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The Role of Bank Advisors in Mergers and Acquisitions

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The Role of Bank Advisors in Mergers and Acquisitions

Abstract

This paper looks at the role of commercial banks and investment banks as financial advisors. In their role as lenders and advisors, banks can be viewed as serving a certification function. However, banks acting as both lenders and advisors face a potential conflict of interest that may mitigate or offset any certification effect. Overall, we find evidence of a net certification effect for target firms, but conflicts of interest for acquirers. In particular, target firms earn higher abnormal returns when the target's own bank is hired as merger advisor, consistent with the bank's role as certifier of the (more informationally opaque) target's value to the acquirer.

In contrast, we find no net certification role for acquirers. There are at least two possible reasons for this. First, certification of value may be less important for acquirers because it is the target firm that must be priced in a merger. Second, acquirers may utilize commercial bank advisors in order to obtain access to bank loans to finance activities in the post-merger period. Thus, an acquirer may choose its own bank (with whom it has had a prior lending relationship) as an advisor in a merger. However, this choice weakens the certification effect and creates a potential conflict of interest because the advisor's merger advice may be distorted by considerations related to the bank's past and future lending activity.

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1. Introduction

Financial intermediaries are specialists in information production and processing. As advisors to both targets and acquirers, financial institutions utilize their information gathering expertise to ascertain the reservation price of the merger counterparty, the potential for synergistic gains, as well as the risks of the transaction.

Commercial banks may be well positioned to offer advisory services if they have established lending and other customer relationships with either party to a merger. During the course of a long-term customer relationship, a commercial bank obtains private information about a firm's cash flows, financial resources, and other exposures that can be useful in estimating the future prospects of a proposed merger. Indeed, if the role of the financial advisor in a merger is to provide information, then commercial banks – especially those with prior lending relationships - potentially have a comparative advantage over investment banks in advising their customers – particularly since, until very recently, investment banks did not make commercial loans.[1] The banking literature (see Chan, Greenbaum, and Thakor (1986) for example) suggests that information generated in the course of a lending relationship may be reusable and therefore transferable. This transfer is feasible because while SEC regulations and the U.S. bankruptcy code prohibit the transfer of information from an investment bank subsidiary

[1] Investment banks may grant "bridge loans" particularly in the context of facilitating a merger. Since these loans are of short duration, granted for very specific purposes, they are not likely to produce the private information obtained by a commercial bank in the course of a long-term, generalized business lending relationship. We exclude the consideration of these less informative "bridge loans" from our analysis. Michaely and Womack (1999) consider other potential conflicts of interest for investment bank advisors stemming from the relationship between analyst recommendations and underwriting activity. Before the repeal of the Glass Steagall Act, this particular conflict did not apply to commercial banks because they could not offer full service investment banking services that included investment advice. (See the 1994 Supreme Court decision involving Citibank that allowed the bank to offer discount brokerage services only (i.e., transactional services only)).

to a related commercial bank subsidiary, there are no restrictions on the reuse of information obtained in the course of a standard lending relationship (e.g., on information flows from the bank's lending department to the investment bank).[2]

Following a parallel literature dealing with underwriting activities, we refer to a bank's ability to obtain private information about a customer, and to use this information in supplying services such as merger advice to the customer, as the certification effect.[3] Investment banks may also be privy to private information obtained, for example, in the course of underwriting activities. However, underwriting episodes are discrete and intermittent, corresponding to the relatively short time period surrounding the issue registration, offering period, and after-market support period. In contrast, commercial bank lending and other relationships are often long standing and continuous, requiring the ongoing monitoring of the firm's activities. All else being equal, we would expect that the selection and use of a commercial bank advisor in an M&A transaction provides a higher certification effect than that provided by traditional investment banks.[4]

However, there are countervailing influences to the certification effect that may limit the effectiveness of commercial banks in providing merger advisory services. This is especially so if the bank advisor is faced with one or more conflicts of interest. For example, the target may have financial problems known privately only to its lenders (such as the major bank lender), or an acquirer may be financially weak to the private knowledge of the banker, and its ability to

[2] In June 1997, the courts ruled in ADT v. Chase Manhattan Bank that "a bank has no per se obligation to refrain from such participation" as advisor to an acquirer (Western Resources) in a hostile attempt to take over Chase's banking customer ADT Ltd. (ADT Operations, Inc. v. Chase Manhattan Bank, N.A, 662 N.Y.S.2d 190 (1997).)

[3] See Puri (1994, 1996), Ang and Richardson (1994), Kroszner and Rajan (1994), Gande, Puri, Saunders, and Walter (1997), and Hebb (1999).

[4] See Fama (1985), Diamond (1991), and Rajan (1992) and the special issue of the Journal of Financial Intermediation (2000) for a discussion of the information generated in the course of relationship intermediation.

survive and pay off its bank debt may be enhanced through the acquisition of a target with a sizable free cash flow. In these situations, the commercial bank's certification may not be credible because of the bank's self-interest in assuring the completion of the merger. As an example, the potential for conflicts of interest was raised in the case of Lehman Brothers, the advisor for Dynegy, the erstwhile acquirer of Enron Corporation in the context of repayment of a $179 million swap transaction. For example, Citigroup Inc. and JP Morgan Chase & Co. had been acting as both merger advisors and lenders to Enron. After Enron sought bankruptcy-law protection from creditors, those two banking firms were precluded from serving as advisors because of their creditor status (Smith (2001), "Lehman Faced Possible Conflict as Merger Failed," *Wall Street Journal*, December 5, 2001, p. C1, C11.)

Moreover, potential conflicts of interest are likely to be exacerbated in the case of hostile takeovers. For example, if a commercial bank customer (as a target) objects to an acquisition, perhaps because of entrenched managers' fear of loss of control, then the commercial bank may be either unable or unwilling to utilize fully its private information in advising a potential acquirer for fear of the loss of future commercial banking business should the merger actually fail to be completed.

Finally, a commercial bank may be able to attract merger advisory business only on the condition that bank loans are made available to the merger counterparties. Alternatively, a bank may be more willing to advise a firm to undertake an acquisition if it believes it can earn large fees from financing the merger through its lending department. This dual agenda may constitute a conflict of interest to the extent that the bank's advice is conditioned, in part, on the bank's concern about the profits it earns from its lending services.

The aim of this paper is to examine, empirically, whether the certification effect

dominates, on a net basis, the conflict of interest effect in the market for M&A advice, and to measure the relative effects on targets and acquirers of commercial bank participation as merger advisors. We compare stock market (abnormal) returns to acquirers and targets on merger deals where commercial banks have been the advisors relative to deals advised by a control group of top-tier investment banks (Goldman Sachs, Credit Suisse First Boston, Salomon Brothers, and Morgan Stanley Dean Witter) as well as a control group of mid-tier investment banks (Bear Stearns, Lehman Brothers, PaineWebber and Donaldson, Lufkin and Jenrette).[5]

When we control for prior lending relationships, we find evidence of a net certification effect for commercial banks. However, this effect holds only for commercial banks' role as M&A advisors to targets. Target firms are typically smaller and more informationally opaque than acquiring firms. Banks that advise target firms can reuse information obtained in the course of a prior lending relationship by certifying the value of the merger (e.g., whether the price the acquirer offers to pay for the target is appropriate). The target bank's private information about the *target firm* is particularly valuable because of information asymmetries that make it difficult to certify the value of the target, and because it is the target firm that must be priced in a merger. However, the certification effect is likely to be reduced if the target's bank advises the acquirer, since the target's bank may be reluctant to reveal bad information about the target to the acquirer for fear that if the deal is not completed, the target will penalize the bank with the loss of its banking business. Indeed, we find that acquirer's abnormal returns are either negative or statistically insignificant both when the target's bank and the acquirer's bank advises the acquirer, and that the use of commercial bank advisors with prior lending relationships has no

[5] The identities of the top tier and mid tier investment banks were obtained from Merger Advisory League Tables compiled by Thomson Financial, Bowers and Miller (1990), and Garner and Kale (2001). We recognize that some of the investment banks have changed names and/or have been acquired after our sample period ends.

significant impact on acquirer abnormal returns.

Acquirers are not indifferent to commercial bank relationships, however. We find that if an acquiring firm has had a prior lending relationship with a commercial bank, then the acquirer is more likely to utilize that bank as its financial advisor. This is not because of an informational certification effect, but rather due to the bank's implicit (or explicit) promise of bank loans to finance the merger transaction and post-merger transition. Thus, it is the combination of merger advisory services and access to bank credit that is the focus of acquirer concerns in choosing their financial advisor.

Section 2 briefly reviews the extensive literature on mergers and acquisitions. In Section 3, we describe our methodology. The database is described in Section 4 and the empirical results are discussed in Section 5. Section 6 concludes.

2. The Literature

Several branches of the literature are relevant to our study. First, there is the literature concerning the role of advisors in creating (or destroying) value in mergers and acquisitions. Second, there is the literature comparing the role of investment banks with that of commercial banks in undertaking "investment banking-type activities." Third, there is the literature investigating the value of mergers and acquisitions *per se*. Rather than providing an exhaustive review, we examine selected papers' relevance to the issue at hand.

