



The information role of advisors in mergers and acquisitions: Evidence from acquirers hiring targets' ex-advisors[☆]



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ABSTRACT

We examine the information role of financial advisors by focusing on mergers and acquisitions in which acquiring firms hire target firms' ex-advisors. We document that by employing targets' ex-advisors, acquirers pay lower takeover premiums and secure a larger proportion of merger synergies. The corresponding targets exhibit lower announcement returns and are less likely to be propositioned by competing bidders. These results indicate that acquirers take advantage of value-relevant information about targets through targets' ex-advisors, and achieve bargaining advantages in deal negotiations. In contrast, we document no discernible value effects when targets hire acquirers' ex-advisors, suggesting that the information role of acquirers' ex-advisors hired by targets is weaker than that of targets' ex-advisors hired by acquirers.

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1. Introduction

Mergers and acquisitions (M&A hereafter) are typically characterized by information asymmetry between the merging firms. The exchange and transmission of information between deal partici-

pants may therefore influence several aspects of the transaction such as premium paid for the transaction and cumulative abnormal returns around the announcement date (e.g., [Finnerty et al., 2012](#)). One of the main roles of investment banks is to produce and process information in the market for corporate control ([Allen et al., 2004](#)).¹ By evaluating merging firms and providing technical and tactical assistance to merger rivals throughout the takeover process, advisory banks can become privy to “inside” information about acquiring and target firms, which includes, for example, growth opportunities, profit margins, customer and supplier relationships, contingent liabilities, labor relations, firms' merger-related experiences, existing governance practices, and the willingness of target management to be acquired.

In this paper, we empirically evaluate the materiality of information obtained by M&A advisors in the course of a prior firm-advisor relationship, and examine whether this information can be exploited or transferred in subsequent M&A transactions. In particular, we focus on M&A transactions in which acquiring firms

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¹ We use investment banks, financial advisors, advisory banks, and advisors interchangeably throughout the paper.

hire target firms' ex-advisors as M&A advisors, and propose two hypotheses regarding the information role of M&A advisors in these transactions, namely, the information advantage hypothesis and the deal improvement hypothesis.

The information advantage hypothesis contends that acquirers can take advantage of value-relevant information about target firms through hiring targets' ex-advisors. M&A advisory teams garner important information about their clients via research, analysis, meetings, and documentations in both pre- and post-deal phases. To the extent that the value-relevant information is well retained and organized, it may be transferable and reused in subsequent deals.² As a result, hiring targets' ex-advisors may enable acquiring firms to reduce the cost of acquiring information about target firms, and achieve better understanding of the true value of targets and more accurate estimation of potential synergies. Enhanced information advantage can benefit acquirers in various ways. For example, [Cain and Denis \(2013\)](#) note that banks having prior relationship with target firms can provide more accurate valuation of target firms in fairness opinions. The enhanced knowledge and information advantage also enable acquirers to limit competition from outside bidders who are less informed and may have concerns about the winner's curse ([Povel and Singh, 2006](#)), thus reducing acquirers' need to deter competing bidders by paying a high premium. Furthermore, the acquirers hiring targets' ex-advisors may enjoy a bargaining advantage in deal negotiations between merging firms due to their better understanding of targets' firm value and outside options.

The deal improvement hypothesis posits a more benign motive behind acquirers' decision to hire targets' ex-advisors. Employing an advisor with a prior relationship with the target firm may greatly facilitate information exchange between the target and the acquirer. As information conduits, targets' ex-advisors can identify more valuable mergers and/or structure the deal to achieve better merger outcomes in terms of higher total synergies. For example, targets' ex-advisors can create value by suggesting a form of transaction that reduce acquirer/target shareholders' tax liabilities, and/or keep acquirers' exposure to targets' hidden liabilities under control (e.g., [Rosenbaum and Pearl, 2013](#)).³ Targets' ex-advisors may also be able to facilitate cooperation between merging firms, resulting in an orderly transfer of control and speedy deal completion. Furthermore, targets' ex-advisors may be able to lower acquirers' uncertainty about target firms' valuation, thereby enabling acquirers to offer higher prices for acquisitions. This may benefit target shareholders and increase the likelihood of deal completion.

The two hypotheses – information advantage and deal improvement – are not mutually exclusive. The information advantage view focuses more on the relative bargaining strength between merger counterparties and the wealth transfer from targets to acquirers, while the deal improvement view places more emphasis on the value creation caused by targets' ex-advisors for both merging firms. Which view dominates the other is the primary empirical question that we aim to address in this paper.

While both hypotheses predict that acquirers may have strong incentives to hire targets' ex-advisors, it is important to note that targets' ex-advisors may not always agree to advise acquirers in the proposed merger transactions. Although there is no explicit

law or regulation that prohibits the ex-advisors of a merging firm from providing advisory services to the merger counterparty,⁴ if the service provision is perceived as creating a channel for potentially transmitting firm-sensitive information, it may negatively affect advisors' reputation in the market and even lead to litigation.⁵

The potential of being sued and consequent damages to its reputation may therefore limit an advisor's ability to accept advisory contracts under such circumstances. Concurrently, acquirers would expect the managers and boards of some targets to rationally reject the merger negotiations as their hiring of targets' ex-advisors may be viewed as an unfriendly strategy to weaken targets' position by unveiling privy information. Thus, acquirers should rationally evaluate pros and cons before making the decision to hire targets' ex-advisors. While anecdotal evidence suggests hiring merger counterparty's ex-advisor results in information transmission and conflicts of interests, it is an open empirical question whether or not such information transmission (or conflict of interests) is necessarily beneficial for the hiring firm and/or detrimental to the merger counterparty. It is unclear whether hiring targets' ex-advisors provides benefit to the acquiring firms *ex ante*, if targets foresee possible conflicts of interests and seek extra terms and protections from the acquiring firms. For example, in the presence of conflicts of interest a target with strong bargaining power may demand a higher premium. Moreover, even if the proposed benefits exist, the consequential conflicts arising between acquirer and target may dissipate these benefits, resulting in an overall loss in value. [Mehran and Stulz \(2007\)](#) also suggest that market participants appear to consider conflicts of interest when making their decisions.

Using a sample of 3251 mergers and acquisitions undertaken between US-domiciled publicly listed firms during the period 1985–2008, we find that 9.6% of acquirers hire targets' ex-advisors to advise on the deals, given that target firms hired merger advisors in the past transactions. When the advisor choice is analyzed in a multivariate setting, we find that acquirers' propensity to hire targets' ex-advisors is positively related to the number of M&A advisors hired by targets in the past five years and for diversifying mergers, but negatively associated with acquirers' merger expertise in targets' industry. Additionally, longer and more recent relationship between targets and their ex-advisors increases the potential for acquirers to hire the targets' ex-advisors, while acquirers' propensity to hire target's ex-advisors drops if some of the targets' ex-advisors have merged since their last engagements with targets. These results are generally consistent with the view that acquirers rationally balance the costs and benefits of hiring targets' ex-advisors when choosing advisors.

We then examine the consequences of acquirers hiring targets' ex-advisors by examining the likelihood of competing bids, the premium paid by the acquirer to the target, and the announcement returns. Our results show that acquirers' hiring of targets' ex-advisors significantly reduces both the likelihood and the number of competing bids, indicating that this decision deters less

⁴ The mandated disclosure requirements under current SEC rules require disclosure of material relationships only in the past two years between the financial advisor and the parties to the underlying transaction and any compensation received as a result of that relationship. See Item 1015(b)(4) of Regulation M-A under the Securities Exchange Act of 1934 ([Hughes and Austin, 2012](#)).

⁵ For example, in 2003 Dana Corp, which was the target of a hostile bid by ArvinMeritor, filed a lawsuit in New York against UBS, which advised the acquirer. According to the lawsuit, UBS has acted as an investment banker and financial advisor to Dana on a "significant corporate project" since "at least" March 2002. UBS provided "substantial financial and investment advice" to Dana with respect to the project from March 2002 through the end of May (Dow Jones Corporate Filings Alert, August 5 2003). UBS was also "a major lender to Dana and gained substantial amounts of confidential information about Dana" (The Wall Street Journal, 5 August 2003). In the end, ArvinMeritor withdrew its offer on November 23, 2003 and Dana reached an out-of-court settlement (terms undisclosed) with UBS in December 2003.

² We have interviewed four investment bankers (in New York, Melbourne, Singapore, and Hong Kong, respectively) who have extensive experience in M&A advisory. Their responses generally support our arguments. We provide more detailed information from the interviews in Section 2.

³ Higher synergies may also arise from targets' ex-advisors helping acquirers on how to assimilate targets after the mergers and optimally retain key target firm management, suggesting efficient levels of autonomy for the target firm post-acquisition, and integrating possible differences in corporate cultures between the acquiring and target firms.

informed bidders from entering the contest. Moreover, after controlling for known determinants of premium and cumulative abnormal returns (CAR), acquirers' decision to hire targets' ex-advisors lowers both the premium paid to the targets and the targets' CAR by roughly 0.06, which is both economically and statistically significant. Collectively, these results support the information advantage view that the hiring of targets' ex-advisors provides the acquirers with a bargaining advantage and allows them to acquire the target firms at a more attractive price.

We do not find evidence in support of the deal improvement hypothesis, which predicts that the combined wealth gain and the likelihood of deal completion should be positively related to the hiring of targets' ex-advisors. Specifically, we document that acquirers' decision to hire targets' ex-advisors has no significant impact on the value of synergistic gains, which is measured as the combined abnormal announcement returns to acquirers and targets, long-term post-acquisition stock performance of the combined firm, the likelihood of deal completion, and time to resolution. Although targets' ex-advisors do not increase the value of total synergies, we find evidence that they enable acquiring (target) firms to obtain a greater (smaller) fraction of synergies, which is consistent with acquirers' enhanced bargaining ability as suggested by the information advantage hypothesis.

We perform a variety of checks to ensure that our main results are robust to alternative model specifications and variable definitions. In particular, all our results continue to hold after controlling for endogeneity using the two-stage Heckman (1979) procedure. Furthermore, we conduct simulation analysis to address the concern that our findings may be driven by the market share of target firms' ex-advisors. Taken together, our findings favor the interpretation that when an acquirer hires the target's ex-advisor, valuable information is conveyed to the acquirer, leading the acquirer to possess greater bargaining power in merger negotiations and reducing the degree of competition from less informed bidders.

Last but not least, we also examine the advisor choice from target firms' perspective. Can target firms achieve information or bargaining advantage by hiring acquirers' ex-advisors? The short answer to this question is no. Our analysis reveals that the hiring ex-advisors of acquirers does not influence targets' or acquiring firms' CAR, premiums paid by acquirers, the dollar value of synergies, and the targets' share of total synergy gains. These results, although standing in sharp contrast to the value effects of acquirers hiring targets' ex-advisors, are possibly driven by the asymmetric feature of M&A transactions: acquiring firms continue to survive after acquisitions, while targets normally cease to exist as standalone companies after successful mergers. As a result, while acquirers can use the promise (or lure) of future business to motivate targets' ex-advisors to work hard on their behalf, target firms cannot offer the same incentives to acquirers' ex-advisors.⁶ Furthermore, acquirers' ex-advisors hired by targets may also be concerned about losing future business from the acquirers if their involvement reduces acquirers' overall gain from the mergers. Thus, the information role of acquirers' ex-advisors hired by targets should be weaker than that of targets' ex-advisors hired by acquirers.

Our paper contributes to the extant literature in three ways. First, we provide new evidence of the value effect of advisor choice in M&As. To the best of our knowledge, we are among the first to show that acquirers hiring targets' ex-advisors has a significant impact on merger outcomes. Second, our analysis reveals that hiring targets' ex-advisors reduces competition from other potential rival bidders. This economic function of ex-advisors is similar to that of a toehold in terms of increasing acquirers' bidding advan-

tage and reducing takeover competition.⁷ Finally, prior studies have well documented that the bank-firm prior relationship is beneficial for both investment banks and firms.⁸ Our results reveal that a prior bank-firm relationship can be exploited by potential bidders, putting target firms in a disadvantageous position on the bargaining table.

The rest of the paper proceeds as follows. Section 2 briefly reviews the relevant literature. Section 3 describes our sample and variable constructions. Main results are presented in Section 4, followed by robustness checks in Section 5. Section 6 concludes.

2. A brief literature review

The role of investment banks has long been discussed in the literature. Early theoretical studies focus on the role of investment banks as an agent to collect information and as a mediator to resolve the problems of information asymmetry in financial markets (e.g. Beatty and Ritter, 1986; Benvensite and Spindt 1989). Although investment banks may have incentives to collude with the clients they represent, they also have incentives to build up reputation by setting standards to evaluate their clients so as to gain a bigger market share (Chemmanur and Fulghieri, 1994). Empirical studies on initial public offerings, such as Carter and Manaster (1990), Carter et al. (1998), and Benveniste et al. (2003), confirm the role of investment banks as information providers.

