus total income taxes [less the change in deferred taxes from the previous to the current year] minus preferred and common stock dividends, scaled by total assets). Firms that are targets of bids with top-up options also are somewhat younger (*Age of the target* calculated in years as the difference between the year of the announcement and the year of foundation/incorporation). Other target firm characteristics we control for in our regressions are size (*Lsize*, defined as the log of target assets), and *profitability* (defined as operating income before depreciation scaled by total assets). We do not find any significant differences for these variables, when our sample is split into offers with or without top-up options. Our final set of control variables are various bidder firm characteristics. These are defined similarly to those of the target firms. We find significant differences in bidder characteristics in that bidders that receive a top-up option are bigger and more profitable.

In Panels A1 and A2 we split the sample by time period. Although most inferences are qualitatively similar to those derived from Panel A, there are some interesting patterns that emerge. First, while there are differences in hostility between tender offers with and without top-up options in the whole sample and the post-2006 period, we do not find differences in the pre-2007 period. In contrast, we find differences in termination fees in the pre-2007 period (they are lower for top-up bids) whereas there are no significant differences for the whole sample nor for the post-2006 period. Even more interesting, we find that lock-up options are not used in any of our sample tender offers in the post-2006 period. They were used in the pre-2007 period and there were significant differences between top-up and non-top-up tender offers. This suggests

that there may be some relation between these variables and that the relation between these various deal characteristics changed after 2006. Later in the paper, we investigate this issue in more detail. Another interesting result is that in the post-2006 period there seems to be a significant increase in bids by private bidders who use top-up options. When we compare the two sample periods and look at target characteristics we find that differences in *M-to-B* become significant in the post-2006 period (i.e., targets of top-bids have relatively larger M-to-B valuations). Similarly, for post-2006 deals with top-up options, targets' leverage was significantly lower than for targets in non-top-up deals. For bidder characteristics we find that in our comparison of bids with and without top-up options in the pre-2007 period there are no differences, other than for Tobin's Q. In the post-2006 period there are no differences in target characteristics between the two types of bids.

C. Wealth Effects of Top-up Options –Multivariate Analysis

In Table V we report the results of our multivariate analysis in which target abnormal returns, calculated over the various windows around the tender offer announcement are the dependent variables. Given that the previous tables reported substantial differences, depending on whether the tender offer was made pre-2007 or post-2006, we run separate regressions for our two time intervals, pre-2007 and post-2006. The first regression shows coefficients when we use target abnormal returns (-42, ex-date) as dependent variable and use observations in the pre-2007 period.

The regression coefficient on the variable of interest, *Top-up* (which is a simple dummy variable equal to 1 if a top-up option is included in the offer, 0 otherwise) is significantly

different from zero, with a p-value of 0.03.²³ Surprisingly, other than target *M-to-B* and the *Delaware* dummy variables, none of the other variables are significant. In addition to statistical significance, the main result of this regression is economically significant as well. *Ceteris paribus*, the presence of a top-up option lowers target returns by about 17% during the period spanning 42 days prior to the announcement until the ex-date. Consistent with our univariate analysis the coefficient on the top-up dummy is not statistically significant in the post-2006 period. We find results similar to the longest window when we begin the calculation of abnormal returns only 20 days prior to the announcement. Again, consistent with the univariate analysis we do not find significance on the Top-up dummy variable when the calculation of abnormal returns is limited to the 3-day window.

We now turn our attention to the regressions in Table VI, where the dependent variable is the bidder abnormal return. Again, consistent with the univariate findings we find that top-up options are negatively related to bidder abnormal returns and that this effect is primarily concentrated in tender offers with top-up options in the pre-2007 period. Specifically, the significant (at the 1% level) negative regression coefficient on the top-up dummy is -0.13. We find no effect in the post-2006 period. Finally, the results are similar for the -20 to ex-date window, however in the shorter window (-1, 1) there seems to be a negative effect in both the pre-2007 and post-2006 periods. Again, we estimate the pre-2007 regression without the lock-up option dummy. Our results do not change materially. Overall, the results in this section confirm that top-up options have a negative effect on target and bidder shareholder wealth, which is most consistent with the anti-competitive hypothesis.

²³ In all OLS models we estimate the standard errors using White's (1980) heteroscedasticity consistent covariance matrix.

D. Determinants of the Use of Top-up Options

In Table VII, we analyze the determinants of the use of top-up options in more detail using a logistic regression analysis. As there is little theoretical work investigating the determinants of top-up options in tender offers, our analysis of is exploratory in nature. The dependent variable equals 1 if the tender offer included a top-up option, and 0 otherwise. The independent variables are similar to those used in the Table V. Models 1, 2, and 3 show our results when we restrict the sample period to tender offers announced in the pre-2007 period. Models 4, 5, and 6 present our results when we run the same regressions for the post-2006 period. In the pre-2007 period, other than target size, which is marginally significant (only in model 1), only the dummy variable for lock-up options has a significant and positive coefficient. This suggests that the use of lock-up options and top-up options is positively related. Use of lock-up options disappeared in the post-2006 period, which explains why we cannot use it as an independent variable.²⁴ As noted in the introduction, it is possible that the use of top-up in bids is restricted when the target firm does not have enough authorized shares. Therefore, we use EAR (defined as the ratio of authorized shares to total outstanding shares) to control for this issue and include it in our regressions. That is the only additional variable used in Model 3 and doing so does not alter our conclusions.²⁵ When we estimate Models 4-6 we find that there are more variables related to the use of a top-up option in tender offers in the post-2006 period. The regression coefficient on *Toehold* is significantly negative. This suggests that toeholds play a similar role in the post-2006 period as lock-up options did in the pre-2007 period, which would

²⁴ When we exclude the lock-up option dummy from model 1, results do not change considerably. The regression coefficients on *Lsize* become insignificant (p-value = 0.12) and *Diversifying* become significant (p-value = 0.09).

²⁵ When we employ probit specifications we obtain qualitatively similar results, these are available upon request.

be consistent with Burch (2001) who suggests that lock-up options and toeholds may be substitutes.²⁶

Not surprisingly, we find that hostility is negatively related to the use of lock-up options. On the other hand, the finding that the private bidder dummy is negatively related to the use of top-up options runs counter to suggestions that private bidders are more likely to use these options. Finally, we find that target free cash flows (size and diversifying merger dummy) are positively (negatively) related to the use of top-up options. This positive relation between target free cash flow and use of top-up options indicate agency problems in the target. Similarly, the negative association between the top-up dummy and target size is also expected given that smaller firms are likely to have greater agency problems which will destroy value for shareholders. Both results support the anti-competitive hypothesis. On the other hand, the negative association between diversifying merger dummy and top-up options is surprising given prior literature (Morck et al., 1990) shows that diversifying mergers have detrimental value effects.

V. Top-up Options, Lock-up Options, Toeholds, and Termination Fees

In this section, we further analyze the relation between top-up options, lock-up options, toe-holds, and termination fees. One might argue that all of these serve a similar purpose (i.e., eliminate competition or facilitate a smooth transaction). There is some evidence in the literature on relations between toeholds and lock-up options (Ravid and Spiegel 1999; Burch 2001), and toeholds and termination fees (Bates and Lemmon, 2003; Betton, Eckbo, and Thorburn, 2009).

²⁶ In the next section we investigate the link between toeholds, lock-up options, top-up options, as well as termination fees in more detail.

First, we graphically investigate the usage of top-up options, lock-up options, termination fees, and toeholds over time in Figure 1.

As reported earlier, the use of top-up options in tender offers increases dramatically over the sample period, particularly after 2006. At the same time we do not find use of lock-up options after 2006. The use of toeholds is more or less constant over our sample period, albeit there is a small spike in 2006 when about 33% of all tender offers included a toehold.²⁷ Finally, termination fees tend to be included in less than 20% of all bids, in any given year.

Next, we present a correlation matrix with Pearson correlation coefficients between our four variables of interest. We report these for the whole sample period and for the two sub-periods in Table VIII. We find that during the entire sample period, there only exists significant correlation between toeholds and top-up options. There does not appear to be any substantial correlation between any of the other pairs of variables. However, when we split the sample into two periods, we do find substantial differences. Similar to our earlier analyses, we find that during the pre-2007 period, lock-up options are positively correlated with the use of top-up options. Nevertheless, top-up option inclusion in tender offers is also (somewhat weaker) negatively related to termination fees. This suggests that tender offers during this period which include a top-up option are indeed deemed to be friendly in nature. This is not surprising and similar to Schwert (2000) who claims that hostility is more likely to occur when target management is pursuing an aggressive bargaining strategy.

Target management is not only granting a top-up option and a lock-up option, it also requires lower termination fees. In the post-2006 period, when lock-up options are no longer in

²⁷ This is a bit surprising given that Eckbo et al. (2009), in their review of bidding strategies note that toehold bidding has declined dramatically. Nevertheless there exists literature showing that toeholds benefit bidders (e.g., Walking, 1985; Betton and Eckbo, 2000; Betton, Eckbo, and Thornburn, 2008).

use, toeholds take the place of lock-up options, in that they are more likely to be included when top-up options are part of the tender offer. Toeholds are negatively correlated with termination fees. This also supports our finding that deals with top-up options have lower premiums. For instance Officer (2003) finds that merger deals without target termination fees involve significantly lower premiums. In addition, it is somewhat unlikely that target managers of firms that are already partially owned by bidder firms feel obliged to include (large) termination fees. Although this would run counter to the idea that toeholds are more common in hostile bids (Eckbo et al. 2009).

VI. Robustness Tests

In this section, we perform a number of robustness checks. First, we examine whether our results are sensitive to specific samples (i.e., completed deals) and inclusion of additional control variables (mainly based on availability of bidder data; i.e., public bidders) that may affect bidder or target CARs. Second, we use a two-stage least squares model in order to investigate whether top-up options are related to abnormal returns realizing that the choice of including a top-up option clause in a tender offer may be a function of the expected returns.

