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Source: *The Journal of Financial and Quantitative Analysis*, Vol. 47, No. 5 (OCTOBER 2012), pp. 901-931
Published by: Cambridge University Press on behalf of the University of Washington School of Business Administration
Stable URL: http://www.jstor.org/stable/23351940
Accessed: 26-04-2017 20:29 UTC

JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS Vol. 47, No. 5, Oct. 2012, pp. 901–931

doi:10.1017/S0022109012000361

It Pays to Follow the Leader: Acquiring Targets Picked by Private Equity

Amy Dittmar, Di Li, and Amrita Nain*

Abstract

This paper examines the impact of financial sponsor competition on corporate buyers. We find that corporate acquirers who purchase targets that financial buyers also bid on outperform corporate acquirers who buy targets bid on by corporate firms only. Deal characteristics, acquirer abilities, and observable target characteristics cannot explain this difference in returns. Corporate acquirers have higher returns when they follow a first bid by a financial buyer rather than a first bid by another corporate buyer. The results suggest that financial bidders identify targets with high potential for value improvement and winning corporate bidders are competent in exploiting this potential.

I. Introduction

The increase in buyout activity in the mid-2000s sparked an interest in private equity research, with several recent papers examining the performance of private equity funds and the loan terms received by private equity-sponsored target firms.[1] Financial bidders (such as private equity firms) differ from strategic (corporate) bidders in their motives and methods of acquisitions. Financial bidders are typically cash rich, with more readily available access to credit. They are believed to be skilled at selecting undervalued targets with a high potential for cost cuts and revenue growth. While corporate buyers may share operational synergies with the target firm, financial buyers rely primarily on improving the stand-alone value of the target firm or buying undervalued assets. Moreover, financial buyers face shorter investment horizons than corporate buyers and possibly incentivize target management differently.[2]

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[1] See Kaplan and Schoar (2005), Phalippou and Gottschalg (2009), Ivashina and Kovner (2011), and Demiroglu and James (2010).

[2] "Private Lives," *Fortune Magazine* (Nov. 27, 2006).

Although their motives and method of acquisition are different, financial bidders often compete with corporate bidders for the same target. Over the last 27 years, 23% of all competing bids were made by financial sponsors. The percentage of financial bidders peaked in 1988 and 2006, when they comprised 42% and 36% of all competing bids, respectively. In this paper, we examine how the presence of financial sponsor competition affects corporate buyers. There are several reasons why the presence of financial sponsor competition may affect the returns and deal structure of corporate acquirers. First, financial bidders are considered experts in the business of identifying undervalued targets. Gains from acquiring an undervalued target may accrue to any winning bidder who pays a similar premium for the target. Second, Bargeron, Schlingemann, Stulz, and Zutter (2008) show that private acquirers pay significantly lower premia than public acquirers, while Gorbenko and Malenko (2010) find that financial bidders have lower average valuations than strategic bidders. Thus, a corporate acquirer competing with a financial bidder (which is typically private) may win the auction at a lower premium than when it competes with another public corporate firm. Third, financial bidders typically undertake all-cash acquisitions, often financed with debt. Existing theory suggests that acquirers use the cash component of a bid to signal the value of an acquisition.[3] If the value to a corporate bidder from acquiring targets selected by private equity is different, then the cash component of the deal may also differ depending on the identity of the competitor.

To examine the impact of financial sponsor competition on the experience of corporate buyers, we use a sample of approximately 100,000 merger bids made between 1980 and 2007. We classify offers as coming from a single bidder (*Single Bidder sample*), a corporate bidder who faced competition from at least 1 financial sponsor (*Financial Competition sample*), or a corporate bidder competing with only other corporate bidders (*Corporate Competition sample*).[4] Similar to Bradley, Desai, and Kim (1988), we calculate cumulative abnormal returns (CARs) from 20 days before to 120 and 180 days after the announcement of the bid for corporate acquirers in the 3 subsamples. We find that corporate bidders in the Financial Competition sample earn much higher returns than corporate bidders in the Corporate Competition or Single Bidder samples. Over the −20- to 180-day window, corporate bidders competing with financial bidders earn a CAR that is 8.80 percentage points higher than those competing with other corporate bidders. These results are driven by corporate acquirers who eventually win the bidding competition. That is, winning corporate acquirers in the Financial Competition sample earn CARs of 13.34% over the −20- to 180-day window and outperform winning corporate acquirers in the Corporate Competition sample by 8.83 percentage points. The difference in the performance of winning corporate acquirers in the 2 samples remains significant after controlling for other factors that have been shown to impact acquirer returns in a multivariate analysis. We further confirm these results using buy-and-hold abnormal returns (BHARs),

[3] See Hansen (1987), Fishman (1989), Eckbo, Giammarino, and Heinkel (1990), and Berkovitch and Narayanan (1990).

[4] We do not study deals where financial sponsors compete only with other financial sponsors since returns data for financial sponsors usually are not available.

calendar-time portfolio returns, and alternative windows such as −2 to 120 or 180 days.

We also examine a narrower announcement window of −2 to +2 days to determine if, at the time of announcement, the market expects acquirers in the Financial Competition sample to do better than those in the Corporate Competition sample. We find that corporate acquirers competing with other corporate bidders earn significantly negative announcement returns. Corporate acquirers competing with financial bidders earn positive but statistically insignificant abnormal announcement returns. The difference between the two is not statistically significant. The lack of significance may reflect the fact that the narrower window does not capture the announcement of a competing bid. Therefore, we also examine the abnormal return to a corporate acquirer at the announcement of a subsequent competing bid. We find that firms earn positive and significantly higher returns at the announcement of a competing bid from a financial bidder rather than a corporate bidder, suggesting that financial bidders help certify the value of an acquisition.

Having documented the superior performance of corporate acquirers in the Financial Competition sample, we proceed to investigate why acquirers competing with private equity outperform. Private equity groups are often credited with having superior skills in identifying good takeover targets as well as in restructuring the target and incentivizing target managers appropriately after the acquisition. There is an important difference between identifying good acquisition targets and taking value-improving actions after the merger. If financial buyers are good at finding undervalued targets, other bidders can pursue the same targets and benefit from the target's undervaluation. Thus, the source of value identified by the financial buyer may be transferable to the eventual winning bidder. On the other hand, if the unique talent of financial buyers lies primarily in post-merger restructuring, then corporate buyers cannot benefit just by chasing and acquiring the same targets. Corporate buyers would need similar restructuring and incentivizing skills in order to deliver high returns. To examine whether financial buyers such as private equity groups are skilled at identifying good takeover targets whose value will transfer to any winning bidder, we divide corporate buyers in the Financial Competition sample into acquirers who bid first and those who followed a bid by a financial buyer. Likewise, we divide the Corporate Competition sample into first bidders and followers. We show that the superior acquirer returns discussed previously are concentrated in the subsample of acquirers who followed a bid by a financial sponsor. Firms earn a higher abnormal return if they follow a financial bidder than if they follow a corporate bidder. Specifically, acquirers earn about 12% greater abnormal returns in the 180 days following announcement if they follow a financial bidder rather than following a corporate bidder. Returns of first bidders in the Financial Competition sample and Corporate Competition sample are not significantly different. These results indicate that, at least in part, financial bidders identify targets with a high value of control, from which the ultimate winner benefits, thus indicating that benefits are transferable.

Next, we conduct a more detailed investigation of why corporate acquirers in the Financial Competition sample have higher returns than those in the Corporate Competition sample. We propose 3 hypotheses to explain our findings:

Hypothesis 1 (Acquirer Hypothesis). Acquirers competing with financial bidders are different from those competing with other corporate bidders, and the superior returns are due to acquirer abilities.

Hypothesis 2 (Deal Terms Hypothesis). Deal terms offered by acquirers competing with financial bidders are more favorable to the acquiring firm, resulting in higher returns for acquirers in the Financial Competition sample.

Hypothesis 3 (Target Hypothesis). Targets pursued by financial bidders are different from those pursued by corporate bidders alone, and these differences drive the higher returns.

Hypothesis 1 suggests that corporate buyers in the Financial Competition sample perform better because they are innately better acquirers and not because of the competition they face. For example, these corporate acquirers may be better governed or may have restructuring skills similar to those of private equity groups. On the other hand, Hypotheses 2 and 3 predict a higher return because the financial sponsor has superior skill in identifying sources of value (such as finding an undervalued target or negotiating better deal terms or a lower premium) that may be transferable to the winning corporate acquirer.

Looking first at Hypothesis 2, we find several differences in the deal terms offered by acquirers in the 2 competition samples. Acquirers competing with financial buyers pay a greater percentage of the transaction with cash, undertake more leveraged transactions, and offer lower premia as compared with acquirers in the Corporate Competition sample. However, none of these factors can explain away the difference in returns between the 2 samples. We next examine whether the difference in returns can be attributed to the possibility that financial sponsors identify "better" targets, perhaps those with a higher potential for value enhancement (Hypothesis 3). We find that targets in these 2 groups are not observably different and that the results are robust to controlling for target characteristics. However, given that the high returns are concentrated in the subsample of corporate acquirers who follow first bids by financial buyers, it is possible that financial bidders identify "better" targets based on unobservable characteristics.

Finally, we investigate the possibility that the acquirers in the Financial Competition sample are superior to those in the Corporate Competition sample. To better examine if acquirer differences explain the differences in returns, we first compare acquirer characteristics across the 2 groups in both absolute terms and relative to the targets. We show that acquirers in the Financial Competition sample have higher management and institutional ownership than those in the Corporate Competition sample, which may indicate that acquirers in the Financial Competition sample are better-governed firms (perhaps more similar to financial sponsors).[5] We also find that acquirers in the Financial Competition sample have lower industry-adjusted market-to-book, quick, and asset turnover ratios, both in absolute terms and relative to their targets. However, none of these variables

[5]Previous research suggests that higher institutional ownership is associated with higher returns in mergers and acquisitions (M&As). See Chen, Harford, and Li (2007) and references therein.

explains the differences in returns, and our results are robust to controlling for these differences.

It is possible that, similar to the targets, the acquirers may differ based on unobservable characteristics. Specifically, Hypothesis 1 states that acquirers who choose to compete with financial buyers are simply better at delivering value from acquisitions, perhaps by identifying undervalued targets or targets with a high synergistic value. To test Hypothesis 1, we examine if an acquirer competing with a financial bidder experiences higher returns in previous noncompeting acquisitions, thus demonstrating its superior acquiring abilities. We find that acquirers in the Financial Competition sample do not have better returns in earlier, noncompeting acquisitions. Moreover, there is no evidence that acquirers in the Financial Competition sample are more frequent acquirers than those in the Corporate Competition sample. Therefore, acquirer experience is an unlikely explanation for the difference in returns.

