



Acquiring Targets Picked by Private Equity: The Effect of Competitor Identity on Corporate Merger Gains

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TABLE OF CONTENTS

PREFACE	2
1. INTRODUCTION	3
2. DATA	8
2.1 <i>SAMPLE</i>	9
2.2 <i>ABNORMAL SHAREHOLDER RETURNS</i>	12
3. COMPARING RETURNS BETWEEN SAMPLES	15
4. EXPLAINING DIFFERENCES IN RETURNS	18
4.1 <i>FOLLOWING THE BIDS OF PRIVATE EQUITY</i>	20
4.2 <i>MULTIVARIATE ANALYSIS OF RETURNS</i>	20
4.3 <i>DIFFERENCES IN CHARACTERISTICS</i>	22
5. CONCLUSION	30
REFERENCES	32
FIGURES AND TABLES	37

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Abstract

This paper examines the effect of private equity competition on corporate takeovers. I find that corporate acquirers who compete with financial sponsors outperform those who compete exclusively with other corporate acquirers, and that acquirers earn higher abnormal returns when following the bid of a financial sponsor rather than a bid made by another corporate buyer. This effect persists when controlling for fixed effects and observable characteristics pertaining to the deal, target and/or bidder, suggesting that financial sponsors identify value-enhancing acquisition targets and winning corporate buyers reap the benefit. However, further analyses indicate that these corporate bidders might also be inherently better acquirers due to some unobserved ability. While my results align with prior research on the topic, there are multiple robustness concerns and a high risk of bias associated with the small sample sizes used in the sub-analyses. Thus, the findings presented in this paper are weak in evidence, even when statistically robust.

Keywords Private Equity, Mergers, Acquisitions, Bidding, Competition

JEL Classification G30, G34

Preface

This thesis concludes my master's degree studies in economics and business administration at the Norwegian School of Economics (NHH), majoring in financial economics and international management.

My interest in private equity and M&A has been the driving force of my academic career, and writing this thesis has been a fulfilling end to my studies. I hope this thesis adds to existing research and inspires further examination into public and private takeover competition, and the ability of private equity to identify valuable acquisition targets. I consider these to be increasingly relevant and highly exciting topics within the M&A and asset management space.

Last but not least, I would like to thank my supervisor Carsten Bienz for being frank and sincere in our topic discussions, and for helping me stay confident in my ability to produce this paper by myself.

Oslo, December 12, 2021

Birk Unhjem Haugan

1 Introduction

The last thirty-five years saw the market for corporate takeovers skyrocket as multi-billion dollar mergers and contested takeovers started frequenting headlines worldwide. With over one million deals completed since 1985 and the global mergers and acquisitions (M&A) market valued at USD 3.4 trillion in 2019, it is no wonder that researchers have been taking an increasing interest in the different parties, drivers and outcomes of merger activity.¹

One major driver of M&A growth since the early 2000s have been private equity firms, who's buyout dry-powder has grown by 114% since 2010.² While traditionally, corporate strategic acquirers were believed to have an advantage over financial acquirers due to higher, synergy-induced purchasing power, the tide has turned significantly over the last ten years, with private equity investors becoming strong competitors in the fight for the most value-enhancing corporate targets.³ Private equity is now often thought to hold a competitive edge over corporate acquirers, attributed to their financial discipline, flexibility, focus, and incentive structures.⁴

Bidding competition and its effect on economic outcomes such as deal premiums, acquirer returns, competitor reactions and deal completion rates have been explored extensively in modern literature. While competition intensity is thought to be a contributing factor when synergy gains accrue to target shareholders rather than acquirers, there is also research to suggest that the effect of bidding competition on acquirer gains depends on the identity of competing bidders.⁵ In their study of 100,000 merger bids made between 1980 and 2007, [Dittmar, Li, and Nain \(2012\)](#) looked into the effect of financial sponsor competition on the merger gains of corporate buyers. They found that corporate acquirers who purchase targets also bid on by financial buyers significantly outperform corporate buyers who buy targets bid on by corporate acquirers only. This effect could not be explained by deal

¹ [Statista \(2021\)](#), [Berchtold \(2007\)](#), [Christensen, Alton, Rising, and Waldeck \(2011\)](#)

² [Cumming, Siegel, and Wright \(2007\)](#), [MacArthur, McKay, and Dessard \(2021\)](#)

³ [Vild and Zeisberger \(2014\)](#)

⁴ [Phalippou \(2020\)](#), [Armstrong \(2021\)](#)

⁵ [Bessler, Schneck, and Zimmermann \(2015\)](#)

characteristics, acquirer abilities or observable target characteristics. Further, they found that followers of financial buyer bids achieve higher abnormal returns than followers of corporate buyer bids, suggesting that financial bidders identify targets with higher potential for value improvement, and that winning corporate bidders are able to exploit this potential. A few years later, Bessler et al. (2015) made the same conclusion that competing bidders are better off in deals where they compete with financial buyers. Although the findings appear robust, I discover that a large share of their data foundation (approximately 20%) has been either removed or changed since the study was conducted, and their methodology is based on the assumption that all sample firms are no riskier than the market portfolio. With updated M&A data plus an extra decade worth of deals, I find it worthwhile to re-examine the effect of competitor identity on corporate merger gains to further validate or dispute their findings⁶

To examine the hypothesis that financial sponsors bid on "better" firms and that corporate acquirers gain positive abnormal returns from acquiring these targets, I retrieve a sample of approximately 327,000 successful and unsuccessful merger bids made between 1980 and 2020, where both parties were US firms and the transaction value exceeded USD 1 million. I then split this sample into a "Single-Bidder" subset where each target was bid on by only one corporate acquirer, and a "Competition" subset where corporate acquirers faced bidding competition from either [1] at least one financial sponsor (*Financial Competition sample*), or [2] exclusively from other corporate buyers (*Corporate Competition sample*). To measure the merger gains of corporate acquirers, I compute cumulative abnormal returns (CARs) over three trading day event windows surrounding public bid announcements: (-2, +2), (-20, +120) and (-20, +180). Note here that CARs are computed for *corporate* buyers only, while the CARs of financial buyers are neither relevant to the analysis nor available due to most of these being private firms. Comparing CARs, I find that

⁶Existing research on the effects of bidding competition: Bradley, Desai, and Kim (1988), Fishman (1989), Berkovitch and Narayanan (1990), Boone and Mulherin (2007), Barger, Schlingemann, Stulz, and Zutter (2007), Boone and Mulherin (2008), Eckbo (2009), Fidrmuc, Roosenboom, Paap, and Teunissen (2012), Gorbenko and Malenko (2014), Bessler et al. (2015), Liu and Mulherin (2018), Du and Gerety (2018)

corporate buyers who compete with financial sponsors *do* significantly outperform corporate buyers who compete only with other corporate buyers, but only over the (-2, +2) window. This indicates that at the time of announcement, the market expects acquirers in the Financial Competition sample to outperform those in the Corporate Competition sample. There is also a significant difference over the (-20, +120) window for *winning* corporate acquirers, where the Financial Competition sample earns 7.46% higher CARs. By dividing the competition samples further into *First Movers* (acquirers that bid on a target and subsequently observe a competing bid from either a financial sponsor or corporate buyer) and *Followers* (acquirers who bid on a target after already observing a public bid from either a financial sponsor or corporate acquirer), I find that Followers competing with financial sponsors significantly outperform the other groups over all three event windows, earning 10.85% higher returns over the first 180 days following the bid announcement. Thus, it appears that winning corporate acquirers who face financial sponsor competition *do* outperform those who only face corporate buyer competition, and this difference is driven by firms who follow the bids of financial sponsors.

Having documented that corporate acquirers earn positive abnormal returns when following private equity bids, I conduct more extensive analyses to examine whether this is tied to private equity firms picking better targets. Comparing deal, bidder and target characteristics, I test three hypotheses that might explain why the Financial Competition followers earn higher merger gains: [1] acquirers competing with financial sponsors are inherently better at conducting value-enhancing takeovers (acquirer hypothesis), [2] acquirers competing with financial sponsors are bidding on more valuable targets (target hypothesis), and [3] acquirers competing with financial sponsors earn higher returns because they negotiate better deal terms (deal terms hypothesis). Starting with the deal terms hypothesis, I find that acquirers in the Financial Competition sample participate in significantly larger transactions with more intense bidding competition, they close deals comparatively faster, pay more of the deal consideration in cash, and tend to acquire targets outside of their own industry. However, in multivariate regression of CARs I find that these differences do not explain the higher returns of the Financial Competition sample. Next, I

investigate whether the difference in returns can be attributed to financial sponsors picking better takeover targets. Comparing the two samples, I find that acquirers in the Financial Competition sample tend to bid for public targets with significantly lower market leverage, but these characteristics are not able to fully remove the financial competition effect either. However, considering that the high returns are concentrated in the group of acquirers who follow private equity bids, it is possible that financial sponsors pick more value-enhancing targets based on *unobserved* characteristics, thus I cannot rule out the target hypothesis completely. Finally, I test the acquirer hypothesis that the corporate acquirers who face private equity competition are inherently better at conducting value-enhancing acquisitions. Comparing the two samples, I find no considerable differences to indicate superior takeover abilities. However, as with target characteristics, it is possible that these acquirers are inherently better due to some unobserved ability. To test this hypothesis further, I examine the performance of acquirers who appear both in the Financial Competition sample and in the Single-bidder subset. If these acquirers were inherently better due to some unobserved ability, I would expect them to outperform the benchmark also when not facing bidding competition. I find that corporate acquirers who appear in the Financial Competition sample also outperform the benchmark when conducting uncontested takeovers, suggesting that they are inherently better acquirers. That being said, the difference in the Single-bidder subset is driven by abnormal losses rather than gains, as abnormal returns are only positive on average when there is bidding competition. Thus, my results suggest that while it is still possible that financial sponsors pick better acquisition targets based on unobserved characteristics, it seems like the high return of corporate acquirers in the Financial Competition sample can at least partially be explained by inherent acquirer ability. These findings are, however, subject to major robustness concerns, most notably that the sample size decreases significantly as the analyses become more extensive. For the multivariate regressions, only 100-200 observations are left out of the 1,815 bids facing financial competition, posing the question of how representative my results are for the population.

This paper adds to existing literature on private equity by looking into the sources

of merger gains and the ability of financial sponsors to identify value-enhancing takeover targets. This is an increasingly relevant topic, as recent studies indicate that private equity might not be the superior investment instrument that it used to be.⁷ Specifically, my results give support to the findings of [Dittmar et al. \(2012\)](#), that private equity firms might be excellent target pickers based on some unobserved, common value-component that corporate acquirers can also benefit from. However, contrary to their findings, I also find support for the hypothesis that acquirers who compete with financial sponsors tend to be inherently better acquirers in general, and the superior abnormal returns of the Financial Competition sample are not significant across all samples and periods. My results also concur with a number of recent studies that oppose the findings of [Bargeron et al. \(2007\)](#), showing that corporate acquirers competing with financial sponsors do not pay lower premiums, or benefit from any other favorable deal terms that are significantly different between samples. Further, my paper adds support to the findings of [Boone and Mulherin \(2011\)](#) that financial competition is associated with increased competition intensity. My results suggest that this could be because following the bid of a financial sponsor leads to superior merger gains. Finally, I find that bidding competition serves as a proxy for whether an acquirer earns positive CARs or not, as competed bids earn positive abnormal returns while single-bidder acquisitions earn significantly negative abnormal returns. This suggests that the market believes single-bidder takeovers to be value-destroying, while bidding competition might serve as a signal that acquiring a given target would be value-enhancing, considering multiples parties are interested in buying it. The positive merger gains of corporate acquirers do not, however, seem to be related to the identity of competing acquirers. Identity matters only when acting as a Follower.

The rest of my paper is organized as follows. Section 2 describes my data collection process and methodology. Section 3 compares cumulative abnormal returns between samples. Section 4 explores possible hypotheses for why returns differ between samples. Section 5 concludes the paper.