A. Completed Deals and Time to Completion

In untabulated analysis, we investigate whether there are differences in our main findings, when we focus exclusively on completed deals. Given that the popular press suggests that deals with top-up options are more likely to be completed (see also our earlier univariate comparisons in Tables III and IV) we investigate this claim. Out of a total sample of 456 deals, 396 were

completed. First, we estimate a simple logistic regression, where the dependent variable is equal to 1 when the deal is completed, and zero otherwise. Consistent with our earlier analyses, and with the idea that top-up options facilitate speedy deal resolution, we find that the top-up dummy variable is positive and statistically significant for both the pre-2007 and the post-2006 periods. Other than a dummy variable that represents diversifying deals (in the pre-2007 period), none of the other variables in the model are significant. When we re-estimate the target CAR regression models and bidder target CAR regression models we do not find material changes from the regression results reported in Table V and Table VI. The coefficient on the top-up dummy variable remains negative and statistically significant for the pre-2007 period for the 43 and 21-day windows. Similarly, we find that this coefficient remains negative and statistically significant for the pre-2007 period for the 43 and 21-day windows in the bidder CAR regressions. However, in this last set of regressions we no longer find the (negative) marginal significance for the 3-day window. Overall, it appears that limiting the sample to completed deals does not alter our conclusions.

We showed in Table III that tender offers with top-up options seemed to be completed much faster. We also examine whether this is still the case after controlling for other factors that may influence completion time. We estimate OLS regressions of the number of days from the announcement of the tender offer to the effective date of the deal on the top-up dummy and control variables. We test the robustness of the correlation between top-up options and time to completion in the pre-2007 (post-2006) period.²⁸ We find that the coefficient on the top-up option dummy variable is -22.69 (-36.99) and is significant with a p-value of 0.002 (0.006). This suggests that tenders offers with top-up options are completed about 23 (37) days faster than the

²⁸ The results of the analyses in the section are not tabulated, but are available upon request.

offers without. When we expand the model to include the control following variables; toehold, non-cash bid dummy, M-to-B, Lnsizes, Diversifying, and Private bidder, we find that top-up option dummy variable is statistically significant at the five-percent level when all the control variables are included only in the pre-2007 period and this suggests that deals with top-up options were completed about 16 days faster. Also, we find that tender offers are completed faster for targets with higher M-to-B ratios and slower for larger targets during the pre-2007 period. In addition, we find that both the private bidder dummy variable and the diversifying dummy variable are not significantly related to the speed of the completion of the deal. Finally, we find that having a toehold in the target delays the completion of the deal, especially during the post-2006 period.

B. Public Bidders

So far in this paper, we have attempted to control for the fact that that bidders may be public or private by using a dummy variable, while keeping both types of tender offers in the sample. However, because of this, we are unable to use certain bidder characteristics in our regressions. By limiting the sample to tender offers of public bidders only, we are able to include some of these bidder characteristics in our regressions. Specifically, we now include bidder size (bigger bidders tend to perform worse in M&A [Moeller et al. (2004)], bidder's Tobins' Q (some find positive effects on bidder CARs [e.g., Servaes, (1991)], negative [Morck, Sheifer, and Vishny (2004)], or ambiguous effects [Eckbo (2009)]), bidder leverage and bidder FCF [(based on Jensen, (1986)], and relative size [Asquith, Bruner, and Mullins, (1983); Moeller, Schlingemann, and Stulz, (2004); Masulis, Wang, and Xie, 2007]). We find

that our main results are unaltered. Top-up options tend to be negatively related to bidder abnormal returns. Again, we do not tabulate these results for brevity.

C. Target CAR and Two-Stage Least Squares

In this part of our analysis, we estimate a two-stage least squares (2SLS) model in order to investigate whether top-up options are related to abnormal returns (similar to Boone and Mulherin, 2007; Offenbergh and Pirinsky, 2013) and control for endogeneity.

Table IX, Panel A presents the coefficient estimates from the first stage of the two-stage least squares estimation, while Panel B reports the results from the second stage. We use the 2SLS since in the earlier analysis we treated the choice of a top-up option as an independent variable explaining returns. However, the choice of including a top-up option clause in a tender offer can be a function of the expected returns. Also, as reported by Hansen (1986) and Smith (1987) OLS regressions do not always provide consistent estimates. Hence, in this section, we use two-stage least squares specification to address for the endogeneity between the inclusion of a top-up option clause and the wealth effects. We find that tender offers with top-up options are associated with lower target CARs than tender offers without this feature. In the first model of Panel B (second stage), the regression coefficient on the instrumented top-up variable is negative and statistically significant, with a p-value of 0.026. We find that the other control variables are insignificant. In addition, the main result is economically significant as well. Using the smaller (-21 till ex-date) window returns, we find results that are similar to those obtained when we use the longer window returns. Similar to our earlier findings, we do not find significance on the top-up dummy variable when we use -1 to 1 event window to calculate CARs.

VII. CEO and Board Characteristics

In this section, we empirically examine the impact of various target firm CEO characteristics and board structures on the inclusion of a top-up option in tender offers and what happens to CEOs following the merger. To do so we hand collect the data for CEO and board characteristics from the SEC Edgar database.

A. Univariate Analysis of CEO and Board Characteristics

Table X shows the means, medians, and number of observations for each of the CEO and Board related variables. We also bifurcate the sample by whether the tender offer included a top-up option. Moreover, we report the results, depending on whether the tender offer was made in the pre-2007 or post-2006 period. The target firm's CEO is one of the most significant players during the takeover negotiation. As the leader of target, the CEO plays a key role in her firm's decisions leading up to a bid and during the negotiation of the terms of the potential deal. Hence, it is important to consider target CEOs' career concerns²⁹ and attributes such as age, tenure, and ownership. In many cases, mergers force target CEOs into early retirement, ending their CEO careers entirely. There is also evidence that target CEOs' retirement preferences impact merger outcomes. For instance Jenter and Lewellen (2013) documents that the likelihood of a takeover bid increases when the target CEO reaches age 65. Table X, Panel A shows that the average (median) *CEO Age* is very similar in both groups. The mean *CEO Age* for tender offers with top-up options is 53.02, which is about the same as the 53.82 for offers without top-up options. The median *CEO Age* is 53.00 versus 54.00 for offers with and without top-up options,

²⁹ CEOs generally lose their jobs as result of a takeover, and struggle to find a new position in a public firm (see Martin and McConnell, 1991; Agrawal and Walkling 1994, Hadlock, Houston, and Ryngaert 1999, and Hartzell, Ofek, and Yermack 2004).

respectively. These results suggest that for the firms in our sample retirement concerns are not very likely to drive acquisition behavior. We include *CEO Tenure* in our analysis which is calculated as the number of years from the year the CEO takes office to the announcement year. A number of studies have examined the role that *CEO Tenure* may play in M&A activity. We find that the mean value for *CEO Tenure* is 6.75 years for offers with top-up options, it is not statistically larger for bids without top-up option, with a mean of 7.25. The next variable that we include in our regressions is *Chairman*. This variable is a dummy that is equal to 1 if the CEO of the target is also the Chairman of the board. The basic tenet is that if CEO is also the Chairman agency problems are greater (Yermack, 1996; Core, Holthausen, and Larcker, 1999). We find that 38% of targets with top-up options have Chairman CEOs. This is significantly less than non-top-up option offers which have 54%. *CEO ownership* is well known to have effects on M&A negotiation and value effects. We measure *CEO ownership* as the natural logarithm of $1 + \text{common stock owned by the target CEO at the year-end preceding the announcement}$ divided by the total number of shares outstanding. We expect the level of *ownership* to be positively associated with incentive of the CEO to increase the buyer's premium since the interests of CEO and shareholder's better aligned (Yermack, 1995; Ofek and Yermack, 2000). Not surprisingly, we find that top-up option targets are associated with less CEO ownership. The mean value for *CEO Ownership* is 0.05 for targets with top-up options, whereas it is statistically larger for bids without top-options, with a mean of 0.06. Clearly, in order to receive a top-up option from target *CEO Ownership* is important and indicates a potential agency problem. We do not find any significant differences in *Board Size* (defined as an number of members in the board, as reported in SEC filings), and whether board is *Staggered* or not (defined as a dummy variable that takes the value of 1 if a board is staggered). However, we find that boards of targets that grant top-up

options are more likely to be staggered especially in pre-2007 period. This is in line with the findings of Bebchuk and Cohen (2005) that staggered boards protect incumbents from a hostile takeover (Table IV shows that deals with top-up options are less likely to be hostile) and supports the prior literature that staggered boards destroy firm value (Daines, 2005; Faleye, 2007; and Ganor 2007).

Prior literature on golden parachutes and the acquisition likelihood relation generally find a positive association (such as Harris, 1990; Machlin et al., 1993; Cotter and Zenner, 1994; Born and Trahan, 1993; Agrawal and Knoeber, 1998; Lefanowicz et al., 2000; Bates et al., 2008; and Sokolyk, 2011). Accordingly, we expect targets that grant top-up options are more likely to have golden parachutes. Not surprisingly, we see that top-up option targets are associated with more parachutes. We find that the mean value for *Golden Parachute* is 0.40 for targets with top-up options, whereas it is statistically larger for bids without top-option, with a mean of 0.19. This also supports the finding of Fich et al. (2014) that there is a negative association between golden parachutes and acquisition premiums. In the next section, we investigate the effects of these CEO and board variable on our multivariate results.

However, before we do so, we examine the career paths of target management after the tender offer is completed. Similar to Hartzell et. al. (2004) we attempt to determine whether target management is willing to take sub-optimal deals as a result of a quid-pro-quo deal. First, we look at whether target CEO (*Stays as CEO*) remained in the same top executive position following the acquisition. We find that 25% of targets CEO both with and top-up options stays on as CEOs. These findings are similar to Hartzell et al. (2004) who finds that 23% of target CEOs keep their position following the merger. Second, we analyze whether target CEO (*Board Position*) joined the board of the acquirer. We find that target CEOs that grant top-up options are

associated with no board position at the acquirer firm. We also document that the mean value for *Board Position* is 0.03 for targets without top-up options and it is statistically larger.

B. Multivariate Analysis of CEO and Board Characteristics

First, in Table XI, we report the results of our multivariate analysis in which target abnormal returns, calculated over the various windows around the tender offer announcement are the dependent variables. The difference is that now we also control for CEO and board characteristics. Again, we run separate regressions for our two time intervals, pre-2007 and post-2006. The first regression shows coefficients when we use target abnormal returns (-42, ex-date) as the dependent variable and use observations in the pre-2007 period. The regression coefficient on the variable of interest, *Top-up*, is significantly different from zero, with a p-value of 0.027. Among the CEO and board characteristics we only find that *CEO Tenure* is positive and significant (p=0.028). Other than target *Hostility*, *M-to-B* and the *Delaware* dummy variables, none of the other variables are significant. In addition to statistical significance, the main result of this regression is economically significant as well. Ceteris paribus, the presence of a top-up option lowers target returns by about 13% during the period spanning 42 days prior to the announcement until the ex-date. Consistent with the univariate analysis the top-up dummy is statistically insignificant in the post-2006 period. We find results similar to the longest window when we start the calculation of abnormal returns only 20 days prior to the announcement. Again, consistent with our univariate analysis we do not find significance on the *Top-up* dummy variable when we limit the calculation of abnormal returns to the 3-day window. We conclude that the results are robust to inclusion of CEO and board characteristics.