2.1 Do Advisors Add Value in Mergers?

There is a literature examining whether advisors add value to a merger. Bowers and Miller (1990) examine the relationship between an acquiring firm's stock returns and the choice of investment bank to determine whether first-tier investment banks generate better deals in

terms of value creation. They classified the following as first-tier investment banks: First Boston, Goldman Sachs, Merrill Lynch, Morgan Stanley, and Salomon Brothers. They report that total wealth gains are larger when either the target or acquirer uses a first-tier investment bank. The results suggest the importance of the advisor's credibility (reputation) in acquisitions.

Hunter and Walker (1990) find that merger gains relate positively to investment banking fees and other proxies for investment banker effort. However, McLaughlin (1990, 1992) reports that some incentive features of investment banking contracts can create conflicts of interest between an investment bank and its clients, suggesting the importance of a potential for a conflict of interest between advisors and clients in mergers and acquisitions.

Servaes and Zenner (1996) compare acquisitions that were completed in-house versus those that use investment bank advisors. They find that an investment bank is used in more complex transactions with asymmetric information, documenting the importance of the information collection process in mergers and acquisitions. Bharadwaj and Shivdasani (2001) find that abnormal returns are positively related to the fraction of the acquisition financed by bank debt, thereby suggesting a certification role for commercial banks in acquisitions financed using cash tender offers.

Building on the theoretical model in James (1992), Saunders and Srinivasan (2001) find that merger advisory fees include a relationship premium that is consistent with the existence of switching costs borne by acquirers when they hire new advisors with whom they had no prior relationship. If merger fees are set competitively, an explanation for this relationship premium is a certification effect, whereby rents are paid to banks with superior information obtained in the course of a prior relationship. Saunders and Srinivasan (2001) also find that top-tier advisors charge higher fees than lower tier investment banks, and that acquirers pay a relationship

premium in merger fees that is highest for top-tier advisors. Although Rau (2000) finds no impact of advisors on acquirer abnormal returns, he shows a positive relationship between investment bank market share and fees and deal completion rates. That is, top-tier investment bank advisors create value by increasing the likelihood that the deal will be completed.

These previous studies focus on mergers advised by investment banks. We extend the literature by examining whether a commercial bank's greater potential net certification ability contributes value to a merger or acquisition beyond that provided by traditional investment banks.

2.2 Investment vs. Commercial Banks Providing Investment Banking Services

The debate regarding financial services modernization and the elimination of the Glass-Steagall Act has fueled a number of academic studies contrasting the roles of investment banks to commercial banks. Similar in flavor, if not in substance, to our study is the literature on the potential for conflicts of interest in securities underwriting.

While the Glass Steagall Act has now been repealed,[6] its historic rationale can be traced, in part, to concerns that commercial bank underwriters have conflicts of interest that will encourage the public issuance of securities in order to reduce their own poor quality loan exposures. In general, empirical evidence has not supported the existence of such a conflict of interest. Kroszner and Rajan (1994), Ang and Richardson (1994), and Puri (1996), among others,[7] find that the debt securities underwritten by commercial banks prior to Glass-Steagall's passage in 1933, were less likely to default than those underwritten by investment banks. In addition, yields tended to be lower and the credit quality higher for commercial bank-

[6] The Gramm Leach Bliley Act (or the Financial Services Modernization Act) of 1999 essentially eliminates the major barriers among banking, securities, and insurance activities.

underwritten issues than for issues underwritten by investment banks. Moreover, no significant difference was found in the performance of the equities underwritten by investment banks during the 1920s as opposed to commercial bank affiliates. Indeed, Puri (1994, 1996) finds evidence of a certification role for commercial banks as they enhance their reputations by reusing private information obtained in the course of lending relationships.

More recent (post-1990) evidence based on the limited debt underwriting powers for banks in Gande, Puri, Saunders, and Walter (1997), and equity underwriting powers in Hebb (1999) have tended to confirm the earlier evidence of a net certification effect for banks. Although the Glass-Steagall Act did not prohibit banks from advising in mergers and acquisitions cases, the relevance of certification effects and of potential conflicts of interest, in the area of merger advisement, is the central empirical question being investigated in this paper.

2.3 The Value of Mergers and Acquisitions

Out of the exhaustive empirical literature on mergers and acquisitions, one result is highly robust. This is the empirical finding that target firms tend to experience positive abnormal returns upon merger announcements while acquirers post zero or negative abnormal returns.[8] Thus, targets appear to obtain most of the expected merger and acquisition gains.[9]

Target gains stem from many sources. The *corporate control hypothesis*, studied by Harris and Raviv (1988), Stulz (1988), Amihud, Lev, and Travlos (1990), and Franks and Mayer (1996) links merger gains to the reduction in agency costs in the market for corporate control.

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[7] See Benston (1990) as well as the citations in footnote 2.

[8] Bank mergers are an exception to this generalization. For example, James and Weir (1987) find significant positive abnormal returns for acquirers in bank mergers. See Palia (1994) for a survey of empirical studies on bank mergers.

[9] Existing literature on the post-merger performance of acquiring firms, however, is divided. Agrawal, Jaffe, and Mandelker (1992) find that stockholders of acquiring firms suffer a 10% loss over the 5-year post-merger period, and that neither the firm size effect nor the beta estimation problems are the cause of the negative post-merger returns. In contrast, Healy, Palepu, and Ruback (1992) find significant post-merger increases in operating cash flow returns.

The *market power hypothesis* stipulates that mergers enhance the competitive position of the target [see Beatty et al. (1987) and Berger and Humphrey (1992)]. Berkovitch and Narayanan (1993) find evidence of the *synergy motive* in mergers and acquisitions. Hubbard and Palia (1999) find synergistic gains to targets in the creation of internal capital markets within conglomerates created by a program of diversifying mergers and acquisitions.

Whereas targets must receive some expectation of gain in order to win the approval of their target shareholders for any merger, those acquirer firm managers, who are unconstrained by pressure from value maximizing shareholders, may embark on acquisitions that offer no ex ante gain to stockholders. The *managerial risk diversification hypothesis* [see Amihud and Lev (1981), Amihud and Kamin (1979), and Lloyd, Hand and Modani (1987)] postulates that acquiring firm managers undertake (value reducing) mergers in order to reduce their undiversifiable human capital investment in their firm. Evidence of this is shown in Amihud, Kamin, and Ronen (1983). In a European context, Cybo-Ottone and Murgia (2000) show that diversifying mergers are value reducing, whereas focusing mergers are value enhancing. In the *winner's curse* or *hubris hypothesis*, overly optimistic acquirers overbid for targets. For example, Roll (1986) shows that acquirers who overestimate the value of the target are more likely to successfully complete a merger, resulting in a decline in the acquirer's value to stockholders.

The question, unexamined prior to this paper, is how the choice of *financial advisor* impacts the distribution of gains between target and acquirer upon the announcement of a merger.

Linn and Switzer (2001) show that post-merger performance is better for cash financed deals.

3. **Empirical Methodology**

3.1 Computing Abnormal Returns for Targets and Acquirers

To investigate the net certification role of commercial banks as merger and acquisition advisors, we compute standardized cumulative abnormal returns *(SCAR)* to both targets and acquirers for a three-day window around the merger announcement date. Our estimates of 3-day abnormal returns, denoted (-1,+1), include both the day of the merger announcement, as well as one day before and after.[10] We test for the explanatory power of the advisor's identity, controlling for other deal-specific factors. Even if the advisors' identities were not publicly revealed on the merger announcement date, the market would reward well-designed and attractively priced deals without necessarily knowing the advisors' role in producing the positive results.

Our estimation of target and acquirer abnormal returns follows well established procedures used in other event studies, such as Fama, Fisher, Jensen, and Roll (1969), Bradley, Desai, and Kim (1988), and Stulz, Walking and Song (1990). We estimate a single-index model using the University of Chicago's Center of Research in Securities Prices (CRSP) market - weighted index and daily stock returns to compute expected (benchmark) returns. Specifically, market model parameters for both target and acquiring firms are estimated using 190 trading days of daily returns data beginning 250 days and ending 60 days before the first announcement of the merger.[11]

[10] We present our results using the standard (-1,+1) window, although analogous results were obtained when using a wider (-5,+5) window.

[11] We used the first announcement date for multiple or revised bid deals. If daily return data were unavailable for the full 250 days prior to merger announcement, then the normal estimation period was less than the full 190 days. The minimum estimation period in our sample was 48 days.