Given the relative infrequency of mergers and acquisitions, the role of financial advisors as information conduits is particularly important (Sleptsov et al., 2013). Empirical studies on mergers and acquisitions further suggest that investment banks facilitate information sharing among acquirers and targets. Ivashina et al. (2009) examine the influence of lending banks on the likelihood of a client firm becoming a takeover target, whereby the acquirer is also a client of the same bank. This effect is stronger the higher the number of same-industry clients served by the bank, further suggesting that lending banks play a significant role by transmitting target specific information (generated during normal course of lending) to acquirers. Agrawal et al. (2013) also examine the role of advisors as conduits for information transmission by studying merger cases where the same advisor advises both the acquirer and the target.⁹

Prior studies, however, agree less on the overall benefits from information sharing between acquirers and targets. Though information sharing may allow investment banks' to exercise better judgement and provide higher quality services, they may also abuse their market power and information advantage for private benefits. Bodnaruk et al. (2009) document that financial advisors can take a direct stake in the targets (to generate a profit) and thus

⁷ Betton et al. (2009) suggest that a toehold can reduce takeover competition if it exceeds a certain threshold. Relatedly, Boone and Mulherin (2007) document termination provisions increase takeover competition. Boone and Mulherin (2011) find that the formation of private equity consortiums has no negative effect on takeover competition.

⁸ James (1992) finds that the marginal cost of the repeated underwriting business with the same firm is lower. Ljungqvist et al. (2006, 2009) examine U.S. debt and equity offerings completed between 1993 and 2002 for prior bank-firm relationships, and conclude that prior underwriting relationships increase the likelihood of winning a lead-underwriting contract. Francis et al. (2014) find that acquirers' past relationships with their advisors have a significant impact on their current choice of M&A advisors.

⁹ Previous studies also suggest that other financial intermediaries can serve as information conduits to allow the acquirer to reduce information asymmetry about the target. For example, Gompers and Xuan (2009) show that common VC alleviate asymmetric information between public acquirers and private targets. The deals with common VC are associated with more positive acquirers' CAR. Cai and Sevilir (2012) suggest that having a board connection may improve information flow and communications between acquirer and target. Ferreira et al. (2010) find foreign institutions facilitate international M&A deals and reduce information asymmetry between the merging firms.

⁶ In our sample, roughly 58% of these banks (target's ex-advisors) are hired by acquirers in future transactions as M&A advisors.

exploit the private information they are privy to. Agrawal et al. (2013) find that the presence of “common advisors”, however, does not lead to better overall deal outcomes compared with deals advised by separate advisors. Besides, information sharing may shift the bargaining power between acquirers and targets. Asker and Ljungqvist (2010) argue that a firm’s strategically sensitive information (e.g. operational efficiency, customer/supplier relationships, progress on research and development projects etc.) is valuable to product-market rivals and may inhibit sharing of underwriters between large firms in an industry. The same logic can be extended to mergers. On the bargaining table, if the ex-advisor of one company serves the other, the company losing its advisor may lose bargaining power and is thus less likely to achieve a favourable outcome. Indeed, Agrawal et al. (2013) find that common advisors generally lean toward the acquirers rather than the targets. As illustrated by the previously cited example of the lawsuit between Dana Corp. and UBS, concerns about information leakage may especially be valid in hostile deals whereby a merging firm engages the services of the merger counterparty’s ex-bank. Calomiris and Singer (2004) document 52 instances of large (target value > \$1 billion) hostile takeovers and suggest that buyers who are advised by banks with prior relationship with targets may be more discriminating in selecting their targets and in price offered. While primarily concerned with advisor choice, in a recent study Song et al. (2013) report that acquirers are more likely to choose boutique advisors (over traditional full service advisors) in complex deals, and this is associated with both longer duration and the payment of lower premiums.

We are among the first to study whether and how the information obtained by M&A advisors in the course of a prior firm-advisor relationship can be exploited or transferred in subsequent M&A transactions. We note that financial advisors, however, are governed by non-disclosure agreements with their clients to maintain confidentiality. For example, a financial advisor should refrain from using non-public information in performing precedent transactions analysis if it is privy to the information because of engagements in some of the comparable deals (Rosenbaum and Pearl, 2013). On the other hand, our interviews with investment bankers suggest that non-disclosure agreements are typically valid for 1–2 years only. After the agreements expire, any further restrictions disallowing the use of this information would severely reduce the banks’ competitiveness. In addition, information sharing (transfer) across M&A deals via informal channels is plausible because it is not readily observable and verifiable by former clients. The transmission of information is strongly dependent on the continued involvement of the same bankers across deals. Only in the extreme case – where the entire team has left the ex-advisor – may the information be irretrievably lost. Frequent investment bank mergers and high turnover rates for bankers certainly dampen explicit knowledge transfer across deals, but they work against our ability to identify the value effects of hiring targets’ ex-advisors on deal outcomes. The importance of investment bankers in acquisitions is also evidenced by Chemmanur et al. (2014) who document that investment banker fixed-effects explains a large fraction of the variation in deal outcomes, over and above the investment bank fixed-effects. Taken together, prior studies and our interviews with bankers suggest that information transfer across M&A deals is indeed plausible.

3. Data, variables, and summary statistics

3.1. Sample and data

Our sample is retrieved from the SDC/Platinum database and includes mergers and acquisitions between U.S. firms between

January 1985 and December 2008. We include both completed and withdrawn deals that involve publicly listed acquirers and targets. We exclude buybacks, exchange offers, and recapitalizations, and privatizations in which acquirers and targets have the same CUSIP. We require that acquirers own less than 50% of targets’ shares before the announcement date and own 100% after deal completion. We exclude deals that are worth less than 1% of the acquiring firm’s market value of equity. Also excluded are transactions with no deal value disclosed.

When collecting the advisor information from the SDC/Platinum database, the sample banks are selected by forming a union of two groups of banks: (1) the sample of Ljungqvist et al. (2006); and (2) the sample of 50 most active banks in M&A activities by transaction value over the period 1985–2008. As SDC/Platinum sometimes reports multiple codes for the same bank, we manually check these codes and combine them into a single code if they belong to the same bank. To account for major bank mergers during the study period, we utilize the data provided in Corwin and Schultz (2005) and Ljungqvist et al. (2006), and the data supplemented by SDC/Platinum and other financial news sources, which include LexisNexis Newswires, Yahoo! Finance, Google, and ProQuest Newspapers. Appendix A lists the final set of survival banks, together with their predecessors, during the sample period. The number of candidate banks varies from 57 to 107 over time, depending on past mergers and the date a bank first appears in SDC/Platinum. We restrict our sample to deals in which each acquirer employs at least one advisor from the list in Appendix A. These sampling criteria yield a final sample of 3,251 M&A transactions, among which 760 targets have ex-advisors from past M&A transactions. Among these 760 deals, targets re-hire their former advisors in 394 deals.

Furthermore, we retrieve financial data from the Compustat Industrial Annual database and obtain stock price data from the Center for Research in Security Prices (CRSP) files.

Table 1 reports the summary statistics for market shares of the twenty-five most active financial advisors for acquiring firms in our sample. We rank them based on the total value of all transactions (column (1)) advised by the surviving bank and its predecessors. Following Golubov et al. (2012), we refer to the top eight investment banks as top-tier, and all other advisors as non-top-tier.¹⁰ Column (2) reports the total number of transactions. If there are multiple advisors for an acquirer in a merger, each advisor is allocated a $1/n$ share of value in column (1) or a count of $1/n$ in column (2), where n is the number of advisors hired by the acquirer for a transaction. Column (1) suggests that Bank of America Merrill Lynch is the most active M&A advisor for acquiring firms based on the total value of transactions advised over the period 1985–2008, followed by JP Morgan, and Citigroup. Column (3) reports the number of M&A transactions in which target firms hired advisors during the past five years (e.g., *TargetHasEx* = 1). Column (4) shows the number of deals in which the acquiring firm’s advisor advised the target firm in M&A transactions during the past five years (e.g., *HireTargetEx* = 1). In our sample, acquirers hire targets’ ex-advisors in 73 deals, which account for 9.6% of 760 deals in which target firms have ex-advisors and 2.2% of all deals (3251). Although, the 73 deals that involve acquirers hiring targets’ ex-advisors only account for 2.2% of all deals, they represent for 9.5% of total deal value. In other words,

¹⁰ Note that the ranking reported in Table 1 may be different from that given by the SDC league tables because when calculating the number of deals advised by an advisor, we include all deals advised by the bank and its predecessors. In addition, the top eight investment banks are slightly different from those of Golubov et al. (2012). Lazard and UBS rank number 8 and 9 in their Table 1, but rank number 9 and 8, respectively, in our sample. The discrepancy is caused by the difference in sample period between theirs (1996–2009) and ours (1985–2008).

Table 1

Most active advisors for acquiring firms. This table presents the twenty-five most active financial advisors for acquiring firms in our sample in terms of transaction value in US\$ billion. The sample consists of 3251 M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in [Appendix A](#). Column (1) reports the total value of all mergers advised by the bank and its predecessors. Column (2) reports the total number of all mergers advised by the bank and its predecessors. If there is more than one bank advising the acquirer in a transaction, each participating bank will get $1/n$ share of deal value or $1/n$ of the count, where n is the number of advisors. Column (3) reports the number of deals in which the target firm hired advisors in M&A transactions during the past five years, i.e., the variable, *TargetHasEx*, is equal to 1. Columns (4) and (5) presents the number of deals and the value of deals in which the acquirer's advisor advised target firms in past five years M&A transactions, i.e., the variable, *HireTargetEx*, is equal to 1.

Rank	Advisor names	(1) Transaction value (\$billion)	(2) No. of deals	(3) No. of deals with <i>TargetHasEx</i> = 1	(4) No. of deals with <i>HireTargetEx</i> = 1	(5) Transaction value (\$billion) of deals with <i>HireTargetEx</i> = 1
1	Bank of America Merrill Lynch	1002	420	105	10	156.79
2	JP Morgan	821	275	85	2	5.98
3	Citigroup	793	299	80	9	171.20
4	Goldman Sachs	786	282	81	14	151.03
5	Credit Suisse	617	356	95	12	16.77
6	Morgan Stanley	577	263	65	4	2.42
7	Lehman Brothers (Barclays Capital)	388	185	50	4	27.13
8	UBS	188	161	36	3	35.10
9	Lazard	173	63	16	2	4.08
10	Deutsche Bank	91	99	15	2	2.43
11	Dresdner Bank (Commerzbank)	65	26	8	0	0
12	Wachovia (Wells Fargo)	54	72	9	0	0
13	Keefe, Bruyette and Woods	40	108	19	3	4.29
14	Blackstone	33	8	1	0	0
15	Stephens Inc.	32	16	4	0	0
16	Oppenheimer Holdings	29	30	6	0	0
17	Drexel Burnham Lambert	27	45	10	2	1.09
18	Thomas Weisel Partners	22	15	1	0	0
19	Sandler O'Neill Partners	21	74	8	1	0.17
20	Houlihan Lokey	20	17	4	1	0.35
21	Greenhill	18	8	2	0	0
22	Allen & Company	16	6	3	0	0
23	Evercore Partners	16	4	2	0	0
24	Peter J Solomon	14	6	1	0	0
25	William Blair	12	11	2	0	0
	Below top 25	268	403	54	4	2.55
	Total	6122	3251	760	73	581.38

those deals are indeed larger than a typical deal. For example, Peregrine hired Deutsche Bank as its M&A advisor when it acquired Harbinger in 2000. Deutsche Bank had, in the past, acted as an advisor for Harbinger. Similarly, when News Corporation acquired Dow Jones Company in 2007, it employed JP Morgan who had rendered advisory services to the target in the past. [Appendix B](#) tabulates the distribution of all deals in our sample by year.

3.2. Key variables

The key variable of our interest, *HireTargetEx*, is equal to one if the acquiring firm hires an advisor who advised the target firm in M&A transactions during the past five years, and zero otherwise. As an important control variable, *TargetHasEx*, is set equal to one if the target firm has ex-advisors during the past five years, and zero otherwise. We include *TargetHasEx* as an explanatory variable in regressions to account for the fact that some targets may not have ex-advisors for acquirers to choose from.

We utilize the following variables to measure the deal outcomes. Cumulative abnormal returns ($CAR^{Acquirer}$ and CAR^{Target}) are defined for the acquirer and the target, respectively, from one day before to one day after the announcement date of the M&A (e.g., [Netter et al., 2011](#)). We employ a standard event study methodol-

ogy to measure abnormal announcement day returns. To estimate the market model, we use 200 trading days of stock returns, beginning 205 days before and ending 6 days before the M&A announcement date. The CRSP value-weighted return is used as the market return. Using the CRSP equally-weighted returns yields qualitatively similar results.