⁷[Armstrong \(2021\)](#)

2 Data

The data foundation is sourced and combined from three different providers to create a sample suitable for testing my hypothesis:

- Thomson Reuters' SDC Platinum M&A database (hereby "SDC")
- The Center for Research in Security Prices' daily stock file (hereby "CRSP")
- The CRSP/Compustat merged database (hereby "Compustat")

Combining the data is a time-consuming process, but essential in obtaining the information needed to perform the analysis. The data is retrieved, linked and merged using four company identifiers:

- PERMNO (Unique company identifier in CRSP)
- CUSIP (Unique company identifier in SDC)
- GVKEY (Unique company identifier in Compustat)
- TICKER (Stock identifier for listed firms)

In order to retrieve company financials and stock return data from CRSP and Compustat, I need a PERMNO for each firm in my sample. CRSP offers a linking table to convert eight or nine-digit CUSIPs or GVKEYs into PERMNOs and vice versa. The problem is that SDC only provides *three to six-digit* CUSIPs, thus I cannot use the table directly. Instead, I use two third-party linking tables developed by [Phillips and Zhdanov \(2013\)](#) and [Ewens, Peters, and Wang \(2018\)](#) that match SDC deal numbers and CUSIPs with GVKEYs for the period 1996 - 2016. The GVKEYs are then converted into PERMNOs using the CRSP linking table. I match the remaining data by adding leading zeros to the SDC CUSIPs before checking them against the first six digits of the CRSP CUSIPs⁸. Finally, I link any remaining data using stock tickers which are controlled manually using the company names given by SDC.⁹

⁸The first six CUSIP digits identify the company, the subsequent two identify the type of instrument (debt or equity), and the final digit is a control variable. Thus, we only need the first six digits to identify the companies correctly.

⁹Stock tickers are used last and with caution as I am looking into several decades of data, meaning tickers may have changed during the sample period and no longer uniquely identify individual firms.

Following this process, I am able to successfully link 97% of my data.¹⁰ There is still a minor risk that some firms may have been linked incorrectly, however, due to the large sample size this is unlikely to significantly affect my findings. In any case, this risk is mitigated by first relying on the third party linking tables which have been controlled manually, and only using transformed CUSIPs and stock tickers as a supplement.

2.1 Sample

I obtain an SDC sample of 326,544 successful and unsuccessful acquisition bids announced in the period 01/01/1980 - 31/12/2020 where both target and bidder were U.S. firms and the transaction value exceeded USD 1 million. Each observation contains sixty-one columns of financial and non-financial information on the transaction, bidder and target. However, due to insufficient data on several key variables, I also attempt to supplement missing values with Compustat fundamental data using the GVKEY-identifier and announcement year. Finally, I add another twenty-six columns of financial ratios and key metric computations based on the original data.

The sample is then divided into two subsets:

- Single-bidder subset: transactions where only one bidder was involved
- Competition subset: transactions where two or more bidders competed for the same target

SDC will flag competition if a third party launched a bid for the target while the original bid was still pending. However, [Dittmar et al. \(2012\)](#) found that the flag may not always accurately identify competition. I therefore complete an additional search for possible subjects using the methodology laid out in their paper, treating every target with more than one bid recorded in SDC as a potential candidate for the competition subset.

¹⁰This number pertains to the final samples used in the analysis, not the full SDC sample.

Two bids are classified as competing if either is completed with at least 50% of the target shares acquired - or if one party holds 50% or more following the transaction, i.e. the transaction is a majority acquisition - and:

1. SDC flags competition for the relevant transaction, *or*
2. The bid announcement dates are no more than one year apart, neither bid is completed before the other is announced, and neither is flagged as a divestiture.¹¹

Should SDC record more than two bids for the same target, I relax the criterion that all bids must occur within one year of each other, allowing for the possibility that competition drags on for longer when multiple bidders are involved.¹² I then remove bidding rounds where all bids are announced by the same acquirer, as this does not necessarily implicate competition. Finally, I go through the whole sample manually to ensure that all competing bids are genuine and belong to the same bidding round.

After implementing the criteria and controlling the sample data, I am left with 104,970 successful and unsuccessful bids in the single-bidder subset, and 7,015 bids in the competition subset. The question of interest is whether the identity of the *competitors* have an impact on the returns and deal characteristics of the winning bid made by a corporate acquirer, thus my analysis will focus on the competition subset. Further, SDC flags the nature of the bidder, distinguishing between "Corporate Buyers" and "Financial Buyers"¹³ There are also flags for whether the bidder is a financial sponsor or an LBO firm. Combining these three flags I divide the competition subset into a *Corporate Competition sample* and a *Financial Competition sample*, where the former contains 5,200 corporate strategic buyers that compete exclusively with other corporate buyers, and the latter contains 874 corporate buyers

¹¹I do not allow for divestitures as these make it unclear whether the firms are bidding on the same assets or not.

¹²Calcagno, de Bodt, and Demidova (2018) showed that takeover duration increases with competition intensity, and that this is connected to the gradual release of new information as more bids are announced.

¹³Financial/Corporate "buyer", "bidder" and "acquirer" are used interchangeably.

competing with at least one out of 941 financial buyers.¹⁴ This division is illustrated in Figure 1, while Table 1 provides a summary of yearly deal announcements across the two samples. Based on SDC flags, SIC industrial classification codes and the condition that all successful bids must be majority acquisitions, I will make the assumption that the financial bidders in my data are organized or acting as private equity firms or investment groups, and not insurance companies, banks or other types of financial firms.¹⁵ It is, however, possible that not all Financial Buyers (Corporate Buyers) in the sample are true private equity groups (corporate strategic acquirers), and this remains a central weakness to the robustness of my analysis.

Prior research finds that public acquisition bids represent only the tip of the iceberg as far as bidding competition goes. Boone and Mulherin (2007) used novel 1990s takeover data to show that half of all targets were auctioned among multiple bidders. This was confirmed again by Liu and Mulherin (2018) who, using a comprehensive acquisition sample from 1981 to 2015, found that takeover negotiations have become increasingly private and that the private takeover phase duration has increased substantially over the sample period. Using SEC EDGAR merger filings and a representative sample of public U.S. M&A transactions in the period 2004 - 2017, Schubert (2020) suggested that target competition has moved to the pre-announcement phase, that higher pre-public competition is associated with higher target premiums and lower announcement returns for the winning bidder, and that higher pre-public competition also leads to higher post-bid competition once a takeover bid has been made public. Thus, it is likely that my competition measure underestimates the true extent of competition over the sample period, which looking at Table 1 seems logical considering the low share of competing bids recorded after 2007.¹⁶ This bias would, however, mainly affect comparisons between the single-bidder and competition subsets, which are not the focus of this paper. My primary focus is examining the difference in sub-samples of the competition subset, and thus, the bias will only impact findings

¹⁴There is also a third sample consisting of 280 financial buyers competing only with other financial buyers. These are ignored due to lacking data on what is mostly private firms.

¹⁵See Gorbenko and Malenko (2014) for support.

¹⁶The number of deals facing competition fell from 3,146 in the thirteen years preceding 2007, to only 1,155 in the thirteen succeeding years. This could be partly explained by a shift to private takeover negotiations as explored in the aforementioned studies.

if financial bidders and corporate bidders are disproportionately participating in pre-public negotiations. While [Boone and Mulherin \(2011\)](#) suggest that target firms in the Financial Competition sample are more likely to face pre-public competition, I do not possess enough data to conclude whether competition is more likely to arise from financial or corporate bidders. That being said, [Bessler et al. \(2015\)](#) found that unobserved bidding competition from financial buyers does not significantly affect the target or bidder wealth of corporate acquirers.

2.2 Abnormal Shareholder Returns

In order to test whether corporate acquirers in the Financial Competition sample deliver higher shareholder returns, I follow the classic event study methodology as presented in [MacKinlay \(1997\)](#) and the merger gains methodology laid out in [Bradley et al. \(1988\)](#). Assuming efficient capital markets, the effect of an acquisition bid and the market's expectation of its outcome should quickly be reflected in the stock market share price once the bid is announced.¹⁷ In order to measure announcement effects, I compute the abnormal returns of stock prices over (-2, +2), (-20, +120) and (-20, +180) trading day announcement windows, which will allow me to capture information leaked before the event and/or information announced after as more acquirers enter the bidding round. The abnormal return is the stock's actual return on a specific trading day less the expected return of the stock, had no special event occurred. Mathematically, the abnormal return of stock i on day t is expressed as:

$$AR_{it} = R_{it} - E(R_{it} | X_t) \quad (1)$$

Where $E(R_{it} | X_t)$ denotes the expected return of the stock conditional on our choice of normal model. For my event study, I have chosen the market model where stock returns are assumed to be given by the Capital Asset Pricing Model (CAPM):

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it} \quad (2)$$

With $E(\epsilon_{it}) = 0$, where model parameters α and β are estimated using OLS regres-

¹⁷[Basu \(1977\)](#), [Malkiel \(1989\)](#), [Malkiel \(2003\)](#), [Malkiel \(2005\)](#)

sion over a 100-day estimation window ending 30 days before the event window.¹⁸ The market return is approximated using CRSP’s value-weighted market index for the US. This approach deviates from the similar study conducted by Dittmar et al. (2012), who computed abnormal returns as the actual return less the value-weighted market return that day. Their approach might be problematic, as such a computation assumes the beta of each stock to be 1, i.e. the expected return equals the market return. MacKinlay (1997) finds the market model to be a potential improvement over pure statistical models, reducing abnormal return variance and thus making it easier to detect abnormal performance. Although his empirical findings suggest that CAPM imposes questionable restrictions on the market model, other studies like that of Brown and Weinstein (1985) examine the power of models with multiple explanatory risk factors and find that they are no more powerful than the CAPM market model.

I aggregate abnormal returns over the event windows to arrive at the Cumulative Abnormal Returns (CARs), which will be my main performance indicator when comparing the two competition samples:

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it} \quad (3)$$

Where t_1 and t_2 denote the beginning and end of the given event window. CARs are computed for each stock individually using the CRSP daily stock file. I also compute the mean CAR for each sample, which will be used in the comparison analysis.

As CARs might not necessarily be the best proxy for shareholder returns, I also compute 180-day Buy-and-Hold Abnormal Returns (BHARs) following the methodology outlined in Lyon, Barber, and Tsai (1999). The Buy-and-Hold return is the holding period return of a stock that is purchased at the first closing price following the bid announcement and held to the end of the event window. To compute the abnormal return, one subtracts the Buy-and-Hold return of the market portfolio:

¹⁸Fama and French (2004). The estimation period ends before the event period to prevent the announcement effect from influencing the normal return computation.

$$BHAR_{it} = \left[\prod_{t=t_1}^{t_2} (1 + R_{it}) - 1 \right] - \left[\prod_{t=t_1}^{t_2} (1 + R_{mt}) - 1 \right] \quad (4)$$

The work of Ritter (1991) made BHAR one of the commonly used return estimators in long-horizon event studies, and studies such as Barber and Lyon (1997), Lyon et al. (1999) and others have documented that the BHAR method better resembles the actual investment experience of investors than methods utilizing periodical re-balancing.

Finally, I compute 180-day Calendar-time Portfolio Approach (CTPA) abnormal returns, which Mitchell and Stafford (2000) argue are more reliable for long-term abnormal performance, due to potential cross-sectional correlation in event firm BHARs. This method involves forming a portfolio in each calendar month consisting of firms that have experienced an event within a certain time period prior to that month, and the three-factor model developed by Fama and French (1993) is used to compute abnormal returns.

$$CTPA_{pt} = R_{pt} - R_{ft} = \alpha_p + \beta_p(R_{mt} - R_{ft}) + s_pSMB_t + h_pHML_t + \epsilon_{pt} \quad (5)$$

Where $R_{pt} - R_{ft}$ is the equal- or value-weighted monthly portfolio return, based on the simple return of each event firm and its control/reference firm.

I also experiment with longer event windows, but find no abnormal effects in the period following the (-20, +180) window. By using longer windows one might also risk that the results are confounded by events that are not observed in my data set. Thus, the three event windows seem to be optimal for measuring merger gains.

Finally, it is important to note that CARs are computed for *corporate* acquirers only. The analytical approach of this paper is to compare the returns of corporate acquirers based on the identity of their competition. Thus, the returns of *financial* acquirers are not relevant to the analysis. All figures presented in this paper pertain to the corporate buyers of the given sample or sub-sample unless otherwise indicated.

