Emerging Issues Series

The Role of Financial Advisors in Mergers and Acquisitions

Linda Allen

Julapa Jagtiani

Anthony Saunders

Emerging Issues Series
Supervision and Regulation Department
Federal Reserve Bank of Chicago
May 2000 (S&R-2000-1R)

The Role of Bank Advisors in Mergers and Acquisitions

Linda Allen
Zicklin School of Business
Baruch College, City University of New York

Julapa Jagtiani
Supervision and Regulation
Federal Reserve Bank of Chicago

Anthony Saunders
Stern School of Business
New York University

Current Draft: May, 2000.

Keywords: Relationship banking, investment bank advisors, commercial bank advisors, certification effect, conflict of interest effect, mergers, acquisitions.

JEL Classification: G21

Address correspondence to: Julapa Jagtiani, Federal Reserve Bank of Chicago, Supervision and Regulation, 230 South LaSalle Street, Floor 14, Chicago, IL 60604. Phone 312-322-5798, Fax 312-322-5894, E-Mail: Julapa.A.Jagtiani@Chi.Frb.Org. Requests for additional copies should be directed to the Public Information Center, Federal Reserve Bank of Chicago, P.O. Box 834, Chicago, Illinois 60690-0834, or telephone (312) 322-5111. The Emerging Issues Series Working Papers are located on the Federal Reserve Bank of Chicago's Web site at: http://www.chicagofed.org/publications/workingpapers/emergingissues.cfm

An earlier version of this paper was presented at the 2000 American Finance Association meetings in Boston. The authors thank Anup Agrawal, Kobi Boudoukh, Mark Carey, David Feldman, Iftekhar Hasan, William Curt Hunter, John McConnell, Jim Nelson, William Lang, and Jacob Paroush for their helpful comments. The authors gracefully acknowledge the support of Cathy Lemieux, and research assistance of Gulcin Afres, Sreedhar Bharath, Danny Chang, Yonca Ertimur, Ahmet Karagozoglu, Elena Smirnova, Anand Srinivasan, and Jack Wozek. The opinions expressed in this paper are those of the authors, and do not necessarily represent those of the Federal Reserve Bank of Chicago or the Federal Reserve System.

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. Unlike some areas of investment banking, commercial banks have always been allowed to compete directly with traditional investment banks in this area. 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, it is found that, in their merger and acquisition advisory function, the certification effect of commercial banks dominates the conflict of interest effect and that the certification effect is particularly strong when the target's own bank advises merger targets.

The Role of Bank Advisors in Mergers and Acquisitions

1. Introduction

The search for successful mergers and acquisitions can be likened to the search for undervalued stocks that are priced below their true market values. 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 these services if they have established lending and other customer relationships with either of the parties 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 risk exposure 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 mobilize information, then commercial banks – especially those with prior customer relationships - potentially have a comparative advantage over investment banks in advising their customers. The banking literature (see Chan, Greenbaum, and Thakor (1986) for example) suggests that information generated in the course of a banking 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 to a related commercial bank subsidiary, there are no restrictions on the reuse of information obtained in the course of a standard banking relationship (i.e., on information flows from the bank to the investment bank).[1]

[1] In June 1997, the courts ruled in ADP v. Chase Manhattan Bank that "a bank has no per se obligation to refrain

Following a parallel literature dealing with underwriting activities,[2] we refer to a bank's ability to mobilize private information about a customer, and to use this information in supplying services such as merger advice to the customer, as the certification effect. 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.[3]

There are, however, countervailing influences to the certification effect that may limit the effectiveness of commercial banks in providing merger advice 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 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. This conflict of interest effect is likely to be exacerbated in the case of hostile takeovers. For example, if a commercial bank customer (as a

---

from such participation" as advisor to an acquirer (Western Resources) in a hostile attempt to take over Chase's banking customer ADP Ltd. (Michael Bender, *Investment Dealers' Digest*, June 30, 1997, p. 9-10.)

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

[3] See Fama (1985), Diamond (1991), and Rajan (1992) and the special issue of the Journal of Financial

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.

The aim of this paper is to examine, empirically, whether the certification effect dominates the conflict of interest effect in the market for mergers and acquisitions advice, and to measure the relative effect on targets versus acquirers of commercial bank participation as merger advisors. We compare stock market abnormal returns on merger deals utilizing commercial bank advisors to those deals advised by a control group of top-tier investment banks (Goldman Sachs, Credit Suisse First Boston, and Morgan Stanley Dean Witter). Following Bowers and Miller (1990), who show that these top-tier investment bank advised deals create the largest abnormal returns, our control offers the most stringent test of our hypothesis. In this control group, all targets and acquirers are advised by at least one top tier investment bank, with no commercial bank advisor participation at all.

When we control for prior banking relationships, we find evidence of a net certification effect for commercial banks. However, this effect holds only in the commercial banks' role as M & A advisors to targets, who typically are smaller and are more informationally opaque firms than acquirers. In particular, the 42 target firms in the investment bank-advised control group earned an average 3-day abnormal return of 4.31% (significant at the 1% level), whereas the average 3-day abnormal return to targets in the commercial bank-advised group was 2.95% (statistically significant at the 1% level). However, the 3-day (-1,+1) abnormal return for targets averages a statistically significant (at the 1% level) 5.00% for the 24 deals in which the target uses its <u>own</u> commercial bank

---

Intermediation (2000) for a discussion of the information generated in the course of relationship intermediation.

as its advisor. Our regression analysis confirms and reinforces these univariate results. Even after controlling for deal-specific characteristics, targets can increase their 3-day abnormal returns by a statistically significant (at the 5% level) 3.06%, if they hire their own bank to advise them in a merger.