3.2 Controlling for the Identity of the Advisor, Characteristics of Targets and Acquirers, and Deal-Specific Factors

The identity of the bank advisor and the credit/lending relationship[12] between the bank advisor and target and/or acquirer is defined by four different dummy variables (summarized for reference in Panel A of Table 1): *TB_BT* takes on the value 1 if the target's advisor is a commercial bank and if the bank advisor had a prior relationship with the target (i.e., the Target is advised by a Bank_the Bank has lent money to the Target); *TB_BA* takes on the value 1 if the target's advisor is a commercial bank and if the bank advisor had a prior relationship with the acquirer (the Target is advised by a Bank_the Bank has lent money to the Acquirer) ; *AB_BT* takes on the value 1 if the acquirer's advisor is a commercial bank and if the bank advisor had a prior relationship with the target (the Acquirer is advised by a Bank_the Bank has lent money to the Target); *AB_BA* takes on the value 1 if the acquirer's advisor is a commercial bank and if the bank advisor had a prior relationship with the acquirer (the Acquirer is advised by a Bank_the Bank has lent money to the Acquirer).[13]

We distinguish between deals advised by top-tier and mid-tier investment banks and those advised by commercial banks through the use of the variable *DUMBANK*, which is a dummy variable that equals 1 for all commercial bank advised deals and 0 for deals advised by the investment bank control group. The dummy variable *TOPTIER* denotes all mergers that

[12] A credit/lending relationship exists if the bank has made loans to either merger counterparty at some date prior to the merger announcement date. The precise empirical definition of a credit/lending relationship is presented in Section 4.

[13] More than one of these variables could take on the value of one for any given observation. Thus, if *TB_BT* = *TB_BA* = 1 then the target advisor has had prior lending relationships with both target and acquirer.

involve at least one top-tier investment bank advisor on either the target and/or acquirer side. The dummy variable *MIDTIER* indicates those deals using only mid-tier investment bank advisors for both the target and the acquirer. The control groups are chosen such that only top (mid) tier investment banks advise both counterparties to the merger, thereby excluding transactions in which one counterparty is advised by an investment bank and another by a commercial bank.[14]

In our regression analysis, we also control for deal specific variables not related to the identity and relationship of the advisors to targets and acquirers. Several control factors are incorporated into the model to capture the impact on abnormal returns resulting from characteristics of the target, the acquirer, or the merger offer. These control factors are discussed next.

3.2.1 Control Factors

A robust result in the merger literature is that announcement returns to bidding firms who make cash offers are higher than when stock offers are made [see Travlos (1987)], since a bidder with private information about the value of its own assets offers stock when its shares are overvalued by target shareholders. Recognizing this adverse selection effect, target shareholders reduce their estimate of a bidder's value. Thus, without some other benefit to target stockholders in receiving stock rather than cash as a means of payment, a "lemons problem" arises for stock offers.[15] The means of payment in a merger and acquisition is incorporated in our model through the variable *PCTCASH* (a variable that reflects the percentage of the deal's value that is paid for

[14] In the wake of the passage of the Gramm Leach Bliley Act of 1999, financial holding companies (FHC) can be formed by merging commercial banks, investment banks and insurance companies. For the purposes of this study, we consider any financial institution with a substantial commercial bank subsidiary to be a "commercial bank." Thus, we classify Citigroup (an FHC) as a commercial bank.

in cash). Previous studies, such as Travlos (1987), suggest a positive coefficient on the *PCTCASH* variable.

Stulz, Walking, and Song (1990) find that the relationship between a target's abnormal return and the target firm's ownership structure depends on the relative power of the bidder to successfully complete the acquisition without competition from other bidders (i.e., the stronger the bidder -- in terms of either lower target management's ownership stake, larger bidder ownership stake, or fewer bidders -- the lower the target's abnormal returns). Our empirical proxy variable for this effect takes the form of *BVPREM*, which is defined as the initial offer price for the target over the target's book value of equity.[16] Since a multiple-bidder auction for the target tends to offer a relatively large initial acquisition premium, we anticipate a direct relationship between *BVPREM* and target abnormal returns. This relationship is also consistent with Roll's (1986) hubris hypothesis.

Following Doukas and Travlos (1988) and Kang (1993), who find evidence of positive abnormal returns for international acquisitions, we use a zero-one dummy variable denoting whether the deal is a cross-border merger or not (*CROSS)*. Because integration of larger targets into the acquiring firm is likely to generate agency cost reductions in value, we incorporate the control variable *RELSIZE*, measured as the ratio of the market value of equity of the target to that of the acquirer. Rajan, Servaes, and Zingales (2000) show that as a firm becomes more diverse (measured empirically as the deviation in size across all firm subdivisions) internal capital may be misallocated within the firm due to inefficiencies as a result of the battle between competing

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[15] Brown and Ryngaert (1991) shows that taxes should also have important implications for the bidder's decision regarding the means of payment, cash versus stock mixes.

[16] The variable *BVPREM* may also proxy for the existence of intangible assets or growth opportunities. However, in the absence of a competitive takeover market (induced by either multiple bidders or entrenched management), the acquirer may not be forced to pay for those intangibles.

divisions for scarce capital resources. Since integration of a relatively large target in the course of a merger is likely to accentuate the internal power struggle over capital allocation, we expect a negative relationship between *RELSIZE* and abnormal returns.

Cotter and Zenner (1994) document that abnormal returns are lower for hostile compared to friendly mergers, controlling for size (market value of equity), ownership factors, and other characteristics of the offer (e.g., whether there are multiple bidders). Consequently, we incorporate the variable *ATTITUDE* (hostile, neutral, or friendly) into our estimation. We also check for robustness using *CLOSE* (a dummy variable denoting whether or not the target is closely held, i.e., management has a majority stake), *MGMT* (denoting whether the target's management were integrated into the merged firm), and *PROTECT* (denoting whether the target firm had protective mechanisms such as golden parachutes or poison pills). The latter variable is also suggested by the findings of Comment and Schwert (1995) who showed higher takeover premiums for firms with anti-takeover provisions in place.

Dummy variables indicating the motive for the acquisition are included based on the findings of Berkovitch and Narayanan (1993), who suggest that synergy is the primary motive in those takeovers with positive total gains to both targets and acquirers, and that agency conflicts are the primary motive in takeovers with negative gains to both targets and acquirers. Targets may also be valuable because of their high profitability (proxied by *TPROFIT*), growth rate (proxied by *TGROWTH*), or Tobin's q (measured as the market price to book value of the target firm's assets, *TOBINQ*).[17] We control for the target firm's leverage ratio using the variable *TLEVER*. Finally, annual (time) dummy variables are used to differentiate mergers announced each year from 1995 to

[17] *TOBINQ* and *TGROWTH* proxy for intangible assets and growth opportunities that may offer the acquirer potentially synergistic gains. However, a rapidly growing firm may be subject to organizational agency problems that limit the acquirer's ability to realize that potential. Moreover, *TPROFIT* may proxy for the target's free cash

2000.

We estimate the following expressions for both targets and acquirers separately:

$$SCAR_i = f(TB\_BT, TB\_BA, AB\_BT, AB\_BA, TOPTIER, MIDTIER, BVPREM, TGROWTH$$
$$TPROFIT, TLEVER, RELSIZE, PCTCASH, CROSS, ATTITUDE, YEAR) + \varepsilon_i \quad (1)$$

The dependent variable $SCAR_i$ is the 3-day standardized cumulative abnormal return to target and acquiring firm *i* and all control variables are as defined in Table 1-Panel B.[18]

4. The Data

Mergers and acquisitions data were obtained from the Thomson Financial Securities Data Corporation (SDC) database. All mergers and acquisitions involving U.S. target firms over the period January 1, 1995 through December 31, 2000 were identified. We excluded all mergers involving financial firms as either target or acquirer.[19] We formed a subset of deals consisting of those merger transactions in which either side of the transaction (target or acquirer) or both list a commercial bank or its subsidiary as an advisor.[20] We then conducted a Lexis/Nexis search on

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flow, which may induce non-synergistic mergers.

[18] In order to examine other variables considered in the merger literature, we conducted robustness checks of our model. We incorporated a control variable *TENDER* denoting whether a tender offer had occurred, since it has been established that successful tender offers may increase target shareholder wealth [see Jensen and Ruback (1983)]. In addition to the control variable *PCTCASH*, discussed in Section 3.2.1, we focused on several other methods of financing mergers and acquisitions. These included *SFC* (a dummy variable indicating the issuance of common stock to finance the acquisition), *SFCORP* (a dummy variable indicating the use of internally generated funds), *SFDEBT* (a dummy variable indicating the use of debt), and *SWAP* (a dummy variable denoting a stock swap). We also included an ownership variable, *BLOCK*, to denote block shareholdings, *MOE* (an SDC-designation of "merger of equals") and the variable *CASHFLOW* to measure free cash flow (computed as cash assets divided by total assets). We included a dummy variable, *MERGER*, for completed target acquisitions (denoted by a value of 1) in contrast to partial acquisitions, spin-offs, or split-offs (all denoted as 0). Following Saunders and Srinivasan (2001), a variable *FEES* controlled for total fees paid by both target and acquirer as a percent of transaction value. None of these variables turned out to be statistically significant and we do not present them in the regression results presented in Section 5.2.