3 Comparing Returns between Samples

In this section, I present and compare the cumulative abnormal returns (CARs) earned by corporate bidders in the Corporate Competition and Financial Competition samples. The goal is to find support for or against the findings of previous studies: that corporate acquirers in the Financial Competition sample outperform corporate acquirers in the Corporate Competition sample, and that this difference is driven by the winning acquirers.¹⁹

In Panel A of Table 2, I present the corporate bidder CARs for the two competition samples over three event windows, (-2, +2), (-20, +120) and (-20, +180). Figure 2 plots the (-20, +180) window for all corporate bidders in the two competition samples, as well as the Single-bidder subset. What the figure shows is that single bidders experience higher short-term CARs directly following the announcement, but then under-perform the competition samples over time.²⁰ This is driven by negative CARs in the Single-bidder subset (-5.15%, significant at the 1% level), while corporate bidders in the Financial and Corporate Competition samples earn positive CARs of 2.01% and 1.04% respectively, none of which are statistically significant.²¹ Note that competition sample CARs seem to stagnate shortly after the 120-day mark, indicating that the samples only experience *abnormal* returns over the first four months of the event window. We see in Panel A of Table 2 that there is no significant difference between the two competition samples except for in the (-2, +2) window, where the Financial Competition sample outperforms the Corporate Competition sample by 0.76%, statistically significant at the 1%-level. The graph suggests that corporate buyers bidding on targets also pursued by other acquirers deliver higher shareholder returns than corporate buyers facing no public bidding competition. Whether the other acquirers in the bidding round are classified as financial or corporate buyers does not seem to have a significant impact.²²

¹⁹Dittmar et al. (2012), Fidrmuc et al. (2012), Bessler et al. (2015)

²⁰Consistent with the (-2, +2) CAR-findings of Eckbo (2009) and Bessler et al. (2015)

²¹Abnormal returns computed as the stock return less the return of a value-weighted index yield the same results, only with positive single-bidder CARs still well below the competition samples.

²²A related question is how the announcement returns of financial bidders compare to those of corporate bidders. In untabulated results, I compute the CARs of public financial buyers over the

As the market is likely to assign different probabilities of winning or losing to the competing acquirers, I divide the two competition samples into the ultimately winning and losing bidders. Panel B of Table 2 shows that winning corporate buyers in the Financial Competition sample earn CARs of 7.45% over the (-20, +180) trading day window, outperforming bidders in the Corporate Competition sample by 6.42%. In fact, the Financial Competition sample CARs exceed those of the Corporate Competition sample over all three event windows, but the difference is only statistically significant over the (-20, +120) window, which concurs with my observation that CARs tend to stagnate after the first four months. CARs are only significant in the Corporate Competition sample. Panel C compares the losing corporate buyers in the two samples and shows no significant CARs or differences in means. Losing corporate bidders in the Financial Competition sample earn CARs of 8.26%, outperforming losing corporate bidders in the Corporate Competition sample by 7.22%. The difference seems to arise only in the last 60 days of the (-20, +180) event window, which happens to be when bidding rounds are typically concluded. However, as the difference is not significant it seems that any difference in performance between the two samples must be driven by the winning bidders.

While there does not seem to be any significant difference in CARs between the all-bidder samples, one might argue that Buy-and-Hold Abnormal Returns (BHARs) are a better way to record long-term abnormal shareholder returns. Following the methodology outlined in Lyon et al. (1999), I compute corporate acquirer BHARs over the 180-day window following bid announcements using the Fama French three-factor model. I find that corporate buyers in the Corporate Competition sample outperform buyers in the Financial Competition sample by 3.18%.²³ However, the difference is not statistically significant.

(-20, +180) window and find no significant difference from the CARs of corporate buyers. Financial buyers experience positive, but non-significant CARs of 3.00%. This is consistent with recent research, such as Silva (2019).

²³BHARs computed using a market model show that acquirers in the Financial Competition sample outperform acquirers in the Corporate Competition sample by 1.02%, however, none of the BHARs are statistically significant.

Finally, I compute precision-weighted cumulative abnormal returns using the Calendar-Time Portfolio Approach laid out in [Mitchell and Stafford \(2000\)](#), which has been found to be a more reliable methodology when working with abnormal performance over longer time horizons.²⁴ Calendar-time returns over the 180 days following bid announcements indicate that the Financial Competition sample significantly outperforms the Corporate Competition sample by 2.74% using the Fama French three-factor model (5% significance) and by 2.19% using a Comparison Period Mean-adjusted Model (1% level).

In summary, I find little support of the reports made by [Dittmar et al. \(2012\)](#) that the CARs of corporate bidders in the Financial Competition sample dramatically outperform the CARs of corporate bidders in the Corporate Competition sample. There is some support in the Calendar-time abnormal returns, but the difference is small for such a long window. The only significant difference in CARs pertains to the (-2, +2) initial announcement window, which might indicate that markets are efficient at pricing in the information brought by the initial announcement, and that corporate buyers competing with private equity receive a positive signaling effect. However, studying a sample of 610 acquisitions in the period 1991 to 2009, [Fischer \(2017\)](#) found that it can take up to three years for capital markets to price in all information revealed at announcement. In order to investigate whether the difference in announcement returns indicate a signaling effect of private equity bids, I look into the CARs of corporate buyers who made the first bid over the (-2, +2) window surrounding the announcement of a subsequent competing bid. [Table 3](#) compares the CARs of first-bidders when new bids appear from either a Financial or Corporate Buyer. We see that first-bidders earn an 8.93% return at the emergence of a Financial Buyer bid vs. a 7.13% return at the emergence of a Corporate Buyer bid, and that both figures are significant at the 1% level, but the difference is not. Thus, it would appear that subsequent bids validate the acquisition value by hiking up first-bidder CARs, but that this effect is not associated with the identity of the subsequent bidder.

While I cannot find any support for the difference between all-bidder samples, I do

²⁴[Dutta \(2014\)](#), [Dutta \(2015\)](#), [Kothari and Warner \(2007\)](#), [Lee and Mas \(2012\)](#).

share the same findings as previous research on the winning and losing bidder subsamples. Corporate bidders in the Financial Competition sample earn high abnormal returns while CARs in the Corporate Competition sample are indistinguishable from zero. The difference is statistically significant at the 5% level, but only for the (-20, +120) window. The losing bidder sample shows no significant differences. Repeating the exercise using the same sample window and normal model as [Dittmar et al. \(2012\)](#) does not change my results, thus the deviating findings can seemingly not be explained by the (2008 - 2020)-data added, nor the normal model. However, upon contacting SDC, I find that the database has been cleansed of inaccurate data several times over the last decade, and that at least 20% of the original data have been changed or removed. Thus, considering my sample has been constructed following the same criteria, the most likely source of deviation is the original 1980 - 2007 data being updated by SDC.

4 Explaining Differences in Returns

In this section, I investigate why winning corporate bidders in the Financial Competition sample outperform the winning corporate bidders in the Corporate Competition sample. The ultimate goal is to find support for or against the hypothesis that financial sponsors are particularly skilled at identifying undervalued targets or negotiating lower premiums, and that corporate acquirers can earn positive CARs from acquiring these targets. When a group of acquisitions outperform in the short-term period following announcement, it is logical to assume that this is due to factors relating either to the acquirer, target and/or transaction structure. I therefore consider three possible explanations for why acquirers in the Financial Competition sample earn higher CARs:

- Acquirer Hypothesis: Corporate buyers in the Financial Competition sample are inherently better at making acquisitions that increase their value.
- Target Hypothesis: Corporate buyers in the Financial Competition sample earn higher CARs because their targets have certain attributes that enhance

acquirer value.

- Deal Terms Hypothesis: Corporate buyers in the Financial Competition sample earn higher CARs because they are subject to more favorable deal terms.

The acquirer hypothesis suggests that corporate buyers in the Financial Competition sample earn higher CARs because they are better equipped to undertake successful acquisitions. This could be due to acquirer characteristics such as innate ability, better management, or experience in identifying good targets and handling post-merger integration. It is possible that private equity competition happens to be a proxy for these positive attributes, i.e. that this is the type of firm that happens to regularly be competing with financial sponsors for targets. This would not provide support in favor of my initial hypothesis.

The target hypothesis suggests instead that excess CARs are rooted in particular target characteristics that indicate undervaluation or realizable synergistic value to the acquirer. Such characteristics might be the target's ability to generate return on its assets, balance-related metrics such as its book and market leverages, or the degree of management ownership in the firm. Such a finding would support my initial hypothesis that private equity firms are skilled at identifying targets with favorable characteristics, and that the corporate buyers that bid on the same targets are able to realize the value identified by the private equity firm.

Finally, the deal terms hypothesis suggests that corporate acquirers in the Financial Competition sample are able to negotiate more favorable acquisition terms, and that excess CARs are derived from deal characteristics such as lower premiums, the amount of cash vs. stock consideration or the level of debt financing. This would also support my initial hypothesis, that private equity firms are comparatively better at negotiating better deal terms and that corporate acquirers also benefit from this when winning a contested deal.

4.1 Following the Bids of Private Equity

To test whether excess CARs can be traced back to financial sponsors negotiating better deal terms or picking better targets for corporate buyers to acquire, I divide the Winning Bidder samples into *First Movers* and *Followers*. First Movers are corporate acquirers who made the first public bid for a target and then observed subsequent competing bids from either corporate or financial buyers. Followers are corporate acquirers who made a competing bid for a target after already observing a public bid from either a corporate or financial acquirer. If the difference in CARs between winning bidders is rooted in the target or deal terms hypotheses, I would expect the corporate followers of private equity bids to deliver the highest CARs, i.e. the *followers* group of the Financial Competition sample. Figure 3 plots the CARs of corporate first movers and followers in both competition samples over the (-20, +180) window surrounding bid announcements. We observe that the CARs of first movers in the Financial Competition sample lie below that of the Corporate Competition samples for most of the event window. The CARs of the Financial Competition *followers*, on the other hand, greatly outperform the other samples throughout the event window. This contrast is also made clear in Table 4, which presents the CARs of first movers and followers over the three event windows. Panel A shows that corporate followers in the Financial Competition sample earn CARs of 12.57%, outperforming followers in the Corporate Competition sample by 10.85%. The difference is statistically significant at the 5% level across all three event windows. Thus, following the bid of a financial buyer yields higher CARs than following the bid of a a corporate strategic buyer²⁵

4.2 Multivariate Analysis of Returns

In this subsection, I supplement my findings with more comprehensive comparison analyses, controlling for other factors that have been shown to affect acquirer returns. Using the original and added SDC metrics, I estimate the following regression equation for the CARs of winning corporate acquirers in the two competition samples:

²⁵In untabulated results, I repeat the analysis for the pre-2007 and post-2007 sample periods separately and yield similar results.

$$\begin{aligned}
CAR_{i(-20,+180)} = & \beta_0 + \beta_1 FINCOMP_i + \beta_2 CASH_i + \beta_3 ACQSIZE_i + \beta_4 RELSIZE_i \\
& + \beta_5 DAYS_i + \beta_6 SAMEIND_i + \beta_7 BIDS_i + \beta_8 PREMIUM_i \\
& + \beta_9 TTERMFi + \beta_{10} TPUB + \epsilon_i
\end{aligned}
\tag{6}$$

In Equation [6](#), the CARs of winning corporate acquirers are regressed on ten different variables provided by SDC. *FINCOMP* is a dummy variable equal to 1 if the corporate acquirer faced competition from at least one financial buyer and 0 if competition consisted of only corporate buyers. *CASH* is a dummy variable equal to 1 if the deal consideration consisted entirely of cash and 0 otherwise. *ACQSIZE* is the log market value of the acquirer’s assets. *RELSIZE* is the relative size of the target to acquirer, calculated as the deal value divided by the acquirer’s market value of assets. *DAYS* is the number of days from announcement to completion of winning bids. *SAMEIND* is a dummy variable equal to 1 if the acquiring firm and target share the same SIC industrial classification code and 0 otherwise. *PREMIUM* denotes the deal value premium offered above the target’s market equity value four weeks prior to the bid announcement. *TTERMFi* denotes the target termination fee relative to the deal value. *TPUB* is a dummy variable equal to 1 if the target firm is publicly listed and 0 otherwise. Results are presented in Table [5](#), first for all winning corporate acquirers (Column I), then for the First Mover and Follower samples, respectively (Columns II & III).²⁶ Each regression has been performed with and without adjusting for fixed effects relating to acquisition year and industry. The coefficient on *FINCOMP* is positive for the Followers sample, but only significant when not adjusting for fixed effects. With the adjustment, we also see that *CASH*, *DAYS*, *BIDS*, *SAMEIND* and *RELSIZE* all have statistically significant effects on acquirer CARs. Results are the same regardless of whether we regress (-20, +120) or (-20, +180) CARs. Further analysis shows that the significant effect of *FINCOMP* can be removed just by controlling for industry fixed effects, or by controlling for our descriptive variables without any fixed effects. The year dummies are not by themselves able to remove the significance. Thus, it seems from this initial model that differences in CARs can

²⁶Other relevant variables such as the amount of debt financing and use of poison pills have been left out due to data scarcity and/or collinearity issues.

be explained by certain deal characteristics and fixed effects, consistent with the deal terms hypothesis. However, I also need to verify that these characteristics actually deviate between samples.