Having ruled out deal terms, observable target characteristics, and observable or unobservable acquirer characteristics, we propose that financial buyers identify targets based on unobservable characteristics with a high potential for value improvement. Our finding that corporate acquirers who purchase targets desired by financial bidders earn significantly higher positive abnormal returns goes somewhat against the popular view that corporate acquirers are not as good at delivering value from acquisitions as private equity buyers. The business press often lauds the ability of the private equity industry to select undervalued targets and take focused, performance-improving actions post-acquisition. Buyout firms are thought to be better at incentivizing and guiding target management toward cost cuts and revenue growth after the acquisition is completed.[6] We show that corporate acquirers can also deliver high returns when they purchase targets that private equity firms are interested in. Thus, our results suggest that while financial buyers are more skilled at selecting targets that have a high potential for value improvement, corporate buyers are competent in exploiting this potential.

This paper sheds light on our understanding of the sources of gains in acquisitions and improves our understanding of financial sponsors' abilities to reap these gains.[7] Specifically, our results suggest that financial sponsors have superior skills in identifying good takeover targets and negotiating favorable deal terms. Moreover, when framed within the private value–common value paradigm,

[6] See "What's So Great about Private Equity," *Wall Street Journal Asia* (Nov. 28, 2006), and "Lions in Winter," *Financial Post* (Jan. 16, 2010).

[7] For existing research on sources of gains in acquisitions, see Asquith, Bruner, and Mullins (1983), Bradley, Desai, and Kim (1983), (1988), Eckbo (1983), (1985), Jensen and Ruback (1983), Eckbo and Wier (1985), Dennis and McConnell (1986), Palepu (1986), Pound (1988), Morck, Shleifer, and Vishny (1988), Franks, Harris, and Titman (1991), Martin and McConnell (1991), Agrawal, Jaffe, and Mandelker (1992), Kim and Singal (1993), Shivdasani (1993), Song and Walking (1993), Kini, Kracaw, and Mian (1995), Franks and Mayer (1996), Singal (1996), Akhavein, Berger, and Humphrey (1997), Cotter, Shivdasani, and Zenner (1997), Loughran and Vijh (1997), Prager and Hannan (1998), Harford (1999), Andrade, Mitchell, and Stafford (2001), Rau and Vermaelen (1998), Datta, Iskandar-Datta, and Raman (2001), Maksimovic and Phillips (2001), Fuller, Netter, and Stegemoller (2002), Graham, Lemmon, Wolf (2002), Agrawal and Jaffe (2003), Bharadwaj and Shivdasani (2003), Officer (2003), Fee and Thomas (2004), Moeller, Schlingemann, and Stulz (2004), (2005), Gaspar, Massa, and Matos (2005), Shahrur (2005), Chen et al. (2007), and Bhattacharyya and Nain (2011).

our results provide insight into a more general understanding of the source of gains in M&As. It is well recognized that takeover targets have both private- and common-value components.[8] Each corporate buyer has a different private value of the target depending on its strategy and operating synergies with the target. However, takeover targets also have a common-value component (e.g., undervaluation), which is the same for all bidders. The existence of a financial bidder indicates a high common-value component. If a corporate bidder acquires a target pursued by financial bidders, it benefits from the high common-value component in addition to any private synergistic value. Thus, our results illustrate that both private synergistic and common value gains exist in M&As.

Second, this paper contributes to the literature on bidder competition by building on Boone and Mulherin (2011), who show that private equity bidding is associated with a greater level of competition.[9] Our results provide a partial explanation for this increased competition: Acquirers following financial bidders earn superior returns, and thus this performance could impact aggregate trends in bidder competition.[10] Furthermore, this paper shows that competition is not always detrimental and can have value-enhancing benefits. Previous research shows that bidding competition drives up takeover premia and has a negative impact on acquirer returns. In this paper, we provide evidence of a brighter side to bidder competition and show that the effect of competition depends on the identity of the competitor.

The rest of this paper is organized as follows: Section II describes the sample and data. Section III studies acquirers' stock returns. Section IV explores possible explanations, and Section V concludes.

II. Sample

We obtain a sample of 100,697 successful and unsuccessful mergers and tender offers announced from 1980 to 2007, where the target and bidder were both U.S. firms from Securities Data Corporation (SDC). The acquirer can either be a corporate strategic bidder or a financial sponsor. The sample excludes all deals with a transaction value (TV) of less than $1 million. This initial sample is then divided into 2 categories: deals where only 1 bidder was present and deals where 2 or more bidders competed for the same target. To determine if there was bidding competition, we treat every target where more than 1 bid is recorded in SDC as a potential subject of bidding competition. If SDC records exactly 2 bids for the same target, we use the following criteria to classify the 2 bids as competing bids: Bids are considered competing if 1 of the 2 bids is completed with more than 50% of the target's shares acquired, or if both bids are completed, one

[8] See, for example, Bulow, Huang, and Klemperer (1999) and Goeree and Offerman (2002).

[9] The impact of bidding competition on acquirer returns is studied in Bradley et al. (1988), Fishman (1988), (1989), Hirshleifer and Png (1989), Berkovitch and Narayanan (1990), Eckbo et al. (1990), Servaes (1991), Comment and Schwert (1995), Betton and Eckbo (2000), Schwert (2000), Moeller et al. (2004), and Boone and Mulherin (2008).

[10] However, this reasoning leads one to ask why more firms do not follow the leader and acquire. We assume that there are costs that prevent all firms from following this strategy.

completed bid is a majority acquisition and the other completed bid is a minority acquisition, and:

i) SDC specifically flags the 2 bids as competing bids, *or*

ii) the announcement dates of the 2 bids are no more than 12 months apart, the 1st bid is not completed before the 2nd bid is announced, and neither bid is for a divestiture (since with divestitures it is not clear if firms are bidding on the same assets).

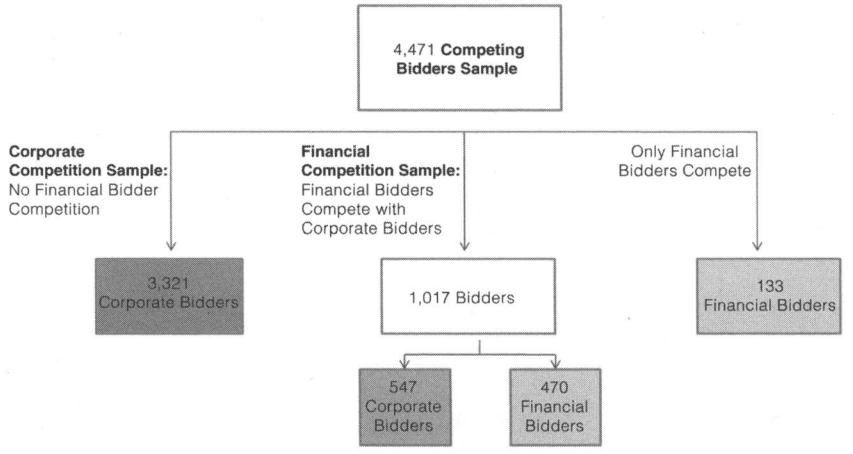
If SDC records more than 2 bidders for the same target, the criteria listed previously are used to classify the bids as competing bids. However, we relax the explicit criteria that all bids must occur within 12 months. We allow for the possibility that when multiple (more than 2) bidders are present, bidding competition can drag on for longer than a year between the first and last bid. Even though we do not require multiple bids to occur within 1 year, we find that approximately 95% of the multiple bidder competitions were concluded within a 12-month period, and the remaining 5% of multiple bidder competitions were concluded within a 24-month period. Combining the 2-bidder and multiple bidder competitions, we have 4,471 bidders, which we refer to as the *Competing Bidders sample*. This sample includes the successful acquirers and the unsuccessful competing bidders.

Our primary question of interest is how the identity of the competitor impacts the deal characteristics and returns to the ultimate corporate acquirer. Therefore, the paper focuses on the Competing Bidders sample. SDC Platinum flags strategic buyers as Corporate Buyers and private equity groups as Financial Buyers. We subdivide the 4,471 Competing Bidders into the *Corporate Competition sample* and the *Financial Competition sample*. The Corporate Competition sample includes 3,321 corporate bidders who compete only with corporate bidders.

FIGURE 1

Sample Breakdown

Figure 1 describes the breakdown of the sample used throughout this paper. The subsample names in bold are used in the paper.



The Financial Competition sample includes 547 corporate bidders who compete with at least 1 of 470 financial bidders; thus, the Financial Competition sample is made up of 1,017 bidders. The remaining 133 bidders are financial buyers who compete only with other financial buyers and are largely ignored in this paper due to lack of data. We define a financial bidder as a private equity buyer or an investor group and not as financial firms (e.g., banks, insurance companies, etc.).[11] The division of the Competing Bidders sample into these groups is illustrated in Figure 1. Our analyses center on corporate bidders in the Corporate Competition and Financial Competition samples. Table 1 provides a year-by-year summary of the total number of deals announced, the number of competed deals, and the number of competed deals that involved financial bidder competition. Column 4 presents the fraction of competed deals that included at least 1 financial bidder.

TABLE 1

Distribution of Financial Sponsor Competition by Year

Table 1 describes the sample of 100,697 announcements of successful and unsuccessful merger and tender offers made by either corporate bidders or financial sponsors. The breakup of the sample is provided for each year from 1980 to 2007. Column 1 contains the total number of deals announced by either corporate bidders or financial bidders. Column 2 contains the number of deals that faced at least 1 competing bid from any type of bidder. Column 3 contains the number of deals that faced a competing bid from at least 1 financial sponsor. Column 4 captures the fraction of competed deals that include competition from financial bidders (Column 3 divided by Column 2).

Year	Deals Announced 1	Deals Facing Competing Bids 2	Deals Facing Competing Bids from Financial Buyers 3	Fraction of Competed Deals with Financial Buyer Competition (3/2) 4
1980	82	3	0	0.00
1981	646	69	5	0.07
1982	764	94	11	0.12
1983	894	110	19	0.17
1984	1,102	134	36	0.27
1985	1,077	165	58	0.35
1986	1,670	207	72	0.35
1987	1,758	231	82	0.35
1988	2,027	379	159	0.42
1989	2,603	288	94	0.33
1990	2,634	131	22	0.17
1991	2,350	158	36	0.23
1992	2,646	138	24	0.17
1993	3,066	229	24	0.10
1994	3,796	203	45	0.22
1995	4,665	197	24	0.12
1996	5,517	240	39	0.16
1997	6,794	239	40	0.17
1998	8,218	174	20	0.11
1999	6,974	174	17	0.10
2000	6,982	209	39	0.19
2001	4,345	140	20	0.14
2002	3,948	105	22	0.21
2003	4,178	120	19	0.16
2004	5,131	88	22	0.25
2005	5,558	101	21	0.21
2006	6,440	92	33	0.36
2007	4,832	53	14	0.26
Total	100,697	4,471	1,017	0.23

[11] We have also conducted tests (not shown) by dropping all corporate bidders with Standard Industrial Classification (SIC) codes in the range 6000–6999. The resulting sample sizes are smaller but our findings are robust.