Second, in Table XII we examine the determinants of the use of top-up options by controlling CEO and board characteristics. We estimate a simple logistic regression (similar to Table VII), where the dependent variable is equal to 1 when the top-up option is included and zero otherwise. When we estimate Models 1-3, we find that only the *CEO Age* is negative and statistically significant for the pre-2007 period. This suggests that younger CEOs are more likely to grant top-up options. Also, in the pre-2007 period, other than *diversifying*, which is marginally significant, only the dummy variable for lock-up options has a significant and positive coefficient. This suggests that lock-up options and top-up options are positively related. When we estimate Models 4-6 we find that there are more variables related to the use of a top-up option in tender offers in the post-2006 period. However *CEO Age* loses its significance. We find that the regression coefficient on *Toehold* is significantly negative. This suggests that toeholds play a similar role in the post-2006 period as lock-up options did in the pre-2007 period. Not surprisingly, we find that hostility is negatively related to the use of lock-up options. On the other hand, the finding that the private bidder dummy is negatively related to the use of top-up options is contradictory to suggestions that private bidders are more likely to use these options. Finally, we find that target free cash flows (size and diversifying merger dummy) are positively (negatively) related to the use of top-up options. These results are similar to those in Table VII.

VIII. Conclusions

This study investigates the consequences of using top-up options in tender offers as well as some of the potential determinants for using this tender offer feature which decreases the time to completion of tender offers and allows bidders to bypass target shareholder approval. We find that the use of these options is most consistent with an “anti-competitive hypothesis” as target

abnormal returns are lower when a top-up option is included in the deal. Additional analysis reveals that these results are driven by top-up options used in the period prior to 2007.

Our results are robust and remain intact when we control for a host of variables that previous literature suggests to be related to abnormal returns surrounding M&A activity. Further, we find that in the pre-2007 period the use of lock-up options is positively related to the use of top-up options. In the later period, when lock-up options are no longer used in the tender offers that we study, we find that toeholds are negatively related to the use of top-up options. This suggests that toeholds may have taken the place of lock-up options. Moreover, top-up options increase the speed of deal completion and are associated with less hostility, higher target free cash flows, and higher termination fees. We also investigate whether top-up options are agreed to by target firms with relatively weak governance and find that there are some differences in governance. In the last part of our paper, we analyze career paths of target management after the tender offer is completed. We do not find any statistically significant difference between CEOs whose firms use top-up options compared to those who do not. However, we find that CEOs of targets that issue top-up options are more likely to have golden parachutes.

Appendix A: Burger King SEC Tender Offer Filing

The following is an excerpt from Burger King's SC TO-T filing dated September 16, 2010. The document in its entirety can be found on the SEC's Electronic Data Gathering and Retrieval system at:

<http://www.sec.gov/Archives/edgar/data/1352801/000095012310086742/y86597exv99waw1wa.htm>

"Pursuant to the Merger Agreement, Burger King granted to Purchaser an irrevocable right to purchase additional Shares at a price per share equal to the Offer Price that, when added to the number of Shares owned by Parent, Purchaser and any of their wholly-owned subsidiaries immediately prior to the time of such exercise, will constitute at least one share more than 90% of the Shares then outstanding (after giving effect to the Top-Up). The Top-Up is intended to expedite the timing of the completion of the Merger by permitting the Merger to occur pursuant to Delaware's short-form merger statute. Purchaser is required to exercise the Top-Up if Purchaser does not own at least 90% of the outstanding Shares immediately after it accepts for purchase all of the shares validly tendered and not withdrawn. Simultaneously with the consummation of the Offer, Purchaser shall pay to Burger King the purchase price owed by Purchaser to Burger King to purchase that number of newly issued, fully paid and nonassessable shares of Burger King common stock required to effect the Top-Up, at Purchaser's option, (i) in cash, by wire transfer of same-day funds, or (ii) by (x) paying in cash, by wire transfer of same-day funds, an amount equal to not less than the aggregate par value of the such newly issued shares of Burger King common stock and (y) executing and delivering to Burger King a promissory note, with such terms as specified in the Merger Agreement, having a principal amount equal to the aggregate purchase price pursuant to the Top-Up less the amount paid in cash.

If, following the Offer, Parent, Purchaser and any other subsidiary of Parent collectively at least own 90% of the outstanding Shares, Parent, Purchaser and Burger King shall take all necessary and appropriate action to consummate the Merger as a short-form merger as soon as practicable without a meeting of stockholders of Burger King in accordance with the DGCL."

<http://www.sec.gov/Archives/edgar/data/1352801/000095012310093358/y86864asctovtza.htm>

"The Offer and withdrawal rights expired at midnight, New York City time, on October 14, 2010. The Depositary has advised us that 128,192,385.1523 Shares were validly tendered and not properly withdrawn (including 7,047,235.9946 Shares tendered pursuant to notices of guaranteed delivery). All Shares that were validly tendered and not properly withdrawn have been accepted for purchase and paid for by Purchaser. Purchaser also exercised its Top-Up, pursuant to

which Burger King issued Shares to Purchaser, at a price per Share equal to the Offer Price, in an amount sufficient to ensure that Purchaser and Parent could effect a short-form merger under applicable Delaware Law.

As a result of the purchase of Shares in the Offer and the issuance of Shares pursuant to the Top-Up, Purchaser and Parent will have sufficient voting power to approve the Merger without the affirmative vote of any other stockholder of Burger King. Accordingly, Purchaser and Parent intend to effect a "short form" merger in which Purchaser is merged with and into Burger King, with Burger King surviving the Merger and continuing as a wholly-owned subsidiary of Parent. In the Merger, each Share issued and outstanding immediately prior to the effective time of the Merger, other than Shares owned by Parent or Purchaser immediately prior to the effective time of the Merger, or any stockholder of Burger King who is entitled to and properly exercises appraisal rights under Delaware law, will automatically be converted into the right to receive the Offer Price in cash, without interest and less any applicable withholding taxes. All shares converted into the right to receive the Offer Price shall be canceled and cease to exist.

On October 15, 2010, 3G Capital issued a press release announcing the expiration and results of the Offer. The full text of the press release is attached hereto as Exhibit (a)(1)(K) and is incorporated herein by reference."

Appendix B: Variable Definitions

Variable	Definition	Source
<i>Deal Outcomes</i>		
CAR -42 – x date	market adjusted returns where the market return is CRSP value weighted index from 42 days prior to announcement until completion or	CRSP, SDC
CAR -20 – x date	market adjusted returns where the market return is CRSP value weighted index from 20 days prior to announcement until completion or withdrawal of the deal	CRSP, SDC
CAR -1+1	market adjusted returns where the market return is CRSP value weighted index from 1 day prior and 1 day after the announcement.	CRSP, SDC
<i>Deal Characteristics</i>		
Deal size (10 ⁶)	The dollar amount of the transaction.	SDC
Toehold (%)	The percent of toehold held by the bidder at deal announcement.	SDC
Non-cash bid	A dummy variable that takes the value of one if non-cash payment is included as consideration in the offer	SDC
Hostile	A dummy variable that takes the value of one if an offer is unsolicited.	SDC
Termination Fee	A dummy variable that takes the value of one if a termination fee is included in the offer.	SDC
Lock-up option	A dummy variable that takes the value of one if a lockup option is included.	SDC
Diversifying	A dummy variable that takes the value of one if the bidder and target share the same four-digit primary SIC code.	Compustat
Completion	A dummy variable that takes the value of one if the tender offer is successful.	SDC
Delaware	A dummy variable that takes the value of one if the target firm is incorporated in Delaware.	Compustat
Duration	Number of days from the offer announcement until completion or withdrawal of the deal	SDC
Relative Value	Target market capitalization divided by Acquirer market capitalization 42 days prior to announcement.	CRSP
Private Bidder	A dummy variable that takes the value of one if the bidder firm is a private firm.	SDC
<i>Firm Characteristics</i>		
Lnsizes	Log of total assets.	Compustat
M-to-B	Total assets minus book value of equity plus market value of equity, all divided by total assets.	Compustat
Tobin's Q	Market value of assets divided by book value of total assets (AT), where market value of assets is book value of total assets (AT) less book value of equity (CEQ) plus market value of equity (CSHO * PRCC_F)	Compustat
FCF (Free cash flow)	Operating income before depreciation minus total income taxes (less the change in deferred taxes from the previous to the current year) minus preferred and common stock dividends, all divided by total assets.	Compustat
Leverage	Long-term and current liabilities divided by total assets.	Compustat
Profitability	Operating income before depreciation scaled by total assets.	Compustat
Age of Target	Age of the target calculated in years as the difference between the year of the announcement and the year of foundation/incorporation.	bear.warrington.ufl.edu/ritter/

Appendix B: Variable Definitions contd.