Following [Bates and Becher \(2011\)](#), we measure the premium paid to the target by the acquirer (*Premium*) as the initial offer price (or final offer price if initial offer price unavailable) as reported by SDC, deflated by the share price of the target firm at five trading days preceding the announcement date, less one. Moreover, to minimize the impact of extreme values and misrecorded data, we follow [Bates and Becher \(2011\)](#) and eliminate the transactions where premium is less than -20% and then winsorize *Premium* at the top and bottom 5% of its distribution.

We follow [Bates et al. \(2006\)](#) and estimate the total dollar-denominated synergy (*Synergy*) as follows.

$$Synergy = MV^{Acquirer} \times CAR^{Acquirer} + (1 - \alpha)MV^{Target} \times CAR^{Target},$$

where MV is the market value of equity two days prior to the announcement, $CAR^{Acquirer}$ and CAR^{Target} are the cumulative abnormal returns defined above, and α is the toehold of the acquirer. Following [Kale et al. \(2003\)](#) and [Golubov et al. \(2012\)](#), we calculate the

acquirer's and target's share of synergies (ASOS and TSOS), respectively, as follows.

$$ASOS = \begin{cases} \frac{MV^{Acquirer} \times CAR^{Acquirer}}{Synergy}, & \text{if } Synergy > 0 \\ 1 - \frac{MV^{Acquirer} \times CAR^{Acquirer}}{Synergy}, & \text{if } Synergy < 0 \end{cases}$$

$$TSOS = \begin{cases} \frac{(1 - \alpha)MV^{Target} \times CAR^{Target}}{Synergy}, & \text{if } Synergy > 0 \\ 1 - \frac{(1 - \alpha)MV^{Target} \times CAR^{Target}}{Synergy}, & \text{if } Synergy < 0 \end{cases}$$

Bates, Lemmon, and Linck (2006) point out the importance of addressing the outliers as some deals with small synergies can produce extreme values in ASOS and TSOS. We thus follow Golubov et al. (2012) and winsorize these three measures at the top and bottom 5% of their distributions. When used as a dependent variable in the regression analysis, *Synergy* is deflated by acquirer's market value of equity two days prior to the merger announcement.

3.3. Summary statistics

Panel A of Table 2 summarizes the deal characteristics for the whole sample in columns 1–3. On average, acquirers offer a 31 percent premium to purchase targets' shares. The mean value of synergy as a percentage of the pre-bid market capitalization of the acquiring firm is around 1%. The mean three-day CAR for acquirers is –2% while the mean CAR for targets is 18%. The mean values of TSOS and ASOS indicate that targets capture most of the synergy in M&A transactions. These statistics are consistent with previous studies that suggest although M&A creates value on average, the value created primarily accrues to the target firms (e.g., Bruner, 2004).

Furthermore, we consider three indicators for tender offers, diversifying mergers, and hostile transactions respectively. An acquisition is defined as a diversifying one if the acquirer and target have different four-digit SIC codes. Percentage of cash is defined as the percentage of deal value that is paid with cash. Also reported is relative size, which is defined as the transaction value divided by acquirer's market capitalization at the end of the fiscal year prior to the acquisition announcement. In terms of median relative size, the deal value amounts to 36% of the acquirer's pre-merger market value of equity. Of all the bids about 19% and 6% of transactions are tender offers and hostile takeovers, respectively. Further, about 48% of the transactions are diversifying mergers. Finally, in a typical transaction, the acquirer finances the deal with 35% of cash.

In columns 4–7, we divide the transactions into two groups according to whether the acquirer's advisor advised the target firm in M&A transactions (*HireTargetEx* = 1) or not (*HireTargetEx* = 0) during the past five years. Comparing two subsamples, we find that deals in which acquirers hire targets' ex-advisors exhibit lower CAR for target firms, lower premium, lower synergy, and a lower percentage of cash payment. Nevertheless, target shareholders still earn a substantially positive (0.13) abnormal announcement returns when acquirers hiring target firms' ex-advisors. In dollar terms, the average reductions in target CAR and premiums received are \$181.2 million and \$265.6 million respectively. The statistics are generally consistent with our expectation that by hiring targets' ex-advisors, acquirers can gain bargaining advantage in deal negotiations.

Panel B reports summary statistics of firm characteristics that are included as control variables in regressions. Specially, we include leverage ratio (*Leverage*), the natural logarithm of total assets (*Ln(Assets)*), the market to book ratio (*M/B*), and free cash flow (*CashFlow*) of both acquirers and targets. The dollar values

(in millions) of total assets are converted into 2000 constant dollars using the GDP deflator. *Leverage* is defined as total debt/total assets. *M/B* is the market to book assets ratio. *CashFlow* is (Net Income + Depreciation – Capital Expenditure)/Assets. To mitigate the impact of outliers or misrecorded data on the results, all firm characteristics are winsorized at the 0.5% level at both tails of the distribution. Compared with deals with *HireTargetEx* = 0, deals with *HireTargetEx* = 1 involves acquirers and target firms that are larger in terms of total assets. Target firms with ex-advisors being hired by acquirers have higher financial leverage, and lower market-to-book-ratios.

4. Main results

4.1. Determinants of hiring targets' ex-advisors

We first model acquiring firms' advisor choice as a function of deal, advisor, and firm characteristics. If the choice to hire targets' ex-advisors is purely a random event, we should not expect the choice to be affected by such characteristics. Specifically, we estimate the following probit model.¹¹

$$\text{Prob.}[HireTargetEx = 1] = F(a_0 + a_1X), \quad (1)$$

where Prob. stands for the probability of hiring targets' ex-advisors, *F* denotes the normal cumulative distribution function, and *X* is a set of deal, advisor, and firm characteristics that have been shown by previous studies to affect the advisor choice. This analysis can also help us deal with the potential endogenous relation between the choice of hiring targets' ex-advisors and deal outcomes analyzed in Section 5.1.

We consider the following deal, advisor, and firm characteristics as explanatory variables in equation (1): (1) the number of M&A advisors hired by the target firm in the five years prior to the deal; (2) the number of advisors hired by the acquirer in the current deal; (3) the acquirer's expertise in the target's industry, which is defined as the number of mergers done by an acquirer in its target's four-digit SIC industry divided by the total number of mergers in the industry involved during the past five years;¹² (4) bargaining power between the acquirer and the target, which is defined as the ratio of the natural logarithm of total assets of the acquirer to that of the target; (5) relative deal size, which is defined as the deal value divided by the acquirer's market value of equity at the end of the fiscal year prior to the acquisition announcement; (6) percentage of deal value that is paid with cash; and (7) three indicator variables for tender offers, diversifying mergers, and hostile takeovers.

Additionally, we construct three variables *Recency*, *Duration*, and *BankMerged* to measure the closeness of the relationship between targets' and their ex-advisors. We expect acquirers are more likely to obtain value-relevant information and therefore more likely to hire targets' ex-advisors if the target-advisor relationship is longer and more recent. Specifically, we define the duration of a deal as the time elapsed (in years) between the announcement date and

¹¹ A potential problem of using a probit model for the advisor choice is that the unconditional probability of acquirers hiring targets' ex-advisors is low (around 2.2%). In other words, hiring merger counterparty's ex-advisors is a rare event. King and Zeng (2001) argue that the use of traditional binary choices models will underestimate the probability of rare events. To correct for the bias, we use the rare event Logistic Regression developed by King and Zeng (2001) to re-estimate the regressions for Table 3 and column (1) of Table 4 and find that our results are essentially the same.

¹² We follow Asker and Ljungqvist (2010) and define industry expertise variables using four-digit SIC codes. For consistency, we define diversifying mergers using four-digit SIC codes as well. However, our results are not sensitive to this choice. Our robustness checks (untabulated but available upon request) suggest that using three-digit SIC codes generates qualitatively the same results.

Table 2

Summary statistic. The sample consists of M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in Appendix A. CAR is three-day cumulative abnormal return calculated using the market model. *Premium* is measured as the initial offer price (or final price if initial price unavailable) as reported by SDC, deflated by the share price of the target at five trading days preceding the announcement date, less one. *NBidders* is the number of competing bidders. *Synergy* is the total dollar-denominated synergy scaled by the pre-bid market capitalization of the acquiring firm. *ASOS* and *TSOS* are the acquirer's and target's share of synergies, respectively. *Tender Offer* equals one for tender offers, and zero otherwise. *Relative Size* is the deal value divided by the acquirer's market value of equity at the end of the fiscal year prior to the acquisition announcement. *Diversify* equals one if the acquirer and target have different four-digit SIC codes reported by SDC and zero otherwise. *Hostile* equals one if the SDC classifies the acquisition as a hostile takeover, and zero if the SDC classifies the acquisition as a friendly takeover. *Percentage of Cash* is the percentage of deal value that is paid with cash. *Ln(Assets)* is the natural logarithm of book value of total assets. *Leverage* is (Short-term debt + long-term debt)/total assets. *M/B* is the market-to-book asset ratio. *Free cash flow (CashFlow)* is operating income before depreciation – interest expense – income taxes – capital expenditures, scaled by book value of total assets. Columns 1–3 summarize the deal and firm characteristics for the whole sample. In columns 4–7, the transactions are grouped into two subsamples according to whether the acquirer's advisor advised the target firm in M&A transactions (*HireTargetEx* = 1) or not (*HireTargetEx* = 0) during the past five years. The symbols, *, **, and ***, indicate that subsample means (medians) are significantly different from each other at the 10%, 5%, and 1% levels, respectively.

	All deals (N = 3251)			<i>HireTargetEx</i> = 0 (N = 3178)		<i>HireTargetEx</i> = 1 (N = 73)	
	Mean (1)	Median (2)	Standard deviation (3)	Mean (4)	Median (5)	Mean (6)	Median (7)
<i>Panel A: Deal characteristics</i>							
<i>CAR</i> ^{Acquirer}	−0.02	−0.01	0.08	−0.02	−0.01	−0.03	−0.02
<i>CAR</i> ^{Target}	0.18	0.15	0.19	0.18	0.15	0.13***	0.11**
<i>Premium</i>	0.31	0.28	0.23	0.32	0.28	0.25***	0.21***
<i>NBidders</i>	0.11	0.00	0.39	0.11	0.00	0.15	0.00
<i>Synergy</i>	0.01	0.03	0.36	0.02	0.01	−0.01*	−0.01
<i>TSOS</i>	1.50	1.01	1.71	1.50	1.02	1.34	0.94
<i>ASOS</i>	−0.50	−0.01	1.71	−0.50	−0.02	−0.34	0.06
<i>Tender Offer</i>	0.19	0.00	0.39	0.19	0.00	0.14	0.00
<i>Relative Size</i>	0.69	0.36	1.05	0.69	0.36	0.85	0.57*
<i>Diversify</i>	0.48	0.00	0.50	0.48	0.00	0.53	1.00
<i>Hostile</i>	0.06	0.00	0.24	0.06	0.00	0.08	0.00
<i>Percentage of cash</i>	0.35	0.00	0.42	0.35	0.00	0.26**	0.00
<i>Panel B: Firm characteristics</i>							
<i>Ln (Assets)</i> ^{Acquirer}	7.46	7.45	1.98	7.44	7.43	8.50***	8.66***
<i>Leverage</i> ^{Acquirer}	0.23	0.20	0.18	0.23	0.20	0.28**	0.27**
<i>M/B</i> ^{Acquirer}	2.15	1.40	2.73	2.15	1.40	1.94	1.48
<i>CashFlow</i> ^{Acquirer}	−0.06	0.04	0.67	−0.05	0.04	−0.18	0.03
<i>Ln (Assets)</i> ^{Target}	6.10	6.00	1.85	6.06	5.97	7.59***	7.17***
<i>Leverage</i> ^{Target}	0.22	0.19	0.20	0.22	0.19	0.29**	0.24
<i>M/B</i> ^{Target}	1.90	1.32	1.96	1.91	1.32	1.65**	1.32
<i>CashFlow</i> ^{Target}	−0.07	0.02	0.62	−0.07	0.02	−0.05	0.03

the completion date, divided by five. Further, for a current deal under consideration, the recency of relationship between the target and its ex-advisor is defined as five minus the time elapsed (in years) between the origination date of the relationship and the announcement date of the current deal. For example, suppose the current deal was announced on January 1, 2005. The target previously hired Bank A on January 1, 2002 and finished the deal on June 30, 2002. In this case, duration is 0.6/5 and recency is $(5 - 3)/5 = 2/5$. As we only consider mergers within past five years for the current deal, both duration and recency take a maximum value of one. For a current deal under consideration, we compute, *Duration* and *Recency*, as the average duration and recency of all target's ex-advisors within past five years.

