Broken Promises: The Role of Reputation in Private Equity Contracting and Strategic Default†

Matthew D. Cain*
Antonio J. Macias**
Steven Davidoff Solomon***

ABSTRACT

This Paper examines reputation and contract design in private equity acquisitions. We use a novel dataset of both completed and terminated private equity buyouts from 2004 through 2010. We find that private equity firms and targets rely on reputation to fill intentional contractual gaps. During the financial crisis private equity firms complete uneconomic, pre-agreed takeovers up to the point when estimated buyout losses rise to at least 7% of sponsors' fund sizes, or $200 to $400 million in nominal values. Target firms are willing to engage with defaulting private equity firms in future transactions, but they

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** Assistant Professor of Finance, Baylor University. Address: Baylor University, One Bear Place #98004, Waco, TX 76798.

*** Professor of Law, University of California, Berkeley School of Law.

penalize these firms by demanding significantly larger contract nonperformance penalties. We conclude that both reputation and explicit contracting can play important and interrelated roles in private equity and complex business relationships generally.

> *I will fight this until the day I die . . . . Private equity firms have taken over America, and we will fight it. These guys are getting away with dishonest behavior, and I won't tolerate it.*
>
> —Jon Huntsman, CEO, Huntsman Corporation[1]

I. INTRODUCTION

In the wake of the financial crisis, private equity firms strategically defaulted on a significant number of previously agreed-to takeover transactions. From 2007 to 2008, takeover terminations reached an aggregate transaction value of $168 billion, representing an economically sizeable 20% of our total sample period.[2] The ability of private equity firms to walk from these transactions resulted from the unique private equity contracting structure which permitted the private equity firm to breach its acquisition contract with limited penalty. Historically, an unwritten pre-financial crisis understanding held that private equity firms did not back out of their arrangements to acquire takeover targets. In other words, private equity's relationship with a target was one in which reputation and trust played an important role filling an intentional contractual gap.[3]

However, the trade-off between reputation and buyout losses reached a tipping point in 2007–2008 as many financial sponsors faced potential losses in the billions of dollars on their bids for target firms of declining value.[4] The 2007–2008 financial crisis thus provides a natural testing ground for analyzing reputation and contract design in the arena of private equity buyouts. In this study we examine a novel, hand-coded dataset of 227 buyouts between 2004 and 2010. We isolate a subset of acquisition agreements that became nonperforming at the discretion of buyout firms. Because the rate of bidder-initiated terminations increased significantly during the recent financial crisis, we focus our study on the contracting terms that are most closely driven by reputation and trust concerns.

If reputation has no value, then a private equity firm should walk away from any deal that declines in economic value before the acquisition is completed. However, we find that private equity firms are willing to bear losses on uneconomic, pre-agreed transactions up to about 5% to 9% of their fund sizes, or around $200 to $400 million in nominal dollars. Beyond these limits, reputational incentives no longer suffice to ensure contract performance. These results hold even after controlling for debt financing availability and

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1. Susan Pullman & Peter Lattman, *Buyout Bust Turns Bitter, A Major Deal Lands in Court*, WALL ST. J. (Sept. 9, 2008), http://www.wsj.com/articles/SB122091910239912651 (access required).

2. *See infra* Section II.D.

3. *See generally* Steven M. Davidoff, *The Failure of Private Equity*, 82 S. CALIF. L. REV. 481 (2009) (discussing the role of reputation in private equity contracting).

4. *Id.* at 499–500; s*ee also* Jenny Anderson, *20/20 Hindsight Through What Were Once Rose-Colored Glasses*, N.Y. TIMES (Aug. 31, 2007), www.nytimes.com/2007/08/31/business/31insider.html (describing a number of private equity deals during the time period of the financial crisis where the private equity buyer attempted to walk away from the transaction); Andrew Ross Sorkin, *Can Private Equity Firms Get Out of Buyouts?*, N.Y. TIMES (Aug. 21, 2007), www.nytimes.com/2007/08/21/business/21place.html (discussing the potential for private equity firms to renegotiate or extricate themselves entirely from pending leveraged buyouts).

other merger contract details that provide for an easy walk-away right. The sharp increase in bidder defaulting behavior around potential losses of 5% to 9% of fund sizes implies a discontinuous relation between buyout losses and contract nonperformance. In some specifications, we find that the probability of a nonperformance decision is nearly 100% for transactions that fall above the 5% border region of buyout losses relative to sponsors' fund sizes.

Our empirical analysis also documents the dynamic nature of contract terms in this relationship. We measure pre- and post-financial crisis bargaining among targets and private equity firms by recording reverse termination fees and the presence or absence of specific performance clauses.[5] In the pre-financial crisis private equity contract, specific performance, or the ability to seek legal enforcement of the agreement, was generally barred. Further, the contract limited a private equity firm's monetary damages for breach of contract to approximately 3% of the transaction value, a cap known as a reverse termination fee.[6] We find that contract structure is economically significant and that the size of a reverse termination fee and presence of a specific performance clause drives the decision of a private equity firm to renege on its contractual obligations. We also find that average reverse termination fees in post-crisis transactions are significantly greater than those observed in pre-crisis transactions. The penalty fees are about 50% higher for private equity firms with a previous nonperformance decision. It appears that targets demand a higher default penalty from tainted private equity bidders to compensate for a reduced level of reputation or trust between the contracting parties. Our results also imply that reputational incentives may not provide a perfect substitute for detailed contracting terms.[7]

Ultimately, we extensively document the unique and shifting contractual terms negotiated in private equity takeovers. We also document how trust and contractual terms can play dynamic roles in even the most complex contracting relationships. Our results have implications for those who study reputation and contract design. Prior studies have extensively analyzed the role of contracting and reputation in everyday commercial transactions principally in legal environments with weak rule of law.[8] But this is one of the

5. A reverse termination fee is a fee payable by the buyer to the seller in connection with the termination of an acquisition. *See* Afra Afsharipour, *Transforming the Allocation of Deal Risk Through Reverse Termination Fees*, 63 VAND. L. REV. 1161, 1176–80 (2010); Brian JM Quinn, *Optionality in Merger Agreements*, 35 DEL. J. CORP. L. 789, 824–27 (2010)). Conversely, a termination fee is a fee that a target pays to a buyer to terminate an acquisition, and is typically paid when a target accepts a competing bid after first agreeing to a deal with the initial buyer. *See generally* Thomas W. Bates & Michael L. Lemmon, *Breaking Up Is Hard to Do? An Analysis of Termination Fee Provisions and Merger Outcomes*, 69 J. FIN. ECON. 469 (2003); Micah S. Officer, *Termination Fees in Mergers and Acquisitions*, 69 J. FIN. ECON. 431 (2003).

6. *See* United Rentals, Inc. v. RAM Holdings, Inc., 937 A.2d 810, 815–16 (Del. Ch. 2007) (describing the structure and terms of private equity contracting circa 2007). *See also* Steven M. Davidoff, *The Private Equity Contract*, *in* THE OXFORD HANDBOOK OF PRIVATE EQUITY 15, 19–25 (Douglas Cummings ed. 2012) (providing a summary of the private equity contract structure and terms in the years prior to the financial crisis); Afsharipour, *supra* note 5, at 1203–04 (same); Quinn, *supra* note 5, at 818–19 (same).

7. Our findings reinforce prior research in this area but extend it to the arena of highly complex business contracting. *See infra* Part II.D.

8. *See, e.g.*, Michael Trebilcock & Jing Leng, *The Role of Formal Contract Law and Enforcement in Economic Development*, 92 VA. L. REV. 1517 (2006); John McMillan & Christopher Woodruff, *Dispute Prevention Without Courts in Vietnam*, 15 J.L. ECON. & ORG. 637 (1999); Rajkamal Iyer & Antoinette Schoar, Ex Post (in)efficient Negotiation and Breakdown of Trade (Mar. 2012) (unpublished manuscript), *available at* http://cgeg.sipa.columbia.edu/sites/default/files/cgeg/IyerSchoar_Tailoring_0.pdf. *See generally* Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615

first studies that we know of to find that these factors play a role in the most complex business relationships where formal contracting regularly occurs.

The remainder of the Paper proceeds as follows: Part II provides background on the structure of private equity transactions prior to the financial crisis and the role of reputation in that structure; Part III develops testable hypotheses for the value of private equity reputation; Part IV describes the sample and provides descriptive statistics and presents empirical findings; and Part V concludes by discussing the implications of our findings.

II. THE FINANCIAL CRISIS AND PRIVATE EQUITY

A. The Private Equity Boom

The years prior to the financial crisis were halcyon days for private equity. The easy availability of credit and the rising stock market created a ripe environment for private equity buyouts.[9] The rise of the collateral loan obligation securitization market which made credit more available to private equity funds as well as the flow of tens of billions of dollars into the funds themselves from investors seeking abnormal returns aided this environment.[10] The result was a sharp rise in private equity buyouts as Figure 1 shows.

(1981); Bentley W. MacLeod, *Reputations*, *Relationships, and Contract Enforcement*, 45 J. ECON. LIT. 595 (2007).