[19] This provides a cleaner test of the impact of prior lending relationships on merger returns because lending between financial institutions may be short term and therefore have less information content (e.g., overnight Fed funds lending and repo transactions).

[20] Several commercial bank holding companies themselves acquired investment firms during the sample period. We included acquisitions advised by the investment firm as acquisitions advised by commercial banks if the deal was announced after the commercial bank acquired the investment firm. For instance, in April 1997 Alex-Brown & Company was acquired by Bankers Trust. Prior to that date, acquisitions advised by Alex-Brown were considered to

each of the targets and acquirers to determine whether there was a prior lending relationship with any of the bank advisors. In this search, we examined SEC 10K, 10Q, and 8K filings, as well as annual reports, prospectuses, and other registered filings that dated back to January 1990 in order to determine whether the bank advisors had any prior credit/lending relationship with either of the parties to the merger.[21] If the bank advisor was listed in any of the SEC filings of the merger parties, we recorded a bank relationship dummy variable of one.[22] If there was no mention of the bank advisor, but there was a description of other bank relationships, we recorded a bank relationship dummy variable of zero.[23] If there was any ambiguity in defining the bank relationship for either the target or the acquirer, we recorded the relationship as missing and the observation was dropped from the analysis. Using this procedure, we constructed the four dummy variables that distinguish among the four possible lending relationships: the target's bank advising the target (*TB_BT*), the acquirer's bank advising the target (*TB_BA*), the target's bank advising the acquirer (*AB_BT*), and the acquirer's bank advising the acquirer (*AB_BA*).

To fill in the gaps and add additional detail to the description of bank relationships, we obtained data on loan syndications from Loan Pricing Corporation (LPC). If LPC showed that a bank advisor participated in a loan syndication in any capacity (i.e., as an agent, arranger, or participant) prior to the merger announcement date, then we recorded that as a prior lending relationship. The LPC database includes description of the role of the lender, the origination date of the loan syndication, and the purpose of the loan, among other descriptive variables. We used

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be non-bank advised mergers. After that date, they were classified as bank advised mergers.

[21] Lexis/Nexis provides prospectuses and registration statements from April 1993 to the present only.

[22] Because the SEC does not require firms to reveal specific details about their banking relationships, we could not utilize more detailed data about the nature of the relationship. Data obtained from Loan Pricing Corporation contained more detailed descriptions of the lending relationship.

[23] We therefore avoided the problem of recording no relationship for companies that chose not to report any of their banking arrangements. Unless there was a systematic attempt to omit the names of merger advisors from firm disclosures of lending relationships, this should result in an unbiased sample.

these variables to analyze the intensity of the lending relationship for the subset of deals that were included in the LPC database.[24] We also used the more detailed LPC database to define the *ACCESS* indicator variable that takes on a value of 1 if the acquirer's bank is hired as an advisor and subsequently makes a loan to the acquirer within two years after the merger announcement date.

Our sample includes only those firms whose shares were traded on NYSE, AMEX, or NASDAQ. In order to obtain a non-merger period, with which to estimate abnormal returns, we utilized returns for a full year prior to the start of our merger sample period of January 1995 through December 2000. Thus, daily stock returns over the period January 1, 1994 through December 31, 2000 were obtained from CRSP.[25] We verified the SDC announcement date using the *Wall Street Journal*, and used the date in the *Wall Street Journal* whenever there was a discrepancy.

Next, we constructed a control sample of deals advised by: (1) top-tier investment banks, defined to be Goldman Sachs, Credit Suisse First Boston, Salomon Brothers, and Morgan Stanley Dean Witter and (2) mid-tier investment banks, defined to be Bear Stearns, Lehman Brothers, PaineWebber, and Donaldson Lufkin and Jenrette (during the time periods when each of these firms was independent). Deals were included in the control sample only if there were no commercial bank advisors for either the target or the acquirer. When all financial mergers and non-publicly traded companies were excluded, we were left with 189 deals[26] in the investment

[24] Although LPC focuses on syndicated loans, it also includes some private placements and underwritten debt. However, since the SEC filings consider all bank lending relationships, we used the LPC database to fill in the missing observations from the more comprehensive Lexis/Nexis.

[25] The CRSP Permanent Number was used to obtain a continuous series of stock return data even if company name, ticker, or CUSIP changed.

[26] There were 189 targets and 175 acquirers in the control sample. The difference in the number of observations stems from deals in which there was no advisor chosen by either target or acquirer.

bank control sample.

Control variables were constructed from SDC, CRSP and COMPUSTAT. The tickers for each acquirer and target provided by SDC were matched with the CRSP permanent numbers in order to obtain daily return data and market capitalization values as of the deal announcement date. Wherever necessary, COMPUSTAT data were used to fill in the values of control variables such as *TLEVER* (target debt/equity ratios) and *TPROFIT* (target return on assets). A list of definitions of all control variables is shown in Panel B of Table 1.

The overall sample (including investment banks and commercial banks as advisors) consists of 488 targets and 495 acquirers.[27] Table 2 displays key descriptive statistics.[28] Panel A shows that targets (acquirers) hired bank advisors in 31.4 % (34.3%) of the deals. Out of the total number of mergers, 36.8% of the target advisors had either prior lending relationships with the target (22.5%) or the acquirer (14.3%). Table 2, Panel A also shows that 27.9% of the acquirer advisors had prior lending relationships with either the target (12.9%) or the acquirer (15%). The control group of top-tier and mid-tier investment banks advised 38.7% of the targets and 35.4% of the acquirers. Most of the mergers in our sample (62.1%) took place in the years 1998 (23.6%) and 2000 (38.5%).[29] Finally, most deals (93.4%) were classified by SDC as either friendly or neutral. However, average target abnormal returns were significantly (at the 10% level) higher for hostile deals (a mean abnormal return of 5.12%) than for friendly/neutral deals

[27] There are more targets than acquiring firms because some acquirers are foreign firms that are not traded on either NYSE, AMEX, or NASDAQ. However, most foreign acquirers are traded on US stock exchanges. Excluding all foreign acquirers would have resulted in the loss of more than 100 observations. Thus, we control for cross border acquisitions in our analysis.

[28] Table 2, Panel B reports descriptive statistics for control variables. There were 684 observations in the merger database, but data availability on CRSP and Compustat limited our final sample to 488 targets and 495 acquirers.

[29] Although the Gramm-Leach-Bliley Act of 1999 (permitting investment banks to acquire commercial bank subsidiaries) took effect in March 2000, we find no impact on our results for the pre- versus the post-GLBA periods.

(a mean of 3.32%).[30]

5. Empirical Results

Consistent with the literature to date, Table 2, Panel A shows that target abnormal returns are on average positive and statistically significant at the 1% level (averaging 3.38%), whereas acquirer abnormal returns are negative (on average –0.31% significant at the 1% level). Focusing on differences in means between groups using different advisors, Table 2, Panel A shows that target abnormal returns are significantly increased (a t-value of 1.94, significant at the 5% level) when the target hires its own bank as advisor (*TB_BT*=1) as compared to the group where *TB_BT*=0. Moreover, acquirer abnormal returns increase when both advisors are mid-tier investment banks (a t-value of 1.80, significant at the 10% level) and decrease when either advisor is a top-tier investment banks[31] (a t-value of –2.30, significant at the 1% level) or when targets hire the acquirer's bank as merger advisor (a t-value of –2.20, significant at the 5% level). All other differences in means for other group comparisons were statistically insignificant.

*5.1 Target and Acquirer Abnormal Returns **Without** Controlling for Lending Relationships*

The regressions presented in Table 3 examine the 3-day abnormal returns controlling for deal characteristics, but not controlling for the existence of prior lending relationships. Although

[30] We performed pairwise mean difference tests using both the pooled and Satterthwaite methods to control for the possibility of unequal variances. Whenever statistically significant, the t-values of pairwise mean difference tests are reported in parentheses in Table 2.

[31] The result that acquirer abnormal returns are significantly lower for deals advised by top-tier investment banks is consistent with Saunders and Srinivasan (2001) who find that acquirers pay top tier investment banks significantly higher fees for merger advice, thereby reducing acquirer abnormal returns. This result is also consistent with the results of Rau (2000) and Hunter and Jagtiani (2001) who find that top tier investment banks tend to advise acquirers to pay too much for target firms.

we examine all the control variables listed in Table 1, we present the results for only the most consistently significant variables in Tables 3-5. These control variables can be divided into two groups: (1) Deal characteristics such as *PCTCASH* (the percentage of cash used to finance the merger), *BVPREM* (the premium of the bid price over the target's book value of assets), *ATTITUDE* (=0 if friendly or neutral, =1 if hostile)[32], *COMPLETE* (=1 if the deal is completed, 0 otherwise), and *CROSS* (=1 if the acquirer is a non-US firm, 0 otherwise); and (2) firm characteristics such as *TGROWTH* (the target firm growth rate), *TPROFIT* (the target firm's return on assets), and *TLEVER* (the target firms' long-term debt to equity ratio). Descriptive statistics for these control variables are shown in Panel B of Table 2.