4.3 Differences in characteristics

In Tables 6 through 8, I present descriptive characteristics for the deal, bidder and acquirer, enabling further comparison of the two competition samples. Recall that these statistics pertain to *corporate* acquirers only, for both samples. The deal hypothesis suggests that differences in CARs could be rooted in deal characteristics such as the amount of cash paid, the target termination fee, deal attitude, or the percentage of ownership already held before the acquisition announcement. Table 6 contains deal characteristics for bids as well as for completed transactions only (in brackets). The transaction value is the total consideration paid by the acquirer to complete the transaction excluding fees. We see that corporate acquirers in the Financial Competition sample make significantly larger acquisition bids on average, both in absolute value (USDm 238.52 vs. USDm 143.93) and relative to the market value of target assets (0.45 vs. 0.38) (though not for completed bids). This might indicate that competition is driving up deal value considerably, which is supported by the finding that Financial Competition bidding rounds attract a significantly higher number of competing bids (2.52 vs. 2.32). We see also that these acquirers pay a significantly higher share of the consideration in cash (90.2% vs. 85.3%) and perform a higher number of pure cash deals (58.4% vs. 39.2%). As might be expected, this pattern is reversed for consideration paid in acquirer stock, with bidders in the Corporate Competition sample paying 11.5% more in stocks on average, and performing 13.6% more pure stock transactions. There might be several reasons for why corporate buyers competing with financial sponsors pay more cash. One explanation is that corporate buyers want to make their offers more comparable to financial sponsors, for example in the face of more risk-averse target shareholders who have been shown to prefer cash.²⁷ Another reason might be that acquirers who are

²⁷Faccio and Masulis (2005), Pettit and Adolph (2007), de La Bruslerie (2013)

in possession of more favorable private information tend to offer more cash.²⁸ If, for example, a corporate acquirer believed bids made by private equity signaled greater target value, and possessed private information that a financial sponsor had bid for the target, they might use more cash to signal the higher value of the acquisition, as suggested by Fishman (1989). In fact, research shows that private equity experiences a significant amount of information leakage prior to public bid announcements.²⁹ The high amount of cash paid could also be linked to the relative size of the deal compared to the market value of the acquirer, as the firm would have to give up a lot of equity to finance a higher transaction value. As a matter of fact, we do see that acquirers competing with financial sponsors tend to complete transactions with a higher average relative size, however, the difference between samples is not statistically significant. Bessler et al. (2015) found that a higher percentage of cash payment increases the likelihood of bidder success when competing for targets, suggesting that a high cash offer might have a preemptive effect. This is, however, not supported by my findings when comparing the winning-bids sample to the all-bids sample. Considering the higher cash consideration, it is then interesting to see that the amount of debt financing relative to deal value is comparable between the two samples. One might expect that corporate acquirers paying a higher cash consideration would be forced to finance the transaction with comparatively more debt, though it might be that issuing equity is preferred (66% of corporate acquirers in the sample are publicly listed). Looking at the premiums, I also see no support for the findings made by Barger et al. (2007), that corporate acquirers competing with financial sponsors pay lower premiums. This is, however, consistent with more recent research such as that of Fidrmuc et al. (2012), Du and Gerety (2018) and Ålrust and Lodgaard (2018), who all find insignificant differences in premiums when controlling for other factors such as deal size, timing and industry. Gompers and Lerner (2000) argue that the increased capital inflow to private equity funds eventually leads to increased competition, indicating that the premiums offered by financial sponsors have become more comparable to those of corporate acquirers over time. The picture could also be distorted by unobserved competition, with Eaton, Liu, and Officer (2021) suggesting

²⁸Hansen (1987), Fishman (1989), Eckbo, Giammarino, and Heinkel (1990), Berkovitch and Narayanan (1990)

²⁹Lehn and Poulsen (1989), Boone and Mulherin (2011) and Fidrmuc et al. (2012)

that, due to the extended private phase period found in recent studies such as Liu and Mulherin (2018), traditional one- or two-month target premiums like the ones I am using are significantly underestimating the true premiums. Be that as it may, I find several significant differences in deal characteristics between the two samples, and as shown by the regression in Table 5, deal characteristics such as "Pure Cash", "Same Industry" and "Number of Competing Bids" are significant determinants of CARs. According to this model, acquirers in the Financial Competition sample seem to earn comparatively higher CARs because they conduct more pure-cash deals and more often acquire targets outside their own industry. They are also subject to higher competition, which has a negative effect on CARs. Thus, there seems to be some support for the deal terms hypothesis that financial sponsors negotiate better deal terms that winning corporate acquirers can benefit from. This partial conclusion is, however, based on quite a limited number of descriptive variables, and it might be that we need a more descriptive model to obtain unbiased results.

Table 7 contains bidder characteristics for all bids, as well as completed acquisitions only (in brackets). The acquirer hypothesis suggests that differences in CARs might stem from inherent acquirer characteristics. Comparing the two samples, we see that there are no significant differences (at the 5% level) in size, leverage, acquisition experience or profitability as measured by ROA. There is also research to suggest that managerial ownership and option awards to managers can affect acquirer returns, however, using data from Execucomp I find no significant difference in either.³⁰ Thus, there is no support for the hypothesis that corporate buyers who compete with financial sponsors are inherently more efficient, more experienced or better-run firms than corporate buyers competing only with other corporate buyers. In Table 9, I add these variables to the multivariate analysis and find that the Follower-samples now maintain a significant Financial Competition dummy, even when controlling for fixed effects. In addition, most variables are now statistically significant at the 1% level as long as we control for the deal premium. Considering that the old model did not fit the data very well (R-squared = 0.09, Prob > F = 0.07), it could be that this

³⁰Song and Walkling (1993), Hubbard and Palia (1995) and Datta, Iskandar-Datta, and Raman (2001)

new model better indicates the associations between deal/bidder characteristics and corporate acquirer CARs. In that case, this might support the findings of [Dittmar et al. \(2012\)](#) and my target hypothesis, namely that deal and acquirer characteristics cannot explain the superior performance of the Financial Competition sample. I am, however, hesitant to make any such conclusion based on the small sample size used in the multivariate regression.

If the deal terms and acquirer hypotheses do not hold up, my final explanation is that the difference in CARs stems from the two samples pursuing different targets.³¹ In Table [8](#), I present target characteristics for the two competition samples and find that targets in the Financial Competition sample are significantly larger measured by both their assets and equity, meaning that when corporate acquirers compete with financial bidders they chase larger targets than when competing with other corporate acquirers. Consistent with recent studies such as [Cosh, Guest, and Jia \(2014\)](#), targets in the Financial Competition sample are less leveraged. The acquirers also tend to pursue public targets more often than in the Corporate Competition sample, and private targets less often.³² There are no significant differences in management ownership or option awards, thus there does not seem to be higher potential for improvements in corporate governance or compensation structures in the Financial Competition sample. In Panel B of the table, I compare the performance ratios of acquirers to their respective targets and present the means of the two competition samples. I find no significant differences. In Table [10](#), I control for some of these characteristics in the CAR regression and find that the excess gains of Financial Competition followers remain after controlling for target and deal characteristics, but only at the 10% significance level. The model indicates that lower market-to-book ratios and higher ROAs have significantly positive effects on the CARs of followers, but as we saw in Table [8](#), these are not different between samples. In conclusion,

³¹Another interesting question is whether targets earn higher announcement returns when bid on by a financial sponsor compared to when bid on by corporate acquirers, as this might indicate that the market considers financial sponsor bids as more credible with regards to target firm value. However, I find that 180-day CARs are indistinguishable (22.19% for financial sponsor bids and 24.34% for corporate buyer bids). Announcement day CARs are 22.20% for corporate buyer bids and 16.58% for financial sponsor bids.

³²This might be obscured by hidden competition, as private targets are less likely to receive publicly announced bids.

these observable target characteristics are able to explain the difference between samples at the 5% significance level for both the all-bids and follower groups, but they do not differ between samples. I note that the model does not seem to fit the Followers data very well, and the variables are not able to explain the difference at a 10% significance level. Thus, I do not find any strong support for the target hypothesis either. This is consistent with recent studies such as Cosh et al. (2014), who found no significant difference in bid multiples paid between financial sponsors and corporate acquirers, nor any other support for the hypothesis that private equity acquire more undervalued targets.

Table 9 examines CARs by controlling for observable acquirer characteristics and is not able to remove the Financial Competition effect, however, it could be that acquirer skill is not measured well by these factors. As an additional test of the acquirer hypothesis, I examine the prior acquisition experience of corporate buyers in the Financial Competition sample. If these acquirers are inherently better through some *unobserved* characteristic, one should expect to see the same superior return in all of their acquisitions, including those included in the single bidder subset where there is no bidding competition. In Table 11, I present the CARs of corporate bidders who completed uncontested acquisitions over the three event windows. The Single-bidder subset is divided into two samples: bids made by acquirers who at no point in the period 1980 - 2020 competed with a financial sponsor, and bids made by acquirers who at some point also appeared in the Financial Competition sample bidding for another target. The second group is then divided into bids made prior to the contested bids made in the Financial Competition sample (Column I) and bids made both prior and following the bids that appear in the Financial Competition sample (Column II). Column III contains all single bids made by acquirers who at no point competed with a financial sponsor, acting as a benchmark for comparison. If acquirers in the Financial Competition sample are more skilled at identifying and conducting value-enhancing acquisitions, I would expect their CARs to be significantly higher than the benchmark sample. Table 11 Panel A shows significant negative CARs for all three samples over the (-20, +180) window, and that there is a significant difference-in-means between single-bidder acquisitions made by corporate

bidders who appear in the Financial Competition sample and the benchmark, with the former earning 2.99% higher cumulative abnormal returns over the (-20, +180) window. The difference is, however, not significant for acquisitions carried out prior to bids that appear in the Financial Competition sample. Panel B presents CARs of the Followers group, where I find similar results except the means are not significantly different over the longest event window. Thus, there is some support for the hypothesis that corporate bidders who choose to compete with financial bidders are more skilled at conducting acquisitions than the benchmark, and that superior CARs are not just concentrated in deals where financial bidder competition is present. Note, however, that the Single-bidder subset delivers significantly negative CARs on average, as opposed to the competition samples who deliver significantly positive abnormal returns³³. Consequently, one cannot necessarily say that corporate bidders who appear in the Financial Competition sample are inherently better at performing *value-enhancing* acquisitions. Instead, the average acquisition only seems to be value-enhancing for a winning acquirer when there is bidding competition, and Tables 2 and 4 show that CARs are superior when following the bid of a financial sponsor.

A final explanation for the difference in CARs between samples might be that synergies are higher between acquirer and target in the Financial Competition sample. Dittmar et al. (2012) suggests that corporate acquirers require higher synergies to enter bidding competitions with financial sponsors if, for example, acquisition costs are expected to be higher. However, as shown by the deal characteristics in Table 6, premiums are indistinguishable between the two competition samples, thus it does not seem like winning acquirers in the Financial Competition sample find high enough synergies to raise the acquisition price. An alternative explanation is that corporate bidders in the Financial Competition sample are better at identifying and extracting synergies, and as shown by Table 11, it does seem to be the case that these acquirers generally deliver higher CARs than the benchmark. A third possibility is that the Corporate Competition sample achieve lower synergies because corporate bidders might have other motives when contesting a bid from another

³³In untabulated results, I compute the (-20, +180) CARs for the competition samples combined and find that they are significantly positive with at the 5% significance level.

corporate strategic acquirer. One such motive might be stopping a competitor from acquiring a target that might earn them a competitive edge, and thus a corporate strategic bidder might place a bid for a target with low synergies to prevent this from happening.³⁴ To test this hypothesis, I divide the Corporate Competition sample into a sub-sample where at least two competing bidders share the same SIC industrial classification as the target, and a sub-sample where they do not. In untabulated results, I find that the 3,477 corporate acquirers who do not share SIC-codes with their target and competitor earn average CARs of 0.31%, while the 1,102 corporate acquirers sharing SIC-classification with both the target and at least 1 competitor earn positive CARs of 1.80%. None of the CARs are statistically significant and neither is the difference-in-means, thus the data do not support this third explanation.