However, two factors may affect acquirers' decision to hire targets' ex-advisors. First, targets' advisors are subject to non-disclosure agreements that are typically valid for one to two years. It is possible that acquirers may avoid targets' ex-advisors who have very recent relationship with the targets. Therefore, for deals within previous two years, we set recency of the deal to zero. In other words, *Recency* is calculated based on targets' deals that took place within two to five years before the current deal that is under consideration¹³ Second, turnovers of advisory teams may cause significant dissipation of information. Although we cannot observe turnovers of advisory teams directly, we expect significant turnovers are likely to exist when two banks merge with each other. Therefore, we define an indicator variable that equals one if

one of the target's ex-advisors has merged since its previous engagement with the target. Then, for a current deal under consideration, we compute, *BankMerged*, as the ratio of all bank mergers related to all target's ex-advisors within past five years.

Table 3 presents the results from estimating Eq. (1) for acquiring firms. We find that acquirers' probability of hiring targets' ex-advisors is positively related to the number of advisors hired by target firms in the past five years and for diversifying mergers, but negatively associated with acquirers' merger expertise in targets' industry. More importantly, the probability of acquirers hiring targets' ex-advisors increases with both *Recency* and *Duration*. The finding suggests that longer and more recent relationship between targets and their ex-advisors increases the potential for acquirers to obtain value-relevant information from the targets' ex-advisors. Acquirers' propensity to hire target's ex-advisors drops if some of the targets' ex-advisors have merged since their last engagements with targets. This result is consistent with the notion that bank mergers result in dissipation of information (making them less attractive) due to turnover of advisory teams. Other explanatory variables are statistically insignificant in the regression. The pseudo-R² in column 5 indicates that the model explains up to 35% of acquirers' choice to hire targets' ex-advisors¹⁴ Note, however, that our main objective here is not to identify a complete list of determinants that affect acquirers' choice to hire targets' ex-advisors,

¹³ For 73 deals in which acquirer hires target's ex-advisors, only 8 of them include advisors who advised the targets in the previous 2 years.

¹⁴ Note that the numbers of observations in Tables 4–6 are smaller than that in Table 3 because of the missing values of dependent and explanatory variables in Tables 4–6. As a robustness check, we exclude observations with missing value of any dependent and explanatory variables in Tables 4–6 and find similar regression results (reported in Panel D of Table 7).

Table 3

Determinants of hiring targets' ex-advisors. We estimate a probit model to estimate the probability that acquirers hire targets' ex-advisors ($HireTargetEx = 1$) of M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in [Appendix A](#). *Acquirer's Expertise in Target's Industry* is defined as the number of mergers done by an acquirer in its target's four-digit SIC industry divided by the total number of mergers in the industry involved during the past five years. *Relative Bargaining Power* is defined as the ratio of the natural logarithm of total assets of the acquirer to that of the target. We construct three variables *Recency*, *Duration*, and *BankMerged* to measure the closeness of the relationship between targets' and their ex-advisors. The duration of a deal as the time elapsed (in years) between the announcement date and the completion date, divided by five. Further, for a current deal under consideration, the recency of relationship between the target and its ex-advisor is defined as five minus the time elapsed (in years) between the origination date of the relationship and the announcement date of the current deal. As only consider mergers within past five years for the current deal are considered, both duration and recency take a maximum value of one. For deals within previous two year, recency is set to zero. For a current deal under consideration, *Duration* and *Recency*, are defined as the average duration and recency of all target's ex-advisors within past five years. Additionally, an indicator for bank merger is defined for mergers of any target's ex-advisors since their previous engagements with the target. Then, for a current deal under consideration, *BankMerged* is defined as the ratio of all bank mergers related to all target's ex-advisors within past five years. Other deal and firm characteristics are defined in the legend of [Table 2](#). The z-statistics in parentheses are calculated from the Huber/White/Sandwich heteroskedastic consistent errors, which are also corrected for correlation across observations for a given firm. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
<i>Number of advisors hired by target in the past five years</i>	0.71*** (11.5)	0.68*** (10.3)	0.67*** (10.1)	0.67*** (10.2)	0.58*** (8.4)
<i>Recency</i>		0.73** (2.1)			0.87*** (3.3)
<i>Duration</i>			2.10*** (2.9)		1.46* (1.9)
<i>BankMerged</i>				−0.55** (−2.5)	−0.44** (−2.0)
<i>Number of advisors hired by firm in the current deal</i>	0.11 (1.2)	0.11 (1.3)	0.10 (1.1)	0.13 (1.4)	0.14* (1.7)
<i>Acquirer's expertise in target's industry</i>	−2.25*** (−2.8)	−2.51*** (−2.9)	−2.53*** (−3.1)	−2.42*** (−2.8)	−2.73*** (−3.2)
<i>Relative bargaining power</i>	0.02*** (3.0)	0.02*** (3.1)	0.02*** (3.1)	0.02*** (2.8)	0.02*** (2.7)
<i>Tender offer</i>	−0.01 (−0.0)	−0.03 (−0.1)	0.02 (0.1)	−0.03 (−0.2)	−0.04 (−0.2)
<i>Relative size</i>	0.03 (0.6)	0.03 (0.6)	0.02 (0.3)	0.03 (0.6)	0.03 (0.5)
<i>Diversify</i>	0.33** (2.6)	0.34*** (2.6)	0.35*** (2.7)	0.35*** (2.7)	0.37*** (2.7)
<i>Hostile</i>	−0.16 (−0.6)	−0.11 (−0.4)	−0.22 (−0.8)	−0.10 (−0.4)	−0.04 (−0.1)
<i>Percentage of cash</i>	−0.07 (−0.4)	−0.07 (−0.4)	−0.05 (−0.3)	−0.06 (−0.4)	−0.02 (−0.1)
Observations	3056	3056	3056	3056	3056
Pseudo R-squared	0.32	0.32	0.33	0.33	0.35

but rather to identify variables that are correlated with the advisor choice in order to address the endogeneity issues discussed in [Section 5.1](#).

4.2. The effect of hiring targets' ex-advisors on takeover competition

[Table 4](#) examines whether hiring targets' ex-advisors can reduce takeover competition. We employ two proxies for takeover competition: the likelihood of having competing bidders and the number of competing bidders. Specifically, in column (1) of [Table 4](#), we estimate a probit model where the dependent variable (*MultiBidder*) is equal to one if any competing bidder exists, and zero otherwise. We report the marginal effects that measure the effect of a one unit change in the continuous explanatory variables (moving

Table 4

The effects of hiring targets' ex-advisors on takeover competition. The sample consists of M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in [Appendix A](#). In column (1), the dependent variable is a dummy variable, which is equal to 1 if multiple bidders exist, and zero otherwise. The probit model is estimated and marginal effects of coefficients are reported. In column (2), the dependent variable is the number of the rival bidders (*NBidders*) and the econometric method used is the negative binomial regression. *Toehold Dummy* is equal to 1 if acquirer's ownership in the target at the announcement date is larger than 5%. *Premium* is measured as the initial offer price (or final price if initial price unavailable) as reported by SDC, deflated by the share price of the target at five trading days preceding the announcement date, less one. *Percentage of Cash* is the percentage of deal value that is paid with cash. $\ln(\text{Assets})$ is the natural logarithm of book value of total assets. *Leverage* is (Short-term debt + long-term debt)/total assets. *M/B* is the market-to-book asset ratio. *Free cash flow* (*Cash-Flow*) is operating income before depreciation – interest expense – income taxes – capital expenditures, scaled by book value of total assets. All explanatory variables are measured at the end of the fiscal year immediately before the acquisition announcement date. All continuous variables are winsorized at the 0.5% level at both tails of their distributions. Constant terms, year fixed effects, and industry fixed effects are included in the regressions but not reported. The z-statistics in parentheses are calculated from the Huber/White/Sandwich heteroskedastic consistent errors, which are also corrected for correlation across observations for a given deal. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) Probit <i>MultiBidder</i>	(2) Negative binomial <i>NBidders</i>
<i>HireTargetEx</i>	−0.03** (−2.1)	−0.89** (−2.0)
<i>TargetHasEx</i>	0.01 (0.7)	0.25 (1.6)
<i>Toehold Dummy</i>	−0.03** (−2.1)	−1.08** (−2.0)
<i>Premium</i>	−0.03* (−1.7)	−0.56 (−1.6)
<i>Percentage of Cash</i>	0.04*** (4.8)	0.80*** (4.0)
<i>Leverage</i> ^{Target}	−0.06*** (−2.7)	−1.16*** (−2.7)
$\ln(\text{Assets})$ ^{Target}	0.02*** (5.5)	0.28*** (5.3)
<i>M/B</i> ^{Target}	−0.01* (−1.8)	−0.26** (−2.1)
<i>CashFlow</i> ^{Target}	0.01 (1.4)	0.35 (1.3)
Observations	1736	1736
Pseudo R-squared	0.20	0.17

from zero to one for dummy variables) on the dependent variable. In column (2) of [Table 4](#), we estimate the negative binomial regression model, in which the dependent variable is the number of competing bidders (*NBidders*).

In addition to including *HireTargetEx* and *TargetHasEx*, we control for the targets' firm characteristics described in [Section 3](#). In addition, we consider three additional controls that have shown by previous studies (e.g., [Jennings and Mazzeo \(1993\)](#), [Betton and Eckbo, 2000](#)) to influence takeover competition. [Betton et al. \(2009\)](#) suggest that a toehold can reduce takeover competition if it exceeds a certain threshold. We therefore incorporate a toehold dummy which is set equal to one if toehold is larger than 5%, and zero otherwise.¹⁵ *Premium* is included because it can be correlated with the level of (potential or realized) competition in a transaction in different ways. On one hand, [Jennings and Mazzeo \(1993\)](#) find that a higher premium can deter competing

¹⁵ Once a company purchases 5% or more of another company, it must file Form 13D with the SEC and explain to the target firm in writing the reason for the purchase of 5% or more of its stock. Filing form 13D additionally notifies the public as to what the company intends to do with the toehold purchase. [Moeller et al. \(2004\)](#) also use 5% as the cutoff when defining the toehold dummy.

offers, implying a negative effect of *Premium* on the presence of multiple bidders. On the other hand, the presence of multiple bidders may strengthen a target's bargaining power, thus allowing it to extract a higher premium.¹⁶ Also included is the percentage of cash paid to the target firm.¹⁷ Fishman (1989) argues that cash payment pre-empts competing bids, while Jennings and Mazzeo (1993) document that cash payment is positively related to takeover competition.

The result reported in column (1) of Table 4 suggests that rival bidders are less likely to materialize if acquirers hire targets' former advisors. The coefficient of *HireTargetEx* is negative and significant at the 5% level. It indicates that hiring targets' ex-advisors can reduce the likelihood of having competing bidders by 3%. Given that the unconditional probability for any deal in our sample to involve multiple bidders is 9.2%, this magnitude represents an economically meaningful effect. Column (2) of Table 4 reveals that hiring ex-advisors of targets also negatively affects the number of rival bidders. Taken together, the results in Table 4 are consistent with the notion that hiring targets' ex-advisors improves acquirers' information advantage and reduces takeover competition by deterring potential rival bidders from participating.¹⁸ However, we cannot completely rule out additional factors that may also play a role in deterring competing bidders such as deal complexity, asset specificity, and other acquirer, target and bank characteristics that are unobservable to the researchers. We address the omitted variable bias in our robustness checks in Section 5.

The coefficients of other explanatory variables are generally consistent with those documented by previous studies. Consistent with Jennings and Mazzeo (1993), we find that the existence of toehold reduces the level of takeover competition, and that the fraction of payment by cash is positively related to takeover competition. Additionally, the level of takeover competition is positively related to the firm size of target companies, and negatively associated with the leverage ratio and the market-to-book ratio of target firms.

4.3. The effect of hiring targets' ex-advisors on deal outcomes

In this subsection, we first examine the effect of hiring targets' ex-advisors on the announcement returns for acquiring and target firms, respectively. We then investigate whether such hiring decisions affect the premium paid to target firms by acquirers. Finally, we study synergies created by mergers and acquisitions and how they are divided between acquirers and target firms.