The regressions presented in column (1) of Table 3 are consistent with the Panel A, Table 2 finding that the identity of the financial advisor does not have any significant impact on target abnormal returns. That is, the coefficients on the *DUMBANK* (=1 if there is at least one commercial bank advisor and 0 otherwise) and *MIDTIER* variables (=1 if all advisors are mid-tier investment banks and 0 otherwise) are insignificantly different from zero. However, once we control for deal and firm characteristics, the positive and significant (at the 5% level) coefficient on the *DUMBANK* variable in column (2) of Table 3 shows that target abnormal returns are higher for mergers advised by commercial banks than for investment bank-advised deals. This result suggests that target firm abnormal returns tend to increase when commercial banks are chosen as their advisors. Moreover, consistent with the literature, we find that cash financing has a strong positive impact (significant at the 1%) level on target abnormal returns.

Panel A of Table 2 shows that without controlling for prior lending relationships or deal characteristics, the average acquirer 3-day abnormal return is significantly lower for deals

[32] We tested the cross product of the *ATTITUDE* variable with the relationship dummy variables and found no

advised by top-tier investment banks. The uncontrolled regression shown in column (3) of Table 3 is consistent with that finding. That is, the coefficients on the *DUMBANK* and *MIDTIER* variables are significantly positive (at the 10% level or better) indicating that acquirer returns are higher for deals advised by either commercial bank or mid-tier investment bank advisors than for the omitted top-tier investment bank advisor group. However, this result is not obtained when we control for deal characteristics. That is, the coefficients on the *DUMBANK* variable and *MIDTIER* are insignificant in the regressions presented in column (4) in Table 3.

The results for the control variables presented in column (4) in Table 3 are consistent with previous studies. Acquirer returns are positively related to *PCTCASH* (significant at the 1% level), and *BVPREM* (significant at the 5% level) and negatively related to *TGROWTH* and *TPROFIT* (both significant at the 5% level). Moreover, acquirer returns are significantly higher (at the 5% level or better) for deals announced in 1995, 1996, 1998, and 1999 as compared to the omitted base year of 2000.

In summary, the results in Table 3 suggest that abnormal returns earned by target firms upon merger announcement are higher when commercial bank advisors are chosen; with no similar relationship for acquirers. However, the results in Table 3 do not control for prior lending relationships between advisors and merger counterparties. In Section 5.2.1, we report results of multivariate regressions of lending relationships and control variables on target abnormal returns. In Section 5.2.2, we perform the same multivariate regression analysis, but instead with acquirer abnormal returns as the dependent variable. We summarize our findings on the relationship between lending relationships and acquirer and target abnormal returns in Section 5.2.3.

*5.2.1 Target Abnormal Returns **Controlling** for Lending Relationships*

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significance.

Table 4 shows that target abnormal returns are affected by prior lending relationships. The narrow regression results presented in Table 4, column (1) show that targets benefit from hiring their own banks as advisors in mergers and acquisitions, as denoted by the dummy variable *TB_BT*. Regressing the four relationship dummies (*TB_BT*, *TB_BA*, *AB_BT*, and *AB_BA*) on target abnormal returns yields a positive coefficient for *TB_BT* (significant at the 5% level). All other relationship dummy variables are statistically insignificant. Thus, the nature of the prior relationship between the bank advisor and its merger counterparty is important in determining the size of a target's abnormal returns. This positive relationship between target abnormal returns and the *TB_BT* relationship dummy variable is consistent with the means results shown in Table 2, Panel A in which average abnormal returns for targets hiring their own banks as advisors was 4.25%, significantly higher (at the 5% level) than the mean target abnormal return of 3.12% if *TB_BT*=0. Further, the addition of control variables does not eliminate the impact of bank relationships on a target's abnormal returns, but rather enhances its significance. In both columns (2) and (3) of Table 4, the *TB_BT* coefficient remains statistically positive and significant at the 1% level when other control variables are added.

Results for the control variables shown in columns (2) and (3) of Table 4 are consistent with the literature that show that cash financed mergers have significantly (at the 1% level) higher target abnormal returns, as denoted by the positive coefficients on *PCTCASH*. None of the other control variables are statistically significant.

*5.2.2 Acquirer Abnormal Returns **Controlling** for Lending Relationships*

Table 5 analyzes acquirer abnormal returns controlling for lending relationships. In the narrow regression results shown in column (1) of Table 5 none of the relationship variables is significant, but the negative coefficient on the *TOPTIER* variable (=1 if at least one advisor is a

top-tier investment bank and there are no commercial banks, 0 otherwise) is significant at the 10% level. This is consistent with the mean results presented in Panel A of Table 2 showing that average abnormal returns are lowest for the acquirer when the advisors are top-tier investment banks. However, although this result holds in column (2) of Table 5 (when control variables are added), it is not statistically significant in column (3) of Table 5 when the full set of control variables (including year dummy variables) are entered as explanatory variables.

Table 5 presents some evidence that the gains to targets from hiring their own bank may come at the expense of acquirers. The negative coefficient on *TB_BT* (significant at the 10% level or better) in columns (2) and (3) of Table 5 shows that the target's gain in merger negotiations is the acquirer's loss. That is, if targets use their banks to certify higher target firm values, then acquirers pay higher prices for acquisitions, thereby decreasing acquirer abnormal returns.[33] Comparing the size of the coefficients on the *TB_BT* variable in Tables 4 and 5, there appears to be a net overall gain when targets choose their own banks as advisors. That is, the targets' gain (as shown by a coefficient in excess of 2 in Table 4) is greater than the acquirer's loss (as shown by a coefficient of about –0.6 in Table 5).

Introduction of the control variables into columns (2) and (3) of Table 5 indicates that the coefficient on *PCTCASH* is significantly positive (at the 1% level). All other control variables show similar coefficients to the model presented in column (4) of Table 3 with the exception of the merger year effect. Acquirer abnormal returns are highest for mergers announced in 1995 and 1996 as compared to the base case year 2000, as evident from the significantly positive (at

[33] One possible reason that acquirers may not benefit from prior lending relationships may be that the target advisor uses its information asymmetrically to benefit its own client (which is the target), thereby certifying that an acquirer's bid price is too low, but not that it is too high.

the 5% level) coefficients on the *D95* and *D96* variables.[34]

5.2.3 Summary of Tests Assessing the Contribution of Prior Lending Relationships to Target and Acquirer Abnormal Returns

There are two major results that are consistent throughout Tables 2, 3, 4, and 5, as well as in other robustness tests not discussed above.[35] The first is that target firms earn significantly higher abnormal returns upon a merger announcement when they hire their own banks as their merger advisor. We interpret this result as evidence of a bank certification role in merger advisement for the more informationally opaque target firms. That is, the target can achieve a better price if its own bank certifies its value.

The second major finding is that using commercial banks, as advisors, appears to have no significant impact on acquirer abnormal returns. That is, we find no evidence of a certification effect for bank advisors that have had prior lending relationships with the acquirer. However, although acquirer abnormal returns are not significantly affected by the existence of a prior lending relationship, the acquiring firm is not indifferent to the choice of financial advisor as is discussed in the next section. In Section 5.3, we examine the factors that impact the acquirer's choice of merger advisor.

5.3 The Choice of Financial Advisor

Up until this point, we have made the implicit assumption that the choice of an advisor is

[34] The *ACCESS* control variable (which takes on a value of 1 (0 otherwise) if the acquirer's bank lends to the acquirer up to one year after the merger announcement) is insignificant in all models presented in Table 5, because the market may not know of these future loans upon merger announcement.

[35] We performed robustness tests using all of the control variables presented in Table 1. Moreover, we tested whether the bank advisor's certification effect was more important for deals that are relatively complex such as those involving tender offers or stock swaps. When we tested this hypothesis by segmenting the sample of commercial bank-advised mergers into subsamples of commercial bank-advised deals both with and without tender offers, as well as subsamples both with and without stock swaps, we found support for our basic result that targets increase their abnormal returns by hiring their own banks as advisors.

exogenous. However, the identity of the merger advisor may be endogenously determined by the intensity of prior lending relationships. Access to credit appears to be an important motive influencing the choice of merger advisor for an acquirer. Thus, acquirers may prefer to hire commercial bank advisors, particularly those with lending relationships (to either of the merger counterparties), because they are more likely to make loans in the future to the merged entity. To examine this further, we test the link between choice of merger advisor and lending relationships using the binomial logit model shown in Table 6. The dependent variable *S* takes on a value of 0 if the merger advisors to both the target and the acquirer are either investment banks or commercial banks with no prior lending relationships to either merger party and 1 if either the target or the acquirer financial advisor is a commercial bank with a prior lending relationship to either of the merger counterparties.[36]

The independent variables in the logit model in Table 6 reflect the intensity of the prior lending relationship. We use the Loan Pricing Corporation database (LPC) to measure relationship intensity.[37] There are three prior relationship intensity variables: *LENDER*, *DURATION* and *PURPOSE*. *LENDER* takes on three possible values: 2 if LPC records that the lender was an agent or arranger of the loan syndication, 1 if LPC records that the lender was only a participant in the loan syndication, and 0 if there was no lending relationship.[38] Thus, the

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[36] We also tested a disaggregated model (not shown) that examined the target's choice independently of the acquirer's choice of financial advisor. We found that there was no significant impact of the prior lending relationship on the target's choice. This is consistent with the target's concern with maximizing its abnormal return upon merger announcement. Thus, there should be no selection bias in the regressions presented in Table 4. In contrast, the acquirer would be concerned with access to capital to finance the integration of the two firms. We find that the intensity of the prior lending relationship has a significant impact on the acquirer's choice of financial advisor.