We see that financial buyer competition varies across time and that it peaked in 1988 and 2006.[12]

Using unique data, Boone and Mulherin (2007) show that competition occurs before the announcement of a deal. Thus, our measure of competition may underestimate the degree of competition. This bias may impact our tests of differences between the Competing Bidder sample and the Single Bidder sample. However, this difference is not the focus of our paper. The primary contribution of this paper is to examine the difference in subsamples of competing bidder deals based on the identity of the competitor. Thus, the bias will only impact our key results if financial bidders and corporate bidders disproportionately participate in pre-announcement auctions.[13]

III. Comparing Returns of the Competing Bidder Samples

In this section, we test whether corporate acquirers can deliver better shareholder returns by purchasing targets pursued by financial bidders. We compare the CARs earned by corporate bidders in the Financial Competition sample with the CARs earned by corporate bidders in the Corporate Competition sample. Recall that corporate acquirers in the Financial Competition sample face at least 1 competing bid from a financial bidder, whereas corporate acquirers in the Corporate Competition sample face competing bids from other corporate bidders only.[14] Abnormal returns of the corporate acquirers are calculated as the acquirer return minus the return on a value-weighted market index.[15]

In Panel A of Table 2, we present bidder CARs for the −2- to 2-, −20- to 120-, and −20- to 180-day windows. Figure 2 plots the CARs of all corporate bidders in the 2 Competing Bidder samples as well as the Single Bidder sample from 20 days before the merger announcement until 180 days after the merger announcement. The figure shows that in the days following merger announcement, CARs of corporate bidders in the Financial Competition sample lie well above the CARs of corporate bidders in the Corporate Competition sample and the Single Bidder sample. The graph suggests that corporations that bid on targets pursued by financial bidders deliver higher shareholder returns than corporate firms that bid on targets that only other corporate bidders are interested in. We see in Panel A of Table 2 that returns of corporate bidders in the Financial Competition sample are 7.16 (8.80) percentage points higher than the returns of the Corporate Competition sample in the −20- to 120- (−20- to 180-) day windows.[16]

[12]The low number of competing bids in 1980 is due to poor coverage of M&As by SDC in 1980.

[13]Boone and Mulherin (2011) suggest that targets in the Financial Competition sample are more likely to face bidding competition prior to the announcement date. However, due to lack of data it is not possible to ascertain whether the pre-announcement competition is more likely to arise from financial bidders or corporate bidders.

[14]A related question is: How do the announcement returns of the financial bidders compare to those of corporate bidders?.Unfortunately, these data are not available, since the majority of financial bidders are private. Furthermore, this analysis is not necessary to answer our question of interest.

[15]Abnormal returns calculated using a market model yield similar results (not shown).

[16]In untabulated tests, we repeat this analysis for the −2 to 120, −2 to 180, and −2 to completion periods and obtain similar results.

TABLE 2

Univariate Analysis of CARs of Corporate Acquirers and Targets

Panel A of Table 2 compares the cumulative abnormal returns (CARs) of corporate acquirers who bid against either financial bidders or other corporate bidders. Panel B compares CARs of corporate bidders who win against either financial bidders or other corporate bidders. Panel C compares CARs of corporate bidders who lose a bidding competition against financial bidders or other corporate bidders. CARs are presented for the (−2, +2), (−20, +120), and (−20, +180) windows surrounding the bid announcement date of the winning corporate acquirer. Panel D presents CARs for the target firms. CARs for the target are calculated from 2 days before announcement of the first bid till 2 days after announcement of the winning bid. In all panels, "Financial Competition Sample" refers to the sample of winning corporate acquirers who faced competition from at least 1 financial bidder. "Corporate Competition Sample" refers to the sample of corporate acquirers who faced competition from other corporate bidders only. Abnormal returns are calculated as the acquirer's return minus a value-weighted market index. Parentheses contain Patell *Z*-statistics or *t*-statistics as indicated. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

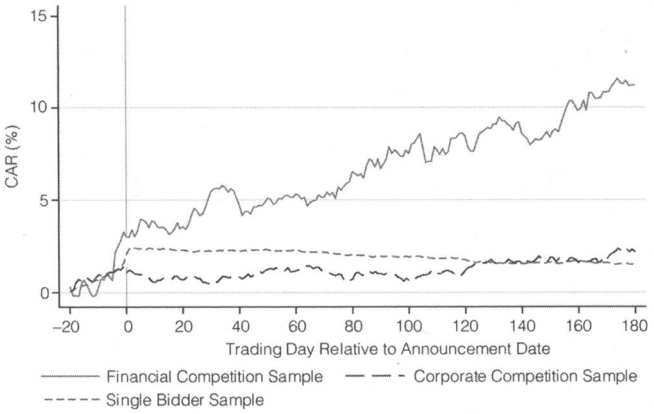
	Financial Competition Sample	Corporate Competition Sample	
	Mean CAR (Patell *Z*)	Mean CAR (Patell *Z*)	Difference (*t*-statistic)
Panel A. All Bidders			
Acquirer CARs over the (−2, +2) window	0.95% (0.48)	−0.14% (3.16)***	1.09% (1.41)
Acquirer CARs over the (−20, +120) window	8.40% (2.06)**	1.25% (2.01)**	7.16% (2.10)**
Acquirer CARs over the (−20, +180) window	10.98% (2.39)***	2.18% (3.25)***	8.80% (2.16)**
No. of obs.	133	982	
Panel B. Winning Bidders			
Acquirer CARs over the (−2, +2) window	0.99% (0.47)	−0.31% (−2.88)***	1.31% (1.23)
Acquirer CARs over the (−20, +120) window	10.52% (1.89)**	3.56% (2.95)***	6.95% (1.66)*
Acquirer CARs over the (−20, +180) window	13.34% (2.28)**	4.51% (3.66)***	8.83% (1.72)*
No. of obs.	76	545	
Panel C. Losing Bidders			
Acquirer CARs over the (−2, +2) window	0.91% (1.33)*	0.05% (−1.56)*	0.86% (0.75)
Acquirer CARs over the (−20, +120) window	5.76% (1.05)	−1.20% (−0.075)	6.94% (1.26)
Acquirer CARs over the (−20, +180) window	8.37% (1.21)	−0.40% (0.89)	8.77% (1.34)
No. of obs.	58	443	
Panel D. Target Returns			
Target CARs over (−2, +2) window	28.25% (7.53)*** 37	28.55% (19.31)*** 245	−0.3% (0.05)

The CARs capture the value of a deal as well as the market's expectation that the deal will be completed. Since the market may have assigned different probabilities of winning to the eventual winner and loser in the competition, we divide the samples into winning and losing bidders. Panel B of Table 2 compares CARs of winning corporate acquirers in the 2 competition samples. We see that CARs of winning corporate bidders in the Financial Competition sample are 13.34% over the −20- to 180-day window and exceed the returns of winning bidders in the Corporate Competition sample by 8.83 percentage points. Results are similar over the −20- to 120-day window. In Panel C, we see that the returns of losing corporate bidders in the Financial Competition sample are positive but not

FIGURE 2

CARs of All Corporate Bidders

Figure 2 shows the cumulative abnormal returns (CARs) of corporate bidders from 20 days prior to merger announcement until 180 days after merger announcement. The thick long-dashed line shows CARs for corporate acquirers who faced competition from other corporate bidders (Corporate Competition sample). The thin solid line shows CARs for corporate acquirers who faced competition from financial bidders (Financial Competition sample). The thin short-dashed line shows CARs for acquirers in the Single Bidder sample. Abnormal returns are calculated as the acquirer's return minus a value-weighted market index.



statistically significant. The difference in returns of losing corporate bidders in the 2 competition samples is not statistically significant either. Thus, the difference in the performance of bidders in the 2 samples appears to be driven by winning corporate acquirers.

We also compare target CARs using the methodology of Bradley et al. (1988). We estimate CARs for the target firm from 2 days before the announcement of the first bid until 2 days after the announcement of the ultimately successful bid. In Panel D of Table 2, we see that the target CARs are not significantly different across the 2 competition samples.[17]

It could be argued that over a 180-day window, buy-and-hold returns are a more appropriate measure of returns earned by acquiring firm shareholders. Following the standard methodology outlined in Lyon, Barber, and Tsai (1999), we calculate BHARs as the buy-and-hold return of an acquirer during the 6 months following announcement less the buy-and-hold return of a Fama and French (1997) size and book-to-market matched portfolio. Since BHARs are known to be skewed and suffer from several biases outlined in Lyon et al., we follow their methodology and calculate skewness-adjusted t-statistics and base inference on bootstrapped critical values. In untabulated results, we find that corporate acquirers in the Financial Competition sample experience positive BHARs of 6.25%, while the BHARs of acquirers in the Corporate Competition sample are

[17] Bargeron et al. (2008) show that targets have significantly lower abnormal return if they are acquired by a private firm (which is typically a private equity firm) rather than a public firm (more likely an operating firm). However, our results are not directly comparable with Bargeron et al., since targets in the Corporate Competition sample receive bids from corporate acquirers only (which are mostly public firms), whereas targets in the Financial Competition sample receive bids from both corporate acquirers and financial buyers.

indistinguishable from 0. The difference between the two is statistically significant at the 10% level.

Mitchell and Stafford (2000) argue that the calendar-time portfolio approach is a more reliable methodology for estimating long-term abnormal performance.[18] Thus, we compare calendar-time abnormal returns for corporate acquirers in the Financial Competition and Corporate Competition samples in untabulated results. Calendar-time returns indicate that over the 6 months following announcement, acquirers in the Financial Competition sample experience positive abnormal returns, whereas abnormal returns of acquirers in the Corporate Competition sample are not significantly different from 0. The difference in the abnormal returns of the 2 samples is statistically significant. Thus, consistent with the CAR and BHAR results, the 6-month calendar-time returns indicate that acquirers in the Financial Competition sample outperform acquirers in the Corporate Competition sample.