In summary, I have compared the Financial and Corporate Competition samples and found that corporate acquirers facing competition from a financial sponsor earn significantly higher CARs, but only when winning the bidding round and only over the (-20, +120) window. I also find that winning corporate buyers who follow a financial sponsor bid significantly outperform the Corporate Competition sample acquirers over all three event windows. This difference persists even when controlling for fixed effects and deal/acquirer/target characteristics that are significantly different between samples, though these findings are based on only a small subset of the initial competition samples and dependent on the inclusion of a large number of control variables. Moreover, corporate buyers in the Financial Competition sample seem to outperform the benchmark in uncontested acquisitions, indicating that they might be inherently better acquirers after all, but through unobserved characteristics not included in my model. Furthermore, the difference seen in uncontested acquisitions is driven by the Financial Competition acquirers suffering smaller abnormal losses than the benchmark, rather than higher abnormal returns. Thus, while they seem to be better acquirers, they are not necessarily better at conducting *value-enhancing* acquisitions. In conclusion, I do not find that financial bidders are better at identifying targets and that this value is transferable to any winning bidder. Instead, the superior CARs of corporate acquirers who follow private equity bids seem to stem from these

³⁴See Akdoğan (2011)

acquirers being inherently better through unobserved characteristics. That being said, I cannot conclusively refute the hypothesis that financial sponsors also pick better targets based on unobserved characteristics. These findings are also subject to a number of robustness concerns.³⁵

³⁵[1] My data might be exposed to measurement errors made by the data providers. However, I have mitigated this risk by relying on only two data providers who have not changed their measurement methodology during the sample period and who regularly cleanse the data when mistakes are found. That being said, [Barnes, L. Harp, and Oler \(2014\)](#) found that SDC SIC-codes are not always correct which might have affected my results considering SIC-codes are used both as an explanatory variable and for fixed effect adjustments. [2] My regression models are exposed to omitted variable bias from unobserved determinants affecting both the dependent and independent variables. I have tried to mitigate this risk by including as many intuitive control variables as possible given the data I have available. Still, as demonstrated by [Tables 5 and 9](#), results are changed drastically by adding or removing variables and my conclusions rely heavily on the integrity of these models. One major concern is that the sample size drops dramatically as I move into the multivariate analyses, which makes the results more dependent on outliers and makes it less likely that my results represent the population as a whole. [3] [Martos-Vila \(2011\)](#) showed that private equity acquisitions tend to happen in waves, thus I have made sure to include year dummies in my regression to control for such effects. [4] My findings are sensitive to the test-statistic used to indicate statistical significance. Under the assumption that abnormal returns are uncorrelated and have constant variance over time, the Patell Z test-statistic is robust against heteroscedasticity ([Kolari and Pynnönen \(2010\)](#)), and allows for cross-sectional distribution of cumulative residuals to be compared to a normal. Patell Z gives less weight to more volatile observations when averaging, producing more reliable results. Nevertheless, I have also computed cross-sectional t-tests for all CARs and found that they generally give the same conclusions as the Patell Z. [5] Prior research has shown that public bid announcements only account for approximately half of all bidding competition, suggesting there might be selection bias and measurement errors in my data set. Removing the potential bias would require a considerably more expansive analysis. [6] My analysis does not control for the quality of competing private equity firms. One might expect the identity and reputation of the competing firm to have a significant effect on acquirer returns, both through the financial sponsor's ability to pick the best acquisition targets, the type of targets the private equity bids for, and the signalling effect of having a bid come from a major private equity brand such as Blackrock, KKR, Bain Capital etc. compared to a smaller, unknown investor. [7] One final concern is that I only observe superior CARs in bidding rounds where the corporate acquirer ends up winning, which brings up the question "*why do financial sponsors lose these rounds?*". In [Table 12](#), I compare the deal, bidder and target characteristics of corporate and financial acquirers to look for potential selection bias. The table shows that financial buyers engage in significantly fewer hostile takeovers, pay considerably more cash, and have a much higher bidding frequency. Most interestingly, we see that financial sponsors win significantly more bidding rounds, though this is likely to be biased due to unobserved competition. To analyze whether financial sponsors are more likely to win a given bidding round, I perform a logistic regression on a dummy equal to 1 if a deal is won, controlling for deal and acquirer characteristics. The main explanatory variable is a dummy equal to 1 if the winning acquirer is a financial sponsor and 0 otherwise. In untabulated results, I find no significant coefficients or odds ratios.

5 Conclusion

In this paper, I have examined the effect of competitor identity on acquirer merger gains and found that corporate buyers might benefit from acquiring targets picked by private equity. By comparing the abnormal returns of corporate strategic acquirers, I showed that those facing competing bids from financial sponsors significantly outperform those competing exclusively with other corporate buyers, though only over a short (-2, +2) trading day announcement window. There is, however, a long-term divergence over the (-20, +120) window for *winning* corporate acquirers facing private equity competition, who significantly outperform the Corporate Competition sample by 7.46%. By dividing the bidders into first-movers and followers, I found that the followers of private equity bids significantly outperform the other samples in both short and long-term event windows, suggesting that financial sponsors identify better acquisition targets and the winning bidder reaps the benefit. To test this hypothesis further, I performed a series of econometric exercises and found that the superior performance of financial competition followers cannot be explained by observable deal, acquirer or target characteristics. However, upon testing the acquisition skills of corporate buyers in the Financial Competition sample, I found that they perform significantly better than the benchmark when not facing any public bidding competition. This suggests that there might be some unobserved acquirer characteristic making corporate buyers in the Financial Competition sample inherently better, however, I also found that all single-bidder acquisitions yield negative abnormal returns on average. Thus, these acquirers are not necessarily better at conducting *value-enhancing* takeovers compared to the benchmark, but they destroy significantly less value. Comparing deal characteristics between samples, I find that corporate buyers in the Financial Competition sample conduct more pure-cash deals, acquire targets in their own industry less often, and experience higher competition intensity. These are all significant determinants of abnormal returns, but do not provide notable support to the hypothesis that corporate acquirers benefit from better deal terms when competing with private equity.

In conclusion, I do not find that corporate buyers benefit from financial competition

due to the deal negotiation and observable target-picking skill of private equity. Instead, the data suggest that there is some unobserved bidder characteristic that makes them inherently better acquirers, although this does not explain why it pays to follow the bids of private equity. Moreover, I cannot completely rule out the possibility that private equity firms are able to pick better takeover targets based on information not easily available to the public, which has been suggested by similar research on the topic. Finally, I have shown that bidding competition on average is a proxy for value-enhancing acquisitions, while single-bidder acquisitions tend to destroy acquirer value.

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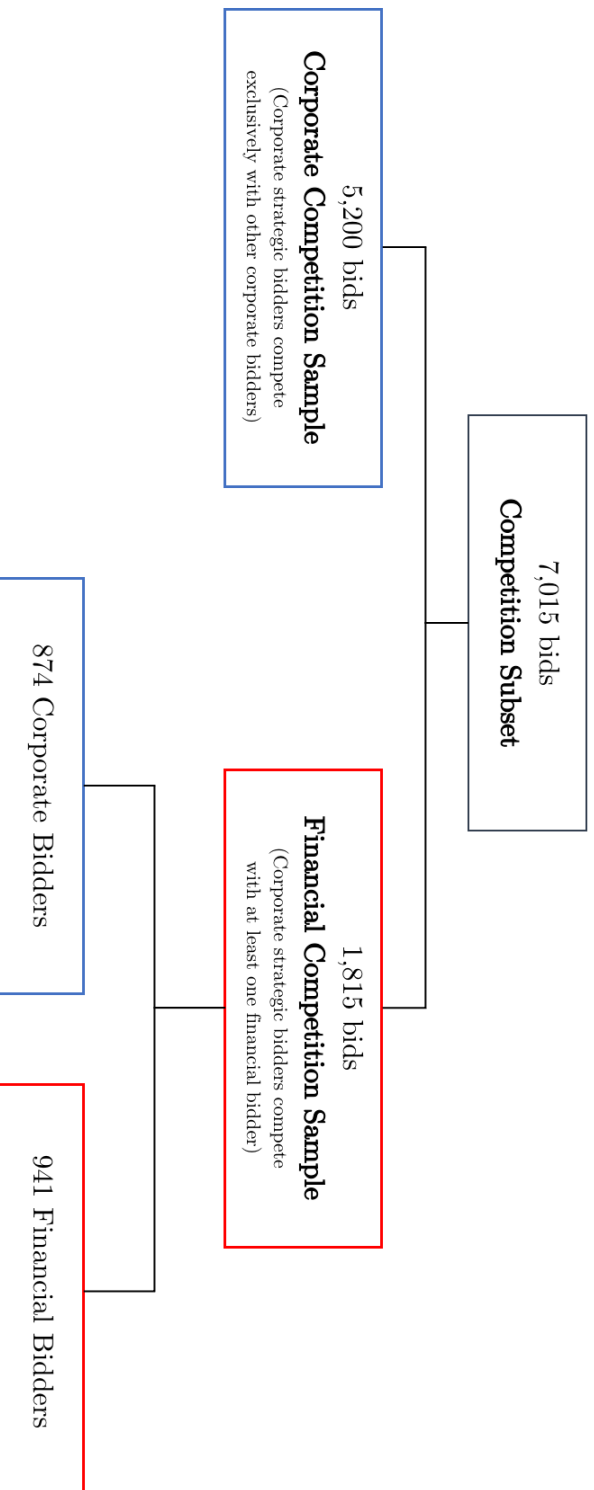


Figure 1: Sample Breakdown

This figure illustrates the breakdown of the two samples (in bold) used throughout this paper.

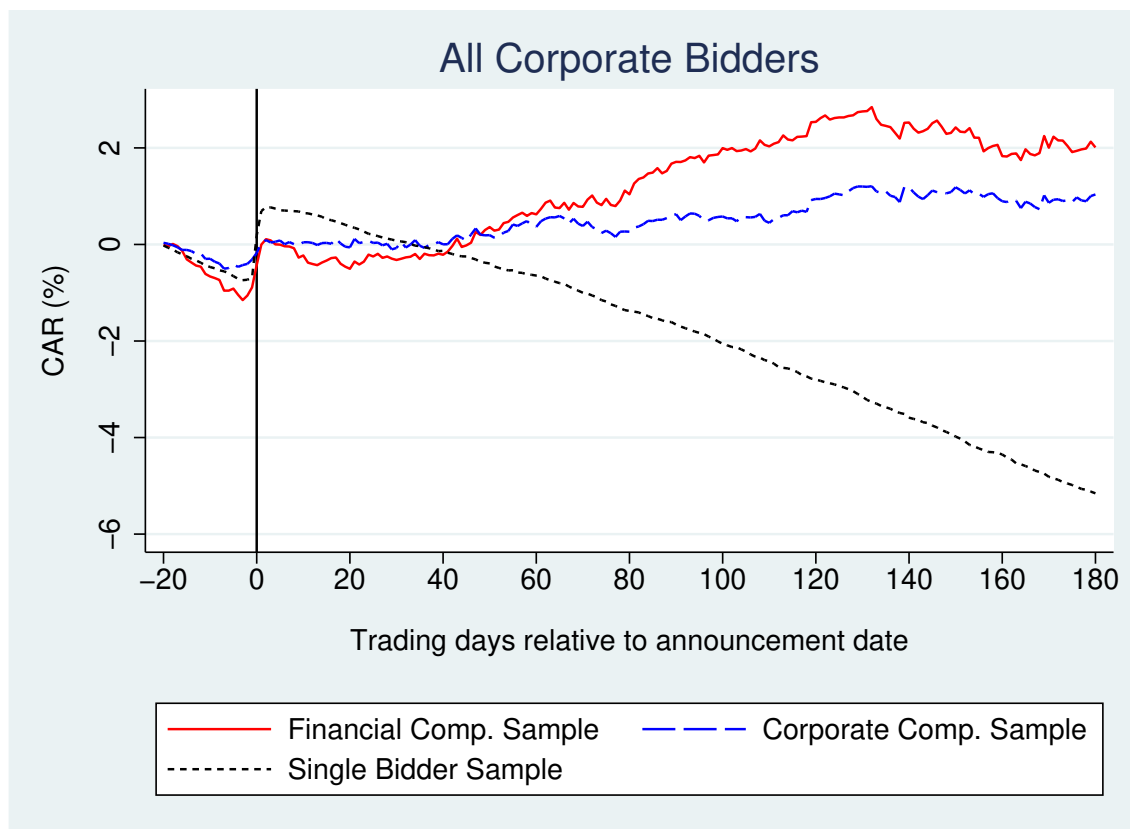


Figure 2: Cumulative Abnormal Returns of All Corporate Bidders

This figure shows the cumulative abnormal returns (CARs) of corporate bidders from 20 days prior to 180 days after their acquisition bid announcements. The red, solid line represents the CARs of corporate acquirers who faced competition from at least one financial bidder (Financial Competition sample). The blue, dashed line represents the CARs of corporate acquirers who faced competition exclusively from other corporate strategic bidders (Corporate Competition sample). The black, dashed line represents the CARs of corporate acquirers who faced no public competition (Single-bidder Sample). Abnormal returns are computed using the market model with a value-weighted index.