In columns (1) and (2) of Table 5, we separately regress targets' and acquirers' CAR on *HireTargetEx*, *TargetHasEx*, deal characteristics, and firm characteristics.¹⁹ Specifically, to control for deal characteristics, we include *Tender Offer*, *Relative Size*, *Diversify*, *Hostile*, and *Percentage of Cash*. *Tender Offer* is included because Bates and Lemmon (2003) and Officer (2003) find that acquirers' CAR is higher for tender offer. We include *Relative Size* because Moeller et al. (2004) show that bidder announcement returns increase with relative deal size. We include *Diversify* since

Table 5

The effect of hiring targets' ex-advisors on announcement returns. The sample consists of M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in Appendix A. CAR is three-day cumulative abnormal return calculated using the market model. The dependent variables in columns (1) and (2) are target's and acquirer's CAR, respectively. Firms characteristics (*Ln(Assets)*, *M/B*, *Leverage*, *CashFlow*) are measured for targets and acquirers, respectively in columns (1) and (2). The detailed definitions of other variables are in the legend of Table 2. All explanatory variables are measured at the end of the fiscal year immediately before the acquisition announcement date. All continuous variables are winsorized at the 0.5% level at both tails of their distributions. Constant terms, year fixed effects, and industry fixed effects are included in the regressions but not reported. The z-statistics in parentheses are calculated from the Huber/White/Sandwich heteroskedastic consistent errors, which are also corrected for correlation across observations for a given deal. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) CAR _{Target}	(2) CAR _{Acquirer}
<i>HireTargetEx</i>	−0.06** (−2.3)	0.01 (0.5)
<i>TargetHasEx</i>	0.00 (0.4)	−0.01*** (−2.6)
<i>Tender Offer</i>	0.06*** (3.8)	−0.00 (−0.4)
<i>Relative Size</i>	−0.02*** (−4.4)	−0.00 (−1.0)
<i>Diversify</i>	−0.01 (−0.6)	−0.00 (−0.3)
<i>Hostile</i>	0.03** (2.1)	−0.01 (−1.2)
<i>Percentage of Cash</i>	0.08*** (5.6)	0.04*** (6.9)
<i>Leverage</i>	−0.02 (−0.7)	0.01 (1.1)
<i>Ln(Assets)</i>	−0.01 (−1.5)	−0.00 (−1.5)
<i>M/B</i>	−0.01** (−2.2)	−0.00* (−1.9)
<i>CashFlow</i>	0.03*** (2.9)	0.00 (0.3)
Observations	1839	2021
Adjusted R2	0.14	0.09

Morck et al. (1990) show that bidders earn negative returns when making unrelated acquisitions. Schwert (2000) finds that acquirers realize lower abnormal returns in hostile takeovers, so we include *Hostile*, which equals one if the SDC classifies the acquisition as a hostile takeover and zero if the SDC classifies the acquisition as a friendly takeover. Since cash (stock) is more likely to be used as a method of payment when there is low (high) valuation uncertainty in the acquisition (Travlos (1987), Loughran and Vijh (1997)), we also control for *Percentage of Cash* in the regression. Coefficients are estimated from ordinary least squares (OLS) regressions. The t-statistics are calculated using Huber/White/Sandwich heteroskedastic consistent errors.

Column (1) of Table 5 reveals that targets' CAR is significantly and negatively related to acquirers' decision to hire targets' ex-advisors. This is consistent with the "information advantage" argument outlined in Section 1. In terms of economic significance, this decision lowers target's CAR by 0.06, which amounts to 1/3 of the average CAR (0.18) for all target firms across all transactions in our sample. This result also suggests that investors may be sophisticated enough to recognize that targets' ex-advisors can cause damage to target firms when they are hired by acquirers in M&A transactions.

Column (2) shows that acquirers' CAR is not significantly unrelated to its decision to hire targets' ex-advisors. The estimated coefficient of *HireTargetEx* is 0.01 with t-statistic being 0.5. Although we postulated that hiring targets' former advisors may provide acquirers with competitive edge in the bidding process, the

¹⁶ Bradley et al. (1988) and Servaes (1991), for example, find that target's abnormal return from the day before merger announcement through resolution is significantly higher for deals with multiple bidders than deals with a single bidder.

¹⁷ All our results are qualitatively the same if a dummy variable for pure-cash transactions is used instead.

¹⁸ Due to missing values of dependent and explanatory variables, the number of observations in Table 4 is 1736. Among these 1736 cases, acquirers hire targets' ex-advisors in 43 deals, which accounts for 9.8% of 441 deals in which target firms have ex-advisors.

¹⁹ CAR is measured from one day before to one day after the announcement date. Using either the abnormal return on the announcement day or the cumulative abnormal return from two days before to two days after the announcement date as the dependent variable does not change our main results.

results suggest that this decision does not create value for acquirers' shareholders. We interpret it as the evidence supporting the competitive market hypothesis proposed by [Boone and Mulherin \(2008\)](#) who document no significant relation between bidders' stock returns and the level of merger competition.²⁰ The hypothesis maintains that in a merger, the presence of actual or potential competition leads to efficient pricing of the target and results in zero profits to the winning bidder. In other words, in a competitive takeover market, winning acquirers rationally respond to the level of takeover competition and the uncertainty associated with target firms' value. Although rational acquirers can reduce the level of takeover competition through hiring targets' ex-advisors, they earn breakeven returns because the entire takeover market is competitive and efficient. The negative coefficient of *TargetHasEx* indicates that when targets' ex-advisors are available, and if acquirers do not hire targets' ex-advisors, acquirers' CAR is lower than otherwise.

The coefficients on other explanatory variables are generally consistent with the findings in prior studies. Consistent with [Moeller et al. \(2004\)](#), we find that glamour acquirers experience more negative CAR. We also find acquirers' CAR is higher for deals financed by more cash, consistent with [Travlos \(1987\)](#) and [Fuller et al. \(2002\)](#). Besides, targets' CAR is higher in hostile deals and deals financed by more cash, consistent with [Andrade et al. \(2001\)](#). Target firms with low M/B and high free cash flows experience more positive CAR, consistent with [Manne \(1965\)](#) and [Alchian and Demsetz \(1972\)](#) who show that corporate takeovers can be used to create shareholder value by eliminating poorly performing managers.

Column (1) of [Table 6](#) reports the regression results for premiums paid by acquirers. Following [Bates and Becher \(2011\)](#), we include in the regression firm characteristics (*Ln(Assets)*, *M/B*, *Leverage*, *CashFlow*) as control variables. To account for deal characteristics, we include three indicator variables for tender offers, diversifying mergers, and hostile transactions, together with percentage of deal value that is paid with cash. We also control for *relative size* and adjust standard errors for heteroskedasticity and correlation across observations for a given deal. The constant term, year fixed effects and industry fixed effects are also included but not reported in the table.

We document that takeover premium is negatively related to acquirers' decision to hire targets' ex-advisors. The coefficient of -0.06 indicates that hiring targets' ex-advisors lowers the premium paid to targets by 0.06, which is about 20% of the average premium (0.31) across all transactions in our sample. This result is consistent with the view that the competitive advantage gained from hiring targets' ex-advisors reduces acquirers' incentive to offer a higher premium in order to deter a competing bidder. Furthermore, hiring targets' ex-advisors enables acquirers to better estimate the value of target firms and thus reduce the risk of overpayment.

In column (2) of [Table 6](#), we use the total dollar value of synergy, scaled by the pre-bid market capitalization of the acquiring firm, as the dependent variable. The results reveal that hiring targets' ex-advisors does not affect the total synergy. This is inconsistent with the "deal improvement" hypothesis which predicts that targets' ex-advisors act as information conduits and use their information advantage to improve deal outcomes, leading to a greater combined gain from the merger. In untabulated tests, we follow [Rau and Vermaelen \(1998\)](#) and measure long-term value creation using the post-acquisition stock performance of the acquiring firm over the three-period following the year of acquisition. The results

Table 6

The effects of hiring targets' ex-advisors on takeover premium and synergies. The sample consists of M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in [Appendix A](#). The dependent variable in column (1) is the premium paid by bidders to targets. The dependent variable in column (2) is the total dollar value of synergy scaled by the pre-bid market capitalization of the acquiring firm. In columns (3), *TSOS* is the target's share of synergy. The detailed definitions of other variables are in the legend of [Table 2](#). All explanatory variables are measured at the end of the fiscal year immediately before the acquisition announcement date. All continuous variables are winsorized at the 0.5% level at both tails of their distributions. Constant terms, year fixed effects, and industry fixed effects are included in the regressions but not reported. The z-statistics in parentheses are calculated from the Huber/White/Sandwich heteroskedastic consistent errors, which are also corrected for correlation across observations for a given deal. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) Premium	(2) Synergy	(3) TSOS
<i>HireTargetEx</i>	−0.06** (−2.0)	−0.02 (−1.2)	−0.48** (−2.3)
<i>TargetHasEx</i>	−0.00 (−0.1)	−0.01 (−1.5)	−0.13 (−1.2)
<i>Leverage</i> ^{Acquirer}	−0.02 (−0.4)	0.03 (1.5)	−0.18 (−0.7)
<i>Ln(Assets)</i> ^{Acquirer}	0.02*** (3.8)	−0.01*** (−3.8)	0.01 (0.2)
<i>M/B</i> ^{Acquirer}	0.01** (2.4)	−0.00** (−2.1)	−0.01 (−0.7)
<i>CashFlow</i> ^{Acquirer}	−0.01 (−0.5)	−0.00 (−0.4)	−0.04 (−0.6)
<i>Tender Offer</i>	0.01 (0.7)	−0.01 (−1.1)	0.09 (0.7)
<i>Relative Size</i>	0.02** (2.4)	0.01*** (3.9)	0.03 (0.5)
<i>Diversify</i>	−0.01 (−0.4)	−0.00 (−0.8)	−0.06 (−0.6)
<i>Hostile</i>	0.03 (1.4)	0.01 (0.5)	0.09 (0.4)
<i>Percentage of Cash</i>	0.01 (0.8)	0.05*** (6.2)	−0.48*** (−3.4)
<i>Leverage</i> ^{Target}	0.04 (1.2)	−0.02 (−1.5)	−0.19 (−0.8)
<i>Ln(Assets)</i> ^{Target}	−0.03*** (−4.8)	0.01*** (3.7)	0.07 (1.6)
<i>M/B</i> ^{Target}	−0.02*** (−4.1)	−0.00* (−1.7)	−0.02 (−0.6)
<i>CashFlow</i> ^{Target}	−0.03** (−2.1)	0.01 (1.6)	0.17* (1.9)
Observations	1514	1549	1549
Adjusted R ²	0.09	0.15	0.02

(untabulated) indicate that *HireTargetEx* has no significant effect on the long-term stock performance.

In column (3), we use OLS regression analysis to examine how the use of targets' ex-advisors affects the division of synergy gain between acquirer and target.²¹ The dependent variable (*TSOS*) in column (3) is target's share of synergy. The control variables are the same as those in the premium and synergy regressions.

The results in column (3) suggest that the target's share of synergy (*TSOS*) is negatively and significantly related to acquirers' choice to hire targets' ex-advisors, consistent with the "information advantage" hypothesis which predicts that target firms are at a bargaining disadvantage when their ex-advisors are hired by acquiring firms. The coefficient of *HireTargetEx*, -0.48 , suggests that hiring targets' ex-advisors on average reduces target shareholders' share of synergy by 0.48. This negative effect is substantial given that the mean and median values of *TSOS* are 1.5 and 1.01, respectively. In untabulated tests, we follow [Bates, Lemmon, and Linck \(2006\)](#) and

²⁰ Specifically, [Boone and Mulherin \(2008\)](#) argue that the winning acquirer does not make systematic errors in adapting its strategy to the level of competition and uncertainty regarding target value, and hence no relation should exist between acquirer returns and either the number of bidders or the uncertainty in target values.

²¹ Following [Golubov et al. \(2012\)](#), we use OLS regression analysis. Our results are qualitatively unchanged if Tobit model is used.

consider the *relative* target's share of synergy (*RTSOS*), which is calculated as the share of synergy to target shareholders relative to their proportional share of the firm owned prior to the bid. That is, $RTSOS = TSOS / (1 - \alpha)$. *RTSOS* measures the proportional gains for target shareholders relative to their pre-bid ownership of the target. The results (untabulated) indicate that *HireTargetEx* has a negative and significant effect on *RTSOS* as well (the coefficient of *HireTargetEx* is -0.50 ; the *t*-statistic $= -2.4$), indicating that it is target's pre-bid shareholders who bear the brunt of diminished share of value created by the transaction. Taken together, our analysis reveals that although hiring targets' ex-advisors does not create more synergies, it does help the acquiring firms to achieve significant bargaining advantage in merger transactions and capture a higher share of merger synergies.

5. Tests for endogeneity and additional analysis

In this section, we perform additional analysis to address the endogeneity issues and examine the robustness of our results. We tabulate the results in Table 7. While all control variables in Tables 4–6 are still included in the new tests, for the sake of brevity, we only tabulate the coefficients of *HireTargetEx*, *TargetHasEx*, and the newly added variables.

5.1. Tests for endogeneity

So far, we have performed plain vanilla OLS regressions which assume that acquirer's advisor choice is exogenously determined. Thus, our results are potentially subject to two types of endogeneity. The first type is omitted variable bias. While we have controlled for a standard set of variables that have been shown by previous studies to affect takeover competition and deal outcomes, the relation we observe may be spurious if our model omits any variables that affect both the advisor choice and merger outcomes. The other possible endogeneity issue is reverse causality. For instance, it is possible that acquiring firms are more likely to hire target firms' ex-advisors if target firms have weak negotiation power due to poor operating performance, leading to a negative association between *HireTargetEx* and *CAR* or premium for target firms. In both cases, the coefficient estimates from the OLS regressions are biased and inconsistent.