Variable	Definition	Source
<i>CEO and Board Characteristics</i>		
CEO Age	Age of the CEO	SEC Edgar
CEO Tenure	Number of years CEO at the office	SEC Edgar
Chairman	A dummy variable that takes the value of one if a CEO is also the Chairman of the Board	SEC Edgar
CEO Ownership	CEO shares/Total shares outstanding	SEC Edgar, CRSP
Golden Parachute	A dummy variable that takes the value of one if Golden Parachute exists	SEC Edgar
Retirement	65 minus CEO age.	SEC Edgar
Board Size	Number of members of the board.	SEC Edgar
Staggered	A dummy variable that takes the value of one if the board is staggered	SEC Edgar
Stay as CEO	A dummy variable that takes the value of one if the Target CEO stays as CEO after the merger.	SEC Edgar
Board Position	A dummy variable that takes the value of one if the Target CEO starts to work in the Board of the Acquirer.	SEC Edgar

References

- Agrawal, A., Walkling, R. A., 1994. Executive Careers and Compensation Surrounding Takeover Bids. *Journal of Finance*, 49, 985–1014
- Agrawal, A., Knoeber, C., 1998. Managerial compensation and the threat of takeover. *Journal of Financial Economics* 47, 219–339.
- Anderson, R., Reeb, D.M., 2003. Founding family ownership and firm performance: evidence from the S&P 500. *Journal of Finance* 58, 1301–1329.
- Andrade, G., Mitchell, M., Stafford, E., 2001. New evidence and perspectives on mergers? *Journal of Economic Perspectives* 15, 103–120.
- Asquith, P., Bruner R. F., and Mullins, D. W. Jr., 1983. The gains to bidding firms from merger. *Journal of Financial Economics* 11, 121–139.
- Bargeron, L., Schlingemann, F., Stulz, R., Zutter, C., 2008. Why do private acquirers pay so little compared to public acquirers? *Journal of Financial Economics* 89, 375–390.
- Bargeron, L., 2012. Do shareholder tender agreements inform or expropriate shareholders? *Journal of Corporate Finance*, 18, 373–388.
- Bates, T.W., Lemmon, M.L., 2003. Breaking up is hard to do? An analysis of termination fee provisions and merger outcomes. *Journal of Financial Economics* 69, 469–504.
- Bates, T.W., Becher, D. A., Lemmon, M. L., 2008. Board classification and managerial entrenchment: evidence from the market for corporate control. *Journal of Financial Economics* 87, 656–677.
- Bebchuk, L., and Cohen, A., 2005. The Costs of Entrenched Boards. *Journal of Financial Economics* 78, 409–33.
- Bhagat, S., Ming D., Hirshleifer D., Noah, R., 2005. Do tender offers create value? New methods and evidence. *Journal of Financial Economics* 76, 3–60.
- Betton, S., Eckbo, B.E., 2000. Toeholds, bid-jumps and expected payoffs in takeovers. *Review of Financial Studies* 13, 841–882.
- Betton, S., B. E. Eckbo, K. S. Thorburn, 2008, Corporate takeovers, in *Handbook of Corporate Finance: Empirical Corporate Finance*, Volume 2, North Holland: Amsterdam.
- Betton, S., Eckbo, B. E., Thorburn, K. S., 2009. Merger Negotiations and the Toehold Puzzle. *Journal of Financial Economics* 91, 158–178.
- Boone, A., Mulherin, H., 2007. Do termination provisions truncate the takeover bidding process? *Review of Financial Studies* 20, 461–489.

- Boone, A., Mulherin, H., 2007. How firms are sold? *Journal of Finance* 62, 2, 847–875.
- Born, J., Trahan, E., 1993. Golden parachutes: incentive aligners, management entrenchers, or takeover bid signals. *Journal of Financial Research* 16, 299–308
- Brennan, M. J., Copeland, T. E., 1988. Stock splits, stock prices, and transaction costs. *Journal of Financial Economics* 22, 83–101.
- Brown, D., Ryngaert, M., 1991. The mode of acquisition in takeovers: Taxes and asymmetric information. *Journal of Finance* 46, 653–669.
- Burch, T. R., 2001. Locking out rival bidders: the use of lockup options in corporate mergers. *Journal of Financial Economics*. 60, 103–141.
- Carter, M.E., Lynch, L.J., Tuna, A.I., 2007. The role of accounting in the design of CEO equity compensation. *Accounting Review* 82, 327–358.
- Chalmers, J.M.R., Dann, L.Y., Harford, J., 2002. Managerial opportunism? Evidence from directors' and officers' insurance purchases. *Journal of Finance* 57, 609–636.
- Chowdhry, B., Jegadeesh, N., 1994. Pre-tender offer share acquisition strategy in takeovers. *Journal of Financial and Quantitative Analysis* 29, 117–129.
- Comment, R., Jarrell, G., 1987. Two-tier and negotiated tender offers: the imprisonment of the free-riding shareholder. *Journal of Financial Economics* 19, 283–310.
- Core, J., Holthausen R., Larcker, D., 1999, Corporate governance, chief executive office compensation, and firm performance. *Journal of Financial Economics* 51, 371-406.
- Cotter, J.F, Zenner, M., 1994. How managerial wealth affects the tender offer process. *Journal of Financial Economics* 35, 63–97.
- Daines, R., 2001. Does Delaware law improve firm value? *Journal of Financial Economics* 62, 525–558.
- Daines, R., 2005, Do Classified Boards Affect Firm Value? Takeover Defenses After the Poison Pill, NYU working paper.
- Devos, E., Kadapakkam, P. R., Krishnamurthy, S., 2009. How do mergers create value? A comparison of taxes, market power, and efficiency improvements as explanations for synergies. *Review of Financial Studies* 22, 1179–1211.
- Eckbo, B. E., Langohr, H., 1989. Information Disclosure, Method of Payment, and Takeover Premiums: Public and Private Tender Offers in France. *Journal of Financial Economics*, 24, 363–403.

- Faleye, O., 2007. Classified Boards, Firm Value, and Managerial Entrenchment. *Journal of Financial Economics* 2007, 501–29.
- Fich, E. M., Jie C., Tran A. L., 2011. Stock option grants to target CEOs during private merger negotiations. *Journal of Financial Economics*, 101, 413–430
- Fich, E., Tran, A., Walkling, R., 2014. On the importance of golden parachutes. *Journal of Financial and Quantitative Analysis* (forthcoming). DOI: <http://dx.doi.org/10.1017/S002210901300063X>.
- Fishman, M., 1989. Preemptive bidding and the role of the medium of exchange in acquisitions. *Journal of Finance* 44, 41–57
- Franks, J. R., Harris, R. S., 1989. Shareholder Wealth Effects of Corporate Takeovers, *Journal of Financial Economics*, 23, 225–249
- Fu, F., et al., 2013. Acquisitions driven by stock overvaluation: Are they good deals? *Journal of Financial Economics*, <http://dx.doi.org/10.1016/j.jfineco.2013.02.013i>
- Ganor, M., 2007. Why do managers dismantle staggered boards? American Law and Economics Association Annual Meetings, Paper 5. Berkeley Electronic Press.
- Ganor, M., 2011. The power to issue stock. *Wake Forest Law Review* 46, 701–743.
- Gillan, S., Starks, L., 2007. The evolution of shareholder activism in the United States. *Journal of Applied Corporate Finance* 19, 55–73.
- Gompers, P. A., Ishii, J. L., Metrick, A., 2003. Corporate Governance and Equity Prices. *The Quarterly Journal of Economics* 118-1, 1007–1055.
- Hadlock, C., J. Houston, and M. Ryngaert, 1999. The role of managerial incentives in bank acquisitions, *Journal of Banking and Finance* 23, 221–249.
- Hansen, R. G., 1986. Sealed-bid versus open auctions: The evidence. *Economic Inquiry* 24, 125–142.
- Haslem, B., 2005. Managerial opportunism during corporate litigation. *Journal of Finance* 60-4, 2013–2041.
- Harris, E. G., 1990. Antitakeover measures, golden parachutes, and target firm shareholder welfare. *Rand Journal of Economics*. 21, 614–625.
- Hartzell, J., Ofek, E., Yermack, D., 2004. What's in it for me? CEOs whose firms are acquired. *Review of Financial Studies* 17-1, 37–61.

- Heitzman, S., 2011. Equity grants to target CEOs during deal negotiations. *Journal of Financial Economics* 102, 251–271.
- Jarrell, G., Poulsen, A., 1989. Stock trading before the announcement of tender offers: Insider trading or market anticipation? *Journal of Law, Economics and Organizations* 5, 225–249.
- Jennings, R.H., Mazzeo, M.A., 1993. Competing bids, target management resistance, and the structure of takeover bids. *Review of Financial Studies* 6, 883–909.
- Jensen, M.C., 1986. Agency costs of free-cash-flow, corporate finance, and takeovers. *American Economic Review* 76, 323–329.
- Jensen, M., Ruback, R., 1986. The market for corporate control: The scientific evidence. *Journal of Financial Economics* 11, 5–50.
- Lang, L., Stultz, R., Walkling, R., 1991. A test of the free cash flow hypothesis: The case of bidder returns. *Journal of Financial Economics* 29, 315–335.
- Lefanowicz, C. E., Robinson, J. R., Smith, R., 2000. Golden parachutes and managerial incentives in corporate acquisitions: evidence from the 1980s and 1990s. *Journal of Corporate Finance* 6, 215–239.
- Lehn, K., Poulsen, A., 1989. Free cash flow and stockholder gains in going private transactions. *Journal of Finance* 44, 771–789.
- Machlin, J., Choe, H., Miles, J.A., 1993. The effects of golden parachutes on takeover activity. *Journal of Law and Economics* 36, 861–876.
- Martin, K., 1996. The method of payment in corporate acquisitions, investment opportunities, and management ownership. *Journal of Finance* 51, 1227–1246.
- Martin, K. J., McConnell, J. J., 1991. Corporate Performance, Corporate Takeovers, and Management Turnover. *Journal of Finance*, 46, 671–687.
- Masulis, R.W., Wang, C., Xie, F., 2007. Corporate governance and acquirer returns. *Journal of Finance* 62, 1851–1889.
- Maug, E., Rydqvist, K., 2001. What is the Function of the Shareholder Meeting? Evidence from the U.S. Proxy Voting Process. Working Paper. Humboldt University and Norwegian School of Management.
- McNichols, M., Dravid, A., 1990. Stock dividends, stock splits, and signaling. *Journal of Finance* 45, 857–879.
- Moeller, S. B., Schlingemann, F. P., Stulz, R. M., 2004. Firm size and the gains from acquisitions. *Journal of Financial Economics* 73, 201–228.