9. *See Merchants of Boom*, THE ECONOMIST (May 19, 2007), *available at* http://www.economist.com/node/9141537 [hereinafter *Merchants of the Boom*] (stating that private equity firms are enjoying "easy credit"); Pierre Paulden, *Leveraged Burnout?*, INSTITUTIONAL INVESTOR (May 11, 2006), *available at* http://www.institutionalinvestor.com/Article/1040021/Search/Leveraged-Burnout.html?ArticleId=1040021&ReservedReference=search#.VMVc-ca3l94 ("The past four years have truly been a golden age in private equity . . . .").

10. *Merchants of Boom*, *supra* note 9 (stating that the collateralized loan market has "rallied" allowing for more private equity buyouts); Henny Sender, *Din of Roaring Corporate-Debt Market Drowns Out Growing Talk of a Bubble*, WALL ST. J. (Mar. 3, 2006), *available at* http://www.wsj.com/articles/SB114135470576488356 (stating that demand from "funds that create CLOs" means private equity firms can do "ever-larger deals"); George White, *Megafunds Are Back*, THE DAILY DEAL, (Oct. 27, 2005) (stating that private equity funds are raising a "record" amount of funds).

Figure 1. Aggregate Enterprise Value and
Number of Announced Transactions, in $Billions[11]

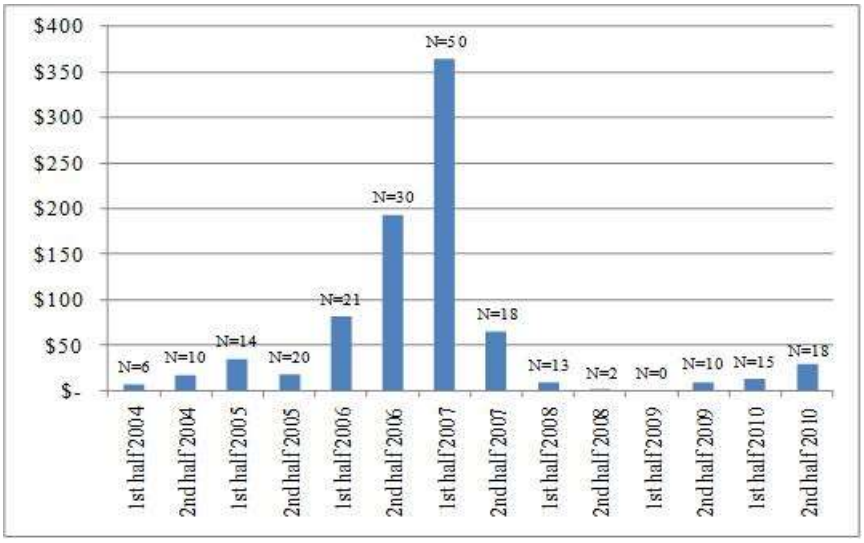


Figure 1 reports the number and aggregate enterprise value of 277 private equity buyout transactions announced from 2004 through 2010. As can be seen, the number and value of buyouts rose exponentially from the second half of 2005 through the eve of the financial crisis, the first half of 2007. From 20 buyouts totaling $18 billion in the second half of 2005, the number rose to 50 buyouts totaling $364 billion announced in the first half of 2007. In 2006 and 2007, nine of the ten largest private equity buyouts of all time were announced, including the acquisitions of TXU for $47.23 billion, First Data for $29 billion, and Clear Channel for $25.7 billion.[12]

The flurry of activity came to a halt when the first pangs of the financial crisis hit the credit markets in 2007.[13] The results were immediate as private equity lost the ability to finance acquisitions. Both the aggregate value and average size of transactions reached an all-time peak in 2007. But deal activity dropped off sharply following this peak, with only two $100+ million transactions announced between the second half of 2008 and the first half of 2009.

11. This figure shows the aggregate enterprise value of 277 private equity buyout transactions announced from 2004 through 2010. Data are from MergerMetrics. 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. Enterprise Value equals total value offered to acquire the outstanding common stock of the target plus net debt.

12. *See FACTBOX—Top 10 Largest Leveraged Buyouts*, REUTERS (Feb. 24, 2007, 7:25 PM), http://www.reuters.com/article/2007/02/24/privateequity-buyouts-idUSN2335158320070224.

13. *See* Michael J. de la Merced, *Buyout Industry Staggers Under Weight of Debt*, N.Y. TIMES (Mar. 11, 2008), http://www.nytimes.com/2008/03/11/business/11equity.html (discussing the impact of the 2007 financial crisis on pending buyouts agreed to by private equity firms).

While the financial crisis had an almost immediate effect on announced deal activity, it also left many buyouts pending on the cusp of the financial crisis. There were 31 buyouts announced in 2006 and the first half of 2007 that had yet to complete as of August 2, 2007. To complete these buyouts, private equity firms would need to access credit, which had dried up, to finance the acquisition.

B. Private Equity on the Cusp

The possibility of private equity firms reneging on their pending buyouts existed at the time because of the unique structure of the standardized private equity acquisition contract utilized prior to the financial crisis. This intricate structure was driven by private equity funds' reliance on debt financing to undertake acquisitions.[14] Without this financing, the private equity fund would be without sufficient funds to acquire the takeover target.[15] However, because of the need for regulatory and shareholder approvals, private equity acquisitions do not complete immediately.[16] Instead, a significant period of months typically elapses between the time the acquisition agreement is signed and when the acquisition is completed.[17] Private equity firms thus could not guarantee that this necessary financing would be available at this later time. Alternatively, the funds did not want to be obligated to provide their own financing if outside, third party financing became unavailable.

Prior to 2005, private equity firms had dealt with this issue by inserting a "financing condition" in acquisition contracts which conditioned the buyer's obligation to complete the acquisition on the receipt of outside financing.[18] In 2005, an innovation to the structure was made in what was then the largest technology buyout of all-time—the $11.3 billion acquisition of SunGard by a consortium of private equity firms. The structure of the SunGard transaction is set forth in Figure 2.

14. *See* Ulf Axelson et. al., *Borrow Cheap, Buy High? The Determinants of Leverage and Pricing in Buyouts*, 68 J. OF FIN. 2223, 2224 (2013) (highlighting the role of debt-financing for private equity acquisitions); Steven N. Kaplan & Per Strömberg, *Leveraged Buyouts and Private Equity*, 23 J. OF ECON. PERSP. 121, 121 (2009) (same).

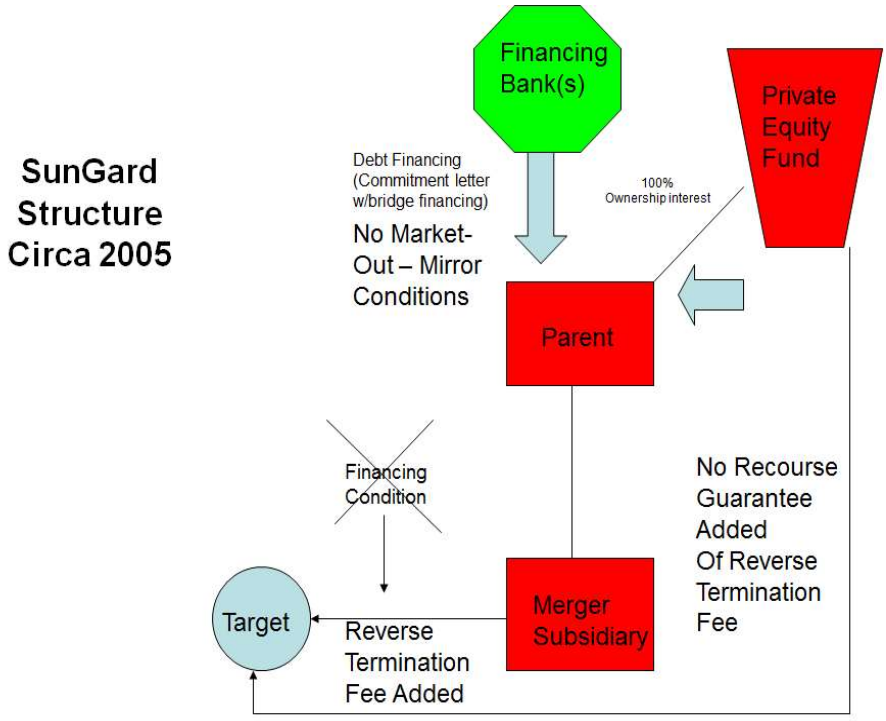
15. Ulf Axelson et. al., *Why Are Buyouts Levered? The Financial Structure of Private Equity Funds*, 64 J. OF FIN. 1549, 1566 (2009).

16. LOU R. KLING & EILEEN NUGENT, NEGOTIATED ACQUISITIONS OF COMPANIES, SUBSIDIARIES AND DIVISIONS, at §16.01 (2013).

17. *Id.*

18. *See* David J. Sorkin & Eric M. Swedenburg, *Recent US Deals Depart from Traditional Financing*, INTERNATIONAL FINANCIAL LAW REVIEW (Jan. 1, 2006), http://www.iflr.com/Article/1984669/United-States-supplement/Recent-US-deals-depart-from-traditional-financing.html.

Figure 2. Structure of the SunGard Acquisition[19]



In SunGard, the financing condition was eliminated. Instead, SunGard entered into an agreement to be acquired with two shell subsidiaries.[20] The agreement specified that if the transaction did not complete, then the private equity firms would be liable for a reverse termination fee in the amount of 3% of the transaction value (or $300 million).[21] The agreement eliminated the availability of specific performance—meaning SunGard could not force the private equity firms to complete.[22] This meant that if financing became unavailable, then SunGard's only remedy was the reverse termination fee.