We employ a two-step treatment method to address the endogeneity issues regarding the results reported in Tables 5 and 6. The first-step uses the probit regression in Column 5 of Table 3 to estimate the probability of acquirers hiring targets' ex-advisors. We then obtain the inverse Mills ratio (IMR) from the first stage and use it as an additional explanatory variable in the second stage regression that examine the impact of hiring targets' ex-advisors on deal outcomes. Convincingly implementing the treatment effect model requires at least one variable in the first stage equation can be excluded from the set of independent variables in the second stage regression (so called exclusion restrictions). In Table 3, we use the number of advisors hired by target firms in the past five years to meet exclusion restrictions.²² However, since probit and negative binomial regressions in Table 4 are nonlinear models to which the treatment effect adjustments cannot be applied, we instead employ a two-step bootstrapping approach, which involves predicting the likelihood of hiring targets' ex-advisors in the first

stage using the specification in Column 5 of Table 3, and using the predicted value in the second stage. We bootstrap the estimation 500 times to obtain consistent standard errors and report the coefficients' 95% confidence interval estimates in the Table 7 (Panel A).

The results of the second stage of the two-step analysis are reported in Panel A of Table 7. The bootstrapped 95% confidence interval for *HireTargetEx* does not span zero in the regression with the dependent variable *MultiBidder*, indicating that the coefficient estimate on *HireTargetEx* is significantly different from zero at the 5% level. The bootstrapped 95% confidence interval for *HireTargetEx* spans zero in the regression with the dependent variable *NBidder*, however, the 90% confidence interval (untabulated) suggests that the coefficient is significant at the 10% level. In sum, the bootstrapped coefficients of *HireTargetEx* are generally consistent with those obtained using OLS regressions, mitigating the concern that endogeneity drives our results.

5.2. Simulation analysis

To further mitigate the concern that acquirers hire targets' ex-advisors simply because these advisors are active in the takeover market, we conduct a simulation analysis in which acquiring firms are assumed to randomly choose M&A advisors based on advisor's market share. In other words, an advisor's probability of being chosen by an acquiring firm is set equal to the market share of the advisor in the previous year. Based on the simulated pairing of advisors and acquiring firms, we construct the hypothetical bank-firm advisory relationship for each M&A transaction, and define simulated *HireTargetEx* accordingly. We bootstrap the simulation 500 times to obtain consistent standard errors and report the average coefficients and coefficients' 95% confidence interval in Panel B of Table 7. Across 500 simulations, on average, 29 of 3251 deals have simulated advisors being targets ex-advisors. More importantly, the regression results show that the simulated *HireTargetEx* is statistically insignificant in regressions because the bootstrapped 95% confidence interval for *HireTargetEx* spans zero, suggesting that our results are unlikely to be driven by acquiring firms' random choice of advisors based on advisor's market shares.

5.3. Targets hire acquirers' ex-advisors

While we have shown that acquirers can gain information and bargaining advantage by hiring targets' ex-advisors, can target firms counteract their disadvantages by hiring acquirers' ex-advisors? Our sample includes 1544 deals in which acquirers have ex-advisors from past M&A transactions. Target firms hire acquirers' ex-advisors in 199 deals. To examine whether target firms can benefit from hiring acquirers' ex-advisors, we augment our regression models by including two new variables, *HireAcquirerEx* and *AcquirerHasEx*. *HireAcquirerEx*, is equal to one if the target firm hires an advisor who advised the acquiring firm in past M&A transactions, and zero otherwise. *AcquirerHasEx*, is set equal to one if the acquiring firm has ex-advisors, and zero otherwise. We include *AcquirerHasEx* as a control variable to account for the possibility that some acquirers may not have ex-advisors for target firms to select from.

The results reported in Panel C of Table 7 suggest that hiring acquirers' ex-advisors has no significant effect on *CAR* of target firms, synergy, merger premium received by target firms, and targets' share of synergies. In addition, hiring acquirers' ex-advisors tends to reduce rather than increase competition among potential bidders. Taken together, our results indicate that target firms gain no discernible advantage through hiring acquirers' ex-advisors. We argue that hiring merger counterparties' ex-advisors has com-

²² We select the exclusion restrictions in a manner similar to Fang (2005) and Golubov et al. (2012). For example Golubov et al. (2012) argue that endogeneity is a concern when analyzing whether firms hire reputable M&A advisors. The authors use the variable "scope" as the exclusion restriction (which indicates the extent to which the reputable bank of the M&A deal has served the firm for equity, bond, and acquisition issues during the past five years) and then assume that a firm is more likely to hire reputable bank as its M&A advisor if it has experience with hiring reputable banks in the past.

Table 7

Tests for endogeneity and additional analysis. The sample consists of M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in [Appendix A](#). Panel A reports the tests for endogeneity. The first two columns report the two-stage bootstrapping results and the others are regarding the second-stage regression results of the two-step treatment effect model. In the first two columns, 95% confidence intervals of the bootstrapped coefficients are reported. *IMR* is calculated based on column 5 of [Table 3](#). In Panel B, we conduct a simulation analysis in which acquiring firms are assumed to randomly choose M&A advisors based on advisor's market share. In Panel C, we control for two additional dummy variables to account for target firm hiring acquirer's ex-advisor. In Panel D, we exclude deals with missing value for any dependent and explanatory variables in [Tables 4–6](#). In Panel E, we exclude *TargetHasEx* from the regression models. In Panel F, we account for the presence and reputation of targets' advisors by including two dummy variables for targets who use at least one advisor and targets who use at least one top-tier advisor respectively. In Panel G, we add *Industry Merger Expertise of Acquirer's Advisor* and *Top-tier Acquirer Advisor* as additional control variables. *Industry Merger Expertise of Acquirer's Advisor* is computed as the number of mergers advised by a bank for a firm's four-digit SIC industry divided by the total number of mergers in the industry during the past five years. *Top-tier Acquirer Advisor* is a dummy variable that equals one if the acquirer uses any top-tier advisor, and zero otherwise. In Panel H, we identify targets' ex-advisors in underwriting and lending, and construct *TargetHasExUnderwriter* and *TargetHasExLender* to indicate if the target has former underwriting and lending-based relationships with our sample banks over past five years. We also define *HireTargetExUnderwriter* and *HireTargetExLender* to indicate if the acquirer hires one of these banks as a merger advisor. In Panel I, we include advisor fixed effects in models. In Panel J, we define the *liquidity index* for the target (for a year) as the value of corporate control transactions divided by the total book value of assets of firms in the 2-digit SIC code for that year, and include the liquidity index in the models. In Panel K, we define machinery intensity as the ratio of machinery and equipment to total firm assets, then construct *industry-specificity* by averaging machinery intensity by years within three-digit SIC industries, and define *firm-specificity* as the ratio of used-to-total fixed depreciable capital expenditures by firms in an industry. All regressions include the same control variables as those used in [Tables 4–6](#), but the coefficients on control variables are not tabulated. Detailed other variable definitions are in the legend of [Table 2](#). The *t*-statistics in parentheses are calculated from the Huber/White/Sandwich heteroskedastic consistent errors, which are also corrected for correlation across observations for a given deal. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variables	<i>MultiBidder</i>	<i>NBidders</i>	<i>CAR^{Target}</i>	<i>CAR^{Acquirer}</i>	<i>Premium</i>	<i>Synergy</i>	<i>TSOS</i>
Panel A: Tests for endogeneity							
<i>HireTargetEx</i>	−0.05 [−0.09, −0.00]	−0.71 [−1.52, 0.11]	−0.19*** (−3.1)	0.01 (0.4)	−0.14* (−1.8)	−0.03 (−1.1)	−1.17* (−1.9)
<i>TargetHasEx</i>	0.05 [−0.04, 0.15]	0.49 [−0.18, 1.15]	0.01 (1.1)	−0.01** (−2.5)	0.00 (0.2)	−0.01 (−1.1)	−0.09 (−0.7)
<i>IMR</i>			0.07*** (2.2)	−0.00 (−0.3)	0.04 (1.0)	0.01 (0.7)	0.38 (1.2)
Panel B: Randomly choosing M&A advisors based on advisors' market share							
<i>HireTargetEx (Simulated)</i>	0.02 [−0.07 0.10]	−0.58 [−6.79 5.62]	−0.01 [−0.10 0.07]	−0.00 [−0.04 0.03]	−0.01 [−0.12 0.10]	−0.01 [−0.06 0.05]	−0.07 [−0.87 0.74]
<i>TargetHasEx</i>	0.001 [−0.012, 0.014]	0.162 [0.108, 0.216]	−0.001 [−0.004, 0.002]	−0.012 [−0.013, −0.010]	−0.007 [−0.011, −0.003]	−0.012 [−0.014, −0.010]	−0.172 [−0.201, −0.143]
Panel C: Targets hiring acquirers' ex-advisors							
<i>HireTargetEx</i>	−0.03** (−2.2)	−0.90** (−2.1)	−0.06** (−2.3)	0.01 (0.4)	−0.06** (−2.1)	−0.02 (−1.2)	−0.48** (−2.3)
<i>TargetHasEx</i>	0.01 (0.7)	0.23 (1.5)	0.00 (0.3)	−0.01** (−2.5)	−0.00 (−0.1)	−0.01 (−1.5)	−0.13 (−1.2)
<i>HireAcquirerEx</i>	−0.03** (−2.2)	−0.56 (−1.5)	−0.02 (−0.9)	0.00 (0.0)	−0.03 (−1.2)	−0.01 (−0.6)	−0.01 (−0.1)
<i>AcquirerHasEx</i>	0.01 (1.1)	0.14 (1.0)	0.01 (1.2)	−0.00 (−0.9)	0.00 (0.0)	−0.00 (−0.2)	−0.01 (−0.1)
Panel D: Unified sample that includes deals with no missing values for all variables in Tables 4–6							
<i>HireTargetEx</i>	−0.04** (−2.1)	−0.96** (−2.3)	−0.05 (−1.6)	−0.00 (−0.3)	−0.06** (−2.0)	−0.01 (−0.8)	−0.46** (−2.1)
<i>TargetHasEx</i>	0.01 (0.5)	0.17 (1.0)	−0.00 (−0.2)	−0.01 (−1.6)	−0.00 (−0.0)	−0.01 (−1.6)	−0.11 (−1.0)
Panel E: Excluding <i>TargetHasEx</i>							
<i>HireTargetEx</i>	−0.03* (−1.9)	0.75* (−1.7)	−0.06** (−2.3)	−0.00 (−0.2)	−0.06** (−2.2)	−0.03 (−1.6)	−0.56*** (−2.8)
Panel F: Controlling for presence and reputation of targets' advisors							
<i>HireTargetEx</i>	−0.03** (−2.0)	−0.89** (−2.0)	−0.06** (−2.3)	0.01 (0.4)	−0.06** (−2.1)	−0.02 (−1.2)	−0.49** (−2.3)
<i>TargetHasEx</i>	0.01 (0.8)	0.25 (1.6)	0.00 (0.4)	−0.01** (−2.4)	−0.00 (−0.0)	−0.01 (−1.6)	−0.12 (−1.1)
<i>Target Hires Advisor</i>	−0.03 (−1.6)	−0.50 (−1.6)	0.02 (1.3)	−0.00 (−0.1)	−0.03 (−1.4)	0.02* (1.8)	−0.28 (−1.5)
<i>Top-tier Target Advisor</i>	0.02 (1.6)	0.26 (1.1)	−0.02* (−1.7)	−0.01*** (−2.7)	−0.00 (−0.0)	−0.01* (−1.7)	0.13 (1.2)
Panel G: Controlling for additional advisor characteristics							
<i>HireTargetEx</i>	−0.03** (−2.1)	−0.89** (−2.0)	−0.06** (−2.3)	0.01 (0.5)	−0.06** (−2.0)	−0.02 (−1.1)	−0.49** (−2.3)
<i>TargetHasEx</i>	0.01 (0.8)	0.25 (1.6)	0.00 (0.4)	−0.01*** (−2.7)	−0.00 (−0.1)	−0.01 (−1.5)	−0.13 (−1.2)
<i>Industry Merger Expertise of Acquirer's Advisor</i>	0.04 (1.2)	0.76 (1.5)	0.01 (0.3)	0.00 (0.2)	−0.01 (−0.2)	−0.02 (v0.9)	0.30 (0.8)
<i>Top-tier Acquirer Advisor</i>	−0.01 (−0.9)	−0.17 (−0.8)	0.01 (0.6)	0.01 (0.9)	−0.01 (−0.7)	0.01 (0.8)	−0.12 (−1.0)
Panel H: Hiring target's ex-underwriters & ex-lenders							
<i>HireTargetEx</i>	−0.03* (−2.0)	−0.83* (−1.8)	−0.07*** (−2.6)	0.00 (0.4)	−0.07** (−2.4)	−0.02 (−1.4)	−0.51** (−2.4)
<i>TargetHasEx</i>	0.01 (0.7)	0.25 (1.6)	0.01 (0.5)	−0.01** (−2.6)	0.00 (0.0)	−0.01 (−1.5)	−0.12 (−1.1)
<i>HireTargetExUnderwriter</i>	−0.00 (−0.4)	−0.17 (−0.7)	0.02 (1.3)	0.00 (0.3)	0.02 (1.0)	0.01 (1.0)	0.09 (0.5)

