BROKEN PROMISES: PRIVATE EQUITY BID FAILURES AND THE LIMITS OF CONTRACT

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Abstract

We document a shift in the structure of acquisition contracts involving bids by private equity firms in the years leading up to the financial crisis. These contracts increasingly relied upon reverse termination fees payable by buyer groups as the only recourse available to targets upon a buyer group's refusal to complete the transaction. This new contract structure is correlated with bidder-initiated transaction failures beginning in 2007, even after controlling for arbitrage spreads and other predictors of bid failures. Contract structure also has an economically large impact on settlement amounts following terminations, ranging from 2% to 10% of target value for contracts that favor bidders or targets, respectively. However, the increased optionality of contracts is not reflected in target offer premiums. We examine various explanations for this disjunction and conclude that it is driven either by superior negotiating skills of private equity bidders or by targets' reliance on the reputational capital of private equity firms.

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1. Introduction

The financial crisis was not kind to pending private equity acquisitions. Beginning in August 2007 and as the credit markets began to freeze up, a number of private equity firms attempted to terminate pending acquisitions of publicly-traded targets. These attempts succeeded in a number of notable instances. The private equity firms largely accomplished these terminations through the threat or actual exercise of reverse termination fee provisions in their merger agreements. Anecdotally, the termination structure in a number of these agreements came as a surprise to target managers, evidenced also by the intense litigation that followed. In many instances, the reverse termination fee ex post failed to compensate a target for the transaction costs it incurred as well as the significant post-termination drop in its market value. Moreover, it is unclear whether the negotiated amount of the reverse termination fee was related to the expectation of these costs at the time of a merger agreement's execution.

In this paper, we study the termination structure of merger agreements that involve private equity bidders and publicly-traded U.S. targets from 2004 through 2008. The sample of 184 buyouts represents all completed or withdrawn transactions of at least $100 million during this time period, and the focus on private equity bidding groups allows us to evaluate the contractual terms that are negotiated by experienced and financially sophisticated bidders. In order to present a more complete picture of the termination structure that provides downside protection to bidders, we record various contractual provisions from merger agreements. These provisions include the size and scope of reverse termination fees as well as the contractual ability of targets to sue bidder groups upon a breach of the agreement, known as "specific performance."

A reverse termination fee is a pre-negotiated fee payable by a buyer in connection with the termination of a merger agreement. Historically, the fee has been payable by a buyer upon the failure of a condition or the occurrence of a pre-specified event, which granted the target the ability to terminate the merger agreement and collect a pre-negotiated fee. Typically, this event or conditional failure was the failure to obtain a regulatory approval, such as antitrust clearance. In this regard, the reverse termination

fee is quite different from the termination fee in a merger agreement payable by a target. A termination fee is typically paid by a target upon a target's decision to recommend or accept a competing acquisition proposal. (Bates and Lemmon, 2003; Officer, 2003).

We find that throughout the sample period, a different type of reverse termination fee begins to emerge in private equity merger agreements. In this new form, the reverse termination fee is set as an aggregate liability cap on the buyer's liability for breach of the merger agreement. The merger agreement also prevents the target from suing to force the buyer to specifically perform its contractual obligations (i.e., a bar on "specific performance"). Thus, if the buyer breaches the merger agreement, the target may sue only for damages up to the amount of the reverse termination fee. In effect, this new termination structure resembles an option right to the bidder, allowing it to exit its obligations under the merger agreement for any reason by paying this fee.

Out of the full buyout sample, 28 transactions, or 15% are terminated. From various news sources and SEC filings we ascertain the reason for each of these failures, and determine that 13 are initiated by the target, primarily in favor of the acceptance of a superior third-party proposal; 12 are initiated by the bidder(s) due to weak credit market conditions or poor target performance post-announcement; and three are terminated due to resistance by regulatory authorities. Bidder-initiated terminations in our sample account for about $168 billion of transaction values announced in 2007 alone, representing an economically sizeable 39% of total announced private equity bids in 2007 and 21% of the total over our full sample period.[1]

We also document the post-termination settling-up between bidders and targets for the bidder-initiated terminations, and note that they generally conform with the termination structure that we code from the respective merger agreements. For example, bidders generally pay out 1-3% of target value in order to exit transactions if specific performance is barred, but may pay up to 10% or more of target value

[1] See Section 3.1 for a description of our sample construction.

if specific performance is permitted. Thus, the contract termination structure is economically important within the subset of failed transactions.

We conjecture that the termination structure of these merger agreements may be related to various economic theories. We examine four non-mutually-exclusive explanations of contract structure: a real options framework, signaling, insurance, and legal advisor incentive explanation. First, the bidder termination structure may reflect real options theory, in which case we expect the strength of a bidder's termination right to be related to target volatility and the time between acquisition announcement and expected completion, for example. Moreover, under more general real option theory, the strength of a bidder's termination right should be related to bidder-initiated transaction failures, either because a stronger termination right reflects greater ex ante expectations of deal uncertainty, because it influences the bidder's response to a drop in target value post-announcement, or some combination of these.

We find support in favor of the option framework depending on the type of risk, either operational risk, financing risk, or other transaction-related risk. Bidders tend to negotiate stronger termination rights for transactions involving greater amounts of debt financing, but not for transactions involving targets with greater stock price volatility or transactions with longer time to agreement expiration. Unconditionally, the termination structure is unrelated to the incidence of bidder-initiated transaction failures; yet, it strongly predicts the failures that occurred at the start of the financial crisis in 2007. Hence, it appears that private equity bidders negotiated greater downside protection into their merger agreements leading up to the market turmoil in 2007. Moreover, this structure predicts transaction failures in 2007 after controlling for arbitrage spreads, indicating that arbitrage traders may not have fully appreciated the optionality of these agreements for the bidders. Offer premiums are unrelated to the termination structure, indicating that target managers likewise failed to adequately price the shift in termination structure during the sample period.

We also explore signaling as a competing explanation to explain termination structure. Under this theory, we expect a bidder to signal its interest in a target through a weaker termination right, either through a more costly reverse termination fee, a permission of target specific performance, or both. Signaling implies that more intense bidding competition for a given target should drive the need for bidders to demonstrate their commitment through the termination structure. However, we are unable to document any support for the signaling hypothesis, as the strength of bidder termination rights is unrelated to bidding competition.

The third explanation we evaluate is the insurance hypothesis proposed by Bates and Lemmon (2003). This hypothesis predicts that reverse termination fees lock in a portion of the gains to target shareholders while transaction outcomes remain uncertain. This implies that the presence and amount of reverse termination fees should be positively correlated with measures of transaction costs or complexity, and that targets should accept lower offer premiums in return for the insurance that reverse termination fees offer. We find that reverse termination fee amounts are negatively correlated with the incidence of bidder-initiated transaction failures in 2007, which is consistent with the real options hypothesis but inconsistent with the insurance hypothesis. Furthermore, we fail to document any correlation between reverse termination fees and offer premiums. Thus, our empirical tests offer no support in favor of the insurance hypothesis.

Finally, we test a fourth set of incentive hypotheses involving the law firms that draft the merger agreements. Based on the work of Davidoff (2009), we predict that law firms aim to build and protect their reputation through the drafting of merger agreement language that favors their clients. In this sense, top-tier law firms may be more likely to negotiate stronger (weaker) reverse termination language for bidding (target) clients. However, the legal advisors may also rationally respond to incentives for repeat business, which can only come from the bidders. In addition, contracts may exhibit a certain degree of path dependency, which inhibits lawyers from negotiating effective provisions for clients. Less-experienced legal firms may be unwilling to alter precedent to account for varying transaction

characteristics. We thus predict that 1) legal advisors will generally fail to alter contract language to adequately reflect deal characteristics, and 2) legal advisors who serve on both sides of transactions throughout the sample period will tend to favor the private equity firms in legal drafting, to the detriment of their target clients. We find some evidence that is consistent with the legal advisor incentive hypothesis, as top-tier legal advisors to acquirers are associated with stronger termination rights, while the same top-tier legal advisors bear no relation to the strength of termination rights when serving targets. However, the top-tier legal advisors did not push for stronger bidder termination rights in 2007, indicating that 1) they did indeed fail to alter contract language due to the path dependency of the negotiation process, 2) they did not fully comprehend the optionality inherent in this language, or 3) the financial crisis came as more of a surprise to them than to their private equity clients.

Ultimately, the contract language appears in design and focus to favor private equity. It thus seems that private equity bidders negotiated more beneficial contracts for themselves. This may have been due to their superior judgment in drafting contract language relative to target managers. Alternatively, it may reflect target firms' reliance on the reputational capital of private equity firms. More work is needed to distinguish between these possibilities. Ultimately, the new contract structure appears to have (at least initially) been underpriced in offer premiums and was not fully appreciated by arbitrage traders and lawyers, particularly in the period immediately preceding the market turmoil in 2007. It is possible that target managers may have viewed the bidder termination structure within an insurance framework, while bidders viewed it in terms of the real options framework.