We find that acquirer abnormal returns are statistically insignificant, and that the use of commercial bank advisors with prior banking relationships has no significant impact on acquirer abnormal returns. Finally, we also find that the commercial bank advisors themselves experience positive abnormal returns when chosen to advise targets.

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.

Building on the theoretical model in James (1992), Srinivasan (1999) finds 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. Srinivasan also finds 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 (1999) 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 examine only those 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 replaced,[4] its 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,[5] 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

[4] The Financial Services Modernization Act of 1999 essentially eliminates the major barriers among banking, securities, and insurance activities.

credit quality higher for commercial bank-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 banking relationships.

More modern (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.[6] Thus, targets appear to obtain most of the expected merger and acquisition gains.[7]

---

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

[6] 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.

[7] 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

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. The *market power hypothesis* stipulates that mergers enhance the competitive position of the target. 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 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.

---

returns. In contrast, Healy, Palepu, and Ruback (1992) find significant post-merger increases in operating cash flow returns.

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 merger announcement date. Our estimates of 3-day abnormal returns, denoted (-1,+1), include both one day before and after the merger announcement date.[8] We test for the explanatory power of the advisor's identity, controlling for other deal-specific factors. Even if the advisor's identity is not publicly revealed on the merger announcement date, the market would reward well-designed and attractively-priced deals without knowing the advisor's 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 CRSP 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.[9]

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

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

[9] 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 identity of the bank advisor and the relationship[10] between the bank advisor and target and/or acquirer are defined by four different dummy variables: *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; *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; *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; *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. We distinguish between deals advised by top-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. All targets and acquirers in our investment bank control group obtain advice from at least one top-tier investment bank (Goldman Sachs, Credit Suisse First Boston, or Morgan Stanley Dean Witter).[11] Moreover, there were no commercial bank advisors in the 42 deal control group sample advising either the acquirer or the target.

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 offer. These control factors are discussed next.

3.2.1 Control Factors

[10] The empirical definition of a banking relationship is presented in Section 4.
[11] These investment banks were chosen to be consistent with Bowers and Miller (1990).

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.[12] The means of payment in a merger and acquisition is incorporated in our model through the variable *DUMCASH* (a dummy variable that takes on a value of one for deals that utilize cash financing; zero otherwise).

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. Since a relatively strong bidder, who is less likely to be forced into a multiple-bidder auction for the target, tends to offer a relatively larger initial acquisition premium, we anticipate an inverse 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 one-zero dummy variable denoting whether the deal is a cross-border merger or not (*CROSS)*. Because integration of larger

[12] 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.

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 for the target to 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 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 and whether the target has a golden parachute). Consequently, we incorporate the variable *ATTITUDE* (hostile, neutral, or friendly) into our estimation, and check its robustness using *CLOSE* (a dummy variable denoting whether or not the target is closely held), *MGMT* (denoting whether the target's management participated in the merger), 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, *TOBINQ*). We control for the target firm's leverage ratio using the variable *TLEVER*. Finally, annual (time) dummy variables are used for mergers announced in 1996, 1997, and 1998, omitting our first merger sample year, 1995, as the control.

We estimate the following expressions for both targets and acquirers separately:[13]

$$SCAR_i = f\,(TB\_BT,\ TB\_BA,\ AB\_BT,\ AB\_BA,\ DUMBANK,\ BVPREM,\ TGROWTH,\ TPROFIT,\ TLEVER,\ RELSIZE,\ DUMCASH,\ CROSS,\ ATTITUDE,\ YEAR) + e_i$$

where $SCAR_i$ is the 3-day standardized cumulative abnormal return to target and acquiring firm i and all control variables are as defined in Table 1.[14]

4. The Data

Mergers and acquisitions data were obtained from the Securities Data Corporation (SDC). All mergers and acquisitions involving U.S. firms over the period January 1, 1995 through December 31, 1998 were identified. We excluded all mergers involving financial firms. We formed a subset of

[13] The regression expression can be viewed as the reduced form of a simultaneous system of equations, with one equation modeling the identity of the merger advisor as a function of control variables and expected abnormal returns, and the other equation modeling the relationship between abnormal returns and control variables found elsewhere in the literature. We test this specification in robustness checks for selectivity bias in Section 5.3.1.

[14] In order to examine other variables considered in the merger literature, we conducted robustness checks of our model (see Section 5.3). 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 *DUMCASH*, discussed in Section 3.2.1, we focused on several other methods of financing mergers and acquisitions: *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 Srinivasan (1999), 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 in our regression results presented in Sections 5.1 and 5.2.

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.[15] We then conducted a Lexis/Nexis search on each of the targets and acquirers to determine whether there was a prior banking 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.[16] 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.[17] 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.[18] If there was any ambiguity in defining the bank relationship for either the target or the acquirer, we dropped the deal from our sample. Using this procedure, we constructed the four dummy variables that distinguish among the four possible banking 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*).

Our sample included those firms whose shares were traded on either NYSE, AMEX, or Nasdaq. In order to obtain a non-merger period, with which to estimate abnormal returns, we

---

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

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

[17] Because of inconsistencies in reporting, we could not utilize more detailed data about the nature of the relationship.