(continued on next page)

Table 7 (continued)

Dependent variables	MultiBidder	NBidders	CAR _{Target}	CAR _{Acquirer}	Premium	Synergy	TSOS
<i>TargetHasExUnderwriter</i>	0.01 (1.3)	0.21 (1.1)	−0.00 (−0.4)	−0.01* (−1.8)	−0.02* (−1.8)	−0.00 (−0.1)	−0.02 (−0.2)
<i>HireTargetExLender</i>	−0.01 (−1.1)	−0.33 (−1.2)	−0.02 (−1.0)	0.01 (1.0)	−0.07*** (−3.4)	0.00 (0.3)	−0.16 (−0.8)
<i>TargetHasExLender</i>	0.01 (1.3)	0.28* (1.8)	0.01 (0.7)	0.00 (0.3)	0.02 (1.5)	0.01** (2.0)	0.05 (0.5)
<i>Panel I: Including acquirer advisor fixed effect</i>							
<i>HireTargetEx</i>	−0.01** (−2.0)	−0.91** (−2.0)	−0.06** (−2.0)	0.01 (0.4)	−0.06** (−2.0)	−0.02 (−1.1)	−0.47** (−2.1)
<i>TargetHasEx</i>	0.00 (0.8)	0.28* (1.7)	0.00 (0.2)	−0.01*** (−2.8)	−0.01 (−0.4)	−0.01* (−1.8)	−0.13 (−1.2)
<i>Panel J: Including liquidity index for the target</i>							
<i>HireTargetEx</i>	−0.03** (−2.0)	−0.89** (−2.0)	−0.06** (−2.3)	0.01 (0.5)	−0.06** (−2.0)	−0.02 (−1.2)	−0.48** (−2.3)
<i>TargetHasEx</i>	0.01 (0.7)	0.24 (1.5)	0.00 (0.4)	−0.01*** (−2.6)	−0.00 (−0.1)	−0.01 (−1.4)	−0.13 (−1.2)
<i>Liquidity Index</i>	0.01** (2.3)	0.03 (1.0)	−0.00 (−1.5)	−0.00* (−1.8)	0.00 (0.4)	−0.01 (−1.5)	−0.04** (−2.0)
<i>Panel K1: Including target firm specificity</i>							
<i>HireTargetEx</i>	−0.03** (−2.1)	−0.90** (−2.0)	−0.06** (−2.3)	−0.01 (−0.7)	−0.06** (−2.1)	−0.02 (−1.1)	−0.49** (−2.3)
<i>TargetHasEx</i>	0.01 (0.7)	0.25 (1.6)	0.00 (0.4)	−0.01** (−2.2)	−0.00 (−0.1)	−0.01 (−1.5)	−0.12 (−1.1)
<i>Firm specificity</i>	−0.00** (−2.0)	−0.02 (−1.0)	0.00 (1.1)	−0.00 (−0.1)	0.00 (0.7)	−0.00 (−0.7)	0.01 (1.1)
<i>Panel K2: Targets from industries with low asset specificity</i>							
<i>HireTargetEx</i>	−0.03* (−1.7)	−1.34** (−2.1)	−0.07** (−2.6)	0.01 (0.8)	−0.08*** (−2.6)	−0.01 (−0.6)	−0.69** (−2.5)
<i>TargetHasEx</i>	0.01 (1.1)	0.18 (0.9)	0.01 (0.9)	−0.01** (−2.3)	0.00 (0.0)	−0.01 (−1.2)	−0.03 (−0.2)
<i>Panel K3: Targets from industries with high asset specificity</i>							
<i>HireTargetEx</i>	−0.00 (−0.1)	−0.09 (−0.2)	−0.05 (−0.8)	−0.05* (−1.9)	−0.02 (−0.2)	−0.05 (−1.2)	0.15 (0.5)
<i>TargetHasEx</i>	−0.01 (−1.2)	0.24 (1.0)	−0.02 (−0.7)	−0.01 (−0.8)	0.00 (0.0)	−0.02 (−1.5)	−0.39 (−1.5)

pletely different implications for acquirers and targets. Although target firms may also have incentives to gain information or bargaining advantage by hiring acquirers' ex-advisors, the incentives come with one big caveat – as target firms normally cease to exist as standalone companies after successful mergers, they cannot use the promise of future businesses to incentivize acquirers' ex-advisors. Additionally, acquirers' ex-advisors hired by targets may not be able to have future business from the surviving firms if their services (to the target firms) are perceived to diminish the acquirers' gains. In contrast, acquirers can use the promise of future business to motivate targets' ex-advisors to work hard on their behalf, as evident by the statistic (untabulated) that in our sample 58% of these banks (targets' ex-advisors) are hired as advisors by acquirers in future merger transactions.

5.4. Robustness checks

To check the robustness of our main results, we conduct several additional tests. First, our sample includes 3251 merger deals undertaken by publicly listed and US domiciled firms between 1985 and 2008. However, due to missing values of dependent and explanatory variables, the sample size varies a lot across different tables. As a robustness check, we exclude observations with missing value of any dependent and explanatory variables in Tables 4–6 and re-estimate all regressions. Although we end up with a much smaller sample that consists of 1500 deals, our results are qualitatively unchanged and reported in Panel D of Table 7.²³

Throughout our analysis, we have controlled *TargetHasEx* in regressions to address the selection issue that acquiring companies

may not have a chance to hire targets' ex-advisors if target firms have not engaged any advisors in the past. To check whether our results are sensitive to inclusion of this variable, we remove *TargetHasEx* from the models, re-estimate all regressions, and report the coefficients of *HireTargetEx* in Panel E of Table 7. Our main results are essentially unaffected. In Panel F, we also control for targets' advisor choice in regression analysis. Allen et al. (2004), Forte et al. (2010), and Ma (2013) include targets' decision to hire advisors and advisors' reputation in their studies of abnormal stock returns around merger announcements. Following these studies, we account for the presence and reputation of targets' advisors by including two dummy variables for targets who use at least one advisor and targets who use at least one top-tier advisor respectively. As suggested by Golubov et al. (2012), we refer to the top eight investment banks with largest market shares as top-tier, and all other advisors as non-top-tier. We include these two variables and re-estimate all regressions. Qualitatively similar results ensue.

It is possible that acquiring firms hire targets' ex-advisors because these advisors are too large to avoid. Targets' ex-advisors may be reputable investment banks or have large market shares in the target firm's industry. As a result, *HireTargetEx* may simply capture the effect of advisor's merger expertise in a certain industry or the effect of advisors' market share. To address this concern, in Panel G of Table 7, we control for two additional advisor characteristics. *Industry Merger Expertise of Acquirer's Advisor* is computed as the number of mergers advised by a bank for a firm's four-digit SIC industry divided by the total number of mergers in the industry during the past five years. By construction, it takes a value between zero and one. If there were no mergers in the industry over the past five years, all banks are assigned a value zero for industry expertise. *Top-tier Acquirer Advisor* is a dummy variable and it equals one if the firm hires a top-tier advisor, and zero

²³ In this small sample of 1500 deals, acquirers hire targets' ex-advisors in 39 deals, which accounts for 10.0% of 391 deals in which target firms have ex-advisors and 2.6% of all deals (1500).

otherwise. Our main results still hold, suggesting that our findings are not driven by advisor's merger expertise or advisor's reputation. Our results are qualitatively unchanged if we control for advisors' market share, which is defined as the fraction of total transactions that have been advised by a bank in the previous year.

Target-advisor relationships may exist not only in mergers but also in other forms of corporate finance activities such as securities underwriting and corporate lending, providing additional avenues from which the advisors may obtain value-relevant information about the targets. In order to include such possibilities in our estimation of target-advisor relationship, we identify targets' ex-advisors in underwriting and lending, and construct *TargetHasExUnderwriter* and *TargetHasExLender* to indicate if the target has former underwriting and lending-based relationships with our sample banks over past five years. We construct underwriting and lending-based relationship using SDC and DealScan database respectively. We also define *HireTargetExUnderwriter* and *HireTargetExLender* to indicate if the acquirer hires one of these banks as a merger advisor. We re-run our regression models including these additional variables and results are reported in Panel H of Table 7 and indicate that acquires' decision to hire targets' ex-advisors in mergers continues to have significant impact on deal outcomes including the intensity of competition, targets' CAR and share of synergy, and merger premiums. On the other hand, hiring targets' ex-underwriters or ex-lenders has no significant effect on the deal outcomes. The finding implies that compared to target firms' ex-underwriters and ex-lenders, its ex-advisors in mergers inherently offer acquirers more value relevant services because of their experience of valuing target firms and expertise of identifying synergy in past M&A transactions. For example, underwriters specialize in collecting information from institutional investors during book-building and offer after-market support to the issuing firms, and may not be familiar with valuing a target firm in M&A. Besides, underwriting normally is done by underwriting teams in investment banks, while the M&A advisory is performed by M&A teams. Our results (or lack thereof) suggest that any potential information transmission between two teams in the same bank may not be particularly effective.

Besides the two-step analysis in Panel A, we perform the following tests to address the omitted variable bias. First, we include advisor fixed effects in models for Tables 4–6 and report the result in Panel I of Table 7. Our main findings are robust to the inclusion of advisor fixed effects. Second, it is possible that acquirers' decision to hire targets' ex-advisors is related to general market conditions. Acquirers are likely to overpay the targets when an industry is hot for mergers and firms there are likely to be overvalued. For example, Moeller et al. (2005) find that acquirer CARs are more negative when they acquire targets in industries with more intensive corporate control transactions. Following Schlingemann et al. (2002) and Moeller et al. (2005), we define the liquidity index for the target (for a year) as the value of corporate control transactions divided by the total book value of assets of firms in the 2-digit SIC code for that year. We include the liquidity index in models for Tables 4–6 and report the result in Panel J of Table 7. Our main results are robust to the inclusion of the liquidity index. Finally, it is possible that acquirers hire targets' ex-advisors in complex deals or deals involving asset-specific targets in order to resolve uncertainty over the targets' assets. The impact of acquirers' decision to hire targets' ex-advisors on the degree of competition may therefore be driven by targets' industry-specificity and firm-specificity.²⁴ We follow Almeida et al. (2011) to define

machinery intensity as the ratio of machinery and equipment to total firm assets, then construct industry asset-specificity by averaging machinery intensity by years within three-digit SIC industries, and define firm-specificity as the ratio of used-to-total fixed depreciable capital expenditures by firms in an industry. We first re-run the models in Tables 4–6 with firm-specificity included. The result indicates that our main findings remain unaffected after controlling for firm-specificity (Panel K1). We then classify industries into high asset specificity and low asset specificity, and re-run these models. Our main findings are indeed stronger in industries with low asset specificity (Panel K2) rather than in industries with high asset specificity (Panel K3), suggesting that low propensity and intensity of competition in deals where acquirers hire targets' ex-advisors is unlikely to be driven by targets' difficulty in redeploying highly specific assets.

5.5. Additional analysis

We also examine whether acquirers pay a fee premium in exchange for services provided by targets' ex-advisors. We define the total advisory fee as a percentage of deal value and then regress it on the independent variables used in Table 6. The results (un-tabulated) suggest that there is no significant fee premium when targets' ex-advisors are hired by acquirers. However, this does not necessarily mean that these advisors obtain no benefit – in our sample about 58% of these banks are hired as advisors by acquirers in future merger transactions.

Furthermore, we examine whether hiring merger-counterparty's ex-advisors impacts the probability of deal completion and time to resolution. To capture deal completion, we use a dummy variable which is equal to one for completed transactions, and zero for withdrawn bids. Time to resolution is defined as the number of calendar days between the announcement and resolution (completion or withdrawal) dates. Under the deal improvement hypothesis, having information about targets and acquirers and the ability to influence both sides of deals allows targets' ex-advisors to complete deals more quickly. However, we find no evidence to support the notion that using targets' ex-advisors impact either the likelihood of deal completion or the time to resolution.