The SunGard structure was quickly adopted by the private equity industry. Going forward in private equity acquisitions, the acquisition agreement eliminated the financing condition, and capped the amount of monetary damages, the amount the shell subsidiaries were liable for if they breached the agreement. The cap was typically set at 3% of the transaction value.[23] Some contracts also barred specific performance, meaning that the

19. This chart is from Davidoff, *supra* note 3, at 495.

20. SunGard Data Sys., Inc., Definitive Proxy Statement (Schedule 14A) 49–54 (June 27, 2005), *available at* http://www.sec.gov/Archives/edgar/data/789388/000119312505131157/ddef14a.htm [hereinafter SunGard Proxy Statement].

21. *Id.* at 91.

22. *See id.*,, at 90–91.

23. *See* Davidoff, *supra* note 3, at 497 (discussing the spreading use of the SunGard acquisition structure by private equity firms); *see* Sorkin & Swedenburg, *supra* note 18 (discussing the changes in financing conditions and the increased use of commitment letters for U.S. LBO acquisitions after the SunGard transaction).

monetary cap was the sole remedy of the target for contractual breach.[24] Even if the contract permitted specific performance, the contract's terms required a target to sue the shell subsidiaries and win a judgment forcing the subsidiaries to then litigate to draw on their debt and equity commitment letters—a difficult feat of litigation gymnastics.[25] In either case, the parties negotiated the use of a reverse termination fee and specific performance in each contract which varied in each transaction.

Table I sets for this evolution of private equity terms from 2004 through the financial crisis and 2010.

24. *See* Davidoff, *supra* note 3, at 498.
25. *Id.*; *see* Afsharipour, *supra* note 5, at 1203–04.

Table I: Evolution of Private Equity Contract Terms (2004–2010)[26]

	Full Sample Period		2004	2005	2006	2007	2008	2009	2010
	N	%	*(N = 16,7%)*	*(N = 34,15%)*	*(N = 51,22%)*	*(N = 68,30%)*	*(N = 15,7%)*	*(N = 10,4%)*	*(N = 33,15%)*
Affects bidder's termination option									
Reverse Termination Fee (Yes)	174	76.7%	50.0%	35.3%	86.3%	91.2%	86.6%	80.0%	81.8%
Median RTF / Enterprise Value[1]			1.9%	2.2%	2.3%	2.9%	3.3%	4.6%	5.7%
Specific Performance	50	22.0%	18.8%	26.5%	17.7%	22.1%	20.0%	30.0%	24.2%
Specific Performance only if Debt Financing Available	51	22.5%	50.0%	50.0%	21.6%	13.2%	6.7%	20.0%	9.1%
No Specific Performance	126	55.5%	31.2%	23.5%	60.7%	64.7%	73.3%	50.0%	66.7%
Affects target's termination option									
Termination Fee (Yes)	226	99.6%	100.0%	100.0%	100.0%	98.5%	100.0%	100.0%	100.0%
Median TF / Enterprise Value			1.9%	3.6%	2.4%	2.9%	3.1%	3.5%	3.1%
Specific Performance	208	91.6%	87.5%	85.3%	88.2%	92.6%	100.0%	100.0%	100%

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

Table I illustrates the rapid adoption of the SunGard structure. In 2004, 50% of transactions had a reverse termination fee and 31.2% barred specific performance. By 2007, 91.2% of private equity transactions had a reverse termination fee and 64.7% barred specific performance. The median size of the reverse termination fee had risen from 1.9% of enterprise value to 2.9%, the same amount as the typical termination fee payable by the target to the buyer in cases where the target accepts a third party bid. In the wake of numerous private equity acquisition failures in 2007–2008, the reverse termination fee more than doubles from a median of 1.9%–2.9% in 2004–2007 to a median of 5.7% in 2010.

As the figures show, the evolution of private equity contracts during this time focused on the use of specific performance and reverse termination fees to bind the private equity firm to the contract. Theoretically, specific performance may be a more efficient mechanism for the enforcement of merger contracts because it forces a buyer to complete the acquisition.[27] Using solely a reverse termination fee, on the other hand, creates an option for the buyer. They can exit the transaction at any time simply by paying the reverse termination fee, a fee which in 2007 was 2.9% of median enterprise value.

Despite specific performance being a stronger remedy, targets are only permitted to seek unconditional specific enforcement of merger contracts from 17.7% to 30.0% of the time across sample years. The highest percentage occurs in 2009 following the series of 2007–2008 strategic defaults, indicating some shift towards third party enforcement through specific performance clauses. The lack of specific performance clauses, particularly in early sample years, points towards the use of private equity reputation as a bonding mechanism. In comparison, a bidder is permitted to enforce the contract against the target through a specific performance clause in 85% to 100% of transactions across sample years, consistent with a lack of target reputation as a bonding component in these transactions.[28]

Ultimately, the net effect of the evolution of private equity structure was to create a contract structure that in the years before the financial crisis provided minimal penalties for private equity firms who breached their acquisition agreements, an intentional contractual gap which targets likely presumed was covered by the reputational incentives of private equity firms to complete the takeover.[29] The private equity takeover agreement thus consisted of a formal contract and an accompanying promise to complete the takeover even when the contract did not require it. It was also a contract which mixed and matched reverse termination fees with the availability of specific performance, contract terms which presumably varied depending upon the negotiating power of the parties.[30]

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27. The variation between specific performance and reverse termination fees is of particular note, since theoretically specific performance should be a superior remedy. *See* Thomas S. Ulen, *The Efficiency of Specific Performance: Toward a Unified Theory of Contract Remedies*, 83 MICH. L. REV. 341, 343 (1984).

28. This makes intuitive sense since targets are not repeat players and can only be acquired once.

29. The reputational bond that was inherent in the relationship was recognized during the financial crisis. *See* Karen Donovan, *Private Equity: Breaking Up Is Not That Hard to Do*, PORTFOLIO.COM (Dec. 27, 2007), http://upstart.bizjournals.com/news/wire/2007/12/27/private-equity-breaking-up-is-not-that-hard-to-do.html?page=4 ("Private-equity firms, meanwhile, seem to be saying: Reputation? What reputation? Here's a $100 million and watch me walk away.").

30. *See* Davidoff, *supra* note 6, at 20–24.

C. Private Equity and Reputation

One may wonder why targets would take this risk in a complex business transaction. But the role of reputation is a powerful force in contracting, and there has been voluminous study of contracting, reputation and business relationships. Reputation is an economic good which can provide incentives when a market exists for the buying and selling of one's reputation.[31] In a repeat relationship, it is easy to see how this concept of reputation matters. A party has the incentive to preserve its reputation for providing a high quality product or service in order to enhance its future expected income.[32] Otherwise, a wary buyer may force a seller to unduly discount the sale price while a buyer may find a seller unwilling to commit to a transaction without a higher price due to prior bad dealings.[33] The concept of reputation as an asset also extends beyond a repeat relationship. If individuals survive only one period in the model, they can still earn a premium by honoring their commitments and selling their good reputation to the next agent.[34]

In business, reputational incentives can also serve as an informal enforcement mechanism which can provide an efficient substitute for more formal penalties to contractual breaches.[35] A party can use reputation in this manner when formal contracting is intractable or overly costly.[36] Lisa Bernstein, for example, famously described how reputation and norms in the retail diamond industry substitute for a formal contracting environment, fulfilling the same function as a contractual legal scheme.[37] The extensive use of reputation and norms to substitute for formal contracting and law has been similarly documented in the cotton industry and other industries.[38]

In the private equity sphere, contracting and reputation conceivably play an important role for a buyer.[39] Private equity firms are repeat players who purchase multiple companies

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31. *See* David M. Kreps, *Corporate Culture and Economic Theory*, *in* PERSPECTIVES ON POSITIVE POLITICAL ECONOMY 90, 106–08 (Cambridge University Press 1990) .

32. Klein & Leffler, *supra* note 8, at 634–41.

33. *Id.*; Johannes Hörner, *Reputation and Competition*, 92 AMER. ECON. REV. 644, 651 (2002).

34. Kreps, *supra* note 31, at 108–09.

35. Bentley W. MacLeod, *Reputations, Relationships, and Contract Enforcement*, J. ECON. LIT. 595, 623–25 (2007).

36. *See* Lewis A. Kornhauser, *Reliance, Reputation, and Breach of Contract*, 26 J.L. & ECON. 691, 702 (1983). *See also* Paul R. Milgrom et al., *The Role of Institutions in the Revival of Trade: The Law Merchant, Private Judges, and the Champagne Fairs*, 2 ECON. & POL. 1, 3 (1990) ("It is well known . . . that in long-term, frequent bilateral exchange, the value of the relationship itself may serve as an adequate bond to ensure honest behavior and promote trust between the parties."); Steven M. Davidoff, *The SEC v. Goldman Sachs: Reputation, Trust, and Fiduciary Duties in Investment Banking*, 37 J. CORP. L. 529, 546–61 (2012) (describing how many day-to-day transactions in quantifiable activities such as manufacturing are "founded up reputation, trust, and repeated interaction").