Given the dramatic difference in the BHARs, calendar-time returns, and longer-window CARs of the Financial Competition sample relative to the Corporate Competition sample, it may seem surprising that the differences are insignificant over the -2 to +2 announcement window. One possible reason is that the initial announcement return may not be very informative when competition exists because information is revealed over a longer time period as competing bids appear. This is one reason why we focus our analysis on the longer windows. However, to investigate announcement returns further, we allow for the possibility that significant information is released around the day a subsequent competing bid appears. For acquirers who were the first to bid, we examine CARs on the date a competing bid appears. We focus on acquirers who bid first so that we can examine the impact of the subsequent bid. In Table 3, we present returns for corporate buyers who bid first over the -2- to +2-day window surrounding the announcement of a subsequent competing bid by a financial bidder or a corporate bidder. On average (at the median), corporate first bidders experience a 2.03% (1.37%) return on the announcement of a competing bid by a financial bidder and a return of only 0.22% (0.26%) on the announcement of a competing bid by a corporate

TABLE 3

CARs of Corporate Acquirers at Announcement of Competing Bid

Table 3 presents mean and median cumulative abnormal returns (CARs) of corporate acquirers who made the first bid. CARs are calculated for the (-2, +2) announcement window surrounding the day a subsequent competing bid appeared either from a financial bidder or from a corporate bidder. Abnormal returns are calculated as the acquirer's return minus a value-weighted market index. *t*-statistics presented in absolute values are in parentheses. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

	Competing Bid from Financial Bidder		Competing Bid from Corporate Bidder	Difference-in-Means (*t*-statistic)
Mean CARs	2.03%		0.22%	1.86% (1.78)*
Median CARs	1.37%		0.26%	
Pearson χ^2		3.71*		
Wilcoxon rank test		1.74*		

[18]Calendar-time abnormal returns are discussed in Jaffe (1974) and Mandelker (1974), and strongly advocated by Fama (1998).

bidder. These differences are statistically significant at the 10% level. Thus, the market's reaction to the appearance of a competing bid supports our hypothesis that competition from a financial bidder indicates that the value of controlling the target is high. It also indicates that in the competing bid sample, a longer window is needed to capture the market's reaction.

IV. Explaining Differences in Returns

A. Hypotheses

In this section, we investigate why corporate acquirers competing with financial bidders have significantly greater abnormal returns than corporate acquirers competing with corporate bidders. We consider 3 possible explanations: i) Acquirers in the Financial Competition sample are inherently better at undertaking value-enhancing acquisitions (Hypothesis 1); ii) the higher returns of acquirers in the Financial Competition sample can be attributed to the choice of the target firm (Hypothesis 3); and iii) deal terms in the Financial Competition sample are more favorable to the bidding firm (Hypothesis 2).

B. Following the Leader

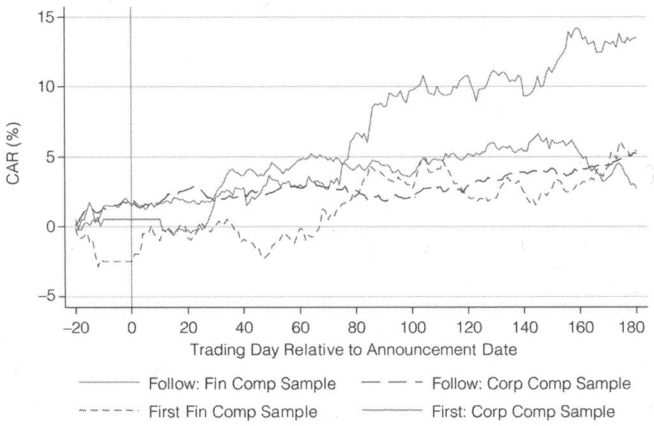
Hypothesis 1 argues that corporate acquirers in the Financial Competition sample earn higher returns because they are inherently more skilled acquirers. That is, corporate bidders competing with financial bidders may be better governed, more skilled at identifying good acquisitions and/or undertaking post-merger restructuring of their own, and the presence of private equity competition may just be a proxy for these differences. Hypotheses 2 and 3, on the other hand, suggest that the Financial Competition sample outperforms the Corporate Competition sample because either the target identified or deal terms negotiated are superior in this sample. Both Hypotheses 2 and 3 allow for the possibility that financial sponsors identify sources of value that transfer to the winning corporate acquirer, whereas Hypothesis 1 does not. For example, if financial sponsors are skilled at identifying undervalued targets or negotiating lower premia, then a winning corporate acquirer would benefit just by following the financial buyer's lead.

To test if corporate acquirers outperform because financial sponsors identify sources of value that are transferable to other bidders, we divide corporate acquirers in the Financial Competition and Corporate Competition samples into 2 groups: i) *First Bidders* in the Financial (Corporate) Competition sample are corporate acquirers who were first bidders and subsequently faced competition from financial (other corporate) bidders; and ii) *Followers* in the Financial (Corporate) Competition sample are corporate acquirers who entered the bidding competition after observing a first bid from a financial (corporate) bidder. If the difference in returns between the Corporate Competition and Financial Competition samples is due to financial buyers' ability to identify better targets or get superior deal terms, then the difference in returns should be stronger in the Followers subgroup. Figure 3 plots CARs of First Bidders and Followers in the Financial Competition and Corporate Competition samples from 20 days prior to announcement

FIGURE 3

CARs of First Movers and Followers

Figure 3 shows the cumulative abnormal returns (CARs) of corporate bidders from 20 days prior to merger announcement until 180 days after merger announcement. The thick solid line shows CARs for corporate acquirers in the Financial Competition sample who followed a first bid by a financial buyer. The thick long-dashed line shows CARs for corporate acquirers in the Corporate Competition sample who followed a first bid by another corporate buyer. The thin short-dashed line shows CARs for acquirers in the Financial Competition sample who bid first and subsequently faced bidding competition from financial buyers. The thin solid line shows CARs for corporate acquirers in the Corporate Competition sample who bid first and subsequently faced bidding competition from other corporate bidders. Abnormal returns are calculated as the acquirer's return minus a value-weighted market index.



until 180 days after announcement. We see that CARs of First Bidders in the Financial Competition sample mostly lie below CARs of First Bidders in the Corporate Competition sample. CARs of Followers in the Financial Competition sample, in contrast, lie consistently and significantly above CARs of Followers in the Corporate Competition sample. A similar picture emerges in Table 4, which presents acquirer average CARs over 3 event windows: (−2, +2), (−20, +120), and (−20, +180). The univariate results show that the superior performance of the Financial Competition sample is stronger when a corporate acquirer follows a financial bidder rather than being the first bidder. In the follower subsample, all returns for the Financial Competition sample are higher than those for the Corporate Competition sample.[19] Specifically, the Financial Competition sample earns returns that are 11.5 and 11.9 percentage points higher over the (−20, +120) and (−20, +180) periods, respectively. Both of these differences are significantly different from 0.[20] Thus, following a financial bidder results in higher abnormal returns than following a corporate bidder.

[19]As shown in Table 3, the follow-on bid from a competing financial bidder does provide a certification effect for the first bidder. However, this effect seems weak. Table 4 shows that the cumulative effect over the longer event windows is not significantly greater for first bidders in the Financial Competition versus the Corporate Competition sample.

[20]Since the samples are small for this test, the t-statistics may not be normally distributed. Therefore, we assess the statistical significance of the difference in returns using a bootstrapped distribution of the t-statistics. Specifically, under the null hypothesis of equal CARs between the Financial Competition and Corporate Competition samples, we independently draw, with replacement, random samples of the same size from the First Mover (Follower) subgroups of both the Financial Competition and Corporate Competition samples and recalculate the t-statistics. We repeat this 1,000 times and use the

TABLE 4

Univariate Analysis of CARs of First Movers and Followers

Table 4 compares the cumulate abnormal returns (CARs) of corporate acquirers who win bidding competition against either financial bidders or other corporate bidders. CARs over the (−2, +2), (−20, +120), and (−20, +180) windows are presented. "Financial Competition Sample" refers to the sample of corporate acquirers who faced competition from at least 1 financial bidder. "Corporate Competition Sample" refers to the sample of corporate acquirers who faced competition from other corporate bidders. Abnormal returns are calculated as the acquirer's return minus a value-weighted market index. "First Mover Sample" refers to the sample of winning corporate acquirers who were first bidders and faced subsequent competition from either financial bidders or corporate bidders. "Follower Sample" refers to the sample of winning corporate acquirers who entered the bidding competition after observing a bid from a financial bidder or a corporate bidder. Parentheses contain Patell *Z*-statistics or *t*-statistics in absolute values as indicated. Since the First Mover group in the Financial Competition sample is small, we assess the statistical significance of the differences (1 − 2) using a bootstrapped distribution of the *t*-statistics. Specifically, under the null hypothesis of equal CARs between the Financial Competition and Corporate Competition samples, we independently draw, with replacement, random samples with the same sample size from the First Mover (Follower) groups of both the Financial Competition and Corporate Competition samples, and we recalculate the *t*-statistics. We repeat this 1,000 times and use the bootstrapped series of *t*-statistics to estimate the empirical distribution of the *t*-statistics under the null hypothesis. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

		Financial Competition Sample	Corporate Competition Sample	
Event Window	Group	Mean CAR [*N*] (Patell *Z*) 1	Mean CAR [*N*] (Patell *Z*) 2	Difference (*t*-statistic) 3
(−2, +2)	First mover sample	0.78% [27] (1.31)*	−0.27% [144] (1.09)	1.05% (0.57)
	Follower sample	1.11% [49] (1.56)	−0.33% [401] (2.70)***	1.44% (1.11)
(−20, +120)	First mover sample	3.31% [27] (0.48)	5.19% [144] (2.50)***	−1.88% (0,28)
	Follower sample	14.50% [49] (2.00)**	2.98% [401] (1.93)**	11.52% (2.13)*
(−20, +180)	First mover sample	6.62% [27] (1.18)	2.68% [144] (1.61)*	3.94% (0.43)
	Follower sample	17.04% [49] (1.97)**	5.16% [401] (3.21)***	11.88% (1.90)*

C. Multivariate Analysis of Returns

In this section, we subject our findings to more rigorous analysis by controlling for other factors that have been shown to affect acquirer returns. We estimate the following regression equation for winning acquirers in the Financial Competition and Corporate Competition samples:

$$\begin{aligned}(1)\quad \mathrm{CAR}_i = {} & \alpha_0 + \alpha_1 \mathrm{FINCOMP}_i + \alpha_2 \mathrm{CASH}_i + \alpha_3 \mathrm{ACQ\_SIZE}_i \\ & + \alpha_4 \mathrm{RELSIZE}_i + \alpha_5 \mathrm{POISON}_i + \alpha_6 \mathrm{TOEHOLD}_i + \alpha_7 \mathrm{TPUB}_i \\ & + \alpha_8 \mathrm{TTERMF}_i + \alpha_9 \mathrm{DAYS}_i + \alpha_{10} \mathrm{SAMEIND}_i \\ & + \alpha_{11} \mathrm{PREMIUM}_i + \alpha_{12} \mathrm{DEBT\_FINANCING}_i + \varepsilon_i.\end{aligned}$$

In equation (1), CAR is the cumulative abnormal return earned by successful corporate acquirers over the (−20, +180) window.[21] FINCOMP is a dummy variable equal to 1 if the corporate acquirer faced competition from a financial

bootstrapped series of *t*-statistics to estimate the empirical distribution of the *t*-statistics under the null hypothesis.