- Morck, R., Shleifer, A., Vishny, R. W., 1988. Management ownership and market valuation: an empirical analysis. *Journal of Financial Economics* 20, 293–315.
- Morck, R., Shleifer, A., Vishny, R. W., 1990. Do managerial objectives drive bad acquisitions? *Journal of Finance* 45, 31–48.
- Ofek, E., and D. Yermack, 2000. Taking stock: Equity-based compensation and the evolution of managerial ownership. *Journal of Finance* 55, 1367–1384.
- Offenberg, D., and C. Pirinsky, 2013. How do Acquirers Choose between Mergers and Tender Offers? Loyola Marymount University working paper.
- Officer, M. S., 2003. Termination fees in mergers and acquisitions. *Journal of Financial Economics* 69, 431–467.
- Ravid, A., Spiegel, M., 1999. Toehold strategies, takeover laws and rival bidders. *Journal of Banking and Finance* 23, 1219–1242.
- Schwert, G.W., 1996. Mark-up pricing in mergers and acquisitions. *Journal of Financial Economics* 41, 153–192.
- Schwert, G.W., 2000. Hostility in takeovers: In the eyes of the beholder? *Journal of Finance* 55, 2599–2640.
- Servaes, H., 1991. Tobin's q, agency costs, and corporate control: an empirical analysis of firm specific parameters. *Journal of Finance* 46, 409–419.
- Singh, M., Davidson III, W.N., 2003. Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking and Finance* 27, 793 – 816.
- Smith, R., L., 1987. The choice of issuance procedure and the cost of competitive and negotiated underwriting: An examination of the impact of Rule 50. *Journal of Finance* 42, 703–720.
- Sokolyk, T., 2011. The effect of antitakeover provisions on acquisition targets. *Journal of Corporate Finance* 17, 612–627.
- Stulz, R. M., R. A. Walkling, and M. H. Song, 1990. The Distribution of Target Ownership and the Division of Gains in Successful Takeovers. *Journal of Finance* 45, 817–833.
- Travlos, N., 1987. Corporate takeover bids, methods of payment, and bidding firms' stock returns. *Journal of Finance* 43, 943–963.
- Walkling, R., Edmister, R., 1985. Determinants of tender offer premiums. *Financial Analysts Journal* 41, 30–37.

White, H., 1980. A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroscedasticity. *Econometrica* 48, 817–838.

Yermack, D., 1996. Higher market valuation for firms with a small board of directors. *Journal of Financial Economics* 40, 185–211.

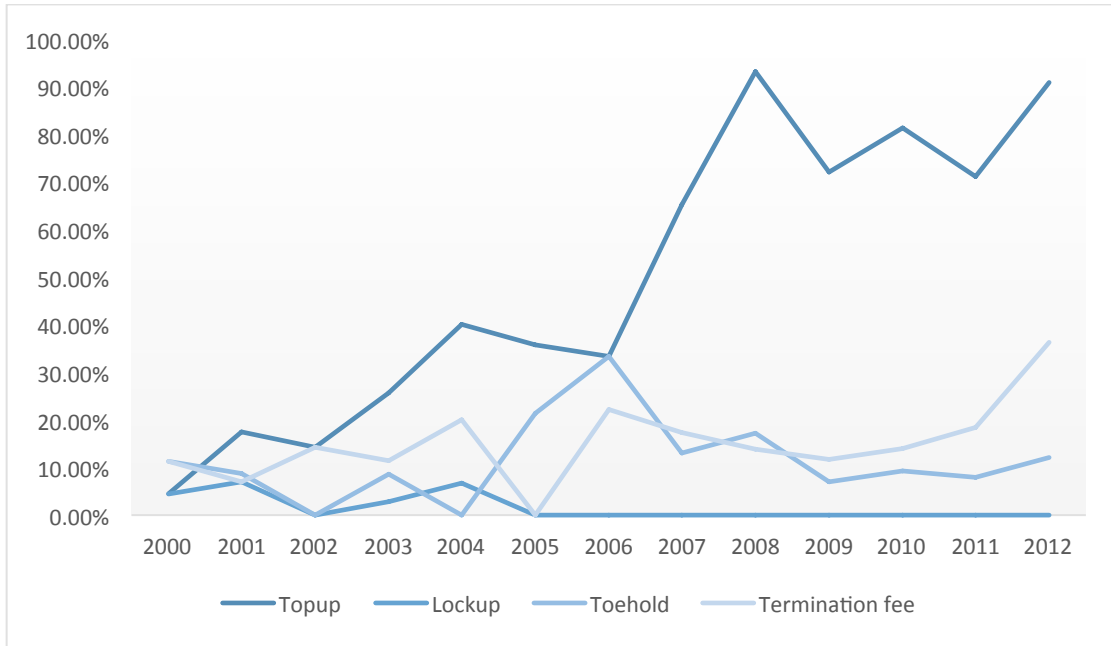


Figure 1. Use of Top-up Option, Lock-up Option, Toeholds, and Termination Fees

Table I
Sample Selection

This Table describes the sample selection criteria. The sample includes tender offers (from SDC), between January 2000 and December 2012.

Selection Criteria	Observations
All tender offers for U.S. targets between 2000-2012	2,429
Duplicate observations	683
Foreign Bidders	238
Self-tender Offers	781
Size < \$10 million.	90
Bidder owns > 50% of Target	67
No CRSP or Compustat data	112
Share Code other than 10 or 11 or non NYSE, Nasdaq, or AMEX	2
Minus	1,973
Final Sample	456

Table II
Sample Distribution

This Table presents my sample tender offers (from SDC), by year and whether they include top-up options or not. The table also presents whether a top-up option is exercised.

Year	Top-up option				No Top-up option	
	Observations	%	Exercised	% Exercised	Observations	%
2000	4	4.5%	0	0.00%	85	95.5%
2001	10	17.5%	4	40.00%	47	82.5%
2002	4	14.3%	1	25.00%	24	85.7%
2003	9	25.7%	2	22.22%	26	74.3%
2004	6	40.0%	0	0.00%	9	60.0%
2005	5	35.7%	1	20.00%	9	64.3%
2006	3	33.3%	1	33.33%	6	66.7%
2007	15	65.2%	5	33.33%	8	34.8%
2008	27	93.1%	11	40.74%	2	6.9%
2009	31	72.1%	16	51.61%	12	27.9%
2010	35	81.4%	19	54.29%	8	18.6%
2011	27	71.1%	20	74.07%	11	28.9%
2012	30	90.9%	21	70.00%	3	9.1%
Total	206	45.2%	101	49.03%	250	54.8%

Table III

Univariate Comparison of Abnormal Returns

The Table presents target and bidder CARs for the full sample, and subsamples of tender offer with and without top-up options. CARs are market adjusted returns where the market return is represented by the CRSP value-weighted index. we report differences (p-values) in means (t- test) and medians (Wilcoxon test). ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

	With Top-up option (1)			Without Top-up option (2)			Difference (1)– (2)	
	Mean	Median	N	Mean	Median	N	<i>p</i> -value (mean)	<i>p</i> -value (median)
Panel A: Target CARs								
(-1,+1)	0.4095***	0.3201***	206	0.3823***	0.3126***	250	0.488	0.355
(-20, x-date)	0.4745***	0.3636***	206	0.5595***	0.4826***	250	0.077*	0.002***
(-42, x-date)	0.5037***	0.4146***	206	0.5729***	0.4920***	250	0.152	0.018**
Panel A1 : Target CARs (Pre-2007)								
(-1,+1)	0.3858***	0.3405***	41	0.3927***	0.3126***	206	0.905	0.608
(-20, x-date)	0.4288***	0.3818***	41	0.5705***	0.5062***	206	0.068*	0.059*
(-42, x-date)	0.4650***	0.3649***	41	0.5961***	0.5303***	206	0.099*	0.109
Panel A2 : Target CARs (Post-2006)								
(-1,+1)	0.4152***	0.3148***	165	0.3336***	0.2881***	44	0.138	0.293
(-20, x-date)	0.4858***	0.3523***	165	0.5081***	0.3943***	44	0.809	0.409
(-42, x-date)	0.5133***	0.4170***	165	0.4643***	0.3971***	44	0.570	0.774
Panel B: Bidder CARs								
(-1,+1)	-0.0175***	-0.0067***	124	-0.0063	-0.0023	139	0.206	0.172
(-20, x-date)	0.0033	-0.0181	124	0.0433**	0.0379**	139	0.127	0.035**
(-42, x-date)	0.0201	-0.0139	124	0.0881***	0.0886***	139	0.029**	0.001***
Panel B1 : Bidder CARs (Pre-2007)								
(-1,+1)	-0.0424**	-0.0150**	25	-0.0102	-0.0063	119	0.067*	0.075*
(-20, x-date)	-0.0523***	-0.0648**	25	0.0508**	0.0540**	119	0.002***	0.013**
(-42, x-date)	-0.0188	-0.0339	25	0.1022***	0.1067***	119	0.003***	0.006***
Panel B2 : Bidder CARs (Post-2006)								
(-1,+1)	-0.0111*	-0.0047*	99	0.0164	0.0166	20	0.037**	0.031**
(-20, x-date)	0.0173	-0.0126	99	-0.0014	0.0027	20	0.653	0.725
(-42, x-date)	0.0299*	0.0012	99	0.0074	0.0152	20	0.614	0.823

Table IV

Univariate Comparison of Control Variables

The Table presents mean, median and number of observations (N) various deal, target, and bidder characteristics for the full sample, and subsamples of tender offers with and without top-up options. Panel A1 (A2) reports for the 2000-2006 (2007-2012) period. Definitions of all variables are explained in Appendix B. We report differences (*P*-values) in means (*t*-test) and medians (Wilcoxon test). ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

	Top-up option			(1) No Top-up option			(2)	Difference (1)– (2)	
	Mean	Median	N	Mean	Median	N	<i>p</i> -value (Mean)	<i>p</i> -value (Median)	
Panel A: All tender offers									
<i>Deal Characteristics</i>									
Deal size (10 ⁶)	660.12	300.50	206	843.26	180.07	250	0.2037	0.0677*	
Toehold (%)	0.90	0.00	206	2.48	0.00	250	0.0077***	0.0142**	
Non-cash bid	0.10	0.00	206	0.20	0.00	250	0.0031***	0.0041***	
Hostile	0.04	0.00	206	0.22	0.00	250	0.0001***	0.0001***	
Termination fee	0.17	0.00	206	0.12	0.00	250	0.2183	0.2128	
Lock-up option	0.02	0.00	206	0.02	0.00	250	0.7594	0.7579	
Diversifying	0.691	1.00	206	0.68	1.00	250	0.9190	0.9193	
Completion	0.95	1.00	206	0.80	1.00	250	0.0001***	0.0001***	
Delaware	0.75	1.00	206	0.71	1.00	250	0.3319	0.3338	
Duration	64.65	47.00	206	89.98	63.00	245	0.0001***	0.0001***	
Relative value	0.12	0.04	124	0.19	0.08	139	0.0278**	0.0010***	
Private bidder	0.33	0.00	206	0.36	0.00	250	0.4910	0.4916	
<i>Target Characteristics</i>									
Lnsizes	5.17	4.94	206	5.39	5.22	250	0.1182	0.3843	
M-to-B	1.87	1.50	206	1.61	1.20	242	0.0394***	0.0001***	
FCF	-0.01	0.06	206	0.00	0.08	238	0.5927	0.1189***	
Leverage	0.16	0.05	206	0.22	0.18	248	0.0006***	0.0001***	
Profitability	0.01	0.07	206	0.02	0.09	249	0.5203	0.1599	
Age of target	24.85	20.00	206	29.69	20.00	250	0.0288**	0.7487	
G-index	8.67	9.00	51	8.78	8.00	80	0.8027	0.9506	
<i>Bidder Characteristics</i>									
Lnsizes	8.55	8.64	124	7.75	7.84	139	0.0006***	0.0007***	
Tobin's Q	2.41	1.88	124	2.30	1.73	138	0.5954	0.1020	
FCF	0.11	0.11	120	0.10	0.11	123	0.1475	0.3163	
Profitability	0.16	0.16	123	0.14	0.14	137	0.0316**	0.0682*	