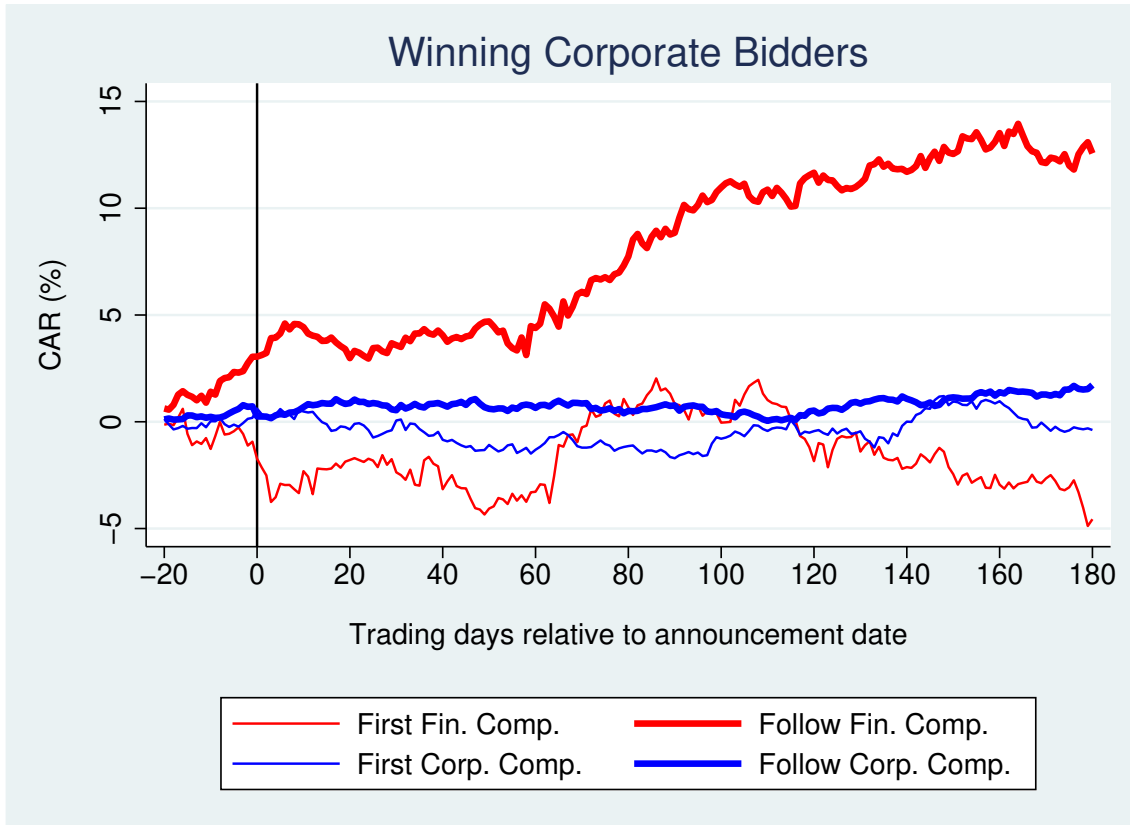


Figure 3: Cumulative Abnormal Returns of Winning Corporate Bidders

This figure shows the cumulative abnormal returns (CARs) of winning corporate bidders from 20 days prior to 180 days after their acquisition bid announcements. The thin, red line represents the CARs of corporate acquirers in the Financial Competition sample who made the first bid and subsequently faced competition from at least one financial bidder. The thick, red line represents the CARs of corporate acquirers in the Financial Competition sample who followed the first bid of a financial buyer. The thin, blue line represents the CARs of corporate acquirers in the Corporate Competition sample who made the first bid and subsequently faced competition from other corporate strategic bidders. The thick, blue line represents the CARs of corporate acquirers in the Corporate Competition sample who followed the first bid of another corporate strategic buyer. Abnormal returns are computed using the market model with a value-weighted index.

Table 1: Deal Summary

This table describes the SDC sample of 111,985 successful and unsuccessful bid announcements made by US corporate and financial acquirers in the period 1980 to 2020. Column 1 contains the total number of deals announced in a given year. Column 2 contains the number of deals facing competition. Column 3 contains the number of deals facing competition from at least one financial bidder. Column 4 contains the fraction of financially competed deals to total competed deals.

Year	Deals Announced	Deals Facing Competing Bids	Deals Facing Financial Competition	Financial Competition Share of Competed Deals
1980	88	9	3	0.33
1981	707	93	7	0.08
1982	1,010	118	7	0.06
1983	1,612	143	38	0.27
1984	2,121	192	55	0.29
1985	1,073	164	55	0.34
1986	1,481	205	54	0.26
1987	1,697	266	103	0.39
1988	2,068	356	163	0.46
1989	2,595	276	82	0.30
1990	2,375	140	31	0.22
1991	2,002	210	72	0.34
1992	2,496	167	41	0.25
1993	3,010	230	36	0.16
1994	3,788	255	52	0.20
1995	4,159	276	41	0.15
1996	5,043	325	47	0.14
1997	5,548	400	67	0.17
1998	5,919	342	38	0.11
1999	4,946	323	33	0.10
2000	4,174	297	62	0.21
2001	2,965	188	24	0.13
2002	2,767	137	32	0.23
2003	2,838	171	44	0.26
2004	2,891	127	32	0.25
2005	3,197	140	52	0.37
2006	3,315	165	68	0.41
2007	3,425	145	54	0.37
2008	3,014	135	42	0.31
2009	2,179	131	38	0.29
2010	2,303	109	41	0.38
2011	2,470	103	44	0.43
2012	2,455	91	34	0.37
2013	2,256	82	31	0.38
2014	2,638	80	27	0.34
2015	2,699	90	29	0.32
2016	2,251	84	30	0.36
2017	2,647	83	27	0.33
2018	2,537	72	31	0.43
2019	2,190	53	24	0.45
2020	3,036	42	24	0.57
Total	111,985	7,015	1,815	0.26

Table 2: Univariate Analysis of Cumulative Abnormal Returns

This table presents the cumulative abnormal returns (CARs) of corporate acquirers in the Financial and Corporate Competition samples over three event windows surrounding the bid announcement dates, (-2, +2), (-20, +120) and (-20, +180). PANEL A compares the CARs of all bidders in either sample. PANEL B compares CARs of only the corporate bidders that win against either a financial bidder or other corporate bidders. PANEL C compares CARs of corporate bidders who lose to either a financial bidder or other corporate bidders. In all panels, "Financial Competition" refers to the sample of corporate acquirers who faced competition from at least one financial bidder, while "Corporate Competition" refers to the sample of corporate acquirers who faced competition exclusively from other corporate bidders. Abnormal returns are computed using the market model with a value-weighted index. Parentheses contain Patell Z-statistics or *t*-statistics as indicated. Superscript *a*, *b*, and *c* indicate significance at the 1%, 5% and 10% levels, respectively.

	Financial Competition	Corporate Competition	Difference <i>t</i> -statistic
	Mean CAR (Patell Z)	Mean CAR (Patell Z)	
PANEL A: ALL BIDDERS			
Acquirer CARs over the (-2, +2) window	1.29% (7.17)	0.53% (0.89)	0.76% (2.46) ^a
Acquirer CARs over the (-20, +120) window	2.53% (5.10)	0.91% (1.59)	1.62% (1.02)
Acquirer CARs over the (-20, +180) window	2.01% (2.96)	1.04% (0.59)	0.97% (0.45)
Observations	1,793	3,375	
PANEL B: WINNING BIDDERS			
Acquirer CARs over the (-2, +2) window	0.14% (-1.21)	-0.36% (-6.65) ^a	0.50% (0.77)
Acquirer CARs over the (-20, +120) window	7.59% (0.86)	0.13% (-2.67) ^a	7.46% (2.01) ^b
Acquirer CARs over the (-20, +180) window	7.45% (-0.20)	1.03% (-2.09) ^b	6.42% (1.31)
Observations	246	1,773	
PANEL C: LOSING BIDDERS			
Acquirer CARs over the (-2, +2) window	1.61% (4.46)	1.47% (8.17)	0.14% (0.19)
Acquirer CARs over the (-20, +120) window	2.74% (4.46)	1.70% (8.17)	0.14% (0.19)
Acquirer CARs over the (-20, +180) window	8.26% (1.87)	1.04% (3.24)	7.22% (1.50)
Observations	302	1,619	

Table 3: CARs of Corp. Acquirers at Announcement of Competing Bid

This table presents the cumulative abnormal returns (CARs) of corporate acquirers in the (-2, +2) window surrounding the announcement of a subsequent competing bid, either from a financial or corporate bidder. Abnormal returns are computed using the market model with a value-weighted index.

	Competing Bid from Financial Bidder	Competing Bid from Corporate Bidder	Difference-in-means (<i>t</i> -statistic)
Mean CARs	8.93%	8.15%	0.78% (0.49)
Median CARs	2.65%	2.28%	
Observations	243	1,492	
Pearson χ^2	0.0005		
Wilcoxon Rank Test	0.3743		

Table 4: Univariate Analysis of CARs of First Movers and Followers

This table presents the cumulative abnormal returns (CARs) of corporate acquirers in the Financial and Corporate Competition samples over three event windows surrounding the bid announcement dates, (-2, +2), (-20, +120) and (-20, +180). "Financial Competition" refers to the sample of corporate acquirers who faced competition from at least one financial bidder, while "Corporate Competition" refers to the sample of corporate acquirers who faced competition exclusively from other corporate bidders. Abnormal returns are computed using the market model with a value-weighted index. "First Mover" refers to the sample of winning (losing) corporate acquirers who made the first bid and faced subsequent competition from either financial or corporate bidders. "Follower" refers to the sample of winning (losing) corporate acquirers who announced a bid after observing a bid from a financial or corporate bidder. Parentheses contain Patell Z-statistics or *t*-statistics as indicated. Superscript *a*, *b*, and *c* indicate significance at the 1%, 5% and 10% levels, respectively.