[37] Since we have LPC data for only a subset of the database, we estimate the model in Table 6 using 241 mergers.

[38] The use of discrete independent variables that can take on values of 0, 1, or 2 is not inconsistent with the logit model in which the latent dependent variable is observed as either 0 or 1. In particular, the loan intensity independent variables are empirical proxies for an unobservable, continuous intensity variable such that there is a

higher the value of *LENDER*, the more intense the prior lending relationship. We examine the *LENDER* variable for each of the lending relationships (*TB_BT, TB_BA, AB_BT, AB_BA)* independently, i.e., *LENDER_TBBA* denotes the intensity of the lending relationship between the target advisor and the acquiring firm.

The second independent variable, *DURATION*, denotes the time period between the merger announcement date and the origination date of the *earliest* loan syndication between the target and the target's advisor (denoted as *Duration_TBBT*), between the target and the acquirer's advisor (*Duration_TBBA*), between the acquirer and the target's advisor (*Duration_ABBT*) and between the acquirer and the acquirer's advisor (*Duration_ABBA*). Thus, the longer *DURATION*, the more long-lived the prior lending relationship. Finally, *PURPOSE* is an LPC variable that takes on three possible values: 2 if the loan was made for general business purposes, 1 if it was merger related and 0 if there was no lending relationship. Since we are interested in the bank's access to private information about the firm's activities prior to the merger announcement, we hypothesize that the higher the *PURPOSE* variable, the greater the information content generated by the lending relationship. That is, merger related loan syndications tend to have somewhat narrow focus and are of limited duration. Instead, general business lending allows the bank to obtain information about the day to day investment and financing activities of the firm. Finally, we define all three variables *LENDER, DURATION* and *PURPOSE* for non-advisor banks as well as advisor banks.

The results presented in Table 6 confirm the hypothesis that the more intense the prior lending relationship, the greater the likelihood that the commercial bank is chosen as financial

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basic mapping of the discrete intensity variable into the unobservable continuous variable that preserves the ordering. That is, a bank with no lending relationship has a lower lending intensity than a syndicate participant, which in turn, has a lower lending relationship than the syndicate agent bank.

advisor. Moreover, it is the intensity of the prior lending relationship with the acquirer that determines the choice of financial advisor, in contrast to the role of the prior lending relationship with the target that generated the certification gains documented in Section 5.2. That is all three variables *LENDER, DURATION* and *PURPOSE* are positive and significant (at the 5% level) for the *AB_BA* relationship, suggesting that the more intense the prior relationship between the acquiring firm and the acquirer's bank advisor, the greater the likelihood that a commercial bank will be chosen as merger advisor. The only other relationship variable that is statistically significant (at the 10% level or better) is the *LENDER* variable for all possible lending relationships *TB_BT*, *TB_BA*, and *AB_BT*. This suggests that the more intense the lending relationship for both target and acquirer, the more likely they are to choose a commercial bank advisor. Finally, we examine the merger counterparties' lending relationships with banks not chosen as merger advisors and denote them *Nonadvisor* in Table 6. We find that most *Nonadvisor* variables are insignificant, with the exception of *Nonadvisor Purpose_A,* which denotes the relationship between the acquirer and nonadvisor commercial banks. The more that the acquirer has borrowed for general business purposes prior to the merger announcement date from a nonadvisor commercial bank, the smaller the likelihood that a commercial bank advisor with a prior lending relationship will be chosen.

Although the *LENDER, DURATION* and *PURPOSE* variables measure the intensity of prior lending relationships, the existence of past lending does not necessarily guarantee future lending by the bank advisor. To address this issue, we constructed another dummy variable, *ACCESS.* This variable takes on a value of 1 (0 otherwise) if the acquirer's bank is chosen as a financial advisor (by either the target or the acquirer) *and* the bank lends to the acquirer at any time up to one year (or two years) after the merger announcement date. Table 6 shows that the

coefficient on the one year *ACCESS* variable is positive and significant at the 5% level, indicating that the access to financing in the future offered by commercial banks with prior lending relationships increases the likelihood that a commercial bank is chosen to advise the merger counterparties.[39] These positive results on the *ACCESS* variable were robust for different specifications of the logit model. The model's chi-square likelihood ratio test for goodness of fit was 87.8, significant at the 1% level. Thus, we conclude that the relationship between the commercial bank advisor and the acquiring firm primarily impacts the acquirer's access to credit rather than the acquirer's abnormal returns.[40]

6. Conclusions

This paper examines the role of commercial banks as advisors to merger participants. If the role of a financial advisor in a merger is to obtain information, then commercial banks potentially have a comparative advantage in advising their banking customers as compared to non-bank advisors (i.e., traditional investment banks). We refer to this as the bank certification effect. All else being equal, we would expect that access to information generated in the course of a lending/credit relationship could be used to certify valuations, thereby increasing the merger counterparties' abnormal returns upon announcement of a merger. However, there is a countervailing influence to the certification effect in that the commercial bank may be faced with a conflict of interest that diminishes the value of any such certification effect. In particular, the bank may be unable to credibly relay information to the market and investors at large if there is

[39] When we tested a two year *ACCESS* variable (=1 if there was a loan to the acquirer within two years after the merger announcement) we obtained the same results as reported in Table 6.
[40] Note that the acquirer is not necessarily constrained to follow value-maximizing policies if agency problems permit management to pursue value-reducing mergers. See discussion in Section 2.3.

concern that the bank's merger advice is clouded by other objectives, such as the repayment of outstanding loans and potential profits from future lending activity. Alternatively, the bank's lending decisions may be distorted by the bank's desire to capture merger advisory fees. Whichever effect predominates determines whether using commercial bank advisors increases or decreases acquirer's and/or target's abnormal returns in mergers and acquisitions.

We empirically examine this issue using a sample of 488 merger deals announced during the time period from January 1, 1995 through December 31, 2000. Of these sampled mergers, 299 utilize one or more commercial bank advisors who advise either the target, or the acquirer, or both. The other 189 sampled merger deals constitute our investment bank control group in which there are no commercial bank advisors, and both the target and the acquirer hire either top-tier or mid-tier investment bank advisors.

We find positive evidence of a net bank certification effect for target firms only. This certification effect takes the form of increased abnormal returns to targets whenever their merger advisor is their own bank (with whom the target has had a prior lending relationship). In contrast, acquirer abnormal returns are either negative or insignificantly different from zero in all cases. Moreover, acquirers appear to utilize prior lending relationships to direct their choice of advisor. The more intense the prior lending relationship between the acquirer and the bank, the more likely it is that that bank will be chosen to advise the acquiring firm in a merger.

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Table 1. Panel A: Definition of Dummy Advisory Variables

Bank is M&A Advisor for:	Prior Lending to Target	Prior Lending to Acquirer
Target	TB_BT	TB_BA
Acquirer	AB_BT	AB_BA