[18] We therefore avoided the problem of recording no relationship for companies that chose not to report any of

utilized returns for a full year prior to the start of our merger sample period of January 1995 through December 1998. Thus, daily stock returns over the period January 1, 1994 through December 31, 1998 were obtained from CRSP.[19] 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 top tier investment banks, defined to be Goldman Sachs, Credit Suisse First Boston, and Morgan Stanley Dean Witter. Deals were included in the control sample only if there were no commercial bank advisors and there was at least one top tier investment bank advisor for both the target and the acquirer. When all financial mergers and non-publicly traded companies were excluded, we were left with 42 deals[20] in this control sample, distributed across the four years 1995-1998.

The overall sample (including the investment bank control group) consists of 238 targets and 229 acquirers.[21] Table 2 displays key descriptive statistics. Targets (acquirers) hired bank advisors in 55.5 % (54.6%) of the deals. Out of the total number of mergers, 22.7% of the target advisors had either prior banking relationships with the target (10.5%) or the acquirer (12.2%). Table 2 also shows that 25.8% of the acquirer advisors had prior banking relationships with either the target (8.3%) or the acquirer (17.5%). The control group of top-tier investment banks advised 17.6% of the targets and 14.8% of the acquirers.

5. Empirical Results

---

their banking arrangements.

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

[20] There were 42 targets and 34 acquirers in the control sample.

[21] There were more target firms than acquiring firms because some acquirers are foreign firms that are not traded

Consistent with the literature to date, we find that target abnormal returns are on average statistically significant and positive for both commercial bank and top-tier investment bank-advised deals, whereas acquirer abnormal returns are, on average, negative. Three-day acquirer abnormal returns are significantly negative (at the 10% level) for deals advised by top-tier investment banks, suggesting that some of the positive gains to targets may come at the expense of acquirers. In contrast, commercial bank advisors appear to produce significant positive abnormal returns for targets, without generating statistically significant negative abnormal returns for acquirers.

*5.1.1 Target Abnormal Returns **Without** Controlling for Banking Relationships*

Column (1) of Table 3 shows that the average 3-day abnormal target return is higher when there is at least one top tier investment bank advisor as compared to a commercial bank advisor, although the difference is statistically insignificant. The coefficient on the *DUMBANK* variable (which equals 1 for commercial bank advised deals, and equals 0 for the control group of top-tier investment bank advised deals) in column (1) of Table 3 is –1.3557 with a p-value of 10.73%. This coefficient's value declines to a statistically insignificant
–0.2874 (in column (2) of Table 3) when using control variables that reflect deal- and company-specific characteristics.

Column (2) of Table 3 shows that without controlling for banking relationships, target abnormal returns are significantly increased when the deal is cash financed (a positive coefficient of 2.2410 on *DUMCASH* in column (2) significant at the 5% level), and when the target firm's growth rate declines (a negative coefficient of –0.0164 on *TGROWTH* in column (2) significant at the 10%

---

on either NYSE, AMEX, or Nasdaq.

level). However, the results in Table 3 do not control for prior banking relationships between advisors and merger counterparties.

*5.1.2 Target Abnormal Returns **Controlling** for Banking Relationships*

Table 4 shows that target abnormal returns are effected by prior banking 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) of 2.3091. 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. Specifically, the target significantly increases its abnormal returns when it chooses to receive merger advice from its own bank, as compared to the base case of deals in which all advisors are either top tier investment banks or commercial banks with no prior relationships to either merger counterparty. Further, the addition of control variables does not eliminate the impact of bank relationships on a target's abnormal returns. In both columns (2) and (3) of Table 4, the *TB_BT* coefficient remains statistically significant and positive, 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 *DUMCASH*. The relative size variable *RELSIZE* and target firm growth rate *TGROWTH* significantly (at the 10% level) reduce target

abnormal returns, consistent with the view that the expected cost of integrating a relatively larger, faster growing target into the merged firm reduces that target's abnormal returns. Consistent with the literature in sign, although statistically insignificant, is the negative coefficient for *BVPREM* (premium of offering price over book value). All other control variables, including year (time) dummy variables[22] were statistically insignificant in the target abnormal return regressions.

*5.2.1 Acquirer Abnormal Returns **Without** Controlling for Banking Relationships*

Column (3) of Table 3 shows that the coefficient on the *DUMBANK* variable is statistically insignificant in the narrow regression results. This implies that there is no difference, on average, between acquirer abnormal returns for deals advised by at least one commercial bank as compared to deals without commercial bank advisors and with at least one top tier investment bank advisor. When control variables are included, the *DUMBANK* coefficient is significantly positive (at the 5% level), reflecting the means presented in Table 2 that show that acquirer 3-day returns average –0.62% for control group deals, as compared to –0.16% average abnormal returns for acquirers advised by commercial banks.

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

Table 5 analyzes acquirer abnormal returns controlling for banking relationships. All banking relationship variables are statistically insignificant in all regressions. There is no gain to the acquirer

[22] All year dummy variables are insignificant and their inclusion actually reduces system explanatory power.

from a specific relationship between the merger counterparties and the commercial bank advisors.[23]

Introduction of the control variables suggests (consistent with our discussion in Section 3.2.1) that the coefficient on *RELSIZE* (target to acquirer equity size) is always significantly negative (at the 5% level). The variable *DUMCASH* is significantly positive (at the 5% level or better), suggesting that acquirers, as well as targets, benefit from avoidance of the "lemons problem" by the use of cash in financing mergers. All other control variables, as well as all coefficients on advisor relationship dummy variables are insignificant for 3-day acquirer abnormal returns.