Other studies explore the use of reverse termination fees in strategic transactions (e.g. Afsharipour, 2009), and show that reverse termination clauses are increasingly utilized in these contracts in recent years. However, the relative use among strategic transactions, ranging from 17% to 26% of deals, still falls far below the 85% to 90% rate seen in the latter portion of our sample. To the extent that private equity contracts serve as a launching pad for future strategic contract negotiations, our results may predict the outcomes and litigation associated with strategic transactions as reverse termination fees

become more widespread in that arena. Our results also highlight the importance of considering multiple dimensions of contract termination structure, as specific performance clauses serve an economically important role that complements that of reverse termination fee structures.

Despite the strong associative evidence between reverse termination fee structures and transaction outcomes, inferences of causation are complicated by the likely endogenous relation of the two. Transaction terms such as offer premium and termination structure may be set concurrently along with the parties' perceived risk of transaction failure. As such, it is difficult to determine whether termination structure merely reflects the parties' ex ante perceptions of deal risk, or rather influences their actions following the public announcement but prior to the completion of buyouts. Absent theoretically-motivated identifying variables, disentangling the two interpretations is challenging. Regardless, we note that our inability to document a sufficient correlation between termination structure and offer premiums, and between termination structure and arbitrage spreads, is consistent with anecdotal evidence that the exercise of these termination rights came as a surprise to many. However, the findings compliment a growing literature that documents the restrained bidding, superior governance, and market-timing abilities of private equity firms in general. They also demonstrate that these firms exercise skill in bargaining to negotiate significant downside protection prior to and during times of market distress, which is precisely when the option value should peak for reverse termination fees.

2. Literature Review, A Primer on Termination Structures, and Hypothesis Development

2.1 Literature Review

Kaplan and Strömberg (2009) provide a thorough survey of the development and functioning of leveraged buyouts and private equity. They also provide several predictions on the direction that private equity markets will take in the near future. For example, they predict that buyouts will be accomplished with less leverage following the dearth of available credit and the increase in interest rates on available buyout-related debt in 2007-2008. The authors also document evidence that private equity investors create economic value on average. Moreover, they note that private equity firms often appear to time the

market to take advantage of mispricing between debt and equity markets, particularly in buyouts of public operating companies (e.g., Guo, Hotchkiss, and Song, 2007). Kaplan and Strömberg also cite evidence that private equity investors may be better at bargaining and negotiating transaction terms than their target counterparties (e.g., Bargeron, Schlingemann, Stulz, and Zutter, 2007).

Despite the potential bargaining and market-timing abilities of private equity firms, Kaplan and Strömberg note that private equity returns tend to follow a boom and bust cycle, and that returns following the recent wave of private equity investments in 2006-2007 may prove "disappointing." Axelson, Strömberg, and Weisbach (2009) develop a model of the financial structure of private equity funds, which predicts that investment by private equity bidders will be very sensitive to aggregate credit market conditions.

Other papers explore the termination structure of merger agreements in a more general context, not limited only to private equity bidders. Bates and Lemmon (2003) and Officer (2003) focus on termination fees in large samples of public targets to evaluate whether these impede value-creating bidding competition for targets. Both studies conclude that termination fees do not significantly deter competing bids, but rather serve to encourage bidders to invest in the time-consuming and costly bidding process. Bates and Lemmon also explore reverse termination fees and do not find any relation between the presence of reverse termination fees and transaction completion rates. They find evidence consistent with an "insurance hypothesis" that reverse termination fees are more likely to be included in transactions with higher expected negotiation costs or costs of bid failure, as proxied by target size and equity payment. Davidoff (2009) examines the use of reverse termination fee provisions in private equity acquisitions, and provides descriptive evidence showing that a small number of top-tier law firms repeatedly represent both targets and acquirers in private equity acquisitions. He postulates that since repeat business opportunities arise from private equity bidders but not targets, these law firms may not be fully incentivized to negotiate contractual terms in the best interest of target clients. In addition, he hypothesizes that the characteristics of the legal market make the merger agreement a path dependent,

boilerplate contract. Therefore attorneys may be underincentivized to negotiate varying contract terms to fully reflect transaction characteristics.

2.2 A Primer on Termination Structures

Prior to 2004 the structure of private equity acquisitions followed a fairly standard boilerplate. The target entered into an agreement with a thinly capitalized shell subsidiary specifically created by the private equity buyers for the acquisition. The shell subsidiary then entered into debt financing arrangements with financing banks and obtained an equity commitment from the private equity sponsor funds. Because the shell lacked its own capital, the merger agreement typically contained a financing condition. If the shell was unable to obtain financing it could terminate the merger agreement without payment to the target. The target thus completely bore the risk that financing might fail.

Starting in the mid-2000's the structure of private equity acquisitions began to shift.[2] A notable example of this occurred in the 2005 acquisition of SunGard Data Systems, Inc. by a consortium of seven private equity firms. In this buyout, the financing condition was removed from the merger agreement. Instead a reverse termination fee was added as an aggregate cap on liability for the private equity bidder group. In addition, the ability of the target to specifically enforce the agreement was contractually eliminated (a bar on "specific performance"). Thus, SunGard's only remedy upon breach of the agreement by the buyers was to sue to collect an amount up to the reverse termination fee. To ensure that there were sufficient funds for the shell subsidiaries to pay the amount up to the cap, the private equity funds themselves agreed to guarantee payment of this amount. In its initial form in the SunGard transaction, the reverse termination fee amounted to $300 million, or 3% of the transaction value. This corresponded with the termination fee of 3% payable by SunGard if it terminated the merger agreement to accept a third party bid. The SunGard structure thus shifted financing risk in part to the private equity buyers in exchange for a complete cap on their possible liability arising from a transaction termination.

[2] Sorkin and Swedenberg (2006) provide a detailed illustration of the changing termination structure during this time period.

The form of the reverse termination fee in the private equity structure began to vary as it spread. The bulk of transactions used the SunGard structure which allowed the buyer to breach the agreement for any reason upon payment of the reverse termination fee (a pure reverse termination fee). However, many subsequent transactions adopted a two-tiered structure. A lower fee became payable under the merger agreement if a financing failure occurred. A higher fee phrased as a liability cap took effect if the buyer group simply breached the agreement for any other reason (a two-tiered reverse termination fee). Under the two-tiered structure specific performance was also barred and damages up to the higher, second tier the only remedy available to the target for a buyer breach of the agreement in instances other than a financing failure. A third form of the reverse termination fee structure also evolved in the late 2000's. In this form, the target could force the shell subsidiaries to specifically perform the transaction and theoretically draw on the financing commitments. However, if financing was unavailable then only a reverse termination fee was payable (a specific performance reverse termination fee).

The structure of private equity thus created varying forms of reverse termination fees and specific performance permissions, each with different implications on the strength of the termination right granted to bidders. At one extreme, a bidder might have to pay a large reverse termination fee to cancel a pending transaction, and remain subject to target litigation if the termination did not fall under a pre-specified condition in the merger agreement. This represents a "weak" termination right. At the other end of the spectrum, a bidder might pay little to no reverse termination fee to exit a bid, along with a bar on target specific performance – a near costless, or "strong" termination right. The following section develops testable hypotheses to explain the cross-sectional variation in termination structures, and the implications for the varying degrees of termination strength on transaction outcomes.

2.3 Hypothesis Development

We develop four hypotheses to explain the termination structure in private equity merger agreements and transaction outcomes.

2.3.1 Real Options Hypothesis

First, under a real options framework, the termination structure may reflect the parties' perception of transaction uncertainty. This could be driven by asymmetric information about the underlying target value[3], volatility in target value, aggregate credit market conditions that impact transaction financing, deal-specific financing leverage, and the time between acquisition announcement and transaction completion, which amplifies these risk factors. If a bidder chooses to exercise the termination option, it may do so at a strike price which is influenced by the amount of the reverse termination fee and the monetary recourse available to a target upon successful litigation or legal settlement, which is influenced by the availability of specific performance, as discussed in the prior section.

Under the joint hypothesis that a) termination structures may be viewed within an options framework, and b) all parties involved take this view, then several ancillary predictions emerge. First, the strength of the bidder's termination structure should be related to the incidence of bidder-initiated transaction failures. This could be driven by greater ex ante perceived risk of deal uncertainty, or by ex post bidder responses to negative shocks to target firm value or credit availability. Second, the termination structure should also be reflected in merger arbitrage spreads if arbitrage traders recognize the inherent optionality embedded in the contracts. Third, to the extent that stronger termination provisions afford private equity bidders downside protection during the period from acquisition announcement to closing, we expect targets to demand a higher offer premium in return.

2.3.2 Signaling Hypothesis

Under the second hypothesis, the form of reverse termination fee may serve as a signaling device, allowing the bidder to demonstrate its pre-commitment to a proposed transaction. In auction settings, target managers generally consider not only the size of an offered premium, but also the probability of transaction completion for a given bid. By agreeing to a larger reverse termination fee and permitting

[3] Kaplan (1989) notes that target operating performance following buyouts falls below forecasts made by private equity firms, which would be consistent with the existence of asymmetric information between targets and private equity bidders.

target specific performance, a private equity firm can signal a greater degree of commitment to a bid. This is similar to the amount of money that homebuyers place in escrow when submitting a bid, as they can signal a greater level of commitment through a larger escrow payment. If the bidder termination structure serves as a signaling device, we predict bidders would accept weaker termination rights in more competitive bidding situations.