Table 1. Panel B: Definition of Variables

TB_BT	Dummy variable =1 if the target's advisor is a bank which has a prior lending relationship with the target; 0 otherwise.
TB_BA	Dummy variable =1 if the target's advisor is a bank which has a prior lending relationship with the acquirer; 0 otherwise.
AB_BT	Dummy variable =1 if the acquirer's advisor is a bank which has a prior lending relationship with the target; 0 otherwise.
AB_BA	Dummy variable =1 if the acquirer's advisor is a bank which has a prior lending relationship with the acquirer; 0 otherwise.
TOPTIER	Dummy variable =1 if at least one advisor is a top-tier investment bank (i.e., Goldman Sachs, CSFB, Salomon, or MSDW) advising target/acquirer, and no commercial bank advisors; =0 otherwise
MIDTIER	Dummy variable =1 if all advisors are mid-tier investment banks (i.e., Bear Stearns, Lehman Brothers, Lazard Freres, Paine Webber, etc.), and no commercial bank advisors.
DUMBANK	Dummy variable =1 if any advisor is a commercial bank.
PCTCASH	Percentage of cash used to finance the deal (percent).
BVPREM	Offering premium over target's book value (market price/book value in percent).
ATTITUDE	Dummy variable=1 if the deal is friendly; 0 if it is neutral; -1 if it is hostile (as designated by SDC).
CROSS	Dummy variable=1 if the merger crossed borders; 0 if not.
TGROWTH	Target firm growth rate (as measured by the 1-3 year annualized percent growth rate in either cash flows or earnings per share, whenever available)
TPROFIT	Target firm return on assets (pretax income/total assets in percent).
TLEVER	Target firm leverage (ratio of target long-term debt shareholders equity in percent).
COMPLETE	Dummy variable=1 if completed deal; 0 otherwise.
RELSIZE	Relative firm size (target firm market cap/acquirer market cap as of merger announcement date in percent).
ACCESS	Dummy variable=1 if the acquirer's bank is hired as an advisor and lends to the acquirer up to 1 year after the announcement date; 0 otherwise.
ROBUSTNESS VARIABLES	
MERGER	Dummy variable=1 if the merger is for complete target acquisitions; =0 if partial acquisition.
PROTECT	Dummy variable=1 if there are protective mechanisms such as poison pills, defensive recapitalization, scorched earth defenses, etc.
SFC, SFCORP, SFDEBT, SWAP	Dummy variable=1 if financing includes corporate stock (SFC), internal funds (SFCORP), debt (SFDEBT), SWAP (stock swap).
CASHFLOW	Target Firm value minus cash assets divided by total assets (percent).
FEES	Total fees paid to target and acquirer advisors.
CLOSE	Dummy variable=1 if the target was closely held; 0 if not.
TOBINQ	The target firm's market price divided by book value four weeks prior to merger announcement date (percent).
MGMT	Dummy variable=1 if the target's management was integrated into the merged firm.
BLOCK	Dummy variable=1 if the target has block holdings of stock; 0 otherwise
TENDER	Dummy variable=1 if there was a tender offer; 0 otherwise
MOE	Dummy variable=1 if the merger was a merger of equals; 0 otherwise

Table 2. Panel A: Overall Descriptive Statistics

CONTROL VARIABLES	TARGET SCAR	ACQUIRER SCAR
All Observations	488 deals 3.38%***	495 deals -0.31%***
Target advisor is a bank.	153 deals 3.67%***	170 deals -0.14%
Acquirer advisor is a bank.	168 deals 3.30%***	172 deals -0.39%***
Both advisors are top-tier investment banks.	158 deals 3.15%***	143 deals -0.60%*** (-2.30)***
Both advisors are mid-tier investment banks.	31 deals 2.63%***	32 deals 0.28% (1.80)*
Deal attitude: Control group= friendly or neutral; sample group= hostile.	20 deals 5.12%*** (2.01)**	18 deals -0.42%
Target advisor is a bank with a prior relationship with the target (TB_BT)	110 deals 4.25%*** (1.94)**	98 deals -0.58%**
Target advisor is a bank with a prior relationship with the acquirer (TB_BA)	70 deals 3.41%***	85 deals -0.69%*** (-2.20)**
Acquirer advisor is a bank with a prior relationship with target (AB_BT)	63 deals 3.20%***	51 deals -0.61%**
Acquirer advisor is a bank with a prior relationship with acquirer (AB_BA)	73 deals 3.34%***	84 deals -0.36%*

Notes: *, **, *** denotes significance at the 10%, 5%, 1% level, respectively, testing whether the mean equals zero. Whenever statistically significant, mean differences between the sample and control groups are reported as t-values in parentheses. The sign on the t-value is positive (negative) if the sample mean is significantly greater (smaller) than the mean of the control group. For example, mean SCARs for acquirers in deals in which both sides were advised by top-tier investment banks were significantly (at the 1% level) lower than mean SCARs for acquirers in deals advised by either commercial banks or mid-tier investment banks.

Table 2 Panel B: Descriptive Statistics for Control Variables

Control Variables	Variable Description	N	Mean (Std)	Minimum	Maximum
BVPREM	Premium of offer price over target book value.	448	4.74*** (6.66)	0.09	63.73
TGROWTH	Target firm growth rate.	386	155.14*** (540.95)	-48.10	4576.06
TPROFIT	Target ROA	389	-5.66*** (34.71)	-263.76	48.50
TLEVER	Target Debt/Equity[1]	387	59.75*** (186.40)	-648.68	2182.72
PCTCASH	Percent cash financing	681	38*** (45)	0	100
ATTITUDE	Hostile= -1, Friendly=1, Neutral=0	669	0.93*** (0.36)	-1	1
COMPLETE	Completed deals=1	684	0.78*** (0.41)	0	1
CROSS	1 if non US acquirer	684	0.15*** (0.36)	0	1
RELSIZE	Target market cap over acquirer market cap	403	54.91*** (91.89)	0.07	966.60

Notes: *, **, *** denotes significance at the 10%, 5%, 1% level, respectively. Standard deviations are in parentheses.

[1]The variable *TLEVER* obtained from Compustat is long-term debt divided by total common equity. Common equity is defined as common stock outstanding (including stock adjustments) + capital surplus + retained earnings + treasury stock adjustments for common and nonredeemable preferred stock. The value is negative for distressed firms (15 target firms in our sample).

Table 3. Target and Acquirer Abnormal Returns Without Controlling for Lending Relationships

Variable	Definition	Target (-1,+1) SCAR		Acquirer (-1,+1) SCAR	
		(1)	(2)	(3)	(4)
Intercept	Regression constant	3.1531*** (0.4258)	2.1163* (1.1027)	-0.6028*** (0.1614)	-1.8384*** (0.4242)
DUMBANK	Dummy indicator for commercial bank advisor	0.4288 (0.5264)	1.7695** (0.7029)	0.3639* (0.1942)	-0.0465 (0.2707)
MIDTIER	Dummy indicator for mid-tier advisor investment banks	-0.5259 (1.0514)	1.6054 (1.3996)	0.8865** (0.3775)	0.1666 (0.5199)
BVPREM	Premium over Book value		-0.0586 (0.0546)		0.0429** (0.0200)
TGROWTH	Target firm growth rate		-0.0004 (0.0005)		-0.0004** (0.0002)
TPROFIT	Target ROA		0.0183 (0.0121)		-0.0089** (0.0042)
TLEVER	Target leverage		0.0003 (0.0020)		-0.0009 (0.0008)
PCTCASH	Cash financing		0.0292*** (0.0071)		0.0099*** (0.0027)
CROSS	Cross border		0.7235 (0.7780)		0.3103 (0.4279)
ATTITUDE	Hostile-friendly		0.2605 (0.7028)		0.2710 (0.2545)
COMPLETE	Indicator of deal completion		-0.4077 (0.8436)		0.1882 (0.3235)
D95	Dummy for 1995		-1.1847 (1.4984)		1.5502*** (0.5588)
D96	Dummy for 1996		-1.5675 (1.5618)		1.5829*** (0.6091)
D97	Dummy for 1997		-1.2442 (0.9346)		0.5975* (0.3474)
D98	Dummy for 1998		-0.7994 (0.8455)		0.7572** (0.3265)
D99	Dummy for 1999		-2.0628* (1.1757)		1.0048** (0.4407)
R^2 Adjusted R^2		0.27% -0.14%	13.01% 8.61%	1.35% 0.95%	15.94% 10.48%
Number of Observations		487	311	394	246

Notes: *, **, *** denotes significance at the 10%, 5%, and 1% level, respectively. Standard errors are in parentheses.

TABLE 4. Dependent Variable: Target 3-Day Abnormal Returns

Variable	Definition	Model (1)	Model (2)	Model (3)
Intercept	Regression constant	3.1299*** (0.4040)	2.0783* (1.0704)	2.8866** (1.2735)
TB_BT	Target bank is target advisor	1.3796** (0.6777)	2.4130*** (0.7931)	2.2708*** (0.8239)
TB_BA	Acquirer bank is target advisor	-0.5331 (0.7691)	-1.2349 (0.8868)	-1.3383 (0.8968)
AB_BT	Target bank is acquirer advisor	-0.5772 (0.8152)	-1.7233* (0.9461)	-1.8472* (0.9588)
AB_BA	Acquirer bank is acquirer advisor	0.2990 (0.7521)	0.8484 (0.8739)	0.8157 (0.8918)
MIDTIER	Only mid-tier nonbank advisor	-0.5027 (1.0277)	-0.0430 (1.2039)	0.2202 (1.2767)
TOPTIER	Top-tier nonbank advisor	-0.2545 (0.5552)	-0.7040 (0.6320)	-1.0940 (0.7978)
BVPREM	Premium over Book value		-0.0542 (0.0566)	-0.0509 (0.0574)
TGROWTH	Target firm growth rate		-0.0003 (0.0005)	-0.0003 (0.0005)
TPROFIT	Target ROA		0.0185 (0.0120)	0.0185 (0.0121)
TLEVER	Target leverage		0.0003 (0.0021)	0.0007 (0.0021)
PCTCASH	Percentage cash financing		0.0253*** (0.0072)	0.0253*** (0.0073)
CROSS	Cross border		0.3969 (0.8597)	0.2923 (0.8804)
ATTITUDE	Hostile-friendly		0.5430 (0.6840)	0.4273 (0.7172)
COMPLETE	Indicator of deal completion		-0.1518 (0.8141)	-0.3076 (0.8560)
D95	Dummy for 1995			-0.6117 (1.4849)
D96	Dummy for 1996			-1.4170 (1.5458)
D97	Dummy for 1997			-0.6226 (0.9748)
D98	Dummy for 1998			-0.3700 (0.9307)
D99	Dummy for 1999			-1.5446 (1.2320)
R^2 Adjusted R^2		1.18% -0.14%	12.83% 8.35%	13.55% 7.40%
Number of Observations		457	286	286

Notes: *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses.