Event Window	Group	I Financial Competition		II Corporate Competition		I-II
		[N]	Mean CAR (Patell Z)	[N]	Mean CAR (Patell Z)	Difference <i>t</i> -statistic
PANEL A: WINNING BIDS						
(-2, +2)	First Mover	[72]	-1.77% (-1.83) ^b	[352]	0.47% (-1.88) ^b	-2.24% (1.56)
	Follower	[178]	0.92% (-0.27)	[1,439]	-0.57% (-6.48) ^a	1.49% (2.02) ^b
(-20, +120)	First Mover	[72]	-1.84% (-0.61)	[351]	-0.44% (-0.09)	-1.40% (0.22)
	Follower	[177]	11.61% (1.43)	[1,429]	0.45% (-2.84) ^a	11.16% (2.48) ^b
(-20, +180)	First Mover	[72]	-4.56% (-1.23)	[351]	-0.38% (-0.51)	-4.18% (0.50)
	Follower	[174]	12.57% (0.56)	[1,429]	1.72% (-2.11)	10.85% (1.96) ^b
PANEL B: LOSING BIDS						
(-2, +2)	First Mover	[174]	2.58% (5.19)	[1,131]	1.84% (8.63)	0.74% (1.75) ^c
	Follower	[129]	0.31% (0.80)	[493]	0.60% (1.74)	-0.29% (0.32)
(-20, +120)	First Mover	[72]	1.43% (0.74)	[351]	3.30% (6.23)	-1.87% (0.69)
	Follower	[177]	4.58% (0.45)	[1,429]	-2.10% (-0.23)	6.68% (1.52)
(-20, +180)	First Mover	[174]	9.95% (2.26)	[1,130]	3.48% (4.57)	6.47% (0.97)
	Follower	[128]	5.86% (0.22)	[491]	-4.66% (-1.66)	10.52% (2.02) ^b

Table 5: Determinants of Winning Corporate Acquirer CARs

This table presents the output of regressing CARs for all winning corporate acquirers over the (-20, +120) window. Separate outputs are also provided for the first mover and follower sub-samples. All samples have been modelled both with and without fixed effect dummies. Abnormal returns are computed using the market model with a value-weighted index. FINCOMP is a dummy variable equal to 1 if the corporate acquirer faced bidding competition from a financial buyer (regardless of who made the first bid) and 0 if the corporate acquirer faced competition from other corporate bidders exclusively. CASH is a dummy variable equal to 1 if the whole transaction was paid in cash and 0 otherwise. 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 four weeks prior to the merger announcement, divided by the target's share price four weeks prior to the merger announcement. DAYS is the number of days from bid announcement to completion. BIDS is the number of publicly announced bids competing for the same target. SAMEIND is a dummy variable equal to 1 if the target and acquirer belong to the same 4-digit SIC code denoting their respective industry classifications. ACQSIZE is the log value of the acquirer's market value of assets. RELSIZE is the transaction value of the acquisition divided by the non-log acquirer market value of assets. Transaction value is the total amount paid by the acquirer to complete the acquisition excluding transaction fees. TTERMF is the target termination fee divided by the transaction value. TPUB is a dummy variable equal to 1 if the target is a publicly listed firm and 0 otherwise. Parentheses contain t-statistics based on robust standard errors. Superscript *a*, *b*, and *c* indicate significance at the 1%, 5% and 10% levels, respectively.

	I		II		III	
	All	All	First Movers	First Movers	Followers	Followers
FINCOMP: Financial Competition Dummy	-0.259 (-1.02)	0.089 (0.58)	-0.087 (-0.70)	-0.202 (-0.84)	0.510 (1.31)	0.306 (2.21) ^b
CASH: Pure Cash Dummy	0.582 (2.94) ^a	0.231 (2.09) ^b	0.033 (0.33)	-0.176 (-0.99)	0.972 (2.28) ^b	0.214 (1.55)
PREMIUM: Premium Offered	-0.000 (-0.10)	0.001 (1.11)	0.002 (1.18)	0.005 (2.28) ^c	0.001 (0.64)	0.001 (0.97)
DAYS: Days to Completion	0.003 (2.36) ^b	0.001 (1.41)	-0.000 (-0.99)	0.001 (0.99)	0.004 (2.64) ^b	0.001 (1.10)
BIDS: Number of Bids	-0.042 (-0.16)	-0.047 (-0.63)	0.009 (0.09)	0.038 (0.21)	-1.528 (-2.95) ^a	-0.104 (-1.30)
SAMEIND: Same acquirer/target industry	-0.270 (-0.91)	-0.102 (-1.03)	0.101 (0.92)	-0.315 (-1.70) ^c	-0.693 (-2.56) ^b	-0.091 (-0.79)
ACQSIZE: Log Acq. Market Assets	0.095 (0.66)	-0.044 (-1.32)	-0.074 (-1.13)	0.533 (3.46) ^a	-0.048 (-1.21)	
RELSIZE: Deal Value over ACQSIZE	-0.044 (-0.21)	-0.135 (-1.47)	-0.364 (-2.03) ^b	0.771 (3.11) ^a	-0.154 (-1.99) ^b	
TTERMF: Target Termination Fee	-16.854 (-1.20)	0.705 (0.20)	-17.683 (-2.00) ^b	0.449 (0.11)		
TPUB: Public Target Firm		0.039 (0.30)	0.143 (0.27)	0.337 (1.88) ^c		
Intercept	-1.292 (-1.23)	0.036 (0.15)	-0.483 (-0.96)	0.080 (0.16)	-0.186 (-0.13)	0.149 (0.42)
Industry Dummies	Yes	No	Yes	No	Yes	No
Year Dummies	Yes	No	Yes	No	Yes	No
Observations	125	125	243	243	107	107
R-squared	0.47	0.09	0.34	0.32	0.69	0.09

Table 6 - 8: Deal, Bidder and Target Characteristics

Table 6 through 8 present deal-, bidder- and target characteristics for successful and unsuccessful acquisition bids announced by corporate acquirers in the period 1980 - 2020. Table 6 presents deal characteristics. Table 7 presents bidder characteristics. Table 8 presents target characteristics and difference characteristics between bidder and target. In each table, the first column contains descriptive statistics of competed deals in which all bidders were classified as corporate strategic buyers, while the second column contains descriptive statistics of competed deals in which at least one bidder was classified as a financial buyer. For Tables 6 and 7, descriptive statistics are first presented for all deals, then for completed deals only (in square brackets). *Transaction Value (TV)* is the total amount paid (excluding fees) to complete the acquisition. *Market Assets* is the firm's book value of debt plus the market value of its equity. $TV/ASSETS$ is the transaction value divided by the target's market assets. *Relative Size* is the transaction value divided by the acquirer's market assets. *Days to Completion* is the number of days between the announcement date and completion date of the bidder. *Hostile Deals* is the share of bids where target management considered the takeover to be hostile. *Tender Offers* is the share of bids in which a tender offer was made to target shareholders. *Cash / Stock* is the share of TV paid in cash/stock. *Pure Cash / Stock* is the share of deals where the consideration was paid exclusively in cash / stock. *Poison Pill* 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 acquirer holds at least 5 % of target shares at the time of announcement. *Target Termination Fee* is the USDm amount that must be paid by the target in order to cancel the merger agreement, divided by the deal value. *Debt Financing (\$ mln)/(%)* is the dollar amount/share of transaction value financed by acquirer debt. *Premium* is the premium offered above the target's pre-announcement market value 4 weeks prior to the bid announcement. *Same Industry* is a dummy equal to 1 if acquirer and target share the same SIC industrial classification code and 0 otherwise.

In Table 7, *Book Assets* is the book value of total assets. *Market Equity* is the market value of the acquirers equity. *Market Assets* is the book value of debt plus the market value of acquirer equity. *Book Leverage* is calculated as the book value of debt divided by Book Assets. *Market Leverage* is calculated as the book value of debt divided by Market Assets. *Market-to-book* is calculated as Market Assets divided by Book Assets. *Quick Ratio* is calculated as current assets minus inventories, divided by current liabilities. *Return on Assets* is calculated as acquirer net income over the book value of its assets. *Cash Flow Margin* is calculated as acquirer operating income before depreciation over net sales. *Cash to Net Assets* is calculated as acquirer cash and cash equivalents divided by the book value of its assets less cash and cash equivalents. *Management Ownership* is the percentage of acquirer shares owned by company management as reported by the Execucomp database. *Option Awards / Total Compensation* is the average stock value of options granted to top management, divided by their total compensation. *Acquisition Frequency* is the average number of times a corporate buyer announced a bid in the sample period.

Table 8 Panel A presents the following variables for the target firm: *Book Assets*, *Market Assets*, *Market Equity*, *Book Leverage*, *Market Leverage*, *Market-to-book*, *Asset Turnover*, *Return on Assets*, *Cash Flow Margin*, *Cash to Net Assets*, *Management Ownership*, *Option Awards / Total Compensation*. These are calculated as already described for the bidder characteristics in Table 7. *Public Target* shows the share of transactions in which the target was a publicly listed firm. *Private Target* denotes the share of transactions in which the target was a private firm. *Subsidiary Target* denotes the share of transactions in which the target was a subsidiary. Panel B presents the mean difference characteristics between acquirer and target in completed transactions. These are computed as previously described. Superscripts *a*, *b*, and *c* denote significance at the 1%, 5% and 10% levels, respectively.

Table 6: Deal Characteristics

	Corporate Competition	Financial Competition	Difference
Transaction Value (TV)	143.93	238.52	-94.59 ^a
	[178.61]	[261.16]	[-82.56] ^a
TV/Assets	0.38	0.45	-0.07 ^a
	[0.490]	[0.512]	[-0.022]
Relative Size	1.15	1.02	0.12
	[0.49]	[1.28]	[-0.79]
Days to Completion	-	-	-
	[143.40]	[129.50]	[13.90] ^b
Hostile Deals	5.0%	3.9%	1.1% ^c
	[3.1%]	[3.1%]	[-0.1%]
Tender Offers	14.0%	15.0%	-1.0%
	[19.4%]	[22.3%]	[-2.9%] ^c
Cash	90.8%	91.9%	-1.1%
	[85.3%]	[90.2%]	[-5.1%] ^a
Stock	80.6%	69.1%	11.5% ^a
	[80.3%]	[70.9%]	[9.4%] ^a
Pure Cash Deals	44.8%	53.7%	-8.9% ^a
	[39.2%]	[58.4%]	[-19.2%] ^a
Pure Stock Deals	15.2%	5.3%	9.9% ^a
	[21.0%]	[7.4%]	[13.6%] ^a
Poison Pill	1.8%	1.8%	0.0%
	[1.1%]	[1.7%]	[-0.6%]
Toehold	7.7%	9.6%	-1.9% ^b
	[10.1%]	[9.50%]	[0.5%]
Target Termination Fee	0.04	0.04	-0.00
	[0.04]	[0.04]	[-0.00]
Debt Financing (\$ mln)	111.05	196.20	-85.15 ^b
	[106.51]	[215.74]	[-109.23] ^c
Debt Financing (%)	45.0%	39.3%	5.7%
	[45.8%]	[41.6%]	[4.2%]
Number of Competing Bids (Announced)	2.51	2.90	-0.39 ^a
	[2.32]	[2.52]	[-0.20] ^a
Premium	39.0%	41.6%	-2.6%
	[46.3%]	[43.9%]	[2.4%]
Same Industry	41.5%	26.4%	14.1% ^a
	[31.6%]	[20.0%]	[11.7%] ^a
Observations	5,200	1,815	

Table 7: Bidder Characteristics

	Corporate Competition	Financial Competition	Difference
Book Assets	26,573 [27,869]	31,436 [34,326]	-4,863 [-6,458]
Market Assets	7,116 [11,342]	2,848 [2,757]	4,268 [8,585]
Market Equity	2,592 [4,215]	1,271 [1,281]	1,322 [2,934]
Book Leverage	55.3% [51.8%]	65.8% [63.2%]	-10.5% ^c [-11.5%]
Market Leverage	26.0% [25.5%]	33.5% [31.8%]	-7.5% ^c [-6.3%]
Market-to-book	5.49 [6.18]	2.75 [2.74]	2.74 ^c [3.44]
Quick Ratio	1.86 [1.84]	1.69 [1.66]	0.17 [0.18]
Asset Turnover	0.94 [0.95]	1.76 [2.38]	-0.82 [-1.43]
Return on Assets (ROA)	0.80 [0.87]	0.20 [0.19]	0.60 [0.68]
Cash Flow Margin	1.06 [1.23]	17.77 [29.66]	-16.72 [-28.43]
Cash to Net Assets	2.27 [0.489]	-28.22 [1.238]	30.49 [-0.75%]
Management Ownership	2.15% [1.26%]	1.81% [1.37%]	0.34% [-0.11%]
Option Awards / Total Compensation	19.10% [21.37%]	17.23% [20.19%]	1.87% [1.19%]
Acquisition Frequency	3.96 [2.75]	4.90 [2.99]	-0.94 ^c [-0.24]
Observations	5,200	1,815	

Table 8: Target & Difference Characteristics

PANEL A: TARGET CHARACTERISTICS			
	Corporate Competition	Financial Competition	Difference
Book Assets	247	313	-66 ^b
Market Assets	406	514	-108 ^b
Market Equity	189	236	-47 ^a
Book Leverage	36.2%	32.4%	3.8% ^c
Market Leverage	24.4%	21.1%	3.3% ^b
Market-to-book	2.06	1.98	0.08
Asset Turnover	0.13	0.12	0.01
Return on Assets (ROA)	23.7%	13.9%	9.8%
Cash Flow Margin	2.63	3.84	-1.21
Cash to Net Assets	0.63	0.64	-0.01
Management Ownership	3.01%	1.77%	1.24%
Option Awards / Total Compensation	8.10%	5.78%	2.32%
Public Target	70.7%	78.5%	-7.8% ^a
Private Target	22.9%	14.7%	8.2% ^a
Subsidiary Target	5.8%	6.4%	-0.6%
Observations	5,200	1,815	
PANEL B: DIFFERENCE CHARACTERISTICS			
	Corporate Competition	Financial Competition	Difference (<i>t</i> -statistic)
Acquirer ROA minus Target ROA	-0.05	-0.09	0.04 (0.70)
Acquirer CFM min Target CFM	-2.19	18.04	-20.23 (-0.70)
Acquirer MTB minus Target MTB	0.23	0.62	-0.39 (-0.71)
Acquirer AT minus Target AT	0.90	0.83	0.07 (0.71)

Table 9: Abnormal Returns Controlling for Acquirers Characteristics

This table presents the output of regressing the cumulative abnormal returns of winning corporate acquirers. Abnormal returns are computed using the market model with a value-weighted index. All explanatory variables are as described in Table 5 and Tables 6 through 8. Parentheses contain t-statistics based on robust standard errors. Superscript *a*, *b*, and *c* indicate significance at the 1%, 5% and 10% levels, respectively.