2.3.3 Insurance Hypothesis

As a third hypothesis, we build upon the insurance hypothesis developed by Bates and Lemmon (2003). They propose that reverse termination fees "are valuable to target shareholders because they lock in a portion of the expected gains of a still uncertain deal." This implies that the presence and amount of reverse termination fees should be positively correlated with measures of transaction costs, and that targets should accept lower offer premiums in return for the insurance that reverse termination fees offer.

2.3.4 Legal Advisor Incentives Hypothesis

The fourth and final hypothesis relating to bidder termination structures involves the legal advisors that aid in negotiating and drafting the merger agreements. We predict that law firms aim to build and protect reputations through the drafting of merger agreement language that favors their clients. In this sense, top-tier law firms may be more likely to negotiate stronger (weaker) reverse termination language for bidding (target) clients. However, the legal advisors may also rationally respond to incentives for repeat business, which can only come from the bidders. We thus predict that legal advisors who serve on both sides of transactions throughout the sample period may tend to favor the PE firms in legal drafting, to the detriment of their various target clients. In other words, law firms that serve only public operating targets throughout the sample may systematically draft weaker bidder termination structures. Moreover, less sophisticated law firms may follow a boilerplate contract structure, failing to adequately vary contractual provision to reflect the diversity in transaction characteristics.

3. Data and Empirical Findings

3.1 Sample Construction

Our sample contains all transactions listed in the FactSet MergerMetrics database and announced from 2004 through 2008 that meet the following criteria: 1) The acquirer is a private equity firm or involves a consortium of private equity firms, 2) the target is a U.S. firm publicly traded on the NYSE, AMEX, or NASDAQ stock exchanges, 3) the transaction size is at least $100 million, 4) the offer price is at least $5 per share, and 5) a merger agreement is signed and publicly disclosed through an SEC filing. These filters result in a sample of 184 buyouts announced from 2004 through 2008.

From MergerMetrics we obtain data on the transaction value, offer price, consideration offered, deal attitude (hostile/friendly), form of acquisition (tender offer/merger), competing bids, target industry, offer price renegotiations, and transaction outcomes. We verify transaction outcomes by reading news stories surrounding termination announcements of each failed transaction, as well as settlement agreements that are publicly disclosed. We record the structure of reverse termination fees, specific performance, and other contractual provisions from the merger agreements filed with the SEC. The amounts of debt, equity, and excess cash utilized by private equity groups in financing the transactions are recorded from proxy statements mailed to target shareholders for voting approval of the transactions. All stock price data is obtained from CRSP.

3.2 Descriptive Statistics

Figure 1 documents the recent private equity investment wave by charting the aggregate enterprise value of announced transactions from 2004 through 2008. Both the aggregate value and average size of transactions peaked in 2007, with about $364 billion of announced deals in the first half of 2007 alone. Deal activity dropped off sharply following this peak, with only two transactions announced during the second half of 2008.

Table 1 provides summary statistics on the sample of 184 private equity buyouts. Panel A shows that the percentage of debt financing used by private equity firms to finance their buyouts averages 60.6% over the full sample period, but ranges from 0% to 100% at the extremes. Hence the phrase "leveraged" buyout may actually be a misnomer for some transactions. Panel B reveals that without variation, the consideration paid to target shareholders always takes the form of cash. Also, slightly less than 85% of the transactions are ultimately completed. Panel C summarizes the reasons for transaction failures, and shows that of the 28 failed transactions, 43% are terminated by targets in favor of competing bids, 10.7% are terminated due to lack of regulatory clearance, and about 43% are terminated by bidders due to weak credit market conditions, outright financing failures, or poor target performance. Finally, Panel D documents a fairly high concentration of targets within the Fama-French 38 Industries of services (both business and personal), retail, and finance, insurance, and real estate.

Transaction terminations or renegotiations are reported across announcement years in Table 2. Commensurate with the peak of announced volume in 2007, the percentage of these transactions that were eventually terminated by bidders increased sharply to over 22%. Overall, the aggregate enterprise value of bidder-initiated terminations during the sample period is about $170 billion, with $168 billion of that occurring during the financial crisis in 2007-2008. To put this in context, the terminations of 2007-announced transactions represents an economically sizeable 39% of total announced private equity bids in 2007 and 21% of the total over the full sample period.

The low percentage of deals with downward price renegotiations is somewhat surprising. Less than 2% of announced private equity investments involve offer price decreases, compared with almost 16% that see price increases. This could be related to the relatively lower premiums that private equity bidders offer targets (Bargeron, Schlingemann, Stulz, and Zutter, 2008), as parties would be more likely to simply terminate transactions when the economic value of a pending deal approaches the lower bound of the target's pre-offer stock price. Appendix A provides a graphical illustration of the various transaction outcomes over the full sample period.

Figure 2 provides a graphical illustration of the 12 bidder-initiated terminations. The beginning of each horizontal bar corresponds with the announcement date, and the end of the bar corresponds with the termination date of each agreement. Many of these pending transactions dragged on for a year or longer before termination. The concentration of announced private equity investments in mid-2007 provides a descriptive picture of the quick change in market conditions. While many of these deals experienced difficulty in raising the debt financing necessary to fund the acquisition, it is unclear whether these represented outright financing failures, declining target value, or some mix of both.

From proxy statements mailed to shareholders, we collect data on the mix of debt, investor group equity, and excess firm cash holdings used to finance the buyouts. Figure 3 documents the mean debt financing ratios for announced transactions through time, measured as the anticipated level of new debt financing divided by the total amount of funds needed to close the transaction. Generally, the target's old outstanding debt is retired at transaction closing, so this debt financing percentage should resemble the target's actual new leverage at closing. However, as many targets cease to report financial data once private, we cannot verify this assumption for every deal, and so we use caution in interpreting this financing mix as actual new target leverage. The mean debt financing amount ranges from a peak of just over 70% in late 2004, to less than 30% in late 2008. The lower leverage for recent transactions following the 2007 credit crisis confirms the predictions made by Kaplan and Strömberg (2009).

The distributions of various acquisition contract terms are presented in Table 3, for the full sample in Panel A, and by announcement year in Panel B. Panel A shows that in general, little variation exists in the size of both termination and reverse termination fees. Moving from the 25^{th} to 75^{th} percentile increases the termination fee from 2.0% to 3.5% of enterprise value, and increases the reverse termination fee from 1.9% to 3.4%. This is similar to the small amount of variation in fee sizes documented by Bates and Lemmon (2003) and Officer (2003). To the extent that cross-sectional variation in transaction risk is consequential, this leads us to question whether other contractual terms beyond reverse termination fees adjust to reflect this risk.

The evolution of contract termination provisions through time is presented in Panel B. The mean reverse termination fee percentage shows little variation through time, although it does increase slightly to 3.7% in 2008 following the numerous transaction terminations in 2007-2008. The ability of bidders to terminate transactions under a "Material Adverse Claim" (MAC) declines steadily through time, as the number of exclusions to target MAC clauses in the agreements increases steadily, from an average of 7 exclusions in 2004 to 11 exclusions in 2007. Macias (2009) provides detailed analysis on Material Adverse Change clauses and exclusions in the context of public-to-public acquisitions.

We observe that in early sample years, little recourse is available to targets upon a failure of the bidding group to obtain adequate debt financing. In 2005, for example, almost 60% of transactions have a financing condition, which typically provides no remedy to targets upon a financing failure. However, target specific performance is barred in only 23.5% of transactions in 2005. Thus, if a private equity investor attempts to back out of a transaction for purposes other than financing availability (i.e., deteriorating target performance), the target can generally sue to force the bidder to consummate the transaction. By 2007 less than 3% of transactions include a financing condition, indicating that targets have greater assurance of some remedy upon a financing failure. However, target specific performance is barred in almost 65% of the announced transactions, and over 90% of the deals include a reverse termination fee. Thus, in the majority of transactions, the bidding group may simply elect to pay the reverse termination fee and walk away for any reason.

Overall, the descriptive evidence highlights the importance of considering multiple factors in assessing the termination rights granted to bidders. While reverse termination fee amounts vary little both in the cross-section and through time, other provisions such as target specific performance vary to a greater degree. On the surface, it appears that the increasing presence of reverse termination fees by 2007 provides greater insurance to targets for withdrawn transactions, yet the more common bar on target specific performance may offset this insurance by providing a stronger termination option to bidders. We

now turn to documenting the typical contract termination structure across various transaction outcome categories.

Table 4 provides double sorts of transaction outcomes and various transaction characteristics and contract variables. Observations in Panel A are sorted by transaction outcomes. Target-initiated terminations are associated with lower offer premiums and negative arbitrage spreads on average. It thus appears that from early on the market anticipates that many of these announcements will result in higher offers (or positive bid renegotiations). In contrast, relative to completed acquisitions, bidder-initiated terminations are associated with higher arbitrage spreads, greater debt financing loads, and significantly longer time from announcement to completion/withdrawal. Moreover, these terminations are more likely to include a reverse termination fee and a bar on target specific performance. While the greater use of bidder termination fees is consistent with both the insurance hypothesis and the real options hypothesis, the bar on specific performance is inconsistent with the insurance hypothesis. Under the insurance hypothesis, we would also expect the amount of the reverse termination fee to be increasing in the probability of deal termination, but it is not. If the amount of the reverse termination fee impacts bidder decisions regarding potential termination, then under the real options hypothesis, we expect bidders' willingness to terminate to vary inversely with this amount, since it becomes less costly to exercise the termination option.