[21] We repeat this analysis using the −20 to +120 window and get similar results.

bidder, and 0 otherwise. We control for a number of variables previously shown to impact acquirer returns and present summary statistics for several of these in Table 5. CASH is a dummy variable equal to 1 if the entire deal value is paid in cash, and 0 otherwise.[22] ACQ_SIZE is acquirer market value of assets in logs. RELSIZE captures relative size of the target and is measured as the TV of the merger divided by acquirer market value of assets. POISON is a dummy variable equal to 1 if the target has a defensive poison pill in place. TOEHOLD is a dummy variable equal to 1 if the percentage of the target's stock held by the first bidder is greater than 5% at announcement. TPUB is a dummy variable equal to 1 if the target is a publicly traded firm, and 0 otherwise. TTERMF is the target termination fee divided by the TV of the merger. DAYS is the number of days from merger announcement to merger completion. SAMEIND is a dummy variable equal to 1 if the corporate acquirer is in the same industry as the target, using 4-digit SIC codes, and 0 otherwise. PREMIUM is the premium offered above the target's market value of equity 4 weeks prior to merger announcement. DEBT_FINANCING is the dollar amount of debt financing used to pay for the transaction.

Columns 1–3 of Table 6 contain estimates of equation (1). Since data on acquisition premia and debt financing are available only for a subsample, we first present equation (1) without these 2 variables in Column 1. The coefficient on FINCOMP is positive and significant, confirming the univariate finding that corporate acquirers who face financial bidder competition perform significantly better than corporate acquirers who compete with other corporate bidders only. The coefficient of 0.197 indicates that after controlling for other differences in deal terms, acquirers bidding against financial sponsors earn a return that is 19.7 percentage points higher than those competing with other corporate bidders. In Column 2, we include PREMIUM as a control variable. PREMIUM is not significantly related to acquirer returns, while the FINCOMP dummy variable remains significant. In Column 3, we include DEBT_FINANCING and find that debt financing is associated with higher CARs.[23] Again, the FINCOMP dummy variable is statistically significant after controlling for debt financing. Thus, corporate acquirers who face competition from financial bidders significantly outperform corporate acquirers who face competition only from other corporate bidders. In untabulated results, we repeat the multivariate analysis with 6-month BHARs as the dependent variable, and our finding that corporate acquirers in the Financial Competition sample outperform acquirers in the Corporate Competition continues to hold.

Columns 4 and 5 of Table 6 repeat this analysis for the first mover and follower samples. Column 4 shows that first movers who later face competition from a financial bidder do not significantly outperform those facing later competition from corporate bidders. Column 5 confirms the univariate results and shows that for the follower subgroup, firms competing with financial bidders significantly

[22]In alternative specifications, we use the pure stock dummy variable instead and find that the results still hold. We do not include the pure cash and pure stock dummy variables together, because the two have a significant negative correlation of −0.54, which results in multicollinearity problems.

[23]This finding is consistent with Bharadwaj and Shivdasani (2003), who find that bank debt performs a certification and monitoring role in acquisitions.

TABLE 5

Bidder, Target, and Deal Characteristics

Table 5 presents deal characteristics and bidder and target characteristics for successful and unsuccessful tender offers or mergers announced by corporate acquirers between 1980 and 2007. Panel A presents deal characteristics, Panel B presents bidder characteristics, and Panel C presents target characteristics. Column 1 of Panel A contains descriptive statistics of 3,321 competed deals in which all bidders were corporate buyers. Column 2 contains descriptive statistics of 547 competed deals announced by corporate bidders who faced competition from at least 1 financial bidder. In Panels A and B, data for all deals are provided first. Data for successful deals only are provided below in square brackets. TV, obtained from SDC, is the total amount paid by the acquirer to complete the acquisition excluding fees. TV/ASSETS is TV divided by the target's market value of assets. Market value of assets is the book value of total debt plus market value of equity. RELATIVE_SIZE is transaction value (TV) divided by market value of assets of the acquiring firm. DAYS is the number of days between the announcement date of the first bid and the effective date of the successful acquirer. HOSTILE_DEALS is the fraction of deals in which the deal attitude of the acquirer was hostile to target management. TENDER_OFFERS is the fraction of deals in which a tender offer was made to shareholders. PERCENTAGE_CASH (PERCENTAGE_STOCK) is the percentage of deal value offered in cash (stock). PURE_CASH_(STOCK)_DEALS is the percentage of deals that offer only cash (stock). POISON is a dummy variable equal to 1 if the target has a defensive poison pill in place. TOEHOLD is a dummy variable equal to 1 if the percentage of the target's stock held by the first bidder is greater than 5% at announcement. TTERMF is the dollar amount the target must pay to the acquirer in order to cancel the merger agreement divided by TV. DEBT_FINANCING ($ mln) is the dollar amount of debt financing raised by the bidder to pay for the acquisition. DEBT_FINANCING (%) is DEBT_FINANCING ($ mln) divided by TV. PREMIUM is the premium offered above the target's pre-announcement market value. It is calculated as the price per share offered by the acquirer minus the target's share price 4 weeks prior to the merger announcement divided by the target's share price 4 weeks prior to the announcement. Panel B presents the following variables for the acquiring firm. BOOK_ASSETS is book value of total assets. MARKET_ASSETS is calculated as book value of total debt (total long-term debt plus debt in current liabilities) plus market value of equity. MARKET_EQUITY is market value of equity of acquirer calculated as common stock outstanding times share price. The following variables are reported as deviations from the industry median: BOOK_LEVERAGE is calculated as book value of total debt divided by BOOK_ASSETS, where book value of total debt is total long-term debt plus debt in current liabilities. MARKET_LEVERAGE is calculated as book value of total debt divided by MARKET_ASSETS. MARKET_TO_BOOK is acquirer market-to-book ratio calculated as MARKET_ASSETS divided by BOOK_ASSETS. QUICK_RATIO is calculated as current assets minus inventories divided by current liabilities. ASSET_TURNOVER is calculated as net sales over BOOK_ASSETS. RETURN_ON_ASSETS (ROA) is acquirer return on assets calculated as net income over BOOK_ASSETS. CASH_FLOW_MARGIN is calculated as operating income before depreciation over net sales. CASH_TO_NET_ASSETS is acquirer's cash and cash equivalents divided by BOOK_ASSETS less cash and cash equivalents. INSTITUTIONAL_OWNERSHIP is defined as the number of shares held by institutions divided by total shares outstanding. INSIDER_OWNERSHIP is the number of shares held by insiders divided by total shares outstanding. Insiders are broadly defined to include all individuals with access to material, nonpublic information (e.g., board members, top management team, block shareholders, etc.). MANAGEMENT_OWNERSHIP is the number of shares held by the top management team divided by total shares outstanding. OPTION_AWARDS_OVER_TOTAL_COMPENSATION is the mean value of stock options granted to the top executives divided by total compensation. ACQUISITION_FREQUENCY is the average number of acquisition bids announced by acquirers in each subsample. Panel C presents the following variables for the target firm. BOOK_ASSETS, MARKET_ASSETS, MARKET_EQUITY, BOOK_LEVERAGE, MARKET_LEVERAGE, QUICK_RATIO, ASSET_TURNOVER, RETURN_OF_ASSETS (ROA), CASH_FLOW_MARGIN, CASH-TO-NET_ASSETS, INSTITUTIONAL_OWNERSHIP, INSIDER_OWNERSHIP, MANAGEMENT_OWNERSHIP, and OPTION_AWARDS_OVER_TOTAL_COMPENSATION are calculated for the target as described already for the acquirer. PUBLIC_TARGET, PRIVATE_TARGET, and SUBSIDIARY_TARGET capture the fraction of deals in which the target was a public, private, or subsidiary firm, respectively. PROBABILITY_TARGET is the ex ante probability of a firm becoming a takeover target. Panel D presents the difference between acquirer and target quality prior to the merger. ACQ_ROA_MINUS_TAR_ROA is the mean value of the difference between the acquirer's return on assets and the target's return on assets in the fiscal year end prior to the merger. ACQ_CFM_MINUS_TAR_CFM is the mean value of the difference between the acquirer's cash flow margin and the target's cash flow margin. ACQ_MTB_MINUS_TAR_MTB is the mean value of acquirer market-to-book less target market-to-book. Finally, ACQ_ATO_MINUS_TAR_ATO is the mean value of acquirer asset turnover less target's asset turnover. Return on assets, cash flow margins, market-to-book, and asset turnover are calculated as described above. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Deal Characteristics

	Corporate Competition	Financial Competition	Difference
	1	2	3
TV	871.4 [904.4]	707.8 [697.3]	163.67 [207.08]
TV/ASSETS	0.59 [0.62]	0.53 [0.55]	0.06 [0.07]
RELATIVE_SIZE	0.29 [0.23]	0.40 [0.25]	−0.11 [−0.02]
DAYS	[122.82]	[112.43]	[10.39]
HOSTILE_DEALS	8.06% [4.53%]	10.42% [10.48%]	−2.35%* [−5.94%]***
TENDER_OFFERS	16.86% [21.73%]	20.01% [32.66%]	−3.25%* [−10.92%]***

(continued on next page)

TABLE 5 (continued)