	I	II	III	IV
	All	All	Followers	Followers
FINCOMP: Financial Competition Dummy	-0.174 (-0.67)	0.218 (0.64)	0.756 (2.45) ^b	1.070 (7.33) ^a
CASH: Pure Cash Dummy	-0.581 (-1.34)	-0.153 (-0.76)	0.361 (1.62)	1.304 (4.62) ^a
ACQSIZE: Log Acquirer Market Value of Assets	-1.574 (-2.24) ^b	-0.316 (-2.74) ^a	0.137 (1.26)	-0.201 (-1.93) ^c
SAMEIND: Same Industry Dummy	1.071 (2.06) ^b	0.251 (0.64)	0.138 (0.73)	1.005 (7.11) ^a
DAYS: Number of Days from Announcement to Completion	-0.005 (-2.17) ^b	-0.000 (-0.28)	-0.002 (-0.83)	-0.004 (-1.65)
TPUB: Target Public Firm	2.654 (1.17)	-0.160 (-0.34)	-0.357 (-0.95)	
BIDS: Number of Competing Bids	0.568 (1.84) ^c	0.247 (1.51)	-0.129 (-0.58)	-2.719 (-5.91) ^a
RELSIZE: Deal value over ACQSIZE	-0.755 (-1.12)		0.313 (0.56)	2.514 (3.58) ^a
PREMIUM: Premium offered				0.034 (8.91) ^a
Acq. Market to Book	0.028 (0.37)	-0.040 (-1.33)	-0.154 (-3.36) ^a	0.099 (1.36)
Acq. Asset Turnover	-0.682 (-0.82)	-0.316 (-1.17)	0.956 (4.50) ^a	-1.759 (-6.07) ^a
Acq. Cash to Net Assets	2.266 (4.25) ^a	-0.009 (-0.02)	0.833 (3.99) ^a	1.400 (15.46) ^a
Acq. Cash Flow margin	-1.048 (-3.24) ^a	-0.282 (-0.49)	0.072 (1.70) ^c	-0.476 (-6.31) ^a
Acq. Return on Assets	-1.582 (-0.99)	0.657 (1.03)	-0.227 (-0.73)	-5.173 (-17.35) ^a
Acq. Quick Ratio	0.234 (2.20) ^b	0.208 (2.54) ^b		
Intercept	2.158 (1.47)	-0.009 (-0.02)	-1.299 (-1.61)	3.760 (3.73) ^a
Industry Dummies	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes
Observations	114	126	144	96
R-squared	0.94	0.79	0.71	0.96

Table 10: Abnormal Returns Controlling for Target Characteristics

This table presents the output of regressing the cumulative abnormal returns of winning corporate acquirers. Abnormal returns are computed using the market model with a value-weighted index. All explanatory variables are as described in Table 5 and Tables 6 through 8. Parentheses contain t-statistics based on robust standard errors. Superscript *a*, *b*, and *c* indicate significance at the 1%, 5% and 10% levels, respectively.

	I	II	III
	All	First Movers	Followers
FINCOMP: Financial Competition Dummy	0.127 (0.98)	-0.264 (-3.04) ^a	0.189 (1.83) ^c
CASH: Pure Cash Dummy	0.071 (0.67)	0.002 (0.01)	0.059 (0.79)
PREMIUM	-0.003 (-1.82) ^c	0.001 (0.47)	-0.000 (-0.31)
SAMEIND: Same Industry Dummy	-0.200 (-1.73) ^c	-0.045 (-0.32)	-0.045 (-0.64)
DAYS: Number of Days from Announcement to Completion	-0.000 (-0.54)	0.001 (1.76) ^c	0.000 (0.29)
TPUB: Target Public Firm	-0.280 (-0.71)		0.148 (1.03)
TTERMF: Target Termination Fee	-3.881 (-0.82)		
Tar. Market to Book	-0.018 (-1.57)		-0.027 (-2.01) ^b
Tar. Market Leverage	-0.551 (-0.88)	-2.958 (-143.34) ^a	0.136 (0.73)
Tar. Asset Turnover	-0.759 (-1.03)	2.337 (0.96)	-0.345 (-1.94) ^c
Tar. Cash to Net Assets	0.001 (0.39)	-0.117 (-0.41)	-0.000 (-0.19)
Tar. Cash Flow margin	-0.036 (-1.88) ^c	0.007 (0.25)	-0.009 (-0.75)
Tar. Return on Assets	0.784 (3.81) ^a	0.705 (0.80)	0.600 (3.42) ^a
Constant	0.602 (0.82)	0.021 (0.07)	-0.470 (-1.78) ^c
Industry Dummies	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes
Observations	284	138	451
R-squared	0.45	0.99	0.21

Table 11: Single Bidders from the Financial Competition Sample

This table presents the cumulative abnormal returns (CARs) of corporate acquirers in the Financial Competition sample after they announced single-bidder acquisitions. Column 1 contains the single-bidder acquisitions undertaken prior to acquisitions made in the Financial Competition sample. Column II contains any single-bidder acquisition undertaken before or after acquisitions in the Financial Competition sample. Column III contains all single-bidder acquisitions except those included in I and II, for use as a benchmark. Abnormal returns are computed using the market model with a value-weighted index. Parentheses contain Patell Z-statistics or *t*-statistics as indicated. Superscript *a*, *b*, and *c* indicate significance at the 1%, 5% and 10% levels, respectively.

	I	II	III	I-III	II-III
	Prior Single-bidder	All Single-bidder	Benchmark		
	Acquisitions	Acquisitions	Sample		
	Mean CAR	Mean CAR	Mean CAR	Difference	Difference
	(Patell Z)	(Patell Z)	(Patell Z)	(<i>t</i> -statistic)	(<i>t</i> -statistic)
PANEL A: ALL BIDDERS					
CARs over the (-2, +2) window	1.02%	0.63%	1.58%	-0.56%	-0.95%
	(3.00)	(8.48)	(59.32)	(0.90)	(5.67) ^a
CARs over the (-20, +120) window	-2.21%	-0.95%	-2.85%	0.64%	1.90%
	(-1.75) ^b	(-0.56)	(-17.04) ^a	(0.20)	(2.24) ^b
CARs over the (-20, +180) window	-1.78%	-2.96%	-5.25%	3.47%	2.29%
	(-1.69) ^b	(-3.44) ^a	(-26.86) ^a	(0.82)	(1.99) ^b
Observations	283	4,022	51,943		
PANEL B: FOLLOWERS					
CARs over the (-2, +2) window	0.99%	0.47%	1.56%	-0.57%	-1.09%
	(0.098)	(4.43) ^b	(59.72)	(0.58)	(5.26) ^a
CARs over the (-20, +120) window	0.77%	-0.14%	-2.83%	3.60%	2.69%
	(-0.37)	(0.85)	(-17.13) ^a	(0.66)	(2.35) ^b
CARs over the (-20, +180) window	4.13%	-2.73%	-5.21%	9.34%	2.48%
	(-0.28)	(-1.90) ^b	(-25.65) ^a	(1.25)	(1.59)
Observations	90	2,132	53,743		

Table 12: Corporate vs. Financial Buyer Characteristics

This table compares deal, bidder and target characteristics between corporate and financial acquirers. Values are provided for winning bids only in brackets. All variables are as described in Tables 6 through 8. The data is provided by SDC, Compustat and Execucomp. Superscripts *a*, *b*, and *c* denote significance at the 1%, 5% and 10% levels, respectively.

	Corporate Buyer N = 5,934	Financial Buyer N = 926	Difference N = 6,840
Transaction Value (TV)	155 [187]	256 [277]	-101 ^a [-90] ^a
Days to Completion	- [144.32]	- [120.18]	- [24.14] ^a
Premium	39.4% [46.2%]	41.5% [43.2%]	-2.1% [3.0%]
CASH	91.0% [85.7%]	91.4% [90.9%]	-0.4% [-5.2%] ^a
STOCK	79.6% [79.4%]	67.8% [70.2%]	11.8% ^b [9.2%]
DEBT (\$ mln)	141.51 [147.29]	169.82 [151.74]	-28.31 [-4.44]
DEBT (% of TV)	0.44 [0.46]	0.36 [0.39]	0.08 [0.07]
TV / ASSETS	0.39 [0.50]	0.48 [0.48]	-0.09 ^a [0.02]
RELSIZE	1.07 [0.48]	2.38 [3.25]	-1.31 [-2.78]
Poison Pill	1.9% [1.4%]	1.3% [0.7%]	0.6% [0.06%]
Hostile Takeover	5.0% [3.4%]	3.0% [1.7%]	1.9% ^a [1.7%] ^a
Pure Cash	45.6% [40.1%]	57.9% [64.8%]	-12.3% ^a [-24.7%] ^a

Table 12 – continued

	Corporate Buyer	Financial Buyer	Difference
Pure Stock	14.1%	3.9%	10.3% ^a
	[20.2%]	[4.1%]	[16.1%] ^a
Bidding Rounds Won	48.7%	58.5%	-9.8% ^a
	-	-	-
Acquisition Frequency	39.14	68.83	-29.69 ^a
	[20.33]	[26.67]	[-6.3] ^c
Public Acquirer	66.6%	18.9%	47.7% ^a
	[65.5%]	[17.2%]	[48.3%] ^a
Acq. Book Assets	25,829	56,664	-30,835
	[26,361]	[71,013]	[-44,652]
Acq. Market Assets	6,779	1,128	5,651
	[10,540]	[1,321]	[9,218]
Acq. Market Equity	2,497	385	2,113
	[4,008]	[445]	[3,563]
Acq. Book Leverage	55.8%	82.4%	-26.6%
	[51.8%]	[90.1%]	[-38.4%]
Acq. Market Leverage	26.5%	41.2%	-14.8% ^c
	[25.8%]	[39.9%]	[-14.1%]
Acq. Market-to-book	5.23	2.52	2.71 ^b
	[5.82]	[2.85]	[2.97]
Acq. Quick Ratio	1.86	0.85	1.01 ^a
	[1.84]	[0.95]	[0.89] ^a
Acq. Asset Turnover	0.93	4.15	-3.21
	[0.94]	[5.92]	[-4.97]
Acq. Return on Assets (ROA)	0.73	0.27	0.45
	[0.79]	[0.32]	[0.47]
Acq. Cash Flow Margin	1.03	52.29	-51.26
	[1.16]	[82.88]	[-81.72]
Acq. Cash to Net Assets	-2.80	0.46	-3.25
	[0.62]	[0.35]	[0.27]

Table 12 – continued

	Corporate Buyer	Financial Buyer	Difference
Acq. Management Ownership	2.1%	1.8%	0.3%
	[1.2%]	[3.4%]	[-2.2%]
Acq. Options / Total Comp.	18.9%	16.2%	2.7%
	[21.4%]	[13.0%]	[8.4%]
Tar. Book Assets	2,397	338	2,060 ^b
Tar. Market Assets	491	549	-58
Tar. Market Equity	201	247	-46 ^b
Tar. Book Leverage	35.8%	32.5%	3.3%
Tar. Market Leverage	23.8%	21.7%	2.2%
Tar. Market-to-book	2.05	2.01	0.04
Tar. Asset Turnover	0.13	0.13	0.00
Tar. Return on Assets (ROA)	0.23	0.13	0.09
Tar. Cash Flow Margin	2.79	3.83	-1.04
Tar. Cash to Net Assets	0.69	0.40	0.29 ^c