6. Conclusion

This paper examines acquiring firms' choice to hire targets' ex-advisors. Our analysis suggests that hiring targets' ex-advisors indeed provides benefits to the merging firms, but these benefits are distributed asymmetrically between them. Our results suggest that hiring targets' ex-advisors provides the acquirers with a better understanding of targets' true value and helps them to identify the sources of synergy. These acquirers also face reduced competition from outside (less informed) bidders who may be concerned with being susceptible to the winner's curse. Both the likelihood of competing bids, as well as the number of competing bidders is reduced when the targets' ex-advisors are hired by acquirers. Acquirers who hire targets' ex-advisors pay lower premiums, although their own abnormal returns are unaffected. Concurrently, targets' abnormal returns are lower, as is their share of synergies. The above results are robust for alternative model specifications, estimation methods, and tests for endogeneity. We do not, however, obtain comparable results when targets hire acquirers' ex-advisors. Overall, we conclude that firms' decisions to hire the merger counterparties' ex-advisors to advise on current mergers has significant, albeit one-sided, benefits for some participants in such transactions.

²⁴ We thank the referee for pointing out this possibility.

Appendix A

Appendix A

Major bank mergers in the banking industry. The table summarizes the major merger and acquisition events in the banking industry. The sample banks are selected by forming a union of two groups of banks: (1) the sample of [Ljungqvist et al. \(2006\)](#); and (2) the sample of 50 most active banks in M&A activities by transaction value over the period 1985 to 2008. The effective dates of bank mergers are obtained from [Corwin and Schultz \(2005\)](#) and [Ljungqvist et al. \(2006\)](#), supplemented by other financial news sources. The numbers in the brackets following bank names define the predecessor-successor relationships among banks. The number at the beginning represents the surviving bank. The first subsequent character (a or b) represent one of the two predecessors of the surviving bank. The second, third and fourth characters further define the earlier predecessors. For example, Credit Suisse First Boston (2a) and Donaldson Lufkin & Jenrette (2b) are predecessors of Credit Suisse (2), the surviving bank. Credit Suisse (2aa) and First Boston Corp. (2ab) are predecessors of Credit Suisse First Boston (2a).

Surviving Bank	Effective date	Bank 1	Bank 2
<i>Sample bank from Ljungqvist et al. (2006)</i>			
Citigroup/Salomon Smith Barney (1)	19860731	Schroders (1aba)	Wertheim Holdings (1abb)
	19971128	Salomon Brothers (1aaba)	Smith Barney Inc. (1aabb)
	19981008	CitiCorp (1aaa)	Travelers (1aab)
	20000501	Salomon Smith Barney Holdings (1aa)	Schroders-Worldwide Investment (1ab)
	20010202	Salomon Smith Barney Holdings (1a)	Geneva Companies (1b)
Credit Suisse (2)	19881222	Credit Suisse (2aa)	First Boston Corp. (2ab)
	20001103	Credit Suisse First Boston (2a)	Donaldson Lufkin & Jenrette (2b)
Lehman Brothers (3)	19840510	Shearson/American Express (3aa)	Lehman Brothers (3ab)
(now Barclays Capital)	19880429	Shearson Lehman Brothers (3a)	EF Hutton (3b)
JP Morgan (4)	19920326	Chemical Bank (4aaaaaa)	Manufacturers Hanover Bank (4aaaaaab)
	19960331	Chemical Bank (4aaaaaa)	Chase Manhattan (4aaaaab)
	19990325	Robert Fleming Hldgs Ltd (4aaaba)	Jardine Fleming Group Ltd (4aaabb)
	19991210	Chase Manhattan Corp. (4aaaaa)	Hambrecht & Quist Group (4aaaab)
	20000411	Chase Manhattan Corp. (4aaaa)	Robert Fleming Hldgs Ltd (4aaab)
	20001231	Chase Manhattan Corp. (4aaa)	JP Morgan & Co. (4aab)
	20040701	JP Morgan Chase & Co. (4aa)	Bank One Corp. (4ab)
	20080530	JP Morgan Chase & Co. (4a)	Bear Stearns Companies, Inc. (4b)
UBS (5)	19950131	PaineWebber (5baa)	Kidder Peabody & Co., Inc.(5bab)
	19950703	Swiss Bank Corp. (5abaa)	SG Warburg Securities (5abab)
	19970902	SBC Warburg (Swiss Bank Corp.) (5aba)	Dillon Read & Co. (5abb)
	19980629	Union Bank of Switzerland (5aa)	Swiss Bank Corp. (5ab)
	20000612	PaineWebber Group, Inc. (5ba)	JC Bradford & Co. (5bb)
	20001103	UBS AG (5a)	Paine Webber Group, Inc. (5b)
Deutsche Bank (6)	19900330	Deutsche Bank AG (6ba)	Morgan Grenfell (6bb)
	19960801	James D Wolfensohn Inc. (6aba)	Bankers Trust New York Corp. (6abb)
	19970902	Alex Brown, Inc. (6aa)	Bankers Trust New York Corp. (6ab)
	19990604	BT Alex Brown (6a)	Deutsche Bank AG (6b)
Wachovia Corp. (7)	19980202	First Union Corp. (7aaaa)	Wheat First Butcher Singer (7aaab)
(now Wells Fargo)	19990401	Wachovia Corp. (7aaba)	Interstate/Johnson Lane (7aabb)
	19990731	Prudential Securities (7abaa)	Vector Securities Intl., Inc. (7abab)
	19991231	Prudential Securities (7aba)	Volpe Brown Whelan & Co. (7abb)
	20010904	First Union Corp. (7aaa)	Wachovia Corp. (7aab)
	20030701	Wachovia Corp. (7aa)	Prudential Securities (7ab)
	20071001	Wachovia Corp. (7a)	AG Edwards Inc. (7b)
Oppenheimer Holdings (8)	19890815	Canadian Imperial Bank of Commerce (8abaa)	Wood Gundy Inc. (8abab)
	19971103	CIBC Wood Gundy Securities (8aba)	Oppenheimer & Co., Inc.(8abb)
	20030103	Fahnestock Viner Holdings Inc. (8aa)	CIBC Oppenheimer's retail brokerage business (the Private Client and U.S. Asset Management Divisions) was sold (8ab)
	20080114	Oppenheimer Holdings Inc. (8a)	CIBC World Markets-US Businesses (8b)
Bank of America Merrill Lynch (9)	19920422	BankAmerica Corp. (9aaaaaa)	Securities Pacific (9aaaaab)
	19940901	BankAmerica Corp. (9aaaaa)	Continental Bank (9aaaab)
	19971001	BankAmerica Corp. (9aaaa)	Robertson Stephens & Co. (9abbb)
	19971001	NationsBank Corp. (9aaba)	Montgomery Securities (13a)
	19980202	Fleet Financial Group Inc. (9abaa)	Quick & Reilly Group(9abab)
	19980901	BankBoston Corp. (9abba)	Robertson Stephens & Co. (9abbb)
	19980930	BankAmerica Corp. (9aaa)	NationsBank Corp. (9aab)
	19991001	Fleet Financial Group Inc. (9aba)	BankBoston Corp. (9abb)
	20040401	BankAmerica Corp. (9aa)	FleetBoston Financial (9ab)
	20061218	Merrill Lynch & Co., Inc.(9ba)	Petrie Parkman & Co., Inc.(9bb)
	20090101	Bank of America Corp. (9a)	Merrill Lynch & Co., Inc.(9b)
Morgan Stanley (10)	19970531	Dean Witter Discover & Co. (10a)	Morgan Stanley Group, Inc. (10b)
Cowen Group (11)	19980630	Cowen & Co. (11a)	Societe Generale Securities (11b)
	2006	Cowen carved out	
Goldman Sachs (12)			
Thomas Weisel Partners (13)	19980921	Spun off from Montgomery Securities (13a)	

Other banks which are classified as the top-50 in SDC by transaction value Drexel Burnham Lambert (14)
Lazard (15)

(continued on next page)

Appendix A (continued)

Surviving Bank	Effective date	Bank 1	Bank 2
Piper Jaffray (16)	19980501 19990104 20031231	US BanCorp. (16aa) US BanCorp. (16a) US BanCorp. (16x) spun off Piper Jaffray (16)	Piper Jaffray Companies (16ab) Libra Investment, Inc. (16b)
SunTrust Robinson–Humphrey (17)	19980102 20010727	SunTrust Banks Inc. (17aa) SunTrust Banks Inc. (17a)	Equitable Securities Corp. (17ab) Robinson–Humphrey (17b)
Houlihan Lokey (18)			
ABN-AMRO (19)	19950309 19950927 19971008 20010430	ING (19baa) ABN-AMRO Holding N.V. (19aa) ING Barings (19ba) ABN-AMRO Holding N.V. (19a)	Barings Securities (19bab) Chicago Corporation (19ab) Furman Selz LLC (19bb) ING Baring-US Operations (19b)
Dresdner (20)	19950823	Dresdner Bank AG (20aa)	Kleinwort Benson (20ab)
(now Commerzbank)	20010105	Dresdner Bank AG (20a)	Wasserstein Perella Group, Inc. (20b)
Stephens Inc. (21)			
Greenhill (22)			
Jefferies (23)	20010321 20031223 20070621	Jefferies & Co. (23aaa) Jefferies Group Inc. (23aa) Jefferies & Co. (23a)	Quarterdeck Investment (23aab) Broadview Holdings (23ab) Putnam Lovell Group Inc. (23b)
Blackstone (24)			
EverCore Partners (25)			
Allen & Co. (26)			
RBC Capital Market (27)	19980102 19980406 20010110 20011101 20070111	Dain Bosworth (27aabaa) Dain Rauscher Corp. (27aaba) Royal Bank of Canada (27aaa) Royal Bank of Canada (27aa) RBC Capital Market (27a)	Rauscher Pierce Refsnes (27aabab) Wessels Arnold & Henderson LLC (27aabbb) Dain Rauscher Corp. (27aab) Tucker Anthony Sutro (27ab) Daniels & Associates Inc. (27b)
Stifel Financial Corp. (28)	20020429 20070228	Ryan Beck & Co. (28ba) Stifel Financial Corp. (28a)	Gruntal & Co. (28bb) Ryan Beck & Co. (28b)
KPMG (29)			
Peter J Solomon (30)			
Raymond James (31)	19980511 19981002 19990614	First Chicago NBD Corp. (31aaa) First Chicago NBD Corp. (31aa) Roney Capital Markets (BANC ONE) (31a)	Roney & Co. (31aab) BANC ONE Corp. (31ab) Raymond James Financial, Inc. (31b)
William Blair (32)			
PricewaterhouseCoopers (33)	19980701	Price Waterhouse (33a)	Coopers & Lybrand LLC (33b)
Ernst & Young (34)			
Needham & Co. (35)			
Simmons & Co. (36)			
KeyCorp(37)	19980908 19981026 19990603	McDonald & Co. Investments, Inc. (37aaa) McDonald & Co. Investments, Inc. (37aa) McDonald & Co. Investments, Inc. (37a)	Essex Capital Markets, Inc. (37aab) KeyCorp(37ab) Trident Financial Corp. (37b)
Keefe, Bruyette and Woods (38)	19960508	Keefe, Bruyette and Woods (38a)	Charles Webb & Co. (38b)
Sandler O'Neill Partners (39)			
Alliant Partners (40)			
Austin Associates Inc. (41)			
Robert W Baird & Co. (42)			
Baxter Fentress & Co. (43)			
BB&T Corp. (44)	19971002 19990326 20050105	BB&T Corp. (44aaa) BB&T Corp. (44aa) BB&T Corp. (44a)	Craigie Inc. (44aab) Scott & Stringfellow Financial (44ab) Windsor Group LLC (44b)
Berkery, Noyes & Co. (45)			
BMO Capital Markets (46)	19871031	Bank of Montreal (46a)	Nesbitt Thomson Inc. (46b)
Brown, Gibbons, Lang & Co. (47)			
Duff & Phelps (48)			
Friedman Billings Ramsey (49)			
Goldsmith Agio Helms & Co. (50)			
Grant Thornton LLP (51)			
Harris Williams & Co. (52)			
Hovde Financial (53)			
Lincoln International (54)			
Morgan Joseph & Co., Inc.(55)			
Morgan Keegan Inc. (56)			
Rothschild (57)			
RSM EquiCo Capital Markets (58)			
Sperry Mitchell (59) Updata Capital Inc. (60)			

Appendix B

The distribution of deals by year. This appendix tabulates the distribution of all deals in our sample by year. Our sample consists of 3251 M&A transactions in SDC/Platinum between US public firms during the period of 1985–2008. We require that acquirers own less than 50% of targets' shares before the announcement date and own 100% after the deal completion, and employ at least one advisor from the list in Appendix A.

Year	Number of deals	Percentage of sample
1985	111	3.41
1986	108	3.32
1987	99	3.05
1988	89	2.74
1989	73	2.25
1990	41	1.26
1991	43	1.32
1992	51	1.57
1993	87	2.68
1994	153	4.71
1995	177	5.44
1996	218	6.71
1997	292	8.98
1998	297	9.14
1999	268	8.24
2000	217	6.67
2001	154	4.74
2002	94	2.89
2003	112	3.45
2004	131	4.03
2005	115	3.54
2006	113	3.48
2007	129	3.97
2008	79	2.43
Total	3251	100

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