Bidder, Target, and Deal Characteristics

	Corporate Competition	Financial Competition	Difference
	1	2	3
Panel A. Deal Characteristics (continued)			
PERCENTAGE_CASH	57.12% [56.28%]	76.13% [76.11%]	−19.00%*** [−19.83%]***
PERCENTAGE_STOCK	27.99% [29.37%]	13.19% [15.16%]	14.80%*** [14.21%]***
PURE_CASH_DEALS	46.56% [45.16%]	66.12% [66.15%]	−19.55%*** [−20.98%]***
PURE_STOCK_DEALS	20.64% [20.90%]	9.47% [10.93%]	11.17%*** [9.97%]***
POISON	3.34% [1.79%]	4.02% [5.25%]	−0.68% [−3.45%]***
TOEHOLD	8.51% [8.23%]	13.71% [12.90%]	−5.19%*** [−4.66%]***
TTERMF	0.0023 [0.003]	0.0031 [0.005]	−0.001 [−0.002]*
DEBT_FINANCING ($ mln)	[141.12]	[305.58]	[−164.45]***
DEBT_FINANCING (%)	[19.46%]	[35.37%]	[−15.9%]***
NUMBER_OF_COMPETING_BIDS	1.70 [1.62]	2.09 [1.88]	−0.39*** [−0.26]***
PREMIUM	44.63% [46.27%]	34.50% [29.73%]	10.12%*** [16.53%]***
Panel B. Bidder Characteristics			
BOOK_ASSETS	5,671 [5,589]	5,427 [4,541]	244 [1,048]
MARKET_ASSETS	11,771 [11,320]	12,441 [11,326]	−670 [−6]
MARKET_EQUITY	5,049 [4,864]	5,816 [6,503]	−766 [−1,639]
BOOK_LEVERAGE	3.34% [3.63%]	3.90% [0.79%]	−0.55% [2.83%]
MARKET_LEVERAGE	1.68% [0.83%]	3.01% [1.87%]	−1.33% −1.03%
MARKET_TO_BOOK	0.51 [0.53]	0.10 [0.16]	0.41** [0.37]*
QUICK_RATIO	0.55 [0.60]	0.21 [0.12]	0.34** [0.48]*
ASSET_TURNOVER	0.046 [0.012]	−0.052 [0.023]	0.098* [−0.011]
RETURN_ON_ASSETS (ROA)	−0.01 [−0.017]	0.01 [0.022]	−0.02 [−0.039]
CASH_FLOW_MARGIN	−0.097 [−0.146]	0.033 [0.047]	−0.13 [−0.03]
CASH_TO_NET_ASSETS	0.16 [0.164]	0.093 [0.039]	0.07 [0.12]*
INSTITUTIONAL_OWNERSHIP	40.39% [41.54]	48.00% [51.80]	−7.61*** [10.26]***
INSIDER_OWNERSHIP	5.01 [5.23]	5.76 [3.32]	−0.75% [1.91%]
MANAGEMENT_OWNERSHIP	0.92% [0.75%]	2.26% [1.85%]	−1.34%*** [−1.10%]***
OPTION_AWARDS_OVER_TOTAL_COMPENSATION	31.30% [31.88%]	31.58% [32.27%]	−0.27% [−0.78%]
ACQUISITION_FREQUENCY	6.33 [7.68]	6.37 [8.16]	−0.047 [−0.48]

(continued on next page)

TABLE 5 (continued)

Bidder, Target, and Deal Characteristics

	Corporate Competition 1	Financial Competition 2	Difference 3
Panel C. Target Characteristics			
BOOK_ASSETS	1,560	830	729
MARKET_ASSETS	2,403	1,247	1,156*
MARKET_EQUITY	627	343	283
BOOK_LEVERAGE	2.55%	−1.66%	4.22%
MARKET_LEVERAGE	6.99%	5.42%	1.56%
MARKET_TO_BOOK	−0.015	−0.21	0.20**
QUICK_RATIO	0.57	0.43	0.14
ASSET_TURNOVER	0.13	0.14	−0.01
ROA	−0.04	0.01	−0.05**
CASH_FLOW_MARGIN	−0.07	−0.003	−0.07
CASH_TO_NET_ASSETS	0.10	0.13	−0.03
INSTITUTIONAL_OWNERSHIP	32.79%	39.67%	−6.87%***
INSIDER_OWNERSHIP	4.50%	6.99%	−2.48%***
MANAGEMENT_OWNERSHIP	0.62%	0.70%	−0.08%
OPTION_AWARDS_OVER_TOTAL_COMPENSATION	28.68%	20.58%	8.10%*
PUBLIC_TARGET	0.58	0.78	−0.20***
PRIVATE_TARGET	0.34	0.15	0.18***
SUBSIDIARY_TARGET	0.07	0.05	0.02
PROBABILITY_TARGET	57.38%	60.11%	−2.73%

Panel D. Difference between Acquirer and Target

	Corporate Competition Sample	Financial Competition Sample	Difference (*t*-statistic)
ACQ_ROA_MINUS_TAR_ROA	0.057	0.045	0.012 (0.48)
ACQ_CFM_MINUS_TAR_CFM	0.024	0.093	−0.07 (0.68)
ACQ_MTB_TAR_MTB	0.446	0.069	0.376 (1.79)*
ACQ_ATO_MINUS_TAR_ATO	−0.088	−0.353	0.264 (3.36)***

outperform the sample competing with corporate bidders; thus, following financial bidders by bidding on and winning the same target is a value-enhancing strategy.[24] These results suggest that financial bidders have superior abilities in identifying good acquisition targets (and possibly negotiate favorable terms), and corporate buyers benefit from joining the competition and winning.

D. Differences in Acquirer, Target, and Deal Characteristics

One possible explanation for the differing performance of corporate acquirers in the Financial Competition and Corporate Competition samples is that the deal terms, such as the premium paid, consideration offered in cash, deal attitude (hostile or friendly), etc., are different across the 2 samples. The CAR regressions of Table 6 show that the superior returns of the Financial Competition sample hold even after controlling for the method of payment and the premium paid. Nonetheless, we examine several deal characteristics to get a better picture of how deals in the 2 competition samples differ. Panel A of Table 5 presents deal characteristics

[24] We do not include premium paid and debt financing in Columns 4 and 5 of Table 6 because the availability of these data limits our sample, making too few observations to estimate the model.

TABLE 6

The Determinants of Abnormal Returns to Winning Corporate Acquirers

The dependent variable is the cumulative abnormal return (CAR) to winning corporate bidders over the (−20, +180) window, calculated as the acquirer's return minus the return on a value-weighted market index. FINCOMP is a dummy variable equal to 1 if the corporate acquirer faced bidding competition from a financial bidder (regardless of who made the first bid), and 0 if the corporate acquirer faced competition from another corporate bidder. CASH is a dummy variable equal to 1 if all of the deal value was paid in cash, and 0 otherwise. ACQ_SIZE is the acquirer's market value of assets in logs. Market value of assets is book value of debt plus market value of equity. RELSIZE is the transaction value (TV) of the merger divided by the acquirer market value of assets. The TV, obtained from SDC, is the total amount paid by the acquirer to complete the acquisition excluding fees. POISON is a dummy variable equal to 1 if the target has a defensive poison pill in place. TOEHOLD is a dummy variable equal to 1 if the percentage of the target's stock held by the first bidder is greater than 5% at announcement. TPUB is a dummy variable equal to 1 if the target is a publicly traded firm, and 0 otherwise. TTERMF is the target termination fee divided by the TV of the merger. DAYS is the number of days from the announcement of the bid by the winning acquirer until the deal is complete. SAMEIND is a dummy variable equal to 1 if target and acquirer belong to the same 4-digit SIC code. PREMIUM is the premium offered above the target's pre-announcement market value. It is calculated as the price per share offered by the acquirer minus the target's share price 4 weeks prior to the merger announcement divided by the target's share price 4 weeks prior to the announcement. DEBT_FINANCING is the dollar amount of debt financing used to pay for the transaction. The *t*-statistics presented in absolute values and based on robust standard errors are in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	All	All	All	First Movers	Followers
	1	2	3	4	5
FINCOMP: Fin. competition dummy	0.197	0.225	0.175	0.131	0.232
	(2.81)***	(2.37)**	(1.98)**	(0.85)	(2.25)**
CASH: Pure cash dummy	−0.023	0.099	0.002	−0.176	−0.037
	(0.46)	(1.79)*	(0.03)	(1.31)	(0.58)
ACQ_SIZE: Log acq. mkt value of assets	−0.011	0.008	−0.003	0.012	−0.013
	(0.83)	(0.51)	(0.20)	(0.45)	(0.72)
RELSIZE: Deal value over ACQ_SIZE	−0.013	0.052	−0.032	0.000	0.001
	(0.20)	(0.93)	(0.49)	(0.00)	(0.01)
POISON: Target poison pill dummy	0.174	0.070	0.051	0.108	0.214
	(2.17)**	(0.69)	(0.37)	(0.55)	(1.44)
TOEHOLD: Acq. toehold dummy	0.008	0.102	−0.043	0.298	−0.042
	(0.12)	(1.08)	(0.44)	(1.63)	(0.41)
TPUB: Target public firm	−0.079	0.109	−0.083	−0.048	−0.060
	(1.18)	(0.62)	(1.11)	(0.37)	(0.61)
TTERMF: Target termination fee	−6.241	−1.606	−4.423	2.687	−9.982
	(1.96)*	(0.47)	(1.14)	(0.35)	(2.41)**
DAYS: No. of days	−0.000	0.000	−0.000	0.000	−0.001
	(1.49)	(0.26)	(0.80)	(0.34)	(1.19)
SAMEIND: Same industry dummy	0.104	0.134	0.145	0.133	0.097
	(2.14)**	(2.15)**	(2.72)***	(1.52)	(1.46)
PREMIUM: Premium offered		0.048			
		(1.05)			
DEBT_FINANCING: $ debt financing			0.007		
			(2.54)**		
Intercept	0.226	−0.032	−0.020	−0.041	−0.123
	(1.04)	(0.13)	(0.08)	(0.10)	(0.45)
Industry dummies	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
No. of obs.	362	228	293	101	261
R^2	0.28	0.36	0.34	0.64	0.36

of these samples. We present data for all deals first and for successful deals only in square brackets.[25]

The TV, obtained from SDC, is the total amount paid by the acquirer to complete the acquisition excluding fees. We see in Panel A of Table 5 that TV and TV divided by the target's market value of assets are both similar for the

[25]In untabulated results, we also compare deal characteristic difference between the first movers and followers. Follower deals have a larger TV, use less cash, and pay lower premia, but these differences are not statistically significant.

Corporate Competition and Financial Competition samples. We also examine the relative size of the target and acquirer, which is calculated as TV divided by market value of assets of the acquiring firm. Market value of assets is the book value of total debt + market value of equity. The relative size of target firms across the 2 samples is indistinguishable. DAYS, measured as the difference between the announcement date of the first bid and the effective date of the successful acquirer, is insignificantly different between the Corporate Competition and Financial Competition samples. The percentage of hostile deals and tender offers is higher in the Financial Competition sample relative to the Corporate Competition sample. The percentage of deal value offered in cash is higher in the Financial Competition sample, at 76.13%, relative to the Corporate Competition sample at 57.12%. Not surprisingly, the pattern of percentage offered in stock is exactly the opposite, with bidders in the Financial Competition sample offering the lowest percentage in stock (13.19%). Similar results hold for the percentage of deals that are pure cash or pure stock. Why do corporate bidders competing with financial bidders pay more of the deal value in cash? First, if target shareholders are risk averse, corporate acquirers competing with financial buyers may pay a higher fraction of the deal value in cash to make their offer comparable.[26] Second, existing theory suggests that acquirers with more favorable private information offer more cash.[27] If corporate acquirers in the Financial Competition sample know that their acquisitions are of higher value (because they are chasing targets coveted by private equity groups) *and* this knowledge is private, they may use more cash as a signal of higher acquisition value.