Panel B of Table 4 sorts the observations by the strength of termination as reflected in the bar on target specific performance. We note that offer premiums are increasing monotonically as the recourse available to targets declines, again consistent with the real options hypothesis. Also, the mean amount of debt financing per transaction is significantly lower for contracts that unconditionally permit target specific performance. Thus, it appears that bidders are more willing to grant targets stronger recourse for deals when financing uncertainty is lower. Finally, the incidence of bidder-initiated terminations is 5.1% for the subset of "weak" bidder termination rights, versus 9.1% for "strong" bidder termination rights, measured by the degree of target specific performance permitted. This is a 78% increase in the

probability of termination across the categories. Of course, the evidence at this point remains descriptive in nature, as no controls for time or other transaction characteristics are included.

We collect more detailed information surrounding the 12 bidder-initiated terminations from news stories, SEC filings, and company press releases. This information and the contract termination structures are presented in Appendix B. We note that the reasons for transaction failure and the contract structure largely agree with the settlement outcomes reported in the last column. For example, bidders generally pay out 2-3% of target value in order to exit transactions if specific performance is barred, but may pay up to 10% or more of target value if specific performance is permitted. Thus, the contract termination structure is economically important in failed transactions. Davidoff (2009) provides more detail on the litigation and settlements surrounding many of these terminations.

3.3 Regression Analysis

We build upon the univariate evidence from Table 4 by estimating probit models in Table 5. The dependent variable equals one if an announced transaction results in a bidder-initiated termination, and zero otherwise. Note that other papers (e.g., Bates and Lemmon, 2003; Officer, 2003) model the probability of deal success, whereas we model the opposite prediction of bidder-initiated failures. In the first two columns, we control for various predictors of bid success, including transaction size, target standard deviation of returns in the year prior to 30 days before acquisition announcement, offer premium, arbitrage spreads, time to agreement expiration, and the amount of debt financing as a percent of total transaction funding.[4] We measure arbitrage spreads five days after acquisition announcements because targets are generally required by the SEC to file merger agreements within four days of the announcement, and we obtain the termination structures from these agreements. All offers made to target shareholders are in cash, so we do not include an indicator for the method of payment. Indicators for hostile attitude and tender offers suffered from collinearity and so are excluded from these models. For

[4] See Officer (2003) and Bates and Lemmon (2003) for models of the probability of deal completion.

robustness, we vary the regressions by including or omitting the debt financing variable since we have missing data for some observations.

In the first two columns, the arbitrage spread strongly predicts bidder-initiated deal terminations, as does the indicator for transactions announced in 2007. In the third column we omit arbitrage spreads but include variables that capture the bidder termination structure: a dummy variable for the presence of a reverse termination fee, this dummy interacted with the amount of the reverse termination fee as a percentage of enterprise value if the dummy equals one, and the structure of target specific performance. This variable equals one if specific performance is permitted, two if it is limited to financing success, and three if it is completely barred. A higher value indicates less recourse available to targets upon a bidder breach of the agreement, and increases the termination right of the bidder. Results show that termination strength through the specific performance bar is positively related to transaction failures, but only in 2007. This is consistent with the real options hypothesis. Also, the amount of the reverse termination fee is negatively related to deal withdrawals in 2007, which is consistent with the real options hypothesis and inconsistent with the insurance hypothesis.

Finally, the fourth column includes all variables, and shows that the predictive power of contract structure subsumes that of arbitrage spreads, which are insignificant. The target specific performance variable remains positive in 2007, and the reverse termination fee amount remains negative in 2007. Bidders appear more likely to back down from higher offer premiums, evidenced by the positive coefficient on initial offer premium. In sum, it appears that multiple dimensions of contract termination structure are associated with transaction outcomes. We cannot, however, determine whether this is an ex ante reflection of transaction risk during negotiations, or a determinant of the parties' ex post response to declining market conditions or target value.

In Table 6 we explore the pricing of termination structures, as measured by target offer premiums as dependent variables in linear regressions. We include similar variables that are correlated with

premiums offered to public targets (Bargeron, Schlingemann, Stulz, Zutter, 2008). The insurance hypothesis predicts that offer premiums will be negatively related to reverse termination fees, while the real options hypothesis predicts that offer premiums will be positively related to target specific performance bans. However, none of the included variables achieves significance in the various regressions. The adjusted-R^2 of each model is fairly low, consistent with the weak explanatory power of the variables. There are several potential explanations for this lack of power. First, our sample size is relatively small. Second, the sample includes only private bidders, whereas other studies typically include public bidders or both public and private bidders. As Bargeron, Schlingemann, Stulz, and Zutter (2008) show, private bidders pay significantly lower premiums for targets; hence, the offered premiums may be driven by fundamental characteristics that differ from those which explain public bidding. Third, if target managers view bidder termination structure within the incentive hypothesis framework, while bidders view it within the real options framework, each may feel they are negotiating provisions which are beneficial to themselves and so require no adjustment to offer premiums from the other. That is, the offer premium effect may wash out if both hypotheses are partially true. Finally, if target managers initially did not appreciate the optionality that the newer termination structure affords bidders, they may have failed to adequately price it into offer premiums, as anecdotal evidence suggests.

We now explore the extent to which arbitrage traders price the inherent optionality of bidder termination structures. Table 7 reports linear regressions using arbitrage spreads as the dependent variable, and measures of transaction uncertainty and termination structure as independent variables. Arbitrage spreads are positively related to transaction size and target volatility, and negatively related to hostility. The spreads widened significantly on deals announced in 2008, following the numerous terminations from 2007 into 2008. The third and fourth columns reveal that arbitrage traders did not respond to variations in specific performance clauses, indicating that they may not have fully appreciated the termination option that these clauses grant to bidders. Spreads are increasing in the amount of reverse

termination fees, indicating that the transaction risk effect (insurance hypothesis) dominates the expected cost of termination for the bidder (real options hypothesis) reflected by the fee amount.

We study the determinants of bidder termination strength using ordered logit models in Table 8. The dependent variable equals one if specific performance is permitted, two if it is limited to financing success, and three if it is completely barred. We include an indicator variable that equals one if a deal involves competing bids and zero otherwise. Due to the high correlation and simultaneity of specific performance provisions and reverse termination fees, we omit the reverse termination fee amounts from these models. Consistent with the real options hypothesis, bidders negotiate stronger termination rights for larger transactions, for transactions with greater amounts of debt financing, and for transactions announced during the increasingly uncertain market conditions of 2007 and 2008.

The signaling hypothesis predicts that bidders will demonstrate a greater level of commitment to competitive investments through a weaker termination structure. However, the coefficient on this variable is insignificant; thus, we fail to document any evidence in favor of the signaling hypothesis. This result holds if we re-estimate tobit regressions using reverse termination fee amounts as the dependent variable.[5]

To test the legal advisor incentives hypothesis, we include indicator variables for top-tier legal advisors on either side of a transaction. If law firms hope to build and protect reputations through the drafting of merger agreement language that favors their clients, then top-tier firms may be more likely to draft stronger (weaker) reverse termination language for bidding (target) clients. Legal advisor rankings are based on aggregate transaction values associated with each advisor during the sample period, with Top-Tier indicating that an acquirer or target hired one of the top 10 law firms based on this ranking. Legal advisors may also rationally respond to incentives for repeat business, which can only come from

[5] We opt to analyze only one contractual provision at a time due to the simultaneous nature of the various contract terms. It is likely that reverse termination fees, target specific performance, material adverse change clauses, offer premiums, debt financing percentages, and the parties' ex ante views on credit market conditions and transaction risk are all set simultaneously. Absent identifying variables for each of these, however, it is difficult to control for any endogeneity. We therefore choose to estimate equations that may be viewed as reduced form since they include only one dimension of the termination structure at a time.

the bidders. We thus predict that legal advisors who serve on both sides of transactions throughout the sample period may tend to favor the PE firms in legal drafting, to the detriment of their various target clients. We capture this through the "Target Legal Experience" variable, which equals one if the law firm represents both targets and private equity investors, and zero if it only represents target firms during the sample period.

The Target Legal Experience variable is insignificant in the models, indicating that legal advisors do not systematically draft contract language to the detriment of targets. The Top-Tier indicator is positive and significant for acquirer-side advisors, consistent with the incentives hypothesis. However, it is significantly negative when interacted with the 2007 dummy, indicating that either they did not fully comprehend the optionality inherent in this language, or that the financial crisis came as more of a surprise to them than to their private equity clients. In sum, the evidence does not strongly support the legal advisor incentive hypothesis.

4. Summary and Conclusions

We document a fairly sudden shift through time in reverse termination fees and overall bidder termination structures in private equity investments announced from 2004 through 2008. We evaluate a number of hypotheses to explain the termination structure: a real options hypothesis, signaling hypothesis, insurance hypothesis, and legal advisor incentives hypothesis. The evidence is most consistent with a real options view of bidder termination structures. Bidders negotiated stronger termination rights for riskier transactions: i.e., larger deals, those involving greater amounts of debt financing, and for transactions announced during the uncertain credit market conditions in 2007 and 2008. However, target managers did not demand extra premiums to compensate for their resulting reduction in bargaining power. This new contract structure is correlated with bidder-initiated transaction failures beginning in 2007, even after controlling for arbitrage spreads and other predictors of bid failures.