5.3 *Robustness Tests*

5.3.1 Selectivity Bias

Up until this point, we have made the implicit assumption that the choice of an advisor is exogenuous. However, the identity of an advisor may be endogenously determined by either deal-specific or company-specific characteristics. That is, our results showing the importance of a bank advisor in explaining a target's returns may be attributable to a firm's (either target or acquirer) characteristics, such as leverage or size, rather than the identity of advisors themselves. We therefore test for a potential selectivity bias by examining the importance of firm-specific characteristics in predicting advisor choice.

We performed four separate Logit regression tests using each of the advisor relationship dummy variables (*TB_BT, TB_BA, AB_BA,* and *AB_BT)* as dependent variables. We utilized all the company-specific control factors discussed in Sections 3.2.1 as independent variables. Moreover,

[23] One possible reason that acquirers may not benefit from prior banking relationships may be that the target advisor uses its information asymmetrically to benefit its own client (which is the target), thereby certifying that

we utilized selected deal characteristics, such as *CROSS* and *ATTITUDE*, that would be known at the time of an advisor's selection by either the target or the acquirer. Since deal completion variables, such as *DUMCASH* and *BVPREM*, would be an outcome of the merger negotiations, and therefore would not be known ex ante at the time of advisor selection, we excluded them from the Logit analysis.[24] We found that log likelihood tests of significance for each of the four Logit regressions were insignificant at all conventional significance levels[25] consistent with the absence of a selectivity bias in our tests in Sections 5.1and 5.2.

As might be expected, our control sample did show evidence of selectivity bias. Deals using top tier investment bank advisors were less likely to use cash financing (26% versus 44%) and had larger acquirers than deals using commercial bank advisors. This suggests that deal-related information production by commercial banks is more valuable to smaller acquirers that pay cash for targets.

5.3.2 Subsample Tests

Tables 4 and 5 examine the importance of bank advisors for an entire sample of mergers and acquisitions. However, the impact of a merger advisor may be different across different types of deals. For example, a bank's certification effect may be 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-

---

an acquirer's bid price is too low, but not that it is too high.

[24] We also conducted separate logistic regressions including *DUMCASH* as an independent variable. We found that both the coefficient on *DUMCASH* and the model score were statistically insignificant.

[25] The highest model p-value was 18.01% for the *AB_BA* Logit regression.

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. Moreover, in complex deals (i.e., those with either stock swaps or tender offers) the target gains even when the acquirer obtains certification by hiring a commercial bank advisor with a prior banking relationship to the target.

5.4 Bank Advisor Returns

Any synergistic gains generated by a commercial bank's advice to a merger counterparty should be reflected in the advisor's returns, as well as in the returns to the target or the acquirer, since such gains are likely to add to the reputational value of the bank as an M&A advisor. Consequently, we also examine the impact of merger announcements on advisors' returns. The methodology employed to examine this effect differs from the methodology used to calculate abnormal returns from mergers and acquisitions for targets and acquirers. Unlike targets and acquirers, advisors participate in deals as a normal part of their business, and, therefore, the distinction between "normal" and "abnormal" returns is not meaningful. For example, JP Morgan acted as an advisor in 53 different merger deals in our sample.

We estimated the market model over the period January 1, 1994 through December 31, 1998[26] for the six (publicly traded) commercial bank advisors most active in our sample*: Bankers Trust , Chemical, Chase Manhattan, JP Morgan, NationsBanc,* and *BancAmerica.* The return generating model for bank advisor returns consists of a single market index (the CRSP value

[26] We used all bank advisors in our sample that were publicly traded on either NYSE, AMEX, or Nasdaq for any length of time during our sample period. Thus, we include banks that are no longer in existence such as Chemical

weighted index), and two banking-relationship dummy variables*:* *TABANK* (equals one if the bank is the target firm's advisor), and *AABANK* (equals one if the bank is the acquirer's advisor). These two dummy variables take on a value of one on the day before, day of, and day after the announcement of a merger in which the bank is an advisor and is zero otherwise.[27] A panel regression model was then utilized controlling for bank-specific and year-specific factors.

The positive and significant (at the 1% level) coefficient of *TABANK* suggests that a commercial bank experiences positive returns when it is hired as the target's advisor. This reinforces our central result. Information about targets, obtained in the course of a prior credit/lending relationship, can be "reused" by banks to generate positive returns from merger advisement [see Chan, Greenbaum, and Thakor (1986)].

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 mobilize 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 would enhance the merger counterparty's abnormal return 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.

Bank and NationsBanc.

[27] We also controlled the returns of the bank advisors for deal-specific variables not related to the identity of the

In particular, the bank may be unable to credibly relay information about the merger counterparty's value if there is concern that the bank is using the merger as a way to reduce its own lending exposure to the client. 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 examine empirically this issue using a sample of 238 merger deals announced during the time period from January 1, 1995 through December 31, 1998. Of these sampled mergers, 196 utilize one or more commercial bank advisors who advise either the target, or the acquirer, or both. The other 42 sampled merger deals constitute our control group in which there are no commercial bank advisors, and both the target and the acquirer hire top-tier investment bank advisors (defined to be the top three advising firms: Goldman Sachs, Credit Suisse First Boston, or Morgan Stanley Dean Witter). We find evidence of a bank certification effect for target firms. 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 banking relationship). Moreover, bank advisors themselves also appear to benefit from certification gains to merger counterparties, particularly when they use their information generation and certification functions to advise targets. Consequently, the market appears to value an informed bank certification of small, relatively informationally-opaque target firms.