Panel A1: Sample Characteristics (Pre-2007)								
<i>Deal Characteristics</i>								
Deal size (10 ⁶)	291.15	174.98	41	828.12	172.58	206	0.0002***	0.2652
Toehold (%)	0.43	0.00	41	1.96	0.00	206	0.0111**	0.2433
Non-cash bid	0.12	0.00	41	0.21	0.00	206	0.1259	0.1805
Hostile	0.07	0.00	41	0.15	0.00	198	0.1127	0.1910
Termination fee	0.03	0.00	41	0.13	0.00	206	0.0030***	0.0572*
Lock-up option	0.12	0.00	41	0.02	0.00	206	0.0713*	0.0039***
Diversifying	0.78	1.00	41	0.66	1.00	206	0.0931*	0.1189
Completion	0.98	1.00	41	0.84	1.00	206	0.0001***	0.0187**
Delaware	0.73	1.00	41	0.69	1.00	206	0.6282	0.6336
Duration	58.39	51.00	41	87.10	61.00	202	0.0001***	0.0060***
Relative value	0.06	0.03	25	0.19	0.08	119	0.0001***	0.0015***
Private bidder	0.27	0.00	41	0.32	0.00	206	0.5028	0.5126
<i>Target Characteristics</i>								
Lnsz	4.74	4.72	41	5.25	5.11	206	0.0070***	0.0853*
Lock-up option	0.122	0.00	41	0.02	0.00	206	0.0713*	0.0039***
M-to-B	1.70	1.27	40	1.62	1.18	204	0.7565	0.2784
FCF	-0.01	0.06	41	0.01	0.09	206	0.7405	0.3165
Leverage	0.18	0.08	41	0.23	0.18	197	0.2949	0.1922
Profitability	0.01	0.07	40	0.03	0.10	206	0.6397	0.2810
Age of Target	21.10	17.00	41	28.74	19.00	206	0.0423**	0.1757
G-index	8.89	9.00	45	9.67	10.00	15	0.2801	0.2338
<i>Bidder Characteristics</i>								
Lnsz	7.97	7.91	25	7.59	7.65	119	0.3253	0.3546
Tobin's Q	3.31	2.50	25	2.33	1.72	118	0.0555*	0.0099***
FCF	0.12	0.13	24	0.10	0.11	106	0.4244	0.1065
Profitability	0.16	0.18	24	0.14	0.15	117	0.2997	0.1335
Panel A2: Sample Characteristics (Post-2006)								
<i>Deal Characteristics</i>								
Deal size (10 ⁶)	751.18	326.03	165	914.15	249.42	44	0.5279	0.4649
Toehold (%)	1.02	0.00	165	4.90	0.00	44	0.0220**	0.0004***
Non-cash bid	0.10	0.00	165	0.14	0.00	44	0.4937	0.4520
Hostile	0.04	0.00	165	0.52	1.00	44	0.0001***	0.0001***
Termination Fee	0.20	0.00	165	0.11	0.00	44	0.1376	0.1887
Lock-up option	0.00	0.00	165	0.00	0.00	44	-----	-----
Diversifying	0.66	1.00	165	0.80	1.00	44	0.0640*	0.0871*
Completion	0.94	1.00	165	0.61	1.00	44	0.0001***	0.0001***
Delaware	0.76	1.00	165	0.80	1.00	44	0.5903	0.6004
Duration	66.26	47.00	165	103.54	89.00	44	0.0032***	0.0004***
Relative Value	0.13	0.05	99	0.18	0.07	20	0.4743	0.1626
Private_Bidder	0.34	0.00	165	0.52	1.00	44	0.0341**	0.0263**

<i>Target Characteristics</i>								
Lnsizes	5.28	5.06	165	6.04	5.88	44	0.0342**	0.0178**
M-to-B	1.92	1.55	165	1.54	1.27	44	0.0458***	0.0174**
FCF	-0.01	0.06	165	-0.03	0.03	44	0.7530	0.5379
Leverage	0.15	0.42	165	0.23	0.23	44	0.0258***	0.0074***
Profitability	0.01	0.07	165	-0.01	0.07	44	0.6941	0.4945
Age of Target	25.79	21.00	165	34.16	26.50	44	0.0789*	0.0810*
G-index	7.00	7.00	6	8.57	8.00	80	0.2678	0.1680
<i>Bidder Characteristics</i>								
Lnsizes	8.70	8.88	99	8.70	9.16	20	0.9889	0.8451
Tobin's Q	2.18	1.78	99	2.14	1.90	20	0.9273	0.4323
FCF	0.11	0.11	96	0.09	0.11	17	0.4923	0.9200
Profitability	0.16	0.15	99	0.12	0.13	20	0.2105	0.3011

Table V
Regressions on Target Returns

Below are OLS regressions where the dependent variable is the target announcement return. Announcement returns are cumulative abnormal returns (CARs) from -42 to +x date. CARs are calculated by subtracting the value-weighted return on the CRSP index from the firm return. *Top-up* (0/1) equals 1 if a top-up option is present and 0 otherwise. Definitions of all variables are explained in Appendix B. Two-tailed White's heteroscedasticity-consistent *P*-values are in parentheses. ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

Model	-42 – x date		-20 – x date		-1 to +1	
	Pre-2007	Post-2006	Pre-2007	Post-2006	Pre-2007	Post-2006
	(1)	(2)	(3)	(4)	(5)	(6)
Top-up (0/1)	-0.1707** (0.029)	0.0003 (0.998)	-0.1933*** (0.009)	-0.1149 (0.322)	-0.0528 (0.414)	0.0290 (0.762)
Toehold	-0.0032 (0.496)	-0.0005 (0.932)	-0.0020 (0.587)	0.0001 (0.984)	-0.0023 (0.184)	-0.0041 (0.335)
Non-cash bid	0.1273 (0.159)	-0.1553 (0.121)	0.1106 (0.225)	-0.1134 (0.275)	0.1014 (0.166)	-0.1058 (0.225)
Hostile	-0.2228 (0.170)	-0.0480 (0.644)	-0.1342 (0.205)	-0.1597 (0.148)	-0.1131** (0.026)	-0.1407* (0.071)
M- to-B	-0.0827*** (0.000)	-0.0615** (0.019)	-0.0728*** (0.001)	-0.0461* (0.094)	-0.0527*** (0.001)	-0.0369 (0.101)
Leverage	-0.0691 (0.745)	0.3564** (0.042)	-0.1331 (0.541)	0.3456* (0.079)	-0.1448 (0.189)	0.3435** (0.040)
FCF	-0.0892 (0.634)	-0.9309*** (0.000)	-0.0380 (0.861)	-0.9123*** (0.000)	0.0378 (0.824)	-0.5893*** (0.000)
Lnsizes	0.0216 (0.377)	-0.0323 (0.234)	0.0186 (0.438)	-0.0401 (0.167)	-0.0025 (0.891)	-0.0227 (0.184)
Termination Fee	-0.0550 (0.554)	0.0346 (0.646)	-0.0605 (0.450)	-0.0141 (0.849)	-0.1423** (0.012)	-0.0273 (0.701)
Lock-up option	0.1571 (0.325)		0.2651* (0.056)		0.1158 (0.390)	
Diversifying	0.0435 (0.503)	0.0960 (0.104)	0.0489 (0.446)	0.1220** (0.040)	0.0623 (0.204)	0.1101** (0.040)
Private_Bidder	-0.0626 (0.410)	-0.1573** (0.045)	-0.0302 (0.682)	-0.0929 (0.239)	0.0356 (0.510)	-0.0561 (0.424)
Delaware	-0.1232* (0.077)	0.0635 (0.408)	-0.0651 (0.321)	0.0278 (0.719)	-0.0162 (0.761)	0.0305 (0.523)
Age	-0.0017 (0.160)	-0.0001 (0.939)	-0.0012 (0.320)	-0.0003 (0.854)	-0.0013 (0.121)	-0.0003 (0.827)
Intercept	0.7533*** (0.000)	0.6967*** (0.000)	0.6651*** (0.000)	0.8048*** (0.000)	0.5275*** (0.000)	0.4833*** (0.002)
Observations	229	198	229	198	229	198
R-squared	0.126	0.246	0.101	0.254	0.097	0.197

Table VI
Regressions on Bidder Returns

Below are OLS regressions where the dependent variable is the bidder announcement returns. Announcement returns are cumulative abnormal returns (CARs) from -1 to +1 days around announcement. CARs are calculated by subtracting the value-weighted return on the CRSP index from the firm return. *Top-up* (0/1) equals 1 if a top-up option is present and 0 otherwise. Definitions of all variables are explained in Appendix B. Two-tailed White's heteroscedasticity-consistent *P*-values are in parentheses. ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