Since corporate bidders in the Financial Competition sample pay a higher fraction of the deal value in cash, it is possible that they need to borrow more to finance the acquisition. Since debt financing has been linked to acquirer returns, we test whether acquirers in the Corporate Competition sample have to borrow more in order to offer more cash. In this test, we compare the amount borrowed by corporate acquirers for the explicit purpose of financing the acquisition. SDC provides a text description of the details of sources of financing for many deals. We read through the text description for successful deals in the Corporate Competition and Financial Competition samples. All types of bank financing (e.g., line of credit, revolving facility, and bridge loans) and any bonds, notes, and debentures issued by the bidder are added up to arrive at one figure for total debt financing of the acquisition. The average dollar amount of debt financing, DEBT_FINANCING ($ mln), taken by corporate bidders in the Financial Competition and Corporate Competition samples is provided in Panel A of Table 5. Corporate acquirers in the Corporate Competition sample borrowed on average $141 million to pay for the acquisition. Corporate acquirers in the Financial Competition sample borrowed on average $306 million. The difference between the 2 amounts is statistically significant at the 1% level. We also compare the amount of debt financing scaled by the TV of the merger, DEBT_FINANCING (%), across

[26] Anecdotal evidence suggests that target shareholders sometimes express a preference for cash. See, for example, the discussion of Starwood Lodging's acquisition of ITT in Rappaport and Sirower (1999).

[27] See Hansen (1987), Fishman (1989), Eckbo et al. (1990), and Berkovitch and Narayanan (1990).

the 2 samples. Corporate acquirers in the Corporate Competition sample borrow 19.5% of the total deal value. Corporate acquirers in the Financial Competition sample borrow 35.4% of the total deal value. The difference between the two is statistically significant at the 1% level. These results are consistent with the notion that corporate acquirers who face competition from financial bidders borrow more in order to offer more of the deal value in cash. Panel A of Table 5 also shows that the average number of competing bids is higher in the Financial Competition sample than in the Corporate Competition sample.[28]

Next, we compare the average takeover premium offered by corporate bidders in the Corporate Competition and Financial Competition samples. The target takeover premium, PREMIUM, is calculated as the price per share offered by the acquirer less the target's share price 4 weeks prior to the merger announcement divided by the target's share price 4 weeks prior to announcement. Panel A of Table 5 shows that corporate bidders in the Corporate Competition sample pay a premium of 44.6%, while corporate bidders in the Financial Competition sample pay a premium of 34.5%. The difference between the two is statistically significant at the 1% level. Thus, initial univariate tests suggest that corporate bidders pay lower premia when facing financial bidder competition possibly because financial bidders themselves pay low takeover premia. Since financial buyers are usually private firms, this result is consistent with Bargeron et al. (2008), who find that private acquirers pay lower premia than public acquirers.[29]

In summary, we show several differences in the deal characteristics of the Financial Competition and Corporate Competition samples. If these differences could explain the superior returns, then we would have support for Hypothesis 2. However, the evidence in Table 6 shows that the results persist after controlling for these deal terms. Thus, we do not find support for Hypothesis 2.

Next, we compare several observable characteristics of corporate acquirers that might capture acquirer ability to determine if acquirer abilities explain the superior returns of the Financial Competition sample. Characteristics of corporate bidders in the Financial Competition and Corporate Competition samples are presented in Panel B of Table 5.[30] Comparing the Financial Competition and Corporate Competition samples, we find that acquirers in these 2 groups share similarities. There are no significant differences in the size, leverage, or profitability of bidders in these subgroups. However, we find that bidders in the Financial Competition sample have significantly lower market-to-book ratio, lower quick ratio, and lower asset turnover relative to the Corporate Competition sample. Thus, a comparison of acquirer characteristics does not support the notion that

[28]Although not shown, we include the number of competing bids as an explanatory variable in Table 6. Our results continue to hold, and the number of competing bids is not a significant determinant of acquirer returns.

[29]The lower premia may be due to differing deal or target characteristics; thus, in untabulated results, we conduct a multivariate analysis of takeover premia and confirm that corporate bidders pay lower takeover premia when the competing bidder is a financial bidder instead of another corporate bidder.

[30]Several variables in Panels B and C of Table 5 are calculated as deviations from the industry median and may be negative.

corporate acquirers who choose to compete with financial bidders are fundamentally more efficient or better-run firms.

Existing research shows that the extent of institutional holdings, managerial and insider ownership, and option awards to managers can affect acquirer returns. We use Thomson Reuters data to calculate institutional holdings and insider ownership in the Corporate Competition and Financial Competition samples. Institutional ownership is defined as the number of shares held by institutions divided by total shares outstanding. Insider ownership is the number of shares held by insiders divided by total shares outstanding. Insiders are broadly defined to include all individuals with access to material, nonpublic information (e.g., board members, top management team, block shareholders, etc.). For firms covered by ExecuComp, we also calculate management ownership as the percentage of stock owned by the top management team of the acquiring firm. In Panel B of Table 5, we see that acquirers in the Financial Competition sample have significantly greater managerial and institutional holdings than acquirers in the Corporate Competition sample. Insider ownership is not significantly different between the 2 samples. Finally, we use acquisition frequency to capture acquirer experience. We count the total number of merger deals announced by acquirers in each subgroup over the 1980–2007 sample period. Panel B of Table 5 shows that the frequency of acquisitions by acquirers in the Corporate Competition and Financial Competition samples is similar.[31]

Overall, Panel B of Table 5 shows some differences between the acquirers in the 2 samples. To determine if these differences explain our results, we repeat the return regressions in Table 6 but now including acquirer characteristics. The new regressions are shown in Panel A of Table 7. Though a few acquirer characteristics significantly impact returns, the difference in returns between the 2 competition samples persists, indicating that acquirer differences do not account for the superior returns of the Financial Competition sample.[32] In unreported regressions, we include the frequency of acquisitions as a control variable and find that the difference between returns of the Corporate Competition and Financial Competition samples remains.

The 3rd potential explanation for the better performance of acquirers in the Financial Competition sample is that they pursue different targets. Panel C of Table 5 compares target characteristics across the samples. Targets in the Corporate Competition sample as measured by market value of assets are larger than targets in the Financial Competition sample. Thus, when corporate bidders compete with each other, they chase larger targets than in cases where the competitor is a financial bidder. There are no differences in the leverage of targets across the samples. Targets in the Financial Competition sample have lower market-to-book and higher return on assets as compared with the Corporate

[31] To test whether acquirers are more likely to undertake restructuring after the acquisition, we examine the number of divestitures between the 2 samples using data from SDC. We find that the Corporate Competition sample has more divestitures in the 3 years following the acquisition, but due to small sample sizes we cannot test for significance.

[32] We do not include acquirer management ownership in the regression because poor data availability leads to small sample sizes in the multivariate regressions.

Competition sample. We also look at the governance and compensation structure of targets in the 2 samples to check whether targets in the Financial Competition sample have greater potential for improvements in governance and managerial incentives. We find that target top management ownership in the 2 samples is

TABLE 7

CARs Controlling for Acquirer and Target Characteristics

The dependent variable is the cumulative abnormal return (CAR) to winning corporate bidders over the (−20, +180) window, calculated as the acquirer's return minus the return on a value-weighted market index. Panel A of Table 7 includes acquirer characteristics as control variables. Panel B includes target characteristics as control variables. All explanatory variables are as described in Tables 5 and 6.

Panel A. Controlling for Acquirer Characteristics

	All	All	Follower Subsample
	1	2	3
FINCOMP: Fin. competition dummy	0.207 (2.63)***	0.222 (2.58)**	0.223 (1.89)*
CASH: Pure cash dummy	−0.024 (0.34)	−0.005 (0.08)	−0.052 (0.57)
ACQ_SIZE: Log acq. mkt value of assets	−0.008 (0.45)	−0.021 (1.06)	−0.015 (0.57)
RELSIZE: Deal value over ACQ_SIZE	0.006 (0.10)	−0.100 (1.08)	0.014 (0.17)
POISON: Target poison pill dummy	0.219 (1.92)*	0.123 (1.19)	0.134 (0.56)
TOEHOLD: Acq. toehold dummy	−0.004 (0.04)	0.141 (1.27)	−0.035 (0.26)
TPUB: Target public firm	−0.087 (0.90)	−0.141 (1.39)	−0.104 (0.75)
TTERMF: Target termination fee	−8.454 (2.20)**	−5.354 (1.31)	−10.786 (2.23)**
DAYS: No. of days	−0.000 (1.19)	−0.000 (1.00)	−0.001 (1.02)
SAMEIND: Same industry dummy	0.084 (1.23)	0.133 (2.01)**	0.052 (0.57)
AMB: Acquirer market-to-book	−0.028 (1.00)		−0.036 (0.97)
ACQ_ASSET_TURNOVER	−0.021 (0.27)		−0.025 (0.24)
ACQ_CASH_TO_NET_ASSETS	0.083 (0.90)		0.140 (1.31)
ACQ_CASH_FLOW_MARGIN	−0.081 (1.66)*		−0.096 (1.82)*
ACQ_MARKET_LEVERAGE	0.022 (0.08)		−0.245 (0.73)
ACQ_ROA	0.136 (0.44)		0.413 (1.01)
ACQ_QUICK_RATIO	−0.044 (1.50)		−0.066 (1.98)**
ACQ_INSTITUTIONAL_OWNERSHIP		−0.002 (1.29)	
ACQ_INSIDER_OWNERSHIP		0.000 (0.06)	
Intercept		1.074 (5.30)***	
Industry dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
No. of obs	277	231	200
R^2	0.33	0.37	0.41

(continued on next page)

TABLE 7 (continued)