---

advisors using the control variables listed in Table 1, but the results were insignificant.

References

Agrawal, A., J. Jaffe, and G. Mandelker, 1992, "The Post-Merger Performance of Acquiring Firms: A Re-Examination of an Anomaly," Journal of Finance 47 (September 1992) 1605-1621.

Amihud, Y., and J. Kamin, 1979, "Revenue vs. Profit Maximization: Differences in Behavior Type of Control and Market Power," Southern Economic Journal, 45, 838-46.

Amihud, Y., J. Kamin, and J. Ronen, 1983, "Managerialism, Ownerism, and Risk," Journal of Banking and Finance, 7, 189-96.

Amihud, Y. and B. Lev, 1981, "Risk Reduction as a Managerial Motive for Conglomerate Merger," Bell Journal of Economics, Autumn, 605-17.

Amihud, Y., B. Lev, and N. Travlos, 1990, "Corporate Control and the Choice of Investment Financing: The Case of Corporate Acquisitions," Journal of Finance 45, 603-616.

Ang, J. and T. Richardson, 1994, "The Underwriting Experience of Commercial Bank Affiliates Prior to the Glass Steagall Act: A Reexamination of Evidence for the Passage of the Act," Journal of Banking and Finance 18, 351-395.

Benston, G., 1990, "The Separation of Commercial and Investment Banking: The Glass Steagall Act Revisited and Reconsidered," New York: Oxford University Press.

Berkovitch, E. and M.P. Narayanan, 1993, "Motives for Takeovers: An Empirical Investigation," Journal of Financial and Quantitative Analysis 28 (September) 347-361.

Bowers, H.M. and R. Miller, 1990, "Choice of Investment Banker and Shareholders Wealth of Firms Involved in Acquisitions," Financial Management 19, 34-44.

Bradley, M., A. Desai, and E.H. Kim, 1988, "Synergistic Gains from Corporate Acquisitions and their Division Between the Stockholders of Target and Acquiring Firms," Journal of Financial Economics 21, 3-40.

Brown, D. and M. Ryngaert, 1991, "The Mode of Acquisition in Takeovers: Taxes and Asymmetric Information," Journal of Finance 46 (June) 653-669.

Chan, Y.S., Greenbaum, S., A. Thakor, 1986, "Information Reusability, Competition, and Bank Asset Quality," Journal of Banking and Finance, 10, 2, 243-53.

Comment, R. and G.W. Schwert, 1995, "Poison or Placebo? Evidence on the Deterrence and Wealth Effects of Modern Antitakeover Measures," Journal of Financial Economics, 39, 3-43.

Cotter, J. and M. Zenner, 1994, "How Managerial Wealth Affects the Tender Offer Process," Journal of Financial Economics 35 (February) 63-97.

Diamond, D., 1991, "Monitoring and Reputation: The Choice Between Bank Loans and Directly Placed Debt," Journal of Political Economy 99, 689-721.

Doukas, J. and N. Travlos, 1988, "The Effect of Corporate Multinationalism on Shareholders' Wealth: Evidence from International Acquisitions, Journal of Finance, 43 (5), 1161-75.

Fama, E., 1985, "What's Different About Banks?" Journal of Monetary Economics, 15, 29-39.

Fama, E., L. Fisher, M. Jensen, and R. Roll, 1969, "The Adjustment of Stock Prices to New Information," International Economic Review 10, 1-21.

Franks, J. and C. Mayer, 1996, "Hostile Takeovers and the Correction of Managerial Failure," Journal of Financial Economics 40 (January) 163-181.

Gande, A., M. Puri, A. Saunders, and I. Walter, 1997, "Bank Underwriting of Debt Securities: Modern Evidence," Review of Financial Studies, 10, 4, 1175-1202.

Harris, M. and A. Raviv, 1988, "Corporate Control Contests and Capital Structure." Journal of Financial Economics 20, 55-86.

Healy, P.M, K.G. Palepu, and R.S. Ruback, 1992, "Does Corporate Performance Improve After Mergers?" Journal of Financial Economics, 31, 135-75.

Hebb, G., 1999, "Commercial Bank Involvement in Equity Underwritings," Working Paper, August.

Hubbard, R.G. and D. Palia, 1999, "A Re-Examination of the Conglomerate Merger Wave in the 1960s: An Internal Capital Markets View," Journal of Finance, 54, 3 (June) 1131-52.

Hunter, W.C. and M.B. Walker, 1990, "An Empirical Examination of Investment Banking Merger Fee Contracts," Southern Economic Journal, 56, 1117-1130.

James, C. 1992, "Relation-specific Assets and the Pricing of Underwriter Services," Journal of Finance, 47 (5), 1865-85.

James, C. and P. Weir, 1987, "Returns to Acquirers and Competition in the Acquisition Market: The Case of Banking," Journal of Political Economy, 95, 355-70.

Jensen, M. and R. Ruback, 1983, "The Market for Corporate Control: The Scientific Evidence," Journal of Financial Economics, 11, 5-50.