37. Lisa Bernstein, *Opting out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. LEGAL STUD. 115 (1992).

38. *See, e.g.*, Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms and Institutions*, 99 MICH. L. REV. 1724 (2001) (describing private contracting and the use of norms in the cotton industry); George Dent, *Lawyers and Trust in Business Alliances*, 58 BUS. LAW. 45 (2002) (discussing the role of reputation and trust in negotiating business alliances). *See generally* Frank B. Cross, *Law and Trust*, 93 GEO. L.J. 1457 (2005) (examining the association of law and trust and the relationship of the two concepts).

39. There have been several studies which have more generally examined the role of reputation in the financial arena. Professors Karpoff, Lee, and Martin show that individuals charged with financial misrepresentation suffer not only formal penalties (e.g., criminal charges and jail sentences), but also various informal sanctions on reputation, including loss of current employment, declines in shareholdings, and reduced

and make other investments over a long time horizon.[40] A private equity firm's conduct can be assessed for cheating and other misbehavior which reduces trust. The consequence could be increased penalties for failure to perform contracts and higher buyout pricing. It appears that in the years leading up to the financial crisis, it was this reputation that led targets to agree to acquisition contracts, which provided private equity firms with an ability to exit with only a monetary penalty. In contrast, an acquisition negotiated with a strategic acquirer—who did not have such reputational incentives—typically did not contain a reverse termination fee structure. Instead, a strategic acquisition contract almost uniformly obligated the buyer to specifically perform the acquisition.[41]

D. Private Equity's Reputational Calculus

The issue of private equity and reputation came to the forefront in the financial crisis. As credit became scarcer and equity market values declined, private equity firms were faced with significant initial losses greater than $250 billion in pending private equity transactions. In light of the disruption in this market, a number of public commentators and news sources began to report on the private equity reverse termination structure, questioning the willingness of private equity firms to complete these acquisitions. The first prominent news piece, *Can Private Equity Firms Get Out of Buyouts?*, was published in the *New York Times* on August 21, 2007.[42] The article highlighted the reverse termination fee structure now commonplace in private equity buyouts, explored the willingness of private equity acquirers to terminate these transactions, and discussed the reputational constraints on their ability to do so.[43]

As the financial crisis continued into the Fall of 2007, private equity firms began to exercise their negotiated rights and renege on their buyouts. Table II sets forth the transaction outcomes by announcement year over our sample period.

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future employment opportunities. *See* Jonathan M. Karpoff, et al., *The Consequences to Managers for Financial Misrepresentation*, 88 J. FIN. ECON. 193 (2008). *See* Sonali Hazarika, et al., *Internal Corporate Governance, CEO Turnover, and Earnings Management*, 104 J. FIN. ECON. 193 (1998). Michael L. Barnett and Timothy G. Pollock provide a broad survey of the literature on corporate reputation and the factors that contribute to its formation. *See* THE OXFORD HANDBOOK OF CORPORATE REPUTATION (Michael L. Barnett & Timothy G. Pollock, eds., 2012).

40. *See* Robert E. Scott, *Conflict and Cooperation in Long-Term Contracts*, 75 CALIF. L. REV. 2005, 2026–27 (1987) (suggesting that repeated interactions over a long time period will produce a pattern of cooperative adjustment).

41. Quinn, *supra* note 5, at 822–24; Afsharipour, *supra* note 5, at 1167–68.

42. Andrew Ross Sorkin, *Can Private Equity Firms Get Out of Buyouts?*, N.Y. TIMES (Aug. 21, 2007), http://www.nytimes.com/2007/08/21/business/21place.html. *See also* Steven M. Davidoff, *Private Equity's Option to Buy*, M & A LAW PROF BLOG (Aug. 16, 2007), http://lawprofessors.typepad.com/mergers/2007/08/private-equitys.html (noting that many private equity firms negotiated acquisition agreements which could provide them with a potential exit from pending buy-outs); Dana Cimilluca, *Private Equity's $1 Billion Call Option*, WALL ST. J. (Aug. 16 2007), http://blogs.wsj.com/deals/2007/08/16/private-equitys-1-billion-call-option/ (explaining that liability limiting provisions in private equity acquisition agreements are a "nuclear option," but in the wake of the financial crisis could e used by private equity firms to negotiate lower prices).

43. Sorkin, *supra* note 42.

Table II. Transaction Outcomes by Announcement Year[44]

Panel A: Deal Failures	2004 (N =16)	2005 (N =34)	2006 (N =51)	2007 (N =68)	2008 (N =15)	2009 (N=10)	2010 (N=33)	Total (N=227)
Target-initiated transaction failures	1	4	2	4	2	2	2	17
	6.3 %	*11.8 %*	*3.9 %*	*5.9 %*	*13.3 %*	*20.0 %*	*6.1 %*	*7.5 %*
Bidder-initiated transaction failures	1	1	1	9	0	0	0	12
	6.3 %	*2.9 %*	*2.0 %*	*13.2 %*	*0.0 %*	*0.0 %*	*0.0 %*	*5.3 %*
Regulatory-induced transaction failures	1	0	0	2	0	0	0	3
	6.3 %	*0.0 %*	*0.0 %*	*2.9 %*	*0.0 %*	*0.0 %*	*0.0 %*	*1.3 %*
Total	3	5	3	15	2	2	2	32
	18.8 %	*14.7 %*	*5.9 %*	*22.1 %*	*13.3 %*	*20.0 %*	*6.1 %*	*14.1 %*
Panel B: Offer Price Renegotiations								
Offer price increase	0	6	11	10	2	1	2	32
	0.0 %	*17.6 %*	*21.6 %*	*14.7 %*	*13.3 %*	*10.0 %*	*6.1 %*	*14.1 %*
Offer price decrease	1	1	0	1	0	0	0	3
	6.3 %	*2.9 %*	*0.0 %*	*1.5 %*	*0.0 %*	*0.0 %*	*0.0 %*	*1.3 %*

44. Price renegotiation data is from MergerMetrics, and transaction failure information is obtained from MergerMetrics, and cross-checked against news stories and company press releases. *See* FACTSET MERGERS, http://www.mergermetrics.com (last visited Jan. 26, 2015) (access required)

Panel A of Table II sets forth the frequency of target-initiated, bidder-initiated, and regulatory-induced transaction failures by announcement year. Panel B of Table II sets forth the same information for price renegotiations. Overall, the aggregate enterprise value of bidder-initiated terminations during the sample period was about $170 billion, with $168 billion of that occurring during the financial crisis in 2007–2008. To put this in context, the terminations of transactions announced in 2007 represent an economically sizeable 39% of total announced private equity bids in 2007, and 20% of the total over the full sample period.[45] This compares with the fact that about 86% of the transactions over the entire sample period were completed. Of the 32 failed transactions, 46.9% were terminated by targets in favor of post-announcement competing bids, 9.4% were terminated due to lack of regulatory clearance, and about 37.6% were terminated by bidders due to credit market conditions, outright financing failures, or poor target performance. During the financial crisis, 13.2% of transactions were terminated by bidders, a figure which is significantly higher than prior years which ranged from 2% to 6.3% of transactions.

The question for this Paper concerns these terminations. Namely, what was the price that private equity firms placed on their reputation? Furthermore, how did contracting structure influence the assessment of private equity firm's decisions to default? In order to further assess these questions in the next section we develop a model of private equity reputation and default.

III. HYPOTHESIS DEVELOPMENT

In this Part we develop tests of the relation between contracting and reputation within the private equity industry. In particular, we develop testable hypotheses about the incentives of private equity firms to honor their promises to acquire targets. We model the dynamics of the private equity target relationship to further develop the role of reputation and contracting in a complex contracting environment.

Private equity is a repeat interaction business where private equity firms continually make acquisitions. As discussed more fully previously,[46] economic theory on contracting thus predicts that private equity firms have an incentive to honor their acquisition contracts in order to protect their future contracting flexibility.[47] If a private equity firm defaults on a contract today, it may lose the trust of future transaction lawyers, investment bankers, and potential takeover target manager-directors and may be forced to make concessions in future contracts. From this theory we can derive a set of equations to predict the values at which a private equity firm would be willing to renege on its contractual commitments.

For the private equity firm to honor a given contract, the one-time wealth gain from defaulting must be less than or equal to the loss of its "good" reputation. Formally,

45. 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 about 14% that see price increases. In contrast, among a sample of public acquirers, Professors Denis and Macias report a higher percentage (8.1%) of downward price renegotiations and a lower percentage (2.1%) of upward price renegotiation. In contrast, among a sample of public acquirers, Professors Denis and Macias report a smaller percentage (8.6%) of price renegotiations. *See* David J. Denis & Antonio J. Macias, *Material Adverse Change Clauses and Acquisition Dynamics*, 48 J. FIN. & QUANTITATIVE ANALYSIS 819, 830 (2013).

46. *Supra* Part II.C.

47. Klein and Leffler, *supra* note 8, at 615.

Net gain on default ≤ discounted value of good reputation – discounted value of bad reputation

(1)

If a sponsor honors a contract that results in a short-term investment loss, then it values its reputation by more than this amount. The net gain on default serves as a proxy for the reputational value effects from various sources. These include the ability of sponsors to negotiate and contract with future buyout targets.