Model	-42 – x date		-20 – x date		-1 to +1	
	Pre-2007 (1)	Post-2006 (2)	Pre-2007 (3)	Post-2006 (4)	Pre-2007 (5)	Post-2006 (6)
Top-up (0/1)	-0.1317*** (0.010)	0.0114 (0.846)	-0.0990** (0.012)	0.0024 (0.965)	-0.0378* (0.056)	-0.0369** (0.029)
Toehold	-0.0059 (0.154)	0.0071 (0.139)	-0.0045 (0.151)	0.0085* (0.066)	0.0011* (0.087)	-0.0027** (0.029)
Non-cash bid	0.1151 (0.124)	-0.0815 (0.265)	0.1020* (0.083)	0.0579 (0.384)	0.0097 (0.526)	-0.0547** (0.013)
Hostile	0.1701* (0.092)	-0.0111 (0.848)	0.1261 (0.136)	-0.0066 (0.899)	0.0255 (0.153)	0.0132 (0.454)
M- to-B	-0.0141 (0.619)	-0.0196 (0.228)	-0.0179 (0.425)	-0.0073 (0.614)	-0.0092 (0.330)	-0.0022 (0.581)
Leverage	-0.1288 (0.590)	0.1326** (0.045)	-0.0826 (0.591)	0.1444* (0.055)	-0.0307 (0.377)	0.0237 (0.472)
FCF	0.0881 (0.572)	-0.0510 (0.611)	-0.0278 (0.812)	-0.0262 (0.779)	0.0197 (0.517)	0.0075 (0.764)
Lnsiz	-0.0226 (0.365)	-0.0069 (0.668)	-0.0009 (0.966)	-0.0042 (0.776)	-0.0188*** (0.001)	-0.0058 (0.207)
Termination Fee	-0.2237** (0.010)	-0.0685 (0.235)	-0.1849*** (0.005)	-0.0948 (0.128)	-0.0202 (0.393)	-0.0122 (0.604)
Lock-up option	0.0480 (0.450)		0.0086 (0.884)		0.0072 (0.739)	
Diversifying	0.0165 (0.763)	-0.0405 (0.264)	-0.0388 (0.384)	-0.0356 (0.322)	-0.0056 (0.692)	-0.0212 (0.139)
Delaware	-0.0840 (0.172)	-0.0100 (0.726)	-0.0721 (0.162)	-0.0193 (0.519)	-0.0042 (0.780)	-0.0285*** (0.006)
Intercept	0.3169** (0.016)	0.1394 (0.267)	0.1654** (0.016)	0.1066 (0.359)	0.1021*** (0.001)	0.1015*** (0.007)
Observations	132	118	132	118	132	118
R-squared	0.158	0.106	0.175	0.102	0.181	0.165

Table VII**Logistic Regressions Of Top-Up Option Dummy On Deal Characteristics**

Below are logistic regressions of a dummy variable equal to 1 if a top-up option is present and 0 otherwise on various deal characteristics. Definitions of all variables are explained in Appendix B. *P*-values are shown in parentheses. ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

Model	Pre-2007			Post-2006		
	(1)	(2)	(3)	(4)	(5)	(6)
Toehold	-0.0614 (0.130)	-0.0635 (0.118)	-0.0627 (0.118)	-0.0810** (0.017)	-0.0816** (0.014)	-0.0811** (0.013)
Non-cash bid	-0.4642 (0.397)	-0.4408 (0.426)	-0.4446 (0.423)	-0.8532 (0.362)	-0.8526 (0.365)	-0.8678 (0.352)
Hostile	0.0809 (0.904)	-0.0380 (0.955)	-0.0470 (0.946)	-4.1349*** (0.000)	-4.1477*** (0.000)	-4.1049*** (0.000)
M- to-B	0.0223 (0.861)	0.0215 (0.864)	0.0247 (0.844)	0.2054 (0.338)	0.2117 (0.323)	0.2063 (0.335)
Leverage	0.3049 (0.765)	-0.2638 (0.794)	-0.2226 (0.825)	0.2759 (0.824)	0.2817 (0.818)	0.3078 (0.795)
FCF	0.5396 (0.490)	0.6240 (0.429)	0.6448 (0.413)	2.8559** (0.031)	2.8677** (0.029)	2.9593* (0.027)
Termination Fee	-1.8655 (0.143)	-1.8549 (0.137)	-1.8348 (0.143)	-0.0405 (0.963)	-0.0087 (0.992)	-0.0192 (0.983)
Lock-up option	2.2909*** (0.007)	2.2326*** (0.009)	2.2349*** (0.009)			
Lnsiz	-0.2444* (0.089)	-0.2219 (0.137)	-0.2239 (0.132)	-0.4086* (0.085)	-0.4304* (0.071)	-0.4362* (0.069)
Diversifying	0.6810 (0.116)	0.6904 (0.116)	0.7010 (0.108)	-1.5746** (0.038)	-1.6018** (0.032)	-1.5636** (0.035)
Private_Bidder	0.3543 (0.396)	-0.3582 (0.391)	-0.3646 (0.384)	-1.2495** (0.042)	-1.2884** (0.042)	-1.2677** (0.045)
Delaware	-0.2939 (0.502)	0.2541 (0.572)	0.2579 (0.570)	-0.0787 (0.903)	-0.0321 (0.962)	-0.0337 (0.962)
Firm Age		0.0067 (0.514)	-0.0068 (0.511)		0.0039 (0.728)	0.0028 (0.797)
EAR			0.0183 (0.743)			-0.0604 (0.635)
Intercept	-0.8251 (0.365)	-0.7590 (0.405)	-0.8412 (0.370)	6.2523*** (0.000)	6.2552*** (0.000)	6.4436 (0.000)
N	229	229	229	198	198	198
Chi-square	22.31 (0.034)	22.46 (0.049)	22.61 (0.067)	69.81 (0.000)	73.13 (0.000)	74.83 (0.000)

Table VIII
Pearson Correlation Matrix

Top-up (0/1) equals 1 if a top-up option is present and 0 otherwise. *Lockup* option is an indicator variable equal to one if a lockup option is included. *Toehold* is the percent toehold held by the target at deal announcement. *Termination fee* is an indicator variable equal to one if a termination fee is included in the offer. *P*-values are in parentheses. ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

Variable	Top-up (0/1)	Lock-up option	Toehold
Panel A: Correlation Matrix			
Lock-up option	0.0145 (0.757)		
Toehold	-0.1177** (0.012)	-0.0197 (0.674)	
Termination fee	-0.0584 (0.213)	-0.0182 (0.698)	-0.0638 (0.1740)
Panel A1: Correlation Matrix (Pre-2007)			
Lock-up option	0.1844*** (0.004)		
Toehold	-0.0831 (0.193)	-0.0244 (0.702)	
Termination fee	-0.1214* (0.057)	-0.0061 (0.924)	-0.0167 (0.795)
Panel A2: Correlation Matrix (Post-2006)			
Lock-up option	----		
Toehold	-0.2473*** (0.000)	----	
Termination fee	-0.0913 (0.188)	----	-0.1164* (0.093)

Table IX**Target Returns and Top-up Option: Two-Stage Least Squares**

Below are two-stage OLS regressions where the dependent variable is the target announcement return. In stage two dependent variables are cumulative abnormal returns (CARs) from -42 to +x date around announcement. Definitions of all variables are explained in Appendix B. Two-tailed White's heteroscedasticity-consistent *P*-values are in parentheses. ***, **, *Indicate significance at the 1%, 5%, or 10% level, respectively.

<i>Panel A. First Stage: DV=Top-up</i>	
Model	(1)
Toehold	-0.0080** (0.026)
M-to-B	0.0300 (0.107)
Leverage	-0.2984*** (0.013)
FCF	1.0284** (0.036)
Insize	-0.0014 (0.939)
Profitability	-0.9683** (0.044)
Delaware	0.0315 (0.572)
Age	-0.0002 (0.875)
Non_cash	-0.1597** (0.0210)
Termination	0.0995 (0.157)
Lockup	0.1899 (0.283)
Diversifying	0.0282 (0.583)
Private	-0.0562 (0.290)
Intercept	0.04936*** (<0.001)
Observations	426
R-squared	0.077
F value	2.64***

Panel B. second stage

	(1)	(2)	(3)
	-42 – x date	-20 – x date	-1 to +1
Top-up (0/1)	-0.6528** (0.026)	-0.5961** (0.035)	-0.2512 (0.220)
Non-cash bid	0.0629 (0.433)	0.0676 (0.382)	0.0371 (0.521)
Termination Fee	-0.0528 (0.520)	-0.0749 (0.345)	-0.1016* (0.086)
Lock-up option	0.1024 (0.622)	0.1691 (0.399)	0.0582 (0.697)
Diversifying	0.0511 (0.399)	0.0689 (0.238)	0.0745* (0.088)
Private_Bidder	-0.1023 (0.102)	-0.0521 (0.388)	-0.0063 (0.889)
Age	-0.0018 (0.156)	-0.0015 (0.230)	-0.0013 (0.156)
Hostile	-0.1323 (0.116)	-0.1068 (0.188)	-0.1409** (0.0200)
Insize	-0.0259 (0.211)	-0.0305 (0.127)	-0.0186 (0.210)
Intercept	1.0340*** (0.000)	0.9748*** (0.000)	0.6222*** (0.000)
Observations	426	426	426

Table X**Univariate Comparison of CEO and Board Variables**

The table presents mean, median and number of observations (N) various CEO and Board characteristics for the full sample, and subsamples of tender offers with and without top-up options. Panel A1 (A2) reports for the 2000-2006 (2007-2012) period. Definitions of all variables are explained in Appendix B. We report differences (*P*-values) in means (*t*-test) and medians (Wilcoxon test). ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