Overall the empirical findings indicate that private equity participants exercised superior skill in negotiating the terms of acquisition contracts in advance of the financial crisis. At least initially, this skill appears to have been underappreciated by target managers, lawyers, and merger arbitrage traders. Alternatively, it is possible that target managers simply relied on the extra-contractual reputations of their private equity counterparties. More work is needed to isolate these possible explanations. We cannot yet ascertain whether the termination structures reflect the bidders' ex ante perceptions of deal risk, or ex post responses to declining target values and credit market conditions. Nonetheless, this first empirical study of the multiple inputs to bidder termination structures implies that both acquirers and targets have an economic incentive to read the fine print in merger contracts before signing off on these agreements.

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Table 1. Sample Descriptive Statistics

Descriptive statistics on 184 private equity buyouts listed in MergerMetrics and announced from 2004 through 2008. The sample is limited to buyouts with a transaction value of at least $100 million, an offer price of at least $5 per share, a target company which is publicly traded on the NYSE, AMEX, or NASDAQ, and deals for which a merger agreement is signed and publicly disclosed. Both completed and withdrawn buyouts are included. Transaction Value is the total value offered to acquire the outstanding common stock of the target. Enterprise Value equals transaction value plus net debt. Initial Offer Premium at announcement and Ultimate Premium Paid at closing are over target's trading price 30 days prior to merger announcement. Debt Financing % is the percentage of transaction-related funding that the private equity firm or group obtained from debt sources. Arb Spread is the difference between the offer price and the target's equity trading price five days after announcement, divided by the trading price.

Panel A	**Mean**	**St. Dev.**	**Min**	**25th %**	**Median**	**75th %**	**Max**
Transaction Value (*$mm*)	$2,804.7	$5,181.2	$104.5	$360.6	$918.0	$2,242.9	$31,802.4
Enterprise Value (*$mm*)	$4,286.6	$11,533.4	$62.4	$420.0	$1,239.5	$3,294.0	$130,659.3
Initial Offer Premium	26.7%	69.9%	-7.1%	11.0%	20.5%	30.8%	938.8%
Ultimate Premium Paid	28.4%	70.3%	-8.6%	11.8%	21.7%	32.3%	938.8%
Debt Financing %	60.6%	20.9%	0.0%	52.7%	65.6%	73.9%	100.0%
Arb Spread (+5)	2.6%	3.8%	-10.4%	1.0%	2.4%	4.3%	21.8%

Panel B	N	%
Merger Consideration = Cash[1]	184	100.0%
Deal Completed	156	84.8%
Management Buyout	17	9.2%
Hostile / Unsolicited Deal	11	6.0%
Club Deal	47	25.5%

Panel C: Reason for Deal Failure			
Competing Bid	12	42.9%	(target-initiated)
Lack of Financing / Credit Market Developments	10	35.7%	(bidder-initiated)
Target Performance	2	7.1%	(bidder-initiated)
Lack of Regulatory Approval	3	10.7%	(exogenous)
Lack of Shareholder Approval	1	3.6%	(target-initiated)
	28	100.0%	

[1] Two transactions included a choice of cash or stock.

Table 1 (*Continued*)

Panel D: Industry Composition (Fama-French 38 Industries)	**Full Sample Period**		**2004**	**2005**	**2006**	**2007**	**2008**
Services	65	35.3%	50.0%	26.5%	27.5%	35.3%	66.7%
Retail Stores	30	16.3%	0.0%	38.2%	15.7%	11.8%	0.0%
Finance, Insurance, and Real Estate	26	14.1%	25.0%	11.8%	13.7%	14.7%	6.7%
Electrical and Electronic Equipment	9	4.9%	0.0%	2.9%	5.9%	7.4%	0.0%
Wholesale	8	4.4%	0.0%	8.8%	2.0%	1.5%	20.0%
Transportation	7	3.8%	0.0%	2.9%	3.9%	5.9%	0.0%
Instruments and Related Products	6	3.3%	6.3%	0.0%	5.9%	2.9%	0.0%
Machinery, Except Electrical	5	2.7%	0.0%	2.9%	2.0%	4.4%	0.0%

Table 2. Transaction Outcomes by Announcement Year

Frequency of target-initiated, bidder-initiated, and regulatory-induced transaction failures by announcement year, in Panel A, and price renegotiations in Panel B. Price renegotiation data is from MergerMetrics, and transaction failure information is obtained from MergerMetrics and cross-checked against news stories and company press releases.

Panel A: Deal Failures	2004	2005	2006	2007	2008	Total
	(N =16)	(N =34)	(N =51)	(N =68)	(N =15)	(N=184)
Target-initiated transaction failures	1	4	2	4	2	13
	6.3%	*11.8%*	*3.9%*	*5.9%*	*13.3%*	*7.1%*
Bidder-initiated transaction failures	1	1	1	9	0	12
	6.3%	*2.9%*	*2.0%*	*13.2%*	*0.0%*	*6.5%*
Regulatory-induced transaction failures	1	0	0	2	0	3
	6.3%	*0.0%*	*0.0%*	*2.9%*	*0.0%*	*1.6%*
Total	3	5	3	15	2	28
	18.8%	*14.7%*	*5.9%*	*22.1%*	*13.3%*	*15.2%*
Panel B: Offer Price Renegotiations						
Offer price increase	0	6	11	10	2	29
	0.0%	*17.6%*	*21.6%*	*14.7%*	*13.3%*	*15.8%*
Offer price decrease	1	1	0	1	0	3
	6.3%	*2.9%*	*0.0%*	*1.5%*	*0.0%*	*1.6%*

Table 3. Individual Merger Contract Provisions

Descriptive statistics on provisions in merger contracts from the private equity buyout sample described in Table 1. Target (Bidder) MAC stands for a Material Adverse Change in the business of the target (bidder). # MAE exclusions are the number of Material Adverse Effect exclusions related to the MAC clause, with more exclusions weakening the abandonment option of the MAC clause. RTF is reverse termination fee payable by the bidder(s) and TF is termination fee payable by the target. Enterprise Value is the total value offered to acquire the outstanding common stock of the target plus net debt. # Days to Drop Dead Date is the number of days between merger announcement and the deadline given for closing the merger. S.P. stands for specific performance, or the ability of one party to force the other firm to close a transaction.

Panel A: Variable Distributions

	N	Mean	St. Dev.	Min	25th %	Median	75th %	Max
Affects bidder's termination option								
Target MAC # MAE exclusions	183	8.9	3.3	0	7	9	11	18
Reverse Termination Fee ($mm)[1]	139	$100.8	$171.4	$0.5	$12.0	$35.0	$100.0	$1,000.0
RTF / Enterprise Value[1]	139	2.8%	2.2%	0.02%	1.9%	2.7%	3.4%	23.7%
Affects target's termination option								
Bidder MAC # MAE exclusions	100	2.5	4.3	0	0	0	4	15
Termination Fee ($mm)[1]	183	$84.3	$153.8	$3.0	$13.0	$30.0	$75.0	$1,000.0
TF / Enterprise Value[1]	183	2.8%	1.2%	0.1%	2.0%	2.8%	3.5%	7.9%
Median # Days to Drop Dead Date	182	210	71	52	172	187	239	574

[1] The calculations of these statistics include only transactions with a stated (nonzero) value for the given variable.

Table 3 (*continued*)

Panel B: Frequencies by Announcement Year	**Full Sample Period**		**2004**	**2005**	**2006**	**2007**	**2008**
	N	**%**	*(N =16, 9%)*	*(N =34, 18%)*	*(N =51, 28%)*	*(N =68, 37%)*	*(N =15, 8%)*
Affects bidder's termination option							
Financing Condition	45	24.5%	62.5%	58.8%	19.6%	2.94%	20.0%
Minimum EBITDA Condition	5	2.7%	0.0%	0.0%	2.0%	2.9%	13.3%
Target MAC clause	183	99.5%	100.0%	100.0%	100.0%	98.5%	100.0%
Median # MAE exclusions			7	7	8	11	10
Reverse Termination Fee (Yes)	139	75.5%	50.0%	35.3%	86.3%	91.2%	86.6%
Mean RTF / Enterprise Value[1]			2.2%	2.2%	2.8%	2.9%	3.7%
Target S.P. permitted	39	21.2%	18.8%	26.5%	17.7%	22.1%	20.0%
Target S.P. permitted only if debt financing succeeds	46	25.0%	50.0%	50.0%	21.6%	13.2%	6.7%
Target S.P. barred	99	53.8%	31.2%	23.5%	60.7%	64.7%	73.3%
Affects target's termination option							
Bidder MAC clause	100	54.3%	56.3%	55.9%	62.7%	47.1%	53.5%
Median # MAE exclusions			4	1	0	0	0
Go-shop clause	54	29.4%	18.8%	5.9%	25.5%	41.2%	53.3%
Termination Fee (Yes)	183	99.5%	100.0%	100.0%	100.0%	98.5%	100.0%
Mean TF / Enterprise Value[1]			2.2%	3.5%	2.6%	2.7%	3.2%
Bidder S.P. permitted	165	89.7%	87.5%	85.3%	88.2%	92.6%	100.0%
Median #Days to Drop Dead Date			189	179	181	222	180

[1] The calculations of these statistics include only transactions with a stated (nonzero) value for the given variable.