In the context of the strategic defaults that occurred in 2007–2008, the net gain on default amounts to minimizing the expected loss on the contract. Private equity firms were repeatedly forced to evaluate the declining value of a target relative to the agreed purchase price, as well as the expected costs of contract termination, and then compare this to the value of the private equity firm's reputation. The net gain then is given by:

Net gain on default = (equity commitment – updated target equity value) – termination penalty

(2)

If the termination penalty exceeds the difference between the purchase price and current value of the target to the private equity firm, the net gain from defaulting is negative and the firm will honor the contract. However, if the value of a target falls sufficiently and the termination penalty is minor, the net gain becomes positive and the private equity firm must then compare this gain to the reputational damage it will suffer following a default. If equation (1) is not satisfied, then the private equity firm defaults and suffers the consequences. Equation (1) provides an upper bound of the difference between the value of good minus bad reputation for the subsample of terminated transactions. This gives rise to the question: *How much is a private equity firm's reputation worth?* Ex ante, we expect that defaulting private equity firms will subsequently be forced to offer more target-favorable contracting terms, assuming target firms care about firm-specific reputation. Thus, the following question arises: *How badly was the reputation of defaulting private equity firms damaged?* By answering both of these questions, we hope to reveal the role that trust and reputation play in the private equity relationship with targets.

This is important because in complex contracting arrangements the parties can negotiate the contract. The cost of legal arrangements is small in comparison to the actual cost. Therefore reputation should be commensurate with the contract. Yet, this does not appear to have been the case in the pre-finance crisis structure, giving us this opportunity to test the value of reputation empirically in our next section.

IV. EMPIRICAL ANALYSIS

A. Sample Construction

Our sample contains all transactions listed in the FactSet MergerMetrics database and announced from 2004 through 2010 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;[48] 4) the offer price is at least $5 per share; and 5) a

48. The majority of strategic defaults occurred in these larger deals during this timeframe.

merger agreement is signed and publicly disclosed through an SEC filing. These filters result in a sample size of 227 buyouts announced from 2004 through 2010, including both completed and withdrawn transactions.

From Factset 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, the presence of a specific performance clause, and other contract provisions from the acquisition agreements filed with the SEC. The amounts of debt, equity, and excess cash used by private equity groups in financing the transactions are recorded from proxy statements mailed to target shareholders for voting approval of the transactions. We obtain information on fund size and dry powder (unused capital) from Preqin. All stock price data is obtained from CRSP.

Table III sets for descriptive statistics on our sample.

Table III: Descriptive Statistics[49]

	Mean	**St. Dev.**	**Median**
Transaction Value (*$mm*)	$2,468.20	$4,740.80	$816.10
Enterprise Value (*$mm*)	$3,707.00	$10,463.80	$1,119.00
Initial Offer Premium	28.40%	63.90%	22.20%
Final Offer Premium	30.00%	64.30%	23.90%
Debt Financing %	57.20%	22.60%	62.40%
Sponsor Equity/Fund Size	12.90%	12.80%	8.60%
Arb Spread (+5)	2.40%	3.70 %	2.20%

Table III shows that the percentage of debt financing used by private equity firms to finance their buyouts averages 57.2% over the full sample period, but ranges from 0% to 100% at the extremes. Table III also shows that a typical buyout obligates the private equity firm to put up 12.9% of the available equity in their funds. These statistics show that private equity funds are not only often dependent upon debt financing, but often risk a substantial part of their funds on an individual buyout, both incentives to walk if a pending acquisition declines substantially in value or credit becomes unavailable. The mean buyout transaction

49. Descriptive statistics on 227 private equity buyouts listed in MergerMetrics and announced from 2004 through 2010. 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 *Final Offer Premium* 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. *Sponsor Equity/Fund Size* is the private equity firm's equity contribution towards a given transaction as a fraction of the size of the sponsor's fund from which the contribution is made. *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.

values and enterprise values are also right-skewed, showing the effect of mega-buyouts on the market during this time period and the large dollar amounts at stake.

B. Predicting Default From Contract Structure

We begin by analyzing contract features and other factors that predict intentional defaults by private equity firms. This will permit us to then focus on these contractual terms and the role of reputation in predicting strategic default by private equity firms.

In Table IV we look at these contract features by estimating probit models. The dependent variable in Table IV equals one if a transaction announced during 2007–2008 resulted in a bidder-initiated termination, and zero otherwise. Because contract terms may reflect the parties' view of deal failure risk, we attempt to control for target characteristics that may predict deal risk, such as return volatility and the amount of time between merger signing and expiration of the agreement. We further control for credit market conditions by including the TED Spread in all models.

Table IV. Predicting Contract Nonperformance[50]

Dependent Variable:	**Bidder-Initiated Transaction Failure = 1, All Other Outcomes = 0**	
	(1)	**(2)**
Intercept	-3.046	-14.083**
	(0.228)	(0.024)
	(0.228)	(0.024)
TED Spread	1.239**	3.725**
	(0.024)	(0.022)
Log Transaction Value	-0.119	-0.250
	(0.551)	(0.327)
Initial Offer Premium	-0.593	-5.877*
	(0.560)	(0.063)
Debt Financing %	0.663	4.699
	(0.613)	(0.164)
Arbitrage Spread	-17.089	-84.974**
	(0.174)	(0.024)
No Specific Performance	0.723**	1.207**
	(0.025)	(0.028)
Reverse Termination Fee %	-121.115**	-196.310***
	(0.023)	(0.005)
Equity Commitment/GP Fund Size		14.803***
		(0.001)
N	65	62
Pseudo R^2	37.51%	54.73%

The variable reverse termination fee, which represents the bidder's break-up fee as a percentage of deal enterprise value, is significant and negative in all columns. Consistent with prior work we find that private equity firms that negotiated cheaper options were more

50. Probit models in which the dependent variable equals one if a transaction announced during 2007–2008 resulted in a bidder-initiated termination, and zero otherwise. *TED Spread* is the difference between the three-month LIBOR rate and the three-month T-Bill rate, at 45 days after transaction announcement. *Arbitrage Spread* is the difference between the offer price and the target's equity trading price five days after announcement, divided by the trading price. *No Specific Performance* equals one if the target is not permitted to go to a third party contract enforcer, i.e., seek specific performance of the contract, and zero otherwise. *Reverse Termination Fee* is the bidder's break-up fee as a percentage of deal enterprise value. *Equity Commitment/GP Fund Size* is the private equity bidder's fund equity contributed towards the purchase price as a fraction of the general partner's total fund size at closing. The sample and all other variables are defined in Tables I–III. 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. Variables not shown are *Target Std Dev Returns and Time to Agreement Expiration. 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 time from announcement to the merger agreement's drop dead date, the date on which either party can terminate the merger agreement after a specified period.

willing to default on these transactions.[51] This is further confirmed by the significance of the variable, no specific performance, which is one if the target is not permitted to seek specific performance of the contract and zero otherwise. The variable is positive and statistically significant in all columns at the 5% level. The lack of a specific performance clause thus appears to be a key driver in the decision by a private equity firm to strategically default on a contract.

Contract structure is economically significant: A one standard deviation decrease in the reverse termination fee increases the predicted probability of contract nonperformance by 8.7%, and predicted nonperformance increases by 6.0% when specific performance is unavailable.[52] As the observed nonperformance rate in these regressions is 11.4%, the contract features predict a substantial amount of variation in strategic defaulting behavior.

These contract components are more predictive of default than extra-contractual factors such as the size of the transaction and the debt financing percentage. In both columns, these variables are not statistically significant. The failure of the debt financing percentage and other variables to produce statistically significant results implies that the decision to default was not based directly on credit availability during the financial crisis.

Finally, in column (2), the variable equity, commitment/GP fund size is included, which measures the amount of equity committed by the private equity buyer as a fraction of the general partner's total fund size. This variable is positive and significant in column (2), indicating that during the financial crisis and consistent with equation (1), private equity firms were more likely to back out of those transactions which had the greatest potential impact on their overall investment portfolios. This finding is consistent with our hypothesis about the tradeoff between reputation and potential losses, as Equation (2) predicts the losses may increase with higher equity commitments. Thus, at this stage we can conclude that private equity firms are more likely to default when the penalty for breach of their contractual agreement is smaller, and both the contract structure and the presence or absence of a specific performance clause influences this decision. The question remains, though, what role does reputation play in this calculus?

C. Estimating the Value of Reputation

In this Section we examine the value of reputation and the effect of contract design on reputation. We also attempt to identify the "tipping point" of reputation by asking: "*When are private equity firms incentivized to abandon reputational incentives and strategically default?*"

In the following tables we estimate the upper and lower bounds of the value of reputation based on the equations developed in Part III. We begin by constructing upper bound estimates of sponsor reputation in Table V based on terminated transactions.[53] This is appropriate because the upper bound estimates represent the values at which a private equity firm chose to strategically default and otherwise not to complete a buyout.

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51. Quinn, *supra* note 5, at 791.

52. We evaluate the one standard deviation change around the sample means of the reverse termination fee and other continuous variables.

53. In Table V, we only estimate reputation values for observations that represented a clear decision by the private equity firm(s) to strategically default; we drop transactions that were terminated due to financing failures or other exogenous reasons as these observations do not imply a tradeoff between reputation and profit.