Kang, J.K., 1993, "The International Market for Corporate Control," Journal of Financial Economics 34 (December) 345-371.

Kroszner, R. and R. Rajan, 1994, "Is Glass-Steagall Act Justifies? A Study of the U.S. Experience with Universal Banking Before 1933," American Economic Review 84, 4, 810-831.

Lloyd, W., J. Hand, and N. Modani, 1987, "The Effect of the Degree of Ownership Control on Firm Diversification, Market Value, and Merger Activity," Journal of Business Research, 15, 303-12.

McLaughlin, R.M., 1992, "Does the Form of Compensation Matter? Investment Banker Fee Contracts in Tender Offers," Journal of Financial Economics 32, 223-260.

McLaughlin, R.M., 1990, "Investment-Banking Contracts in Tender Offers: An Empirical Analysis," Journal of Financial Economics 28 (November/December) 209-232.

Palia, D., 1994, "Recent Evidence of Bank Mergers," Financial Markets, Instruments, and Institutions, 3, no. 5, 36-59.

Puri, M., 1994, "The Long-Term Default Performance of Bank Underwritten Security Issues," Journal of Banking and Finance 18, 397-418.

Puri, M., 1996, "Commercial Banks in Investment Banking: Conflict of Interest or Certification Role?" Journal of Financial Economics 40, 373-401.

Rajan, R., 1992, "Insiders and Outsiders: The Choice Between Informed and Arm's-Length Debt, Journal of Finance, 47, 1367-1400.

Rau, R., 1999, "Investment Bank Market Share, Contingent Fee Payments, and the Performance of Acquiring Firms," (April), Journal of Financial Economics, forthcoming.

Rajan, R., H. Servaes, and L. Zingales, 2000, "The Cost of Diversity: The Diversification Discount and Inefficient Investment," Journal of Finance, 55, 1 (February) 35-80.

Roll, R., 1986, "The Hubris Hypothesis of Corporate Takeovers," Journal of Business 59 no. 2, 197-216.

Servaes, H., 1996, "The Value of Diversification During the Conglomerate Merger Wave," Journal of Finance, 51, 4 (September), 1201-25.

Servaes, H. and M. Zenner, 1996, "The Role of Investment Banks in Acquisition," The Review of Financial Studies 9 (Fall) 787-815.

Srinivasan, A., 1999, "Investment Banking Relationships: Theory and Evidence from Merger Fees,"

NYU Working Paper, November.

Stulz, R., 1988, "Managerial Control of Voting Rights: Financial Policies and the Market for Corporate Control." Journal of Financial Economics, 20, 25-54.

Stulz, R., R. Walkling, and M. Song, 1990, "The Distribition of Target Ownership and the Division of Gains in Successful Takeovers," Journal of Finance 45 (July) 817-833.

Travlos, N., 1987, "Corporate Takeover Bids, Means of Payment, and Bidding Firms: Stock Returns," Journal of Finance, 42, 943-964.

TABLE 1
DEFINITIONS OF VARIABLES

D(TB_BT)	Dummy variable =1 if the target's advisor is a bank which has a prior banking relationship with the target; 0 otherwise.
D(TB_BA)	Dummy variable =1 if the target's advisor is a bank which has a prior banking relationship with the acquirer; 0 otherwise.
D(AB_BT)	Dummy variable =1 if the acquirer's advisor is a bank which has a prior banking relationship with the target; 0 otherwise.
D(AB_BA)	Dummy variable =1 if the acquirer's advisor is a bank which has a prior banking relationship with the acquirer; 0 otherwise.
DUMBANK	Dummy variable =1 if at least one advisor is a commercial bank; =0 if there is at least one top tier investment bank (i.e., Goldman Sachs, CSFB, or MSDW) advising target/acquirer, and no commercial bank advisors.
DUMCASH	Dummy variable=1 if cash was used to finance the deal; 0 if not.
BVPREM	Offering premium over target' book value.

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 3-5 year annualized growth rate in either cash flows or earnings per share, whenever available)
TPROFIT	Target firm return on assets.
TLEVER	Target firm leverage (ratio of target shareholders equity to total assets).
RELSIZE	Relative firm size (market value of target equity over acquirer equity value).
Robustness Var.	
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.
FEES	Total fees paid to target and acquirer advisors.
CLOSE	Dummy variable=1 if the target was closely held; 0 if not.
TOBINQ	The ratio of the target firm's market price to book value four weeks prior to merger announcement date.
MGMT	Dummy variable=1 if the target's management was involved in the merger
BLOCK	Dummy variable=1 if the target has block holdings of stock; 0 if not.
TENDER	Dummy variable=1 if there was a tender offer; 0 if not.
MOE	Dummy variable=1 if the merger was a merger of equals; 0 if not.