Table 4. Transaction Characteristics and Outcomes

Double sorts of transaction outcomes and transaction characteristics in Panel A, and of Target Specific Performance contract structures and transaction characteristics in panel B. The buyout sample and variables are defined in the headers of Tables 1-3.

Panel A: by Outcome	Full Sample	Completed	Bidder-Initiated Termination	Target-Initiated Termination	Exogenous Termination
N	184	156	12	13	3
Mean Offer Premium	26.7%	27.8%	24.9%	15.0%	27.7%
Mean Debt Financing %	60.6%	60.1%	66.2%	68.8%	45.0%
Mean Arb Spread (+5)	2.6%	2.7%	3.6%	-0.3%	5.5%
Mean Days from Announcement to Contract Drop Dead Date	210	204	250	219	274
Mean Days from Announcement to Completion / Termination	137	131	229	103	247
Reverse Termination Fee (Yes)	75.5%	64.1%	91.7%	61.5%	66.7%
Mean RTF / Enterprise Value[1]	2.8%	2.9%	2.6%	2.4%	4.0%
Target S.P. Barred	53.8%	51.9%	75.0%	61.5%	33.3%
Target S.P. Permitted if Financing Succeeds	25.0%	25.0%	8.3%	30.8%	66.7%
Target S.P. Permitted	21.2%	23.1%	16.7%	7.7%	0.0%

[1] The calculations of these statistics include only transactions with a stated (nonzero) reverse termination fee.

Table 4 (*continued*)

Panel B: by Specific Performance	Target S.P. Barred	Target S.P. Permitted if Financing Succeeds	Target S.P. Permitted
N	99	46	39
Mean Offer Premium	31.7%	21.5%	19.9%
Mean Debt Financing %	63.3%	65.0%	45.5%
Mean Arb Spread (+5)	2.7%	2.7%	2.5%
Mean Days from Announcement to Contract Drop Dead Date	219	206	189
Mean Days from Announcement to Completion / Termination	144	143	113
% Transactions Completed	81.1%	84.8%	92.3%
% Bidder-Initiated Terminations	9.1%	4.4%	5.1%

Table 5. Predicting Bidder-Initiated Transaction Failures

Probit models in which the dependent variable equals one if an announced transaction resulted in a bidder-initiated termination, and zero otherwise. *Target Std Dev Returns* is the standard deviation of daily returns for the target company, calculated over one year prior to 30 days before the merger announcement. *Time to Agreement Expiration* is the number of days from announcement to the merger agreement's drop dead date; *Arb Spread* is the difference between the offer price and the target's equity trading price five days after announcement, divided by the trading price. The sample and all other variables are defined in the headers to Tables 1-3. Robust standard errors are clustered at the target industry level, defined using the Fama-French 38-industry classifications. P-values are reported in parentheses with ***, **, and * representing significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable:	**Bidder-Initiated Transaction Failure = 1, All Other Outcomes = 0**			
	(1)	**(2)**	**(3)**	**(4)**
Intercept	-0.720 (0.542)	-1.640 (0.156)	0.802 (0.472)	0.356 (0.766)
Log Transaction Value	-0.110 (0.275)	-0.099 (0.416)	-0.188 (0.114)	-0.158 (0.311)
Initial Offer Premium	0.169 (0.113)	0.101 (0.232)	0.268 *** (0.004)	0.247 *** (0.000)
Debt Financing %		0.462 (0.345)		0.710 (0.229)
Target Std Dev Returns	-0.653 (0.127)	-0.343 (0.359)	-0.799 ** (0.019)	-0.567 (0.113)
Time to Agreement Expiration	0.002 (0.234)	0.002 (0.355)	0.003 (0.112)	0.003 (0.250)
Announced in 2007	0.992 *** (0.001)	0.892 *** (0.001)	-0.060 (0.938)	-0.694 (0.208)
Arb Spread	9.463 ** (0.020)	7.448 ** (0.037)		7.187 (0.140)
Arb Spread * 2007	-3.951 (0.604)	0.446 (0.953)		-1.958 (0.794)
Target S.P. Barred			-0.434 (0.268)	-0.870 ** (0.020)
Target S.P. Barred * 2007			0.853 *** (0.001)	1.269 *** (0.000)
Reverse Termination Fee (Yes / No)			0.282 (0.759)	0.051 (0.957)
Reverse Termination Fee % (= 0 if No RTF)			7.701 * (0.080)	5.977 (0.320)
Reverse Termination Fee % * 2007			-47.196 ** (0.013)	-42.984 ** (0.016)
N	181	160	181	160
Pseudo R^2	16.80%	16.18%	21.30%	25.79%

Table 6. Contract Termination Structure and Offer Premiums

OLS regressions in which the dependent variable is the initial offer price to target shareholders as a premium over target stock price 30 days before announcement. *Target Std Dev Returns* is the standard deviation of daily returns for the target company, calculated over one year prior to 30 days before the merger announcement. *Time to Agreement Expiration* is the number of days from announcement to the merger agreement's drop dead date; *Arb Spread* is the difference between the offer price and the target's equity trading price five days after announcement, divided by the trading price. The sample and all other variables are defined in the headers to Tables 1-3. Robust standard errors are clustered at the target industry level, defined using the Fama-French 38-industry classifications. P-values are reported in parentheses with ***, **, and * representing significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable:	**Offer Premium**			
	(1)	**(2)**	**(3)**	**(4)**
Intercept	-0.519 (0.481)	-1.147 (0.378)	-0.553 (0.493)	-1.227 (0.379)
Log Target Mkt Value Equity	-0.004 (0.788)	0.024 (0.433)	-0.003 (0.862)	0.026 (0.407)
Target Tobin's q	0.048 (0.491)	0.006 (0.904)	0.048 (0.492)	0.001 (0.974)
Debt Financing %		-0.183 (0.235)		-0.176 (0.215)
Tender Offer	-0.105 (0.607)	-0.141 (0.687)	-0.102 (0.612)	-0.134 (0.700)
Hostile	-0.156 (0.275)	-0.371 (0.239)	-0.153 (0.269)	-0.387 (0.251)
Target Std Dev Returns	0.270 (0.315)	0.495 (0.282)	0.271 (0.314)	0.496 (0.284)
Time to Agreement Expiration	-0.001 (0.539)	-0.000 (0.645)	-0.001 (0.542)	-0.000 (0.655)
Announced in 2007	-0.152 (0.316)	-0.144 (0.278)	-0.102 (0.644)	0.010 (0.972)
Announced in 2008	-0.182 (0.649)	-0.216 (0.619)	-0.181 (0.654)	-0.224 (0.619)
Target S.P. Barred	0.123 (0.319)	0.145 (0.290)	0.135 (0.367)	0.178 (0.330)
Target S.P. Barred * 2007			-0.034 (0.737)	-0.086 (0.543)
Reverse Termination Fee (Yes / No)	0.075 (0.447)	0.235 (0.336)	0.069 (0.463)	0.225 (0.357)
Reverse Termination Fee % (= 0 if No RTF)	0.461 (0.854)	-2.584 (0.519)	0.395 (0.887)	-2.560 (0.555)
Reverse Termination Fee % * 2007			1.252 (0.778)	1.949 (0.711)
N	180	159	180	159
Adj. R^2	4.51%	9.03%	3.40%	7.95%

Table 7. Transaction Characteristics and Arbitrage Spreads

OLS regressions in which the dependent variable is the arbitrage spread, defined as the difference between the offer price and the target's equity trading price five days after announcement, divided by the trading price. *Target Std Dev Returns* is the standard deviation of daily returns for the target company, calculated over one year prior to 30 days before the merger announcement. *Time to Agreement Expiration* is the number of days from announcement to the merger agreement's drop dead date. The sample and all other variables are defined in the headers to Tables 1-3. Robust standard errors are clustered at the target industry level, defined using the Fama-French 38-industry classifications. P-values are reported in parentheses with ***, **, and * representing significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable:	**Arbitrage Spread, Day +5**			
	(1)	**(2)**	**(3)**	**(4)**
Intercept	-0.017 (0.259)	-0.033 (0.170)	-0.007 (0.769)	-0.024 (0.375)
Log Transaction Value	0.004 ** (0.019)	0.004 ** (0.011)	0.004 ** (0.044)	0.004 * (0.054)
Debt Financing %		0.005 (0.825)		0.004 (0.852)
Tender Offer	0.004 (0.858)	-0.019 (0.407)	0.005 (0.785)	-0.020 (0.390)
Hostile	-0.032 *** (0.008)	-0.034 ** (0.027)	-0.032 *** (0.007)	-0.033 ** (0.024)
Target Std Dev Returns	0.007 * (0.096)	0.010 *** (0.003)	0.006 * (0.076)	0.010 *** (0.005)
Time to Agreement Expiration	-0.000 (0.793)	0.000 (0.971)	-0.000 (0.674)	-0.000 (0.987)
Announced in 2007	-0.001 (0.903)	0.003 (0.567)	-0.023 (0.285)	-0.011 (0.584)
Announced in 2008	0.035 *** (0.010)	0.053 *** (0.007)	0.033 *** (0.009)	0.053 *** (0.007)
Target S.P. Barred		-0.001 (0.661)	-0.004 (0.401)	-0.004 (0.411)
Target S.P. Barred * 2007			0.013 (0.270)	0.008 (0.371)
Reverse Termination Fee (Yes / No)		0.002 (0.754)	0.002 (0.866)	0.004 (0.650)
Reverse Termination Fee % (= 0 if No RTF)		0.174 ** (0.023)	0.199 ** (0.017)	0.179 * (0.062)
Reverse Termination Fee % * 2007			-0.347 (0.418)	-0.240 (0.572)
N	181	160	181	160
Adj. R^2	11.63%	18.16%	12.29%	17.94%