Table V: Upper Bound Reputation Value Estimates Based on Bidder-Initiated Deal Terminations[54]

Ann. Date	Club Deal / Single Bidder	Equity Commitment	Deal Debt	EV at Termination	Updated Equity Value	Termination Penalty	Net Gain on Default	Reputation / Equity	Reputation / Fund Size
		(1)	(2)	(3)	(4) =Max[(3)–(2), $0]	(5)	(6) =(1)–(4)–(5)	(7) =(6)/(1)	(8) =(6)/Fund
Apr 07	Single	$285.00	$950.00	$895.70	$0.00	$35.00	$250.00	87.72 %	1.23 %
Jul 07	Single	$310.80	$789.20	$899.00	$109.80	$21.00	$180.00	57.92 %	9.00 %
May 07	Club	$760.50	$2,150.00	$1,804.70	$0.00	$65.00	$695.50	91.45 %	9.80 %
Jul 07	Single	$1,500.00	$6,500.00	$5,994.10	$0.00	$100.00	$1,400.00	93.33 %	18.67 %
Jun 07	Club	$3,061.00	$7,100.00	$7,414.80	$314.80	$225.00	$2,521.20	82.37 %	40.37 %
Jul 07	Single	$346.00	$1,020.00	$1,151.70	$131.70	$15.00	$199.30	57.60 %	N/A

54. *Equity Commitment* is the private equity firm's equity contributed to the transaction (excluding excess cash in the target), *Deal Debt* is the debt financing for the transaction, and *EV at Termination* is transaction EV * the change in the target's actual EV from 30 days before transaction announcement to one day following transaction termination. EV is defined as target's market value of equity plus market value of debt, less excess cash. *Updated Equity Value* equals *EV at Termination* minus *Deal Debt* or zero if this is negative. *Termination Penalty* is the amount paid by the private equity firms to terminate the contract or settle litigation following breach of the agreement. *Net Gain on Default* is defined by Equation (2): *Net gain on default = (equity commitment – updated target equity value) – termination penalty*. *Reputation/Equity* is the Net Gain divided by the sponsor's equity commitment in the transaction, and *Reputation/Fund Size* is the Net Gain divided by the size of the sponsor's fund affiliated with the given transaction. For club deals, this variable utilizes the sum of the sponsors' funds. The observations are reported in an ascending sort on *Reputation/Fund Size*.

Table V reports details on the six terminated transactions in the sample which contain sufficient information to calculate the relevant variables. These are the upper bound reputation value estimates and accordingly are based on bidder-initiated deal terminations. In Table V, the updated equity values are all well below the initial equity commitments from the private equity firms, with half of these investments completely worthless. Subtracting the termination penalty paid by the firms to exit these transactions from the change in equity values produces net gains on default that range from $180 million to $2.5 billion. As a proportion of the size of the sponsors' funds which contributed the equity, the reputation values range from a low of 1.23% to a high of 40.37%.

In Table VI, we form lower bound estimates of sponsor reputation. Lower bound reputation value estimates are the level at which a private equity firm was willing to complete a transaction. This is appropriate because we are estimating the value at which a private equity firm decides not to strategically default and complete a buy-out.

Table VI: Lower Bound Reputation Value Estimates Based on Completed Deals during target industry declines[55]

Ann. Date	Club Deal / Single	Equity Commitment	Min Industry Return	Updated Equity Value	Termination Penalty	Potential Gain	Reputation / Equity	Reputation / Fund Size
		(1)	(2)	(3) =(1)*[1+(2)]	(4)	(5) =(1)-(3)-(4)	(6) =(5)/(1)	(7) =(5)/Fund
Dec 08	Single	$142.30	-33.86%	$94.100	$10.00	$38.200	26.84%	14.52%
Sep 07	Single	$560.00	-51.48%	$271.70	$0.00	$288.30	51.48%	5.77%
Jul 07	Single	$500.00	-21.06%	$394.70	$25.00	$80.300	16.06%	2.92%
Jun 07	Club	$2,700.00	-16.81%	$2,246.10	$200.00	$253.90	9.40%	2.33%
Feb 06	Single	$213.40	-7.17%	$198.10	$0.00	$15.30	7.17%	2.28%
Apr 07	Single	$7,171.00	-15.07%	$6,090.00	$700.00	$381.00	5.31%	2.16%
Oct 07	Single	$660.00	-15.02%	$560.80	$28.00	$71.20	10.78%	1.92%
Jun 06	Single	$76.50	-13.12%	$66.50	$0.50	$9.50	12.47%	1.91%

55. *Equity Commitment* and *Termination Penalty* are defined as above in Table IV. *Min Industry Return* is calculated as follows: An equal-weighted portfolio of all firms in the target's four-digit SIC code is constructed (excluding the target), rebalanced daily, and daily returns to this portfolio are compounded from the announcement date + 1 through the completion date. The minimum cumulative return is then taken over this interval for each observation. If this is positive, the observation is dropped. The *Updated Equity Value* is imputed as the sponsor's *Equity Commitment* times one plus the *Min Industry Return*. The remaining columns are calculated as above in Table IV. The observations are reported in a descending sort on *Reputation/Fund Size*, and only those observations with a ratio less than 1% are reported.

This table calculates the lower bound based return based on completed deals during target industry declines. This return is reported in Column (2) of Table VI as *Min Industry Return. Min Industry Return* is calculated as follows: An equal-weighted portfolio of all firms in the target's four-digit SIC code is constructed (excluding the target), rebalanced daily, and daily returns to this portfolio are compounded from the announcement date + 1 through the completion date. The minimum cumulative return is then taken over this interval for each observation. If this is positive, the observation is dropped.

The sponsor's updated valuation of its equity commitment in the transaction is its initial equity commitment multiplied by one plus the minimum return. This imputes a drop in the value of its potential buyout investment based on broad industry declines between the transaction announcement and completion. The remaining columns are constructed as in Table V, with the *Potential Gain* on a strategic default representing the loss that a sponsor could have avoided, had it chosen to terminate the acquisition agreement and paid the termination penalty in Column (4). Results from this analysis are reported if the *Reputation/Fund Size* in Column (7) is greater than 1%, as lower values are uninformative for the lower bound estimates. The highest value is 14.52%, with the second highest being 5.77%, and several additional observations in the 2–3% range. Thus, in several buyouts, sponsors could have strategically defaulted on pending acquisitions and recouped a portion of their capital funds, but chose not to.

In Table VII, we summarize the results from Tables V and VI.

Table VII: Reputation Value Ranges for Private Equity Firms[56]

Private Equity Firm	Lower Bound			Upper Bound		
	$mm	% Equity	% Fund Size	$mm	% Equity	% Fund Size
Green Courte Partners	$38.20	26.84%	14.52%			
Sun Capital Partners	$288.30	51.48%	5.77%			
Platinum Equity	$85.90	17.18%	3.12%			
Citigroup Inc.	$42.30	9.40%	1.28%			
Deutsche Bank	$42.30	9.40%	N/A			
Madison Dearborn Partners	$42.30	9.40%	0.65%			
Merrill Lynch Global Private Equity	$42.30	9.40%	N/A			
Pamlico Capital	$42.30	9.40%	3.85%			
Wachovia Capital Partners	$42.30	9.40%	N/A			
InterMedia Partners	$15.30	7.17%	2.28%			
Kohlberg Kravis Roberts & Co.	$381.00	5.31%	2.16%			
Vestar Capital Partners	$71.20	10.78%	1.92%			
Liberty Partners	$9.50	12.47%	1.91%			
Goldman Sachs Capital Partners				$250.00	87.72%	1.23%
GSO Capital Partners				$180.00	57.92%	9.00%
ValueAct Capital Partners				$347.80	91.45%	9.94%
SilverLakePartners				$347.80	91.45%	9.66%
Cerberus Capital Management				$1,400.00	93.33%	18.67%
Fortress Investment Group				$1,260.60	82.37%	41.40%
Centerbridge Partners				$1,260.60	82.37%	39.39%

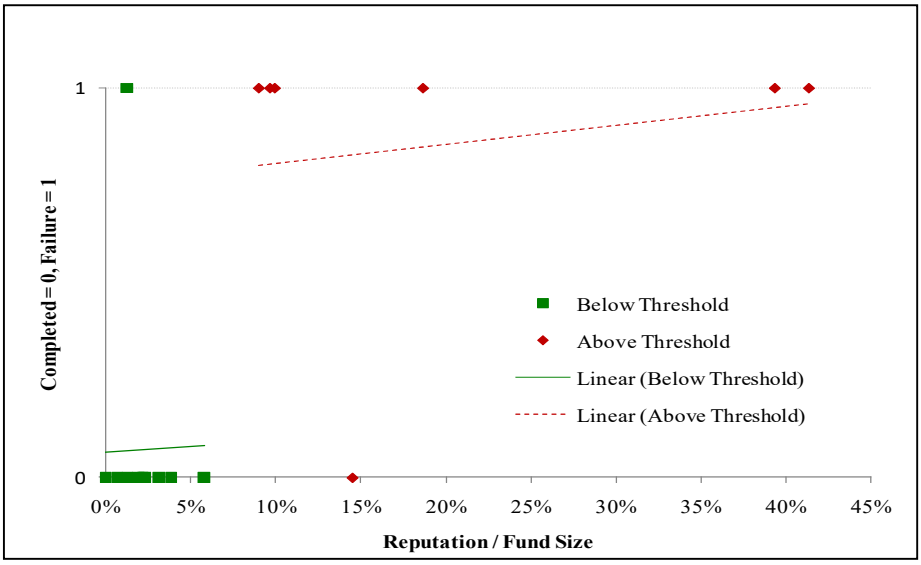
The lower bound estimates are from Table VI and includes unreported calculations for lower bound estimates based on stock price declines from the time of announcement and completion, with $mm from Column (5), % Equity from Column (6), and % Fund