Table 2
Descriptive Statistics

Control Variables	No. of Deals % of Total	(-1,+1) Target *SCAR* If:	
		Control Var.=0	Control Var.=1
Target advisor is a bank with a prior relationship with the target (*TB_BT*)	24 10.1 %	172 deals 2.67%*** 77.9% +	24 deals 5.00%*** 79.2% +
Target advisor is a bank with a prior relationship with the acquirer (*TB_BA*)	26 10.9 %	170 deals 2.95%*** 77.6% +	26 deals 2.95%*** 80.8% +
Acquirer advisor is a bank with a prior relationship with target (*AB_BT*)	19 8.3 %	177 deals 2.90%*** 77.4% +	19 deals 3.42%*** 84.2% +
Acquirer advisor is a bank with a prior relationship with acquirer (*AB_BA*)	40 17.5 %	156 deals 3.04%*** 77.6% +	40 deals 2.61%*** 80% +
Top Tier Investment Bank Advisor and no commercial bank advisors.	42 17.6 %	196 Deals 2.95%*** 78.1% +	42 deals 4.31%*** 90.5% +
Average SCAR to Acquirers (All Bank Deals)	194	(-1,+1) -0.16% (64.5% +) (-5,+5) -0.16% (67.6% +)	
Average SCAR to Targets (All Bank Deals)	195	(-1,+1) 2.97%*** (76.5% +) (-5,+5) 1.72%*** (76.1% +)	
Average SCAR to Acquirers (Nonbank Deals)	34	(-1,+1) -0.62%* (47.1% +) (-5,+5) -0.11% (58.8% +)	
Average SCAR to Targets (Nonbank Deals)	42	(-1,+1) 4.31%*** (90.5% +) (-5,+5) 2.64%*** (92.9% +)	

Notes: *, **, *** denotes significance at the 10%, 5%, 1% level, respectively.

TABLE 3
Target and Acquirer Abnormal Returns
Without Controlling for Banking Relationships

Variable	Definition	Target (-1,+1) SCAR		Acquirer (-1,+1) SCAR	
		(1)	*(2)*	*(3)*	*(4)*
Intercept		***4.3073*** (0.0001)***	***3.9447** (0.0244)***	***-0.6157* (0.0510)***	***-0.9367 (0.2021)***
DUMBANK	Dummy=1 if there is at least one commercial bank advisor; =0 if a top tier investment bank	***-1.3557 (.1073)***	***-0.2874 (0.7870)***	***0.4539 (0.1834)***	***0.8575** (0.0422)***
BVPREM	Premium over Book value.		***-0.0006 (0.1968)***		***-0.0001 (0.5063)***
TGROWTH	Target firm growth rate.		***-0.0164* (0.0960)***		***-0.0006 (0.8806)***
RELSIZE	Relative size.		***-0.0047 (0.3434)***		***-0.0055*** (0.0055)***
TPROFIT	Target ROA.		***0.0025 (0.9029)***		***-0.0036 (0.6700)***
TLEVER	Target leverage.		***-0.0002 (0.9323)***		***-0.01293* (0.0841)***
DUMCASH	Cash financing.		***2.2410** (0.0110)***		***0.8308** (0.0181)***
CROSS	Cross border.		***-0.5035 (0.7799)***		***1.6119 (0.1651)***
ATTITUDE	Hostile-friendly		***-0.0067 (0.9943)***		***0.1342 (0.6913)***
D96	1996 year.		***1.8663 (0.3467)***		***1.2924 (0.1065)***
D97	1997 year.		***-0.4667 (0.7653)***		***0.6341 (0.2974)***
D98	1998 year.		***-0.0988 (0.9487)***		***0.5836 (0.3295)***
R^2 (R^2 Adj)		***1.10% (0.68%)***	***11.21% (4.63%)***	***0.78% (0.34%)***	***13.30% (5.97%)***
N		***238***	***175***	***229***	***155***

Notes: *, **, *** denotes significance at the 10%, 5%, 1% level, respectively.

TABLE 4
Dependent Variable: Target Abnormal Returns

		SCAR (-1,+1)		
Variable	**Definition**	***(1)***	***(2)***	***(3)***
Intercept		***3.1681*** ***(0.0001)***	***3.6221*** ***(0.0010)***	***3.7860** ***(0.0226)***
TB-BT	Target bank is target advisor.	***2.3091** ***(0.0417)***	***3.0602** ***(0.0323)***	***2.7522** ***(0.0580)***
TB-BA	Acquirer bank is acq.advisor	***-1.1402*** ***(0.2990)***	***-1.4685*** ***(0.2447)***	***-1.5109*** ***(0.2362)***
AB-BT	Target bank is acq.advisor.	***0.8621*** ***(0.5144)***	***2.1432*** ***(0.1706)***	***2.1429*** ***(0.1736)***
AB-BA	Acquirer bank is acq.advisor	***-0.9182*** ***(0.3444)***	***-0.6514*** ***(0.5643)***	***-0.7148*** ***(0.5294)***
BVPREM	Premium over Book value.		***-0.0007*** ***(0.1365)***	***-0.0007*** ***(0.1380)***
TGROWTH	Target firm growth rate.		***-0.0168** ***(0.0771)***	***-0.0169** ***(0.0794)***
RELSIZE	Relative size.		***-0.0085** ***(0.0906)***	***-0.0080*** ***(0.1145)***
TPROFIT	Target ROA.		***-0.0071*** ***(0.7128)***	***-0.0041*** ***(0.8375)***
TLEVER	Target leverage.		***0.0009*** ***(0.6824)***	***0.0005*** ***(0.8087)***
DUMCASH	Cash financing.		***2.3944**** ***(0.0050)***	***2.3944**** ***(0.0057)***
CROSS	Cross border.		***-1.3981*** ***(0.4362)***	***-1.3209*** ***(0.4700)***
ATTITUDE	Hostile-friendly		***0.0103*** ***(0.9910)***	***0.1766*** ***(0.8508)***
D96	1996 year.			***1.3685*** ***(0.4884)***
D97	1997 year.			***-0.6228*** ***(0.6900)***
D98	1998 year.			***-0.3151*** ***(0.8361)***
R^2 (R^2 Adj)		***2.28%*** ***(0.60%)***	***13.22%*** ***(6.79%)***	***14.20%*** ***(6.10%)***
N		***238***	***175***	***175***

Notes: ***, ****, ***** significance at the 10%, 5%, and 1% levels, respectively.