Table 8. Determinants of Contract Termination Structure

Ordered logit models in which the dependent variable is coded for the strength of target specific performance available in the merger agreement. *Target Std Dev Returns* is the standard deviation of daily returns for the target company, calculated over one year prior to 30 days before the merger announcement. *Time to Agreement Expiration* is the number of days from announcement to the merger agreement's drop dead date. Legal advisor rankings are based on aggregate transaction values associated with each advisor during the sample period, with *Top-Tier* indicating that an acquirer or target hired one of the top 10 law firms based on this ranking. *Target Legal Experience* is an indicator that equals one if the law firm represents both targets and PE firms (acquirers), and zero if it only represents target firms during the sample period. The sample and all other variables are defined in the headers to Tables 1-3. Robust standard errors are clustered at the target industry level, defined using the Fama-French 38-industry classifications. P-values are reported in parentheses with ***, **, and * representing significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable:	**Target S.P. Permitted = 1, Target S.P. Permitted if Financing Succeeds = 2, Target S.P. Barred = 3**			
	(1)	**(2)**	**(3)**	**(4)**
Cut 1 Constant	0.325	1.144	1.058	1.820
	(0.779)	(0.416)	(0.455)	(0.275)
Cut 2 Constant	1.700	2.718 *	2.511 *	3.471 **
	(0.159)	(0.057)	(0.087)	(0.042)
Log Transaction Value	0.368 ***	0.348 ***	0.377 ***	0.400 ***
	(0.000)	(0.006)	(0.008)	(0.002)
Debt Financing %		1.442 *		1.158 *
		(0.054)		(0.074)
Tender Offer	-0.603	-0.407	-0.535	-0.383
	(0.289)	(0.766)	(0.352)	(0.793)
Hostile	0.066	-0.333	0.037	-0.391
	(0.950)	(0.808)	(0.971)	(0.779)
Competing Bids	0.284	-0.138	0.295	-0.080
	(0.262)	(0.668)	(0.361)	(0.829)
Target Std Dev Returns	-0.527 **	-0.355	-0.528 *	-0.346
	(0.037)	(0.135)	(0.071)	(0.257)
Time to Agreement Expiration	0.001	0.000	0.001	0.001
	(0.754)	(0.854)	(0.606)	(0.722)
Announced in 2007	0.375	0.400	1.878 ***	1.776 ***
	(0.336)	(0.328)	(0.001)	(0.004)
Announced in 2008	1.798 ***	1.990 *	2.038 ***	2.164 **
	(0.000)	(0.054)	(0.000)	(0.037)
Top-Tier Legal, Acquirer			0.969 *	0.792 **
			(0.087)	(0.042)
Top-Tier Legal, Acquirer * 2007			-2.004 ***	-1.774 ***
			(0.000)	(0.001)
Top-Tier Legal, Target			-0.274	-0.346
			(0.511)	(0.421)
Top-Tier Legal, Target * 2007			-0.475	-0.492
			(0.455)	(0.488)
Target Legal Experience			0.118	0.052
			(0.596)	(0.891)
N	181	160	181	160
Pseudo R^2	8.53%	8.07%	11.66%	10.84%