56. Table VII combines the results reported in Tables V and VI and includes unreported calculations for lower bound estimates based on stock price declines from the time of announcement and completion. The lower bound estimates are from Tables V, with $mm from Column (5), % Equity from Column (6), and % Fund from Column (7). The upper bound estimates are from Table IV, with $mm from Column (6), % Equity from Column (7), and % Fund from Column (8). If an estimate is derived from an observation involving multiple sponsors ("club deals"), the bidder names are indented in the first column, the $mm column is split equally among those bidders, but the % Fund is based on each sponsor's respective fund size.

from Column (7). The upper bound estimates are from Table V, with $mm from Column (6), % Equity from Column (7), and % Fund from Column (8). If an estimate is derived from an observation involving multiple sponsors ("club deals"), the $mm column is split equally among those bidders and the bidder names are indented in the first column in Table VII. As a percentage of sponsor fund size, the highest lower bound value of 14.52% and the lowest upper bound value of 1.23% appear to be outliers.[57] In the remaining results, the reputational value estimates range from around 5% to 9%, providing a relatively tight bound on the estimation of the value that private equity firms place on their reputations.

To summarize, the lower bound estimates are based on *completed* buyouts that may have declined in value, while the upper bound estimates are based on *terminated* buyouts that clearly declined in value. The "tipping point" for contract nonperformance decisions appears to occur when private equity firms face nominal losses in the $200 to $400 million range, 51–58% of sponsor equity, or 5–9% of overall fund value. We note that this decision represents a discrete jump in default probability around these thresholds. Figure 3 graphically represents the data points from Table VII. As shown, when plotting reputation as a fraction of fund size, almost every transaction is terminated when potential buyout losses exceed the 7% threshold.

Figure 3: Probability of Bidder-Initiated Transaction Failure and Reputation/Fund Size



This figure plots the reputation estimates as a percentage of private equity fund size, as calculated in Table VII. The square dots represent estimates below a border threshold of 7%, and the diamond dots represent estimates above 7%. The lower horizontal axis equal to zero corresponds to completed transactions and the upper axis equal to one corresponds

57. It is difficult to make cross-sectional comparisons across the estimates because each estimate pertains to a different private equity firm. Different firms may place disparate values on their reputations. Moreover, many firms do not have informative observations because they did not announce any public buyouts during the short interval under consideration (late 2007) in our study.

to bidder-initiated defaults. The fitted lines represent the change in probability of default for a discontinuous change in reputational value estimates around the border region of 7%.

The descriptive evidence from Tables V–VII implies that sponsor firms are willing to bear losses up to a certain point, but beyond that point the probability of deal failure jumps significantly. To examine the robustness of these data, in Table VIII we calculate a multivariate analysis to assess whether a discontinuity in reputation stakes explains changes on the probability of deal failure.

Table VIII. Transaction Failures, Buyout Contract Terms, and Reputational Capital[58]

Dependent Variable:	**Bidder-Initiated Transaction Failure = 1, All Other Outcomes = 0**		
Border: Reputation / Fund Size	**2%**	**3%**	**5%**
	(1)	**(3)**	**(5)**
Intercept	-3.423	-3.888	-8.847***
	(0.325)	(0.167)	(0.000)
Log Transaction Value	-0.210	-0.227	0.046
	(0.478)	(0.380)	(0.848)
No Specific Performance	1.666***	1.344***	5.633***
	(0.003)	(0.000)	(0.008)
Reverse Termination Fee %	-40.888**	-45.346**	-26.585*
	(0.022)	(0.014)	(0.056)
(0,1) Indicator for Reputation Above Border Discontinuity	3.021***	1.826***	7.687***
	(0.003)	(0.008)	(0.008)
N	69	69	69
Pseudo R^2	52.34%	42.63%	42.20%
Change in P(Failure) moving from below to above the border	28.10%	66.26%	99.97%

Results from Table VIII show that contract structure remains salient in predicting bidder-initiated defaults. The coefficient on reverse termination fee is negative and significant while the No Specific Performance coefficient is positive and significant in all columns. Further, the indicator variable for reputation being above a given threshold is positive and significant in all models. This indicates that private equity firms are significantly more likely to strategically default on a transaction when they face buyout losses above a given level. In column 1, the likelihood of a default increases to almost

58. Probit models with dependent variable equal to one for bidder-initiated terminations and zero otherwise. Reputation values are calculated as in Table VI. The reputation independent variable is coded one for reputation values above a set discontinuity border and zero for values below the border. All other variables are defined in Tables 1–4. 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. Variables not shown: *Initial Offer Premium*, *Target Standard Deviation Returns*, and *Time to Agreement Expiration*.

100% when sponsors face losses in excess of 5% of their fund size.[59] The results confirm that one's reputation provides an incentive for contract performance only up to a certain point. Beyond this level of potential losses, reputational concerns no longer suffice to ensure contract performance.

D. The Dynamic Nature of Reputation and Contracting

Having assessed the reputational and economic impact of a private equity firm's strategic default, the next issue is to examine how targets react to such defaults by private equity firms. In this Section, we explore the impact of strategic defaults on future contracting terms and subsequent private equity buying activity.

Tables IX and X report summaries of various contract terms across multiple time periods: 2004–2006, the period before the wave of strategic defaults, and 2008–2010, the period following the transactions which were terminated by late 2007. Table IX documents the median default penalty in greater detail for defaulting single bidders versus non-defaulters.

Table IX. The Dynamic Nature of Reputation and Contracting for Defaulting Private Equity Firms[60]

Median RTF %	**2004–2006**	**2008–2010**	**Difference**
Defaulting Single Bidders	2.1%	6.8%	4.7% [0.001]
Non-Defaulting Bidders	2.3%	4.7%	2.4% [0.000]
Difference	-0.2% [0.806]	2.1% [0.194]	2.3%

Following the wave of defaults in 2007, the median reverse termination fee increased for both those bidders who defaulted and those who did not. The increase was 2.3% greater for the defaulting bidders—i.e., a change of about 100% relative to pre-crisis levels, implying that reputational damage may have been more severe for the individual defaulters.

Table X documents the extent of collective, industry-wide reputational damage by comparing 2004–2006 (pre-defaults) transactions vs. 2008–2010 transaction (post-defaults).

59. We also estimate models with higher borders, such as 7% or 9%. These models produce perfect predictions of default with the indicator variable and so are unable to estimate the remaining coefficients.

60. Table IX reports participation by different categories of private equity firms among transactions in 2004–2006 versus 2008–2010. The categories are not mutually exclusive, as some bidders are in both single-bidder and club deals across different transactions. Reverse termination fee (RTF %) is given as a percentage of deal enterprise value. Means are listed first with medians in [brackets] below. P-Values are given for difference of means using t-tests and [brackets] are given for difference of medians using Wilcoxon rank-sum tests.

Table X. The Dynamic Nature of Reputation and Contracting for the Private Equity Industry[61]

Panel C: Industry-Wide	**N**	**No Specific Performance**	**Reverse Termination Fee %**	Arbitrage Spread (+5)
2004–2006 Transactions	101 (44%)	43.6%	2.6% [2.2%]	2.2% [2.3%]
2008–2010 Transactions	58 (26%)	65.5%	7.7% [4.7%]	2.6% [1.8%]
P-Value		0.008	0.015 [0.000]	0.476 [0.457]

The average size of reverse termination fees triples from the 2004–2006 period to the 2008–2010 period. The median size of the fees doubles and remains statistically significant at the 1% level. Thus, Table X produces descriptive evidence that is consistent with a collective decline in reputation for the private equity industry as a whole following the 2007 defaults. Somewhat surprisingly then, the rate at which targets are barred from seeking specific enforcement of the contract actually *increases* across the periods. This runs counter to the predictions arising from models of reputation. One explanation is that firms tend to trade off the amount of reverse termination fees with the right of specific performance. To the extent that parties efficiently adjust contract terms following defaulting behavior by one side, the results may be driven less by reputational damage and more by a dynamic rebalancing of contract terms.[62]

Theoretically, if reputation does matter in the private equity contract, then defaulting firms should be penalized in future transactions. We analyze this question by comparing three categories of private equity firms: defaulting bidders on single-bidder transactions, defaulting bidders from club deals (i.e., private equity transactions involving multiple firms as buyers), and non-defaulting bidders. These categories are not mutually exclusive, as some bidders are in both single-bidder and club deal subgroups after defaulting on several transactions. We find that bidders that defaulted on 2007-announced transactions were involved in about 19%–20% of 2004–2006 transactions, while non-defaulting bidders were involved in about 85% of 2004–2006 transactions. Following the 2007 terminations, the defaulting single bidders were involved in 15.5% of transactions while defaulting club deal bidders were involved in only 8.6% of transactions. Thus, there is some descriptive

61. Reverse termination fee (RTF %) is given as a percentage of deal enterprise value. Arbitrage spreads scaled by offer prices are measured five days following transaction announcement dates. Means are listed first with medians in [brackets] below. P-Values are given for difference of means using t-tests and [brackets] are given for difference of medians using Wilcoxon rank-sum tests.