CARs Controlling for Acquirer and Target Characteristics

Panel B. Controlling for Target Characteristics

	All	Follower Subsample
FINCOMP: Fin. competition dummy	0.152 (1.89)*	0.225 (1.93)*
CASH: Pure cash dummy	0.080 (1.09)	0.170 (1.83)
POISON: Target poison pill dummy	−0.007 (0.06)	0.184 (0.73)
TOEHOLD: Acq. toehold dummy	0.035 (0.47)	−0.016 (0.19)
TPUB: Target public firm	0.170 (1.18)	0.195 (0.83)
TTERMF: Target termination fee	−5.71 (1.49)	−11.39 (2.52)**
DAYS: No. of days	−0.000 (1.22)	−0.001 (1.65)
SAMEIND: Same industry dummy	0.128 (1.95)*	0.094 (1.12)
TAR_ASSET_TURNOVER	−0.048 (0.70)	0.022 (0.27)
TAR_CASH_TO_NET_ASSETS	−0.050 (0.55)	−0.198 (1.76)*
TAR_CASH_FLOW_MARGIN	−0.014 (0.17)	−0.002 (0.01)
TAR_MARKET_LEVERAGE	0.021 (0.08)	−0.107 (0.33)
TAR_MARKET_TO_BOOK	−0.049 (1.25)	−0.053 (0.98)
TAR_ROA	−0.321 (1.13)	−0.642 (1.62)
TAR_QUICK_RATIO	0.001 (0.05)	0.042 (1.52)
Intercept	0.316 (1.61)	1.257 (1.90)*
Industry dummies	Yes	Yes
Year dummies	Yes	Yes
No. of obs.	222	158
R^2	0.41	0.58

similar. However, targets in the Financial Competition sample have higher institutional and insider ownership as compared with targets in the Corporate Competition sample. Therefore, firms targeted by financial buyers may actually have fewer governance problems. However, options awards as a percentage of total managerial compensation are lower for targets in the Financial Competition sample. Since options awards are a commonly used measure of pay-for-performance sensitivity, it is possible that targets in the Financial Competition sample have some room for improvement in management incentives. However, the evidence is mixed, and poor data coverage for targets prevents us from including these ownership and compensation variables in a multivariate analysis. However, in Panel B of Table 7, we control for the other target characteristics in the CAR regressions and show that the difference in returns between the 2 samples remains.[33] Thus,

[33]Target options awards are not included in multivariate analysis due to small sample size problems.

observable target characteristics do not explain why corporate acquirers do better when they compete with financial bidders.[34]

In Panel D of Table 5, we compare the acquirers to their targets. Specifically, for several performance ratios, we present the industry-adjusted ratio of the acquirer's performance minus the industry-adjusted ratio of the target prior to merger announcement. We then compare the relative ratios across the 2 samples. We find that there are no differences in the relative return on assets or cash flow margin. However, the difference between the market-to-book ratios of the acquirers and the targets is greater for deals in the Corporate Competition sample than in the Financial Competition sample. Lang, Stulz, and Walkling (1989) show that high market-to-book acquirers have higher returns, particularly when they acquire low market-to-book targets. Interpreting market-to-book as an indicator of better management, they conclude that acquisitions of poorly managed targets by well-managed acquirers deliver higher returns for the acquirer and target. Applying this line of thought to our subsamples, the differences between the acquirer and target market-to-book ratios and asset turnover predict higher returns for the Corporate Competition sample. Since we actually find that acquirers in the Financial Competition sample do better, our results are not attributable to better-managed firms acquiring poorly managed targets.

E. Comparing Prior Acquisitions and Motives to Acquire

The previous analysis examines and controls for observable acquirer characteristics. However, it is possible that an acquirer is skilled at acquisitions but this skill is not well measured by these observables. To further test Hypothesis 1, we therefore examine past acquisitions by the same acquirer. If corporate acquirers in the Financial Competition sample were simply "better" acquirers, we would expect to see similar strong performance in all their acquisitions. Thus, we examine acquisitions by corporate acquirers in the Financial Competition sample between 1980 and 2007 when the corporate acquirer did not face bidding competition. Since these deals did not face competition, they appear in our Single Bidder sample. We therefore divide the corporate acquirers in the Single Bidder sample into 2 groups. The 1st group, which serves as a benchmark, contains all single bidder deals undertaken by acquirers who at no point in our sample period competed with financial bidders. The 2nd group contains single bidder deals undertaken by acquirers who at *any* other date in our sample period competed with financial bidders for a different target. We further limit the 2nd group to a subgroup of single bidder deals undertaken by acquirers who at some *later* date competed with

[34]To examine if one subsample is more likely to chase "hot" targets, we also examine the ex ante probability that the target firm becomes a target. To estimate this probability, we use the predictive regression from Palepu (1986). To employ this analysis, we use a sample of all firms on Compustat with market value over $1 million from 1980 to 1989 and estimate the predictive logit where the dependent variable is equal to 1 if the firm became a target during this period, and 0 otherwise. The explanatory variables are described in detail in the Appendix of Palepu. We use the coefficients from this estimation to calculate the probability that a firm in our sample during the 1990–2007 period becomes a target. In untabulated results, we find that acquirers in the Financial Competition sample go after targets that have a slightly higher probability of being a target, but this difference is small and not significantly different from 0.

financial bidders for a different target firm.[35] If acquirers in the Financial Competition sample are skilled at identifying and consummating value-enhancing acquisitions, we should find evidence that the 2nd group (and its subgroup) significantly outperforms the benchmark sample of single bidder deals. We calculate the mean CARs for each group for the 3 event windows used earlier. Results are presented in Table 8. We find that the abnormal returns of the 3 groups are indistinguishable over all 3 event windows. Thus, we find no evidence to support the hypothesis that acquirers who chose to compete with financial bidders are more skilled at delivering value from any acquisition they undertake. Rather, the superior performance is concentrated in deals where financial bidder competition is present. We therefore conclude that Hypothesis 1 does not explain the superior returns.

TABLE 8

CARs of Single Bidder Deals Undertaken by Acquirers in the Financial Competition Sample

Table 8 presents cumulative abnormal returns (CARs) of corporate acquirers in the Financial Competition sample after they announced single bidder acquisitions. Column 1 is restricted to single bidder acquisitions undertaken prior to the acquisitions in the Financial Competition sample. Column 2 includes any single bidder acquisition undertaken either before or after the acquisitions in the Financial Competition sample. Column 3 contains the benchmark No Competition sample. Acquirers that appear in Columns 1 and 2 are excluded from Column 3. The *Z*-statistics and *t*-statistics presented in absolute values are in parentheses, as labeled in the header. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	1	2	3	Difference 1 − 3	Difference 2 − 3
	Prior Single Bidder Acquisitions by Corporate Acquirers in Financial Competition Sample	All Single Bidder Acquisitions by Corporate Acquirers in the Financial Competition Sample	Benchmark: Single Bidder Sample		
	CAR (Patell *Z*-stat.)	CAR (Patell *Z*-stat.)	CAR (Patell *Z*-stat.)	CAR (*t*-stat.)	CAR (*t*-stat.)
CARs over the (−2, +2) window	0.76% (1.51)*	0.72% (2.83)***	1.12% (18.32)***	−0.35% (0.46)	−0.40% (0.84)
CARs over the (−20, +120) window	4.26% (2.76)***	2.32% (2.38)***	2.32% (4.96)***	1.94% (0.61)	−0.0% (0.03)
CARs over the (−20, +180) window	4.49% (2.08)**	2.56% (2.03)**	1.79% (1.75)**	2.7% (0.71)	0.77% (0.36)
No. of obs.	149	400	21,670		

The previous results show that corporate acquirers competing with financial bidders earn significantly higher returns than those competing with corporate bidders. Furthermore, we show that the results are not explained by observable acquirer or target characteristics but rather are concentrated in deals where corporate acquirers follow financial bidders. These results point to the possibility that financial bidders identify targets with a high common-value component that any bidder can benefit from. However, it is also possible that returns of corporate acquirers who compete with financial bidders are higher because private valuations (e.g., synergies between the target and corporate acquirer) are higher in this subsample. Why would synergies between the corporate acquirer and target be higher in the

[35] Since we calculate CARs over a (−20, +180) event window, we drop observations where a corporate buyer is involved in a single bidder deal within 6 months of competing with a financial buyer on another deal.

Financial Competition sample? One possibility is that corporate acquirers require synergies to be higher in order to enter bidding competition with a financial buyer rather than a corporate buyer. This may happen if the cost of acquisition is expected to be higher when competing with a financial bidder rather than a corporate bidder. However, the data in Panel A of Table 5 show that corporate buyers pay significantly lower premia when competing against financial buyers rather than corporate buyers. Therefore, this is an unlikely explanation. A 2nd possibility is that corporate acquirers who compete with financial buyers are inherently better at finding and exploiting synergies. However, we find in tests discussed previously that acquirer abilities are an unlikely explanation for the high returns of the Financial Competition sample. A 3rd plausible explanation for lower synergies in the Corporate Competition sample may arise if the motive for acquiring differs across the 2 samples. Corporate bidders may sometimes enter into bidding competition with other corporate bidders even though synergies are low because they want to prevent a rival in the same industry from buying the target and gaining a competitive edge. That is, the poorer performance of bidders in the Corporate Competition sample could be driven by acquirers making low-synergy deals in order to prevent rival firms from becoming more dominant players in the industry. To test this, we divide the Corporate Competition sample into a subsample where at least 2 of the competing bidders belong to the same 4-digit SIC code as the target and a subsample where the bidders do not share the same 4-digit SIC as the target. In untabulated results, we find that there is no difference in the returns between these samples, and, thus, the data are not supportive of this alternative explanation.

In summary, we examine differences between the Financial Competition and Corporate Competition samples to explain the superior returns of the Financial Competition sample. We find several differences, but none of the observable differences in target characteristics or the deal terms explains our results. Additionally, neither observable nor unobservable acquirer characteristics explain the differences in returns. Since the superior returns are concentrated in deals where the corporate acquirer follows the financial bidder, we conclude that financial sponsors identify better targets, and the value of acquiring this target transfers to the ultimate acquirer.

V. Conclusion

This paper demonstrates the importance of target selection in merger gains. We examine the returns of corporate acquirers who compete with financial buyers for the same target. We find that corporate acquirers who purchase targets that financial buyers bid for earn significantly higher abnormal returns than corporate buyers who buy targets that only other corporate buyers bid on. The CAR for the former group is 8 percentage points higher. Deal characteristics, acquirer abilities, and observable target characteristics cannot explain this difference in returns. However, it is possible that financial buyers identify targets with a high potential for value improvement based on information not easily available to the public. To test this hypothesis, we divide the sample into acquirers who followed another bid and those who were the first bidder. We find that corporate acquirers who follow a first bid by a financial buyer earn significantly higher returns than

corporate acquirers who follow a first bid by another corporate buyer. These results suggest that financial buyers identify good takeover targets, and the winning acquirers reap the benefits.

Our findings suggest that financial sponsors, such as private equity firms, have superior skills in identifying targets and negotiating M&A deals. Corporate acquirers can deliver high returns by purchasing targets that financial buyers bid on. Finally, the paper shows that bidding competition does not always hurt the acquirer. Corporate buyers competing with financial buyers pay lower premia and earn higher abnormal returns.

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