TABLE 5
Dependent Variable: Acquirers' Abnormal Returns

		SCAR (-1,+1)		
Variable	**Definition**	***(1)***	***(2)***	***(3)***
Intercept		***-0.2363*** ***(0.1057)***	***0.2313*** ***(0.6955)***	***-0.3597*** ***(0.6261)***
TB-BT	Target bank is target advisor.	***-0.1652*** ***(0.7253)***	***-0.3495*** ***(0.5640)***	***-0.4651*** ***(0.4502)***
TB-BA	Acquirer bank is acq.advisor	***0.0367*** ***(0.9318)***	***0.0874*** ***(0.8705)***	***0.1041*** ***(0.8491)***
AB-BT	Target bank is acq.advisor.	***0.2714*** ***(0.6112)***	***0.2475*** ***(0.7026)***	***0.2405*** ***(0.7131)***
AB-BA	Acquirer bank is acq.advisor	***-0.0089*** ***(0.9810)***	***-0.0675*** ***(0.8825)***	***-0.1271*** ***(0.7824)***
BVPREM	Premium over Book value.		***-0.0002*** ***(0.3890)***	***-0.0001*** ***(0.5259)***
TGROWTH	Target firm growth rate.		***0.0011*** ***(0.7875)***	***0.0006*** ***(0.8756)***
RELSIZE	Relative size.		***-0.0042**** ***(0.0382)***	***-0.0041**** ***(0.0442)***
TPROFIT	Target ROA.		***-0.0082*** ***(0.3357)***	***-0.0051*** ***(0.5603)***
TLEVER	Target leverage.		***-0.0114*** ***(0.1453)***	***-0.0123*** ***(0.1212)***
DUMCASH	Cash financing.		***0.9663***** ***(0.0065)***	***0.9051**** ***(0.0125)***
CROSS	Cross border.		***-0.9253*** ***(0.4311)***	***1.1854*** ***(0.3210)***
ATTITUDE	Hostile-friendly		***0.0394*** ***(0.9087)***	***0.0440*** ***(0.9001)***
D96	1996 year.			***1.3160*** ***(0.1120)***
D97	1997 year.			***0.6800*** ***(0.2778)***
D98	1998 year.			***0.6560*** ***(0.2852)***
R^2 (R^2 Adj)		***0.20%*** ***(-1.59%)***	***9.57%*** ***(1.93%)***	***11.22%*** ***(1.64%)***
N		***229***	***155***	***155***

Notes: ***, **,** *** significance at the 10%, 5%, and 1% levels, respectively.

Emerging Issues Series

A series of studies on emerging issues affecting the banking industry. Topics include bank supervisory and regulatory concerns, fair lending issues, potential risks to financial institutions and payment system risk issues.

These papers may also be obtained from the Internet at:
http://www.chicagofed.org/publications/workingpapers/emergingissues.cfm

The Impact of New Bank Powers (Securities and Insurance Activities) on Bank Holding Companies' Risk *Linda Allen and Julapa Jagtiani*	**S&R-99-1R**
A Peek at the Examiners Playbook Phase III *Paul A. Decker and Paul E. Kellogg*	**S&R-99-2**
Do Markets Discipline Banks and Bank Holding Companies? Evidence From Debt Pricing *Julapa Jagtiani, George Kaufman and Catharine Lemieux*	**S&R-99-3R**
A Regulatory Perspective on Roll-Ups: Big Business For Small Formerly Private Companies *Michael Atz*	**S&R-99-4**
Conglomerates, Connected Lending and Prudential Standards: Lessons Learned *Catharine M. Lemieux*	**S&R-99-5**
Questions Every Banker Would Like to Ask About Private Banking And Their Answers *Michael Atz*	**S&R-99-6**
Points to Consider when Financing REITs *Catharine M. Lemieux and Paul A. Decker*	**S&R-99-7**
Stumbling Blocks to Increasing Market Discipline in the Banking Sector: A Note on Bond Pricing and Funding Strategy Prior to Failure *Julapa Jagtiani and Catharine M. Lemieux*	**S&R-99-8R**
Agricultural Lending: What Have We Learned?	**S&R-99-9**

Catharine M. Lemieux

Emerging Issues Series

Price Risk Management Creates Unique Credit Issues *Jack Wozek*	**S&R-99-10**
The Role of Financial Advisors in Mergers and Acquisitions *Linda Allen, Julapa Jagtiani and Anthony Saunders*	**S&R-2000-1**
Pooled Trust Preferred Stock – A New Twist on an Older Product *Paul Jordan*	**S&R-2000-2**
Simple Forecasts of Bank Loan Quality in the Business Cycle *Michele Gambera*	**S&R-2000-3**
The Changing Character of Liquidity and Liquidity Risk Management: A Regulator's Perspective *Paul A. Decker*	**S&R-2000-5**
Why Has Stored Value Not Caught On? *Sujit Chakravorti*	**S&R-2000-6**