62. Another explanation of the industry-wide trend in the default penalty shown is that perhaps reputation has not changed at all, but rather the probability of a market disruption has increased through the financial crisis. To evaluate this concern, we report mean and median arbitrage spreads over offer prices five days following transaction announcements in the final column of Table X. As indicated by the insignificant p-values for the differences across the 2004–2006 and 2008–2010 categories, arbitrage spreads have not increased since the financial crisis. If this alternative explanation were correct, we would expect the market to price this event risk in arbitrage spreads.

evidence that the defaulters have been penalized through lower incidence of winning bids in 2008 through 2010.

V. CONCLUSION

This Paper examines the relation between the value of reputation and financial contracting in 227 private equity buyouts of U.S. targets from 2004–2010. We find that contract terms became highly salient amidst the financial crisis. Private equity bidders were more likely to breach contracts during the financial crisis of 2007–2008 when the penalty for doing so was lower. For example, bidders were more likely to default if the reverse termination fee payable was lower and if the target was not permitted to seek specific enforcement of the contract.

We use a variety of empirical techniques to determine the value of private equity reputation. Using details of target valuation changes and contract default penalties, we estimate the gains from backing out of these contracts, as well as the losses to honoring unprofitable contracts. We find that sponsors are willing to bear losses of up to 5–9% of their fund sizes, 51–58% of their equity commitments, or around $200–$400 million in nominal dollars. Beyond these boundaries, reputation no longer serves as a sufficient enforcement mechanism for contract performance. Consistent with economic theory, private equity's reputation among targets has an identifiable economic value.

We assess the reputational damage resulting from the wave of terminations during the financial crisis and find evidence consistent with models of both individual and collective reputation. Expected default penalties for private equity firms have more than doubled following the wave of terminations, with median reverse termination fees rising from 2.2% pre-crisis to 4.7% post-crisis. Defaulting private equity firms have experienced an additional 50% increase in contract penalty terms. We also find descriptive evidence that private equity firms are predominantly involved in smaller deals, on average, following the financial crisis.

The importance of contracting terms in the decision to renege and the adjustment in contract terms following the financial crisis shows the dynamic nature of contracting as the private equity industry substitutes more formal contracting default mechanisms in place of reputational capital. It also provides a real-time test of the theory of reputation, contract (non)performance as well as the most efficient means of contracting. Our evidence will help future parties in assessing both the value of reputation and the most efficient means of contracting based on perceptions of reputation and potential for defaulting behavior. Ultimately, models of collective reputation suggest that private equity firms may rebuild their lost trust through repeated successful interactions with market participants going forward.

By 2011 it appears that this had occurred and a new form of private equity deal was settled upon. According to a survey by the law firm Schulte Roth & Zabel LLP, of 25 transactions, a full 84% had some form of specific performance while the median reverse termination fee had risen to 6.36% of transaction value.[63] This structure remains the norm today as the shock of the financial crisis has readjusted the private equity transaction

63. *2011 Private Equity Buyer/Public Target M&A Deal Study*, SCHULTE ROTH & ZABEL LLP 12, 14 (Summer 2011), *available at* http://www.srz.com/files/News/4106c134-0e07-478a-b494-0966c4c5ed3c/Presentation/NewsAttachment/775ae349-9213-4f7e-9c60-d23cd90943b4/SRZ_2011_Private_Equity_Buyer_Public_Target_MA_Deal_Study.pdf. These figures are similar to the 2008 and 2010 figures.

structure. Parties continue their interactions, albeit with a more certain contract structure.[64] In other words, with time and at the right price, all may be forgiven.

64. The structure continues to evolve as rapid changes permit lawyers to be more innovative and "break-through" boilerplate. *See* Ronald Barusch, *Heinz Deal Introduces a New Twist on Reverse Break-up Fees*, WALL ST. J. MONEYBEAT (Feb. 15, 2013), *available at* http://blogs.wsj.com/deals/2013/02/15/dealpolitik-heinz-deal-introduces-a-new-twist-on-reverse-breakup-fees/ (describing a merger agreement with a grace period of four months to provide the buyers the opportunity to sue the debt financing sources before being required to pay the reverse termination fee).

APPENDIX A

Appendix A. Strategic Defaults: Reasons, Contract Structures, and Penalties

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 collected from various news and legal sources. *RTF* stands for reverse termination fee payable by the bidder. *EV* is deal enterprise value in $mm. *Equity Value* is the private equity firm's equity contributed in the transaction, as reported in SEC proxy filings.

	Ann. Date	Target	Acquirer	Reason for Failure	Contract Structure	Outcome	EV (in millions)	Equity Value (in millions)	Penalty/ EV	Penalty/ Equity
1	10/27/2004	Prime Group Realty Trust	Mansur & Co. / The Prime Group, Inc.	Target claimed acquirer failed to obtain sufficient debt financing; Acquirer claimed target attempted to back out of deal.	$5mm RTF on financing failure; No 3rd Party Enforcement.	Bidder paid $7mm in damages and purchased select assets of target.	$637	N/A	1.1%	N/A
2	5/31/2005	School Specialty, Inc.	Bain Capital	Lack of financing.	No RTF; Financing condition; 3rd Party Enforceable.	Agreement terminated, with no fees triggered.	$1,305	$460	0.0%	0.0%
3	9/7/2006	Embarcadero Technologies, Inc.	ThomaCressey Equity Partners	Target disclosed options backdating scandal, deteriorating performance.	$12.15mm RTF; No RTF payable on target's breach of its representations and warranties in the merger agreement.	Bidders terminated deal, but subsequently acquired target at a reduced price.	$202	$66	0.0%	0.0%
4	4/16/2007	SLM Corporation ("Sallie Mae")	J.C. Flowers / Friedman Fleisher & Lowe / Bank of America / JPMorgan Chase	Bidders accused target of suffering a "Material Adverse Change" (MAC) in business.	$900mm RTF; No financing condition; No 3rd Party Enforcement; Target MAC clause with six exclusions.	Agreement terminated, with no fees triggered.	$130,659	$8,800	0.0%	0.0%

	Ann. Date	Target	Acquirer	Reason for Failure	Contract Structure	Outcome	EV (in millions)	Equity Value (in millions)	Penalty/ EV	Penalty/ Equity
5	4/24/2007	Myers Industries, Inc.	Goldman Sachs Capital Partners	Weak credit market conditions and/or poor performance of target.	$35mm RTF; No financing condition; No 3rd Party Enforcement.	Bidders paid $35mm RTF.	$1,235	$285	2.8%	12.3%
6	4/26/2007	Harman International Industries, Inc.	Kohlberg Kravis Roberts & Co. / Goldman Sachs Capital Partners	Bidders accused target of suffering a "Material Adverse Change" (MAC) in business and a breach of the merger agreement.	$225mm RTF; No financing condition; No 3rd Party Enforcement; Target MAC clause with 15 exclusions.	Bidders purchased $400mm of target convertible notes.	$7,832	$3,500	NM	NM
7	5/16/2007	Acxiom Corp.	ValueAct Capital Partners / Silver Lake Partners	Weak credit market conditions and/or poor performance of target.	$66.75mm RTF on financing failure; No financing condition; No 3rd Party Enforcement.	Bidders paid $65mm RTF.	$2,911	$761	2.2%	8.5%
8	6/15/1007	Penn National Gaming, Inc.	Fortress Investment Group / Centerbridge Partners	Weak credit market conditions and/or poor performance of target.	$200mm RTF; No financing condition; 3rd Party Enforceable.	Bidders paid $225mm RTF and purchased 12,500 shares of target preferred stock for an aggregate purchase price of $1.25 billion.	$10,161	$3061	2.2%	7.4%

	Ann. Date	Target	Acquirer	Reason for Failure	Contract Structure	Outcome	EV (in millions)	Equity Value (in millions)	Penalty/ EV	Penalty/ Equity
9	7/2/2007	Reddy Ice Holdings, Inc.	GSO Capital Partners	Weak credit market conditions and/or poor performance of target.	$21mm RTF; No financing condition; No 3rd Party Enforcement.	Bidders paid $21mm RTF.	$1100	$311	1.9%	6.8%
10	7/12/2007	Huntsman Corp.	Apollo Management / Hexion Specialty Chemicals, Inc.[65]	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; 3rd Party Enforceable if debt financing available.	Court ordered S.P. Bidders and banks then settled and paid $750mm in damages and purchased $250mm of target convertible notes.	$10,053	N/A	7.5%	N/A
11	7/23/2007	United Rentals, Inc.	Cerberus Capital Management	Weak credit market conditions and/or poor performance of target.	$100mm RTF; No financing condition; No 3rd Party Enforcement.	Bidders paid $100mm RTF.	$8000	$1500	1.3%	6.7%
12	7/23/2007	Cumulus Media, Inc.	Merrill Lynch Global Private Equity	Deteriorating performance of target.	$15mm RTF; No financing condition; No 3rd Party Enforcement.	Bidder paid $15mm RTF.	$1366	$346	1.1%	4.3%

65. Apollo committed no direct equity in the transaction but contributed equity indirectly through its holdings in Hexion.