TABLE 5. Dependent Variable: Acquirer 3-Day Abnormal Returns

Variable	Definition	Model (1)	Model (2)	Model (3)
Intercept	Regression constant	-0.7822 (0.1407)	-0.9190** (0.4323)	-1.4250*** (0.4904)
TB_BT	Target bank is target advisor	-0.1312 (0.2550)	-0.6348** (0.3152)	-0.5641* (0.3237)
TB_BA	Acquirer bank is target advisor	-0.4058 (0.2701)	-0.2457 (0.3443)	-0.1412 (0.3460)
AB_BT	Target bank is acquirer advisor	-0.2455 (0.3373)	-0.2912 (0.3824)	-0.2139 (0.3838)
AB_BA	Acquirer bank is acquirer advisor	-0.0245 (0.2935)	-0.3537 (0.3355)	-0.2646 (0.3419)
MIDTIER	Only mid-tier nonbank advisor	0.3620 (0.3719)	0.4139 (0.4576)	-0.0152 (0.4858)
TOPTIER	Top-tier nonbank advisor	-0.3961* (0.2060)	-0.5229** (0.2542)	-0.2539 (0.3107)
ACCESS	Acquirer's bank lends 1 year after merger	-0.0833 (0.3831)	0.2569 (0.4794)	0.1491 (0.4880)
BVPREM	Premium over Book value		0.0585*** (0.0219)	0.0581*** (0.0220)
TGROWTH	Target firm growth rate		-0.0004** (0.0002)	-0.0004** (0.0002)
TPROFIT	Target ROA		-0.0082* (0.0043)	-0.0083* (0.0043)
TLEVER	Target leverage		-0.0003 (0.0008)	-0.0006 (0.0008)
PCTCASH	Percentage cash financing		0.0107*** (0.0029)	0.0110*** (0.0028)
CROSS	Cross border		0.5511 (0.5245)	0.6693 (0.5264)
ATTITUDE	Hostile-friendly		0.0214 (0.2656)	0.1500 (0.2709)
COMPLETE	Indicator of deal completion		0.2656 (0.3297)	0.2275 (0.3366)
D95	Dummy for 1995			1.3831** (0.5700)
D96	Dummy for 1996			1.2760** (0.6264)
D97	Dummy for 1997			0.2967 (0.3762)
D98	Dummy for 1998			0.4159 (0.3677)
D99	Dummy for 1999			0.7165 (0.4718)
R^2 Adjusted R^2		2.30% 0.85%	16.08% 10.36%	19.46% 11.97%
Number of Observations		479	235	235

Notes: *, **, *** indicate significance at the 10%, 5%, and 1% levels. Standard are errors in parentheses.

TABLE 6. Binomial Logit Model for Advisor Choice

The dependent variable is an advisor selection indicator variable *S* such that:
***S* = 0** if the target and the acquirer use either nonbank advisors or banks with no prior relationships with either merger counterparty; and
***S* = 1** if either the target or the acquirer uses a bank advisor with a prior lending relationship with either the target or the acquirer.

In model (1), the independent variables are:
Lender_TBBT (Lender_ABBT) = 0 if the target firm has no lending relationships with the target (acquirer) advisor; =1 if the target's bank acted as a participant in a loan syndication to the target (acquiring) firm prior to the deal announcement date; =2 if the target's bank acted as an agent or arranger for a loan syndication to the target (acquiring) firm prior to the deal announcement date.
Lender_TBBA (Lender_ABBA) = 0 if the acquirer has no lending relationships with the target (acquirer) advisors; =1 if the acquirer's bank acted as a participant in a loan syndication to the target (acquiring) firm prior to the deal announcement date; =2 if the acquirer's bank acted as an agent or arranger for a loan syndication to the target (acquiring) firm prior to the deal announcement date.

Duration_TBBT (Duration_ABBT) = the length of time (in years) between the origination of the earliest loan syndication to the target by the target (acquirer) advisor.
Duration_TBBA (Duration_ABBA) = the length of time (in years) between the origination of the earliest loan syndication to the acquirer by the target (acquirer) advisor.

Purpose_TBBT (Purpose_ABBT) = 0 if there were no prior loan syndications to the target firm involving the target (acquirer) advisor; =1 if the purpose of the loan syndication by the target (acquirer) advisor to the target firm was related to an acquisition; = 2 if the purpose of the loan syndication by the target (acquirer) advisor to the target firm was for general business purposes.
Purpose_TBBA (Purpose_ABBA) = 0 if there were no prior loan syndications to the acquiring firm involving the target (acquirer) advisor; =1 if the purpose of the loan syndication by the target (acquirer) advisor to the acquirer was related to an acquisition; = 2 if the purpose of the loan syndication by the target (acquirer) advisor to the acquirer was for general business purposes.

Nonadvisor Lender_T (Nonadvisor Lender_A) = 0 if there were no loan syndications involving nonadvisors to the target (acquirer); =1 if the highest level of participation by any nonadvisor in a loan syndication to the target (acquirer) was as a participant; =2 if the highest level of participation by any nonadvisor in a loan syndication to the target (acquirer) was as an agent or arranger.
Nonadvisor Duration_T (Nonadvisor Duration_A) = the length of time between the merger announcement date and the earliest loan syndication involving a bank that advises neither the target nor the acquirer.
Nonadvisor Purpose_T (Nonadvisor Purpose_A) = 0 if there were no loan syndications involving nonadvisors to the target (acquirer); =1 if the purpose of the loan syndication by any nonadvisor to the target (acquirer) was related to an acquisition; =2 if the purpose of the loan syndication by any nonadvisor to the target (acquirer) was for general business purposes.

Access =1 (0 otherwise) if the acquirer's bank is chosen as an advisor and the advising bank subsequently lends to the acquirer up to one year after the merger announcement date.

Table 6

Independent Variable	Definition	Coefficients
Intercept	Regression constant	-1.3423*** (0.3421)
Lender_TBBT	Intensity of loan syndication relationship of target bank advisor with target	1.7868*** (0.6154)
Lender_ABBT	Intensity of loan syndication relationship of target bank advisor with acquirer	1.3636** (0.6096)
Lender_TBBA	Intensity of loan syndication relationship of acquirer bank advisor with target	0.9442* (0.5700)
Lender_ABBA	Intensity of loan syndication relationship of acquirer bank advisor with acquirer	1.2949** (0.5103)
Duration_TBBT	Duration of syndicated loan given by target bank advisor to target	-0.2069 (0.1492)
Duration_ABBT	Duration of syndicated loan given by target bank advisor to acquirer	-0.0168 (0.1279)
Duration_TBBA	Duration of syndicated loan given by acquirer bank advisor to target	0.3273 (0.2197)
Duration_ABBA	Duration of syndicated loan given by acquirer bank advisor to acquirer	0.2301** (0.1048)
Purpose_TBBT	Purpose of syndicated loan given by target bank advisor to target	0.3371 (0.6816)
Purpose_ABBT	Purpose of syndicated loan given by target bank advisor to acquirer	0.6672 (0.7353)
Purpose_TBBA	Purpose of syndicated loan given by acquirer bank advisor to target	0.5528 (0.6943)
Purpose_ABBA	Purpose of syndicated loan given by acquirer bank advisor to acquirer	1.2217** (0.6202)
Access	Acquirer's bank advisor lends to the acquirer up to one year after the merger.	1.3243** (0.6578)
Nonadvisor Lender_T	Intensity of loan syndication relationship of nonadvisor banks with target	-0.1594 (0.6677)
Nonadvisor Lender_A	Intensity of loan syndication relationship of nonadvisor banks with acquirer	-0.6871 (0.6362)
Nonadvisor Duration_T	Duration of syndicated loan given by nonadvisor banks to target	0.1252 (0.1584)
Nonadvisor Duration_A	Duration of syndicated loan given by nonadvisor banks to acquirer	0.0308 (0.1789)
Nonadvisor Purpose_T	Purpose of syndicated loan given by nonadvisor banks to target	-0.2085 (0.7403)
Nonadvisor Purpose_A	Purpose of syndicated loan given by nonadvisor banks to acquirer	-1.3854** (0.6977)
Number of observations		241
Concordant ratio (percent)		84.1
Likelihood ratio test		87.8***

Notes: *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively. Standard errors are in parentheses.

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