	Top-up option (1)			No Top-up option (2)			Difference (1)– (2)	
	Mean	Median	N	Mean	Median	N	p-value (mean)	p-value (median)
Panel A: 2000-2012								
CEO Age	53.02	53.00	206	53.82	54.00	250	0.3063	0.3088
CEO Tenure	6.75	5.00	206	7.25	4.00	250	0.4636	0.5356
Chairman	0.38	0.00	206	0.54	1.00	250	0.0009***	0.0010***
CEO Ownership	0.05	0.02	206	0.06	0.03	250	0.0269**	0.3817
Board Size	7.42	7.00	206	7.52	7.00	250	0.6001	0.6845
Staggered	0.17	0.00	206	0.16	0.00	250	0.9144	0.9146
Golden Parachute	0.40	0.00	206	0.19	0.00	250	0.0001***	0.0001***
Stays as CEO	0.25	0.00	206	0.25	0.00	250	0.9722	0.9725
Board Position	0.00	0.00	206	0.03	0.00	250	0.0079***	0.0159***
Panel A1: Pre-2007								
CEO Age	48.90	48.00	41	53.61	54.00	206	0.0011***	0.0015***
CEO Tenure	7.56	5.00	41	7.13	4.00	206	0.7412	0.8417
Chairman	0.56	1.00	41	0.57	1.00	206	0.9549	0.9553
CEO Ownership	0.09	0.05	41	0.07	0.03	206	0.1763	0.0112**
Board Size	6.95	7.00	41	7.44	7.00	206	0.1187	0.3035
Staggered	0.24	0.00	41	0.17	0.00	206	0.2933	0.2414
Golden Parachute	0.17	0.00	41	0.16	0.00	206	0.8311	0.8265
Stays as CEO	0.12	0.00	41	0.26	0.00	206	0.0262**	0.0619*
Board Position	0.00	5.00	41	0.03	0.00	206	0.0139**	0.2714
Panel A2: Post-2006								
CEO Age	54.05	54.00	165	54.77	54.00	44	0.5753	0.6212
CEO Tenure	6.55	5.00	165	7.75	5.00	44	0.3732	0.8075
Chairman	0.34	0.00	165	0.41	1.00	44	0.4075	0.3924
CEO Ownership	0.04	0.02	165	0.05	0.02	44	0.4440	0.4700
Board Size	7.53	7.00	165	7.86	7.00	44	0.4278	0.8435
Staggered	0.15	0.00	165	0.14	0.00	44	0.8783	0.8807
Golden Parachute	0.46	0.00	165	0.34	0.00	44	0.1493	0.1562
Stays as CEO	0.28	0.00	165	0.20	0.00	44	0.2977	0.3236
Board Position	0.00	0.00	165	0.02	0.00	44	0.3329	0.0543*

Table XI

Target Returns and CEO and Board Characteristics

Below are OLS regressions where the dependent variable is the target announcement return. Announcement returns are cumulative abnormal returns (CARs) from -42 to +x date. CARs are calculated by subtracting the value-weighted return on the CRSP index from the firm return. *Top-up* (0/1) equals 1 if a top-up option is present and 0 otherwise. Definitions of all variables are explained in Appendix B. Two-tailed White's heteroscedasticity-consistent *P*-values are in parentheses. ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

Model	-42 – x date		-20 – x date		-1 to +1	
	Pre-2007 (1)	Post-2006 (2)	Pre-2007 (3)	Post-2006 (4)	Pre-2007 (5)	Post-2006 (6)
Top-up (0/1)	-0.1856** (0.027)	-0.0112 (0.916)	-0.2166*** (0.008)	-0.1270 (0.250)	-0.0637 (0.349)	0.0226 (0.801)
CEO Age	-0.0044 (0.307)	0.0023 (0.593)	-0.0070 (0.106)	0.0016 (0.731)	-0.0026 (0.394)	-0.0005 (0.896)
CEO Tenure	0.0098** (0.028)	0.0040 (0.414)	0.0100** (0.035)	0.0015 (0.784)	0.0080* (0.067)	-0.0024 (0.626)
Chairman	0.0275 (0.722)	-0.1626** (0.027)	0.0162 (0.833)	-0.1842** (0.013)	-0.0571 (0.312)	-0.0690 (0.270)
CEO Ownership	-0.6016 (0.195)	-0.1573 (0.823)	-0.4548 (0.365)	-0.1025 (0.892)	-0.1079 (0.806)	0.4930 (0.383)
Board Size	-0.0008 (0.963)	0.0224 (0.204)	0.0041 (0.790)	0.0169 (0.356)	0.0119 (0.281)	0.0087 (0.475)
Staggered	0.0843 (0.405)	0.1950** (0.049)	0.0537 (0.587)	0.1662* (0.097)	0.0134 (0.868)	0.1414 (0.141)
Toehold	-0.0033 (0.528)	0.0016 (0.797)	-0.0018 (0.676)	0.0017 (0.813)	-0.0026 (0.188)	-0.0051 (0.299)
Non-cash bid	0.1332 (0.156)	-0.1723* (0.072)	0.1169 (0.221)	-0.1321* (0.198)	0.0990 (0.182)	-0.1128 (0.220)
Hostile	-0.2291** (0.049)	-0.0462 (0.642)	-0.1564 (0.165)	-0.1548 (0.152)	-0.1066** (0.042)	-0.1294* (0.084)
M- to-B	-0.0845*** (0.000)	-0.0555** (0.032)	-0.0761*** (0.001)	-0.0448* (0.096)	-0.0574*** (0.000)	-0.0354 (0.133)
Leverage	-0.0639 (0.759)	0.3560* (0.056)	-0.1361 (0.523)	0.3535* (0.077)	-0.1660 (0.115)	0.3622** (0.038)
FCF	-0.0919 (0.622)	-0.8655*** (0.000)	-0.0187 (0.932)	-0.8618** (0.000)	0.0283 (0.869)	-0.5539*** (0.000)
Lnsize	0.0234 (0.360)	-0.0407 (0.166)	0.0201 (0.391)	-0.0453 (0.142)	-0.0025 (0.893)	-0.0265 (0.153)
Termination Fee	-0.0585 (0.545)	0.0742 (0.348)	-0.0620 (0.463)	0.0292 (0.712)	-0.1306** (0.024)	-0.0049 (0.948)
Lock-up option	0.1395 (0.406)		0.2481 (0.102)		0.0901 (0.511)	
Diversifying	0.0470 (0.496)	0.0963* (0.099)	0.0487 (0.473)	0.1214** (0.042)	0.0555 (0.240)	0.1038* (0.051)
Private_Bidder	-0.0410 (0.595)	-0.1799** (0.023)	-0.0073 (0.923)	-0.1209 (0.128)	0.0353 (0.512)	-0.0665 (0.346)
Delaware	-0.1215* (0.079)	0.0791 (0.294)	-0.0520* (0.426)	0.0402 (0.599)	-0.0023 (0.963)	0.0429 (0.370)
Age	-0.0017 (0.190)	-0.0006 (0.757)	-0.0010 (0.467)	-0.0005 (0.788)	-0.0015* (0.097)	-0.0002 (0.909)
Intercept	0.9186*** (0.000)	0.4481*** (0.000)	0.9261*** (0.000)	0.6480** (0.032)	0.5723*** (0.000)	0.4575* (0.091)
Observations	226	197	226	197	226	197
R-squared	0.147	0.287	0.126	0.292	0.120	0.219

Table XII

Logistic regressions of Top-up option and CEO and Board Characteristics

Below are logistic regressions of a dummy variable equal to 1 if a top-up option is present and 0 otherwise on various deal characteristics. Definitions of all variables are explained in Appendix 2. *P*-values are shown in parentheses. ***, **, *: Significant at the 1%, 5%, and 10% level, respectively.

Model	Pre-2007			Post-2006		
	(1)	(2)	(3)	(4)	(5)	(6)
CEO Age	-0.0685*** (0.009)	-0.0686** (0.013)	-0.0694** (0.012)	0.0220 (0.585)	0.0207 (0.610)	-0.0811 (0.634)
CEO Tenure	0.0039 (0.908)	0.0039 (0.909)	0.0050 (0.882)	-0.0524 (0.319)	-0.0522 (0.322)	-0.0517 (0.323)
Chairman	0.3830 (0.377)	0.3830 (0.377)	0.3843 (0.374)	-0.1887 (0.795)	-0.1873 (0.797)	0.1642 (0.820)
CEO Ownership	1.2926 (0.636)	1.2930 (0.636)	1.0647 (0.700)	-5.2361 (0.334)	-5.1379 (0.346)	-5.1189 (0.347)
Board Size	-0.0494 (0.663)	-0.0493 (0.664)	-0.0515 (0.651)	-0.1389 (0.355)	-0.1451 (0.340)	-0.1479 (0.329)
Staggered	0.5579 (0.257)	0.5579 (0.257)	0.5940 (0.234)	0.5941 (0.448)	0.5808 (0.459)	-0.6625 (0.416)
Toehold	-0.0752 (0.373)	-0.0752 (0.373)	-0.0751 (0.371)	-0.0811** (0.029)	-0.0821** (0.028)	-0.0829** (0.028)
Non-cash bid	-0.4624 (0.444)	-0.4626 (0.444)	-0.4730 (0.434)	-0.9421 (0.245)	-0.9411 (0.246)	-0.9833 (0.227)
Hostile	0.1396 (0.848)	-0.1394 (0.848)	-0.1468 (0.840)	-4.4463*** (0.000)	-4.4524*** (0.000)	-4.3738*** (0.000)
M- to-B	0.0133 (0.921)	0.0133 (0.921)	0.0157 (0.908)	0.3769 (0.178)	0.3775 (0.177)	0.3785 (0.177)
Leverage	-0.0028 (0.998)	-0.0032 (0.997)	0.0667 (0.946)	0.5703 (0.644)	0.5749 (0.641)	0.6270 (0.610)
FCF	1.1368 (0.226)	1.1364 (0.228)	1.1785 (0.214)	3.5460*** (0.007)	3.5401*** (0.007)	3.6775*** (0.006)
Lnsiz	-0.2399 (0.252)	-0.2401 (0.259)	-0.2451 (0.250)	-0.3916 (0.146)	-0.4014 (0.142)	-0.4098 (0.132)
Termination Fee	-1.7806 (0.112)	-1.7805 (0.112)	-1.7542 (0.118)	-0.3020 (0.700)	-0.2880 (0.715)	-0.2909 (0.710)
Lock-up option	2.5723*** (0.004)	2.5730*** (0.005)	2.5772*** (0.004)			
Diversifying	0.8657* (0.072)	0.8658* (0.073)	0.8792* (0.069)	-1.6033** (0.028)	-1.6232** (0.027)	-1.5661** (0.034)
Private_Bidder	-0.2579 (0.573)	-0.2579 (0.574)	-0.2707 (0.556)	-1.3374** (0.035)	-1.3602** (0.034)	-1.3355** (0.038)
Delaware	-0.4121 (0.388)	0.4124 (0.390)	0.4134 (0.390)	0.0969 (0.878)	0.1267 (0.844)	0.2014 (0.760)
Firm Age		0.0001 (0.995)	0.0009 (0.993)		0.0028 (0.831)	0.0015 (0.911)
EAR			0.0263 (0.619)			-0.0769 (0.568)
Intercept	2.2299 (0.190)	2.2315 (0.194)	2.1839 (0.202)	6.1823** (0.031)	6.2716** (0.030)	6.5823** (0.026)
N	226	226	226	197	197	197
Chi-square	35.34 (0.009)	35.34 (0.013)	35.57 (0.017)	89.96 (0.000)	90.01 (0.000)	90.34 (0.000)