Figure 1. Aggregate Enterprise Value of Announced Transactions, in $Billions

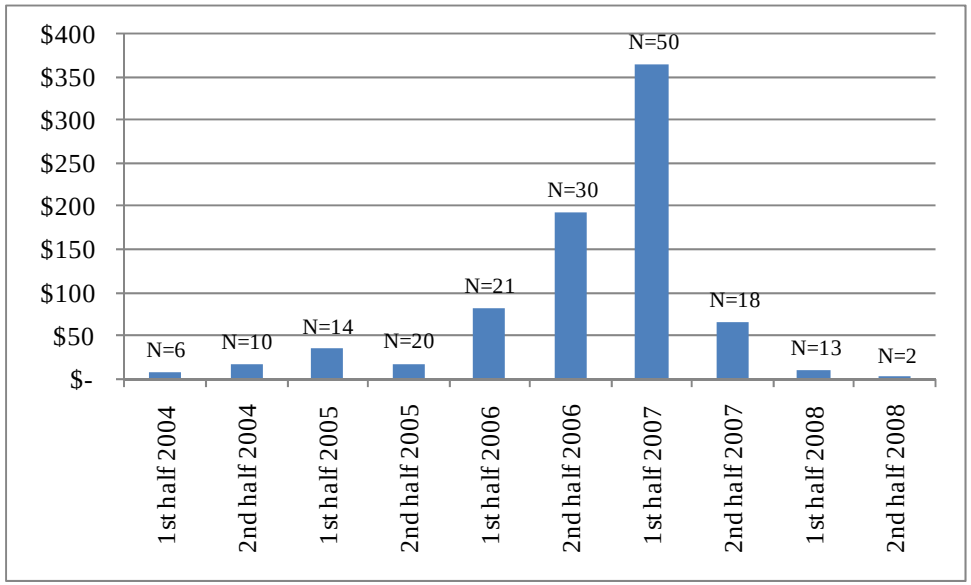


Figure 2. Acquisition Announcements and Ensuing Bidder-Initiated Terminations

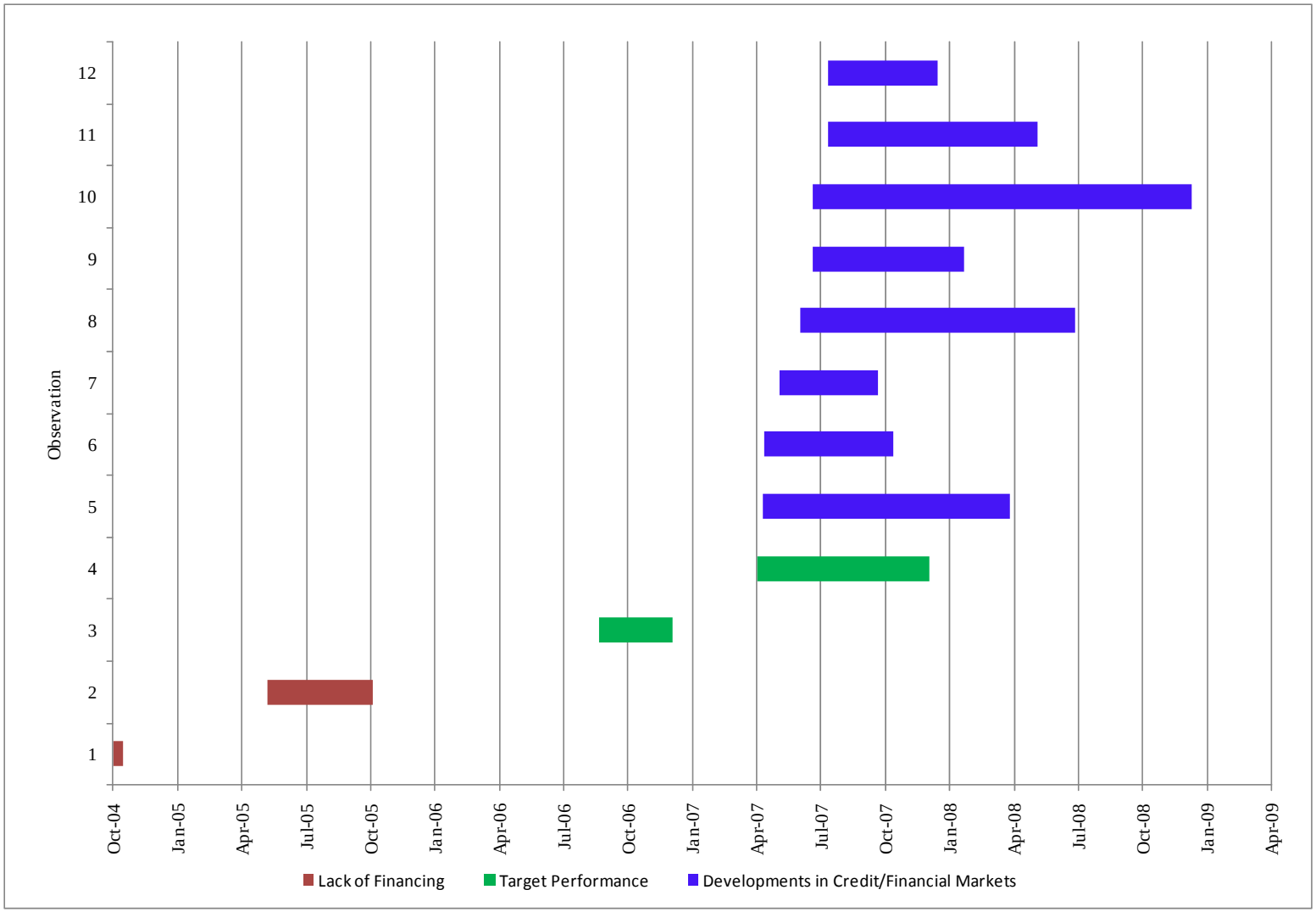
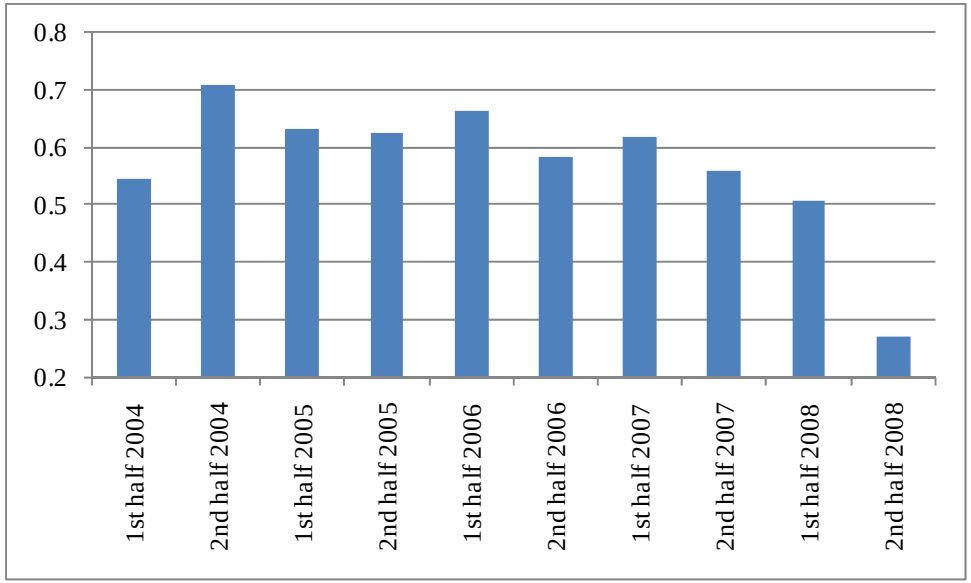
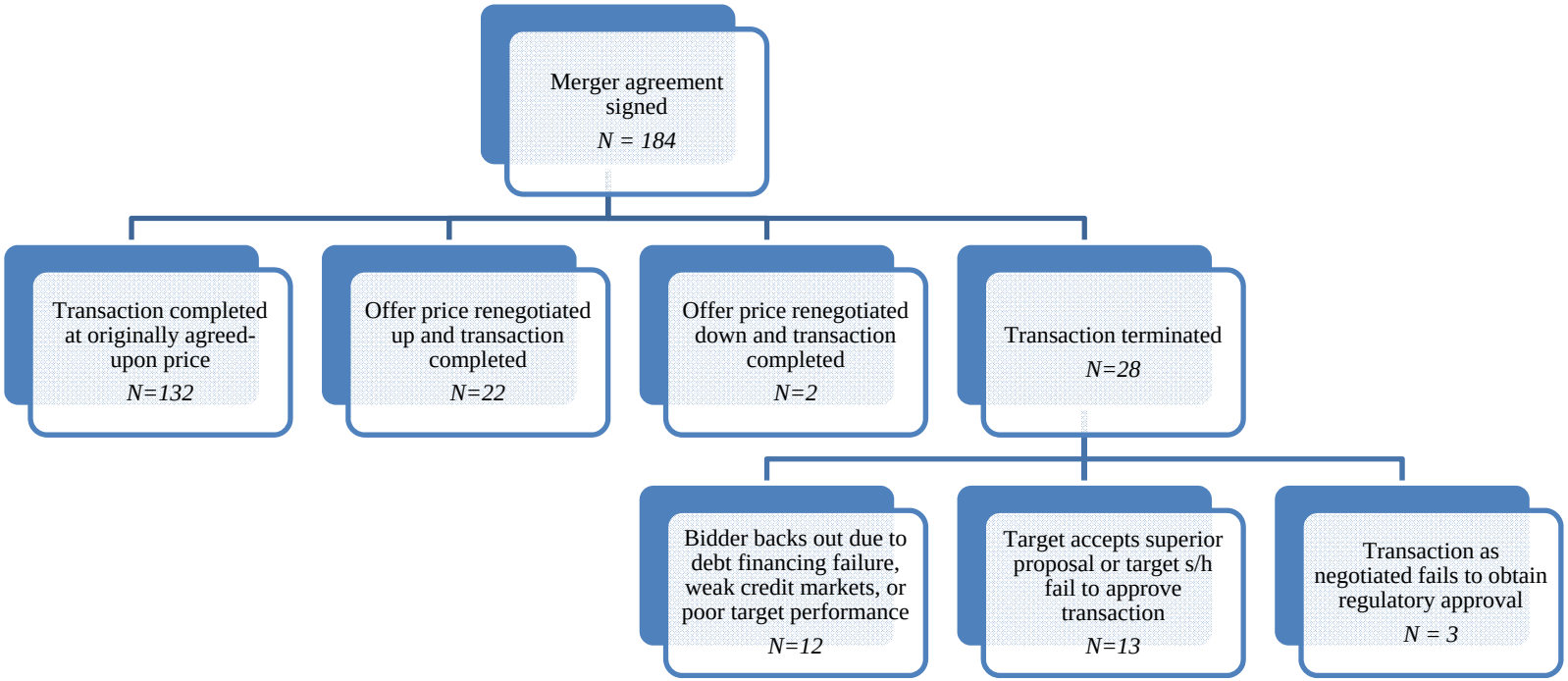


Figure 3. Average Debt Financing as a Percentage of Transaction Funding



Appendix A: Buyout Outcomes Over Full Sample Period

This chart details the frequency of various merger outcomes for the full buyout sample, the details of which are explained in Table 1.



Appendix B. Bidder-Initiated Deal Failures: Reasons, Contract Structures, and Outcomes

This table summarizes the reasons for the failure of the 12 bidder-initiated withdrawn private equity buyouts. Contract Structure contains the outcome-relevant data recorded from the merger agreement, and Reason for Failure and Outcome are taken from news stories surrounding the announcement of deal withdrawals. "RTF" stands for reverse termination fee payable by the bidder. "S.P." stands for specific performance, or the ability of one party to force the other firm to close a transaction. Percentages reported in the Outcome column are relative to target enterprise value proposed under the given transaction.

	Reason for Failure	**Contract Structure**	**Outcome**
1	Target claimed acquirer failed to obtain sufficient debt financing; Acquirer claimed target attempted to back out of deal.	$5mm RTF on financing failure; Target S.P. barred.	Settlement in which target sold select assets to bidders and paid $7mm (1.1%) in damages.
2	Lack of financing.	No RTF; Financing condition; Target S.P. permitted.	Agreement terminated, with no fees triggered.
3	Target disclosed options backdating scandal, deteriorating performance.	$12.15mm RTF; No RTF payable on target breach of its representations and warranties in the merger agreement.	Bidders terminated deal, but subsequently acquired target at a reduced price.
4	Bidders accused target of suffering a "Material Adverse Change" in business.	$900mm RTF; No financing condition; Target S.P. barred; Target MAC clause with six MAE exclusions.	Agreement terminated, with no fees triggered.
5	Weak credit market conditions and/or poor performance of target.	$35mm RTF; No financing condition; Target S.P. barred.	Bidders paid $35mm (3.6%) RTF.
6	Bidders accused target of suffering a "Material Adverse Change" in business and a breach of the merger agreement.	$225mm RTF; No financing condition; Target S.P. barred; Target MAC clause with 15 exclusions.	Bidders purchased $400mm of target convertible notes.
7	Weak credit market conditions and/or poor performance of target.	$66.75mm RTF on financing failure; No financing condition; Target S.P. barred.	Bidders paid $65mm (2.3%) RTF.
8	Weak credit market conditions and/or poor performance of target.	$200mm RTF; No financing condition; Target S.P. barred.	Bidders paid $225mm (2.7%) RTF and purchased 12,500 shares of target preferred stock.
9	Weak credit market conditions and/or poor performance of target.	$21mm RTF; No financing condition; Target S.P. barred.	Bidders paid $21mm (3.1%) RTF.
10	Weak credit market conditions and/or poor performance of target. Bidders accused target of suffering a "Material Adverse Change" in business.	$325mm RTF; No financing condition; Target S.P. barred or permitted if debt financing available (ambiguous contract language).	Bidders and banks paid $750mm in damages and purchased $250mm of target convertible notes (10.0%).
11	Weak credit market conditions and/or poor performance of target.	$100mm RTF; No financing condition; Target S.P. barred.	Bidders paid $100mm (1.8%) RTF
12	Deteriorating performance of target.	$15mm RTF; No financing condition; Target S.P. barred	Bidder paid $15mm (1.